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The Syntactic Derivation of Event Nominals: Property Inheritance Beyond Lexicalization

Vincent Krebs

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Vincent Krebs. The Syntactic Derivation of Event Nominals: Property Inheritance Beyond Lexicalization. Linguistics. Nantes Université, 2024. English. NNT: . tel-04674132

HAL Id: tel-04674132

<https://hal.science/tel-04674132v1>

Submitted on 4 Sep 2024

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THESE DE DOCTORAT

NANTES UNIVERSITE

ECOLE DOCTORALE N° 603

Education, Cognition, Langages, Interactions, Santé

Spécialité : Sciences du langage

Par

Vincent Krebs

The Syntactic Derivation of Event Nominals

Property Inheritance Beyond Lexicalization

Thèse présentée et soutenue à Nantes, le 28 juin 2024

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**The Syntactic Derivation
of
Event Nominals**

Property Inheritance Beyond Lexicalization

Vincent Krebs

A Thesis Presented for the Degree of
Docteur en Sciences du Langage

Supervised by
Isabelle Roy

2024

To Victor Hugo,

Our Eternally Revered

World-Creating

Predicator of Poetry,

*whose masterful employment of nominalization
motivated my quest for a comprehensive grammatical analysis.*

“L’Atlantique ronge nos côtes. La pression du courant du pôle déforme notre falaise ouest. La muraille que nous avons sur la mer est minée de Saint-Valery-sur-Somme à Ingouville, de vastes blocs s’écroulent, l’eau roule des nuages de galets, nos ports s’ensablent ou s’empierrent, l’embouchure de nos fleuves se barre. Chaque jour un pan de la terre normande se détache et disparaît sous le flot. Ce prodigieux travail, aujourd’hui ralenti, a été terrible. Il a fallu pour le contenir cet éperon immense, le Finistère. Qu’on juge de la force du flux polaire et de la violence de cet affouillement par le creux qu’il a fait entre Cherbourg et Brest.

Cette formation du golfe de la Manche aux dépens du sol français est antérieure aux temps historiques. La dernière voie de fait décisive de l’océan sur notre côte a pourtant date certaine. En 709, soixante ans avant l’avènement de Charlemagne, un coup de mer a détaché Jersey de la France.”

L’Archipel de la Manche

‘The Atlantic wears away our coasts. The pressure of the current from the Pole deforms our Western cliff. This seawall of ours is undermined from Saint-Valery-sur-Somme to Ingouville, massive blocks crumble, the water rolls clouds of pebbles, our harbors fill with sand and stone, the mouths of our rivers get closed. Every day a stretch of Norman soil breaks away and vanishes beneath the flow. This tremendous work, now slowed down, has been terrible. It took this immense spur, Finistère, to contain it. The strength of the polar flux and the violence of this washout can be assessed by the hollow it has made between Cherbourg and Brest.

This formation of the Channel gulf at the expense of French soil goes back before historical times; yet, the latest encroachment by the ocean on our coast can be exactly dated. In 709, sixty years before the advent of Charlemagne, a tidal surge detached Jersey from France.’

The Channel Islands

Summary

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Abstract

This dissertation investigates nominalizations in relation to the grammatical properties they inherit from their derivational base, with a primary focus on French data. Specifically, a number of French nominalizations pass the usual tests for Argument-Structure (AS) projection in spite of their lack of an autonomously attested lexical source. It is shown that whether or not the source of an AS-projecting nominal ($\overline{\text{AS}}$ -N) is lexicalized in a language's current state is irrelevant to its grammatical properties. I demonstrate that this observation supports a syntactic approach to AS in particular and word formation in general, whereby AS inheritance occurs at a structural level, i.e. independently of external factors such as contingent variations of usage, fluctuations in frequency or changes in meaning over time.

The traditional binary classification $\overline{\text{AS}}$ -Ns vs. $\overline{\text{non-AS}}$ -Ns will be challenged, as the need for a finer-grained analysis becomes clear in order to fully capture the range of properties exhibited by $\overline{\text{AS}}$ -Ns at the interface of syntax and semantics. The study thus identifies two types of $\overline{\text{AS}}$ -Ns. It delves into their respective arrays of properties and provides a detailed analysis of each structure, attributing the differences to the presence vs. absence of a yet undocumented layer, which I call the *Nabla* projection (∇ P). This projection, required for the completion of a verbal or adjectival phase, is argued to be critical as it directly defines the typology of $\overline{\text{AS}}$ -Ns: whereas one type is built on a full-fledged phase, the other one is claimed to be derived from a structure smaller than a phase.

Phase-based $\overline{\text{AS}}$ -Ns ($\overline{\Phi}$ -Ns) are built on a verbal or adjectival base identifiable in other words and almost always corresponding to a lexeme that existed in a previous state of the French language or is used in other languages such as English. $\overline{\Phi}$ -Ns display stronger verbal properties, including internal modification by either prenominal particles, such as the Preposed Negation *non-*, or *manner / degree* adverbials. Such modification, I claim, operates not on a *bare* state or event predicate, but on an bigger structure encoding a *scale of values* associated with the denoted property. Indeed, *manner / degree* modification is defined, based on Geuder's (2006) analysis, as the process of restricting the *range of values* of one conceptual dimension of a predicate. Building on that idea, I propose that the ∇ head syntactically encodes this process — which will be called *Modulation* — and introduces the δ variable, which provides the value of this restriction.

The ∇ P projection activates a number of grammatical features, such as verb-level *active/passive* alternation or operation on Outer Aspect. By contrast, *Bare* $\overline{\text{AS}}$ -Ns ($\overline{\Psi}$ -Ns), while passing some canonical tests sensitive to the presence of a telic internal event, such as *in x-time* or *frequent/constant*, reject *Modulation*-related modification — which is accounted for assuming the absence of ∇ P from their internal structure. ∇ P also provides a straightforward solution for a unified account of *Manner-* and *Quality-*denoting nominals, which I argue exhibit

special grammatical properties and — similar to how *-er* (AS)-Ns have been claimed to denote the external argument — can now be analyzed as true (AS)-Ns that denote the δ variable itself.

Acknowledgments

There was a time when I was feeling completely lonely in pondering fundamental questions about the challenges posed by the grammatical analysis of French. No one in my circle cared about grammar, and let's put it plainly, I was seen as somewhat of an alien. Back then, I could only dream of one day having the opportunity to discuss syntactic issues with people who shared this passion. Then came a day when this dream finally came true. And that was thanks to Pauline.

I had never practiced any in-depth research, and I was incredibly fortunate to cross paths with the wonderful person that Pauline Haas is. I had the opportunity to meet her a few times, and even though I couldn't go to Paris as often as I would have liked to, I came to finally discover what it was like to truly talk about linguistics. The first time I was finally able to discuss serious grammar was with her; it was extremely exciting and will be forever etched in my memory (as well as the nice cold beers we had...). So, thank you Pauline for setting me on the right track, thus playing a significant part in this story. And thank you for your friendship — your care and helpfulness will always remain deep in my heart.

After resuming my studies to obtain a Master's degree, I finally managed to commence a PhD. Not only that, but I was blessed with the immense privilege of having one of the finest thesis supervisors one could ever dream of: Isabelle Roy — *excusez du peu*, as we say in France! I owe her everything — it's as simple as that. So motivated as I might have been at the time, I believe that Isabelle probably quickly realized that I lacked both the method and the appropriate vocabulary to start writing linguistics entailing academic-level rigor, let alone within a neoconstructionist framework. The way I see it, it was nothing less than a leap of faith on her part. But she did it: she trusted me — no questions asked, thus allowing me to embark with confidence on this extraordinary journey that would shape my future as a linguist. Her flexibility with our mostly remote interactions allowed me to fully immerse myself into the realm of hard syntax, all while fulfilling my duties as a classics teacher in a small village of Northern Aisne. And she has ever since always provided me with unconditional support. For her unflinching belief in me, I shall be eternally grateful to her.

These facts alone, though, would be far from doing justice to the quality of Isabelle's supervision, and from giving her the honor and credit she deserves. Early on, I felt a strong sense of alignment with her approach to grammar. We found ourselves perfectly aligned on all essential theoretical positions. But, aside from requiring such great synergy between the student and their mentor, it is also well known that any PhD heavily relies on the human relationship between them. This is even perhaps, as Pauline once rightfully told me, the most essential factor. Isabelle, I believe, has an innate talent for accomplishing this highly delicate task with the amount of tact it requires. She is extremely patient and always made sure not to put me in

an awkward position regarding the uneven pace of my work's progress. Isabelle, I can't tell you how much I'm indebted to you. Thank you, from the bottom of my heart. I will never forget what you have done for me.

Throughout my research, I engaged with numerous highly valued linguists, who graciously devoted some of their precious time to address and refine my ideas. I would especially like to thank Gianina Iordăchioaia: beyond her status as a great linguist, I truly appreciated her warm welcome at the JENom 8 conference in Stuttgart five years ago, and I have since appreciated her friendly support and our various discussions through the web. I also thank Andrew McIntyre, the company of whom I have highly enjoyed, for his friendly support and for thought-provoking discussions by mail. My deepest gratitude goes to Víctor Acedo-Matellán for discussion in Nantes and subsequent mails on key aspects of my analysis. I extend my gratitude to Víctor and Andrew for the invaluable honor of their membership and their detailed reports. I am also grateful for the engaging discussions at the ConSOLE 30 conference and JENom 10 Workshop. A special mention to Laura Ros García for her insightful presentation on Spanish prenominal negation and inhibited eventualities, which led to a very nice small exchange. Heartfelt thanks to Richard Faure for his early encouragement and willingness to review my thesis: when we first had that brief exchange online, neither of us could have imagined that we would eventually meet in person and share this incredible experience. And finally, thank you so much Marta and Elena for following my progress; like three years in a row, we thought it would be the last session, and yet, we never seemed to see the end!...

I would truly like to emphasize the incredibly fortunate opportunity I had, to have a committee composed exclusively of individuals of exceptional human and professional quality. I thank them once again for everything. I also thank all members of the audience. As they can attest, the defense was a moment of great emotional intensity for me — especially towards the end during Isabelle's speech, and throughout the festive moments that followed.

My thanks also go to all persons who kindly agreed to grant me interviews, namely Asaf Bachrach, Bridget Copley, Karen De Clercq, Giorgio Magri, Jérémy Pasquereau and Orin Percus. I am also grateful to the members of the SFL and LLING labs for their feedback during my few talks in seminars across the years — and I apologize for not finding the occasion to return the favor. My thanks particularly go to Hamida Demirdache for her warm welcome at the LLING lab and ongoing support. Special mention to Kryzzya Gómez for her support and friendship. I also thank Angèle Bernard for her precious assistance in preparing the defense.

Thanks are also due to all linguists who kindly answered various mail queries, such as Paolo Acquaviva, Sascha Alexeyenko, Artemis Alexiadou, Hagit Borer, Alexandra Cornilescu, Carmen Dobrovie-Sorin, Edwige Dugas, Elisabeth Gibert Sotelo, Mélanie Joutteau, Bjørn Lundquist, Alec Marantz, Martha McGinnis, Chiara Melloni, Keir Moulton, Isabel Oltra-Massuet, Malka Rappaport-Hovav, Roland Schäfer, David Schueler, Francesc 'Xico' Torres-Tamarit, Delphine Tribout, Florence Villoing, Edwin Williams, Maria Luisa Zubizarreta, Alessandro Zucchi... as well as Claude Muller for his early encouragement.

On a personal side, I want to acknowledge my best friend Vincent for his unwavering support. I appreciate his many qualities: not only does he have a great first name, but his patient endurance of my ceaseless linguistic interrogations has been that of a Tibetan monk, his acceptability judgments on various sentences invaluable. I also send all my love to my endearing and bright Victorien, who has been persistently inquiring about the progression of my thesis, to my delightful Alice and my lovable Siméon for being such sweet kids, and to my wife Estelle for her relentless efforts to fill in the gaps during this intense period of research and making up for the time consumed by my continuous dedication to this work. In addition, I send my feelings to my mother Françoise for her support and care, and to my sister Sandra, who provided me with a foothold in Nantes and usually didn't (too much) mind my limited availability while I scrambled to finish my slides.

My gratitude also goes to the L^AT_EX community on *Stack Exchange*: the meticulous layout of this dissertation owes much to the willingness of those people to share their deep expertise. Additionally, my thanks go to OpenAI for creating GPT-4, a truly astonishing, mind-blowing tool. Beyond the considerable time it saved me on various tasks, its synthesis capabilities have often helped me to sharpen my approach to difficult problems or to maintain a balance between concision and precision in the writing of certain passages.

Lastly, I would like to pay tribute to the memory of Danièle Van de Velde. Danièle, who had agreed to meet me in a Parisian café in April 2018, sadly passed away on October 6, 2021. That was a great loss. She was a strong character and a linguist of tremendous intuition. One thing she said particularly stroke me as extremely sensible: « Mais les générativistes sont fous !... » I kind of got what she meant... She was probably referring to those crazy countless additions of wacky abstract functional projections... — And indeed, who would dare even entertain the idea?...

Symbols & Abbreviations

Derivation Pairs

$\{x \rightarrow y\}$ Derivation into... $\{x \leftarrow y\}$ Derivation from...	$\{x \leftrightarrow y\}$ Uncertain directionality of derivation. $\{x \swarrow \searrow y\}$ Sharing of a common ancestor.
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Judgments

<ul style="list-style-type: none"> * Ungrammaticality. ? Uncertain grammaticality. ?# Uncertain conceptual consistency. # Conceptual discrepancy. ✓ Acceptability (highlight). ∞ Judgment indeterminacy. 	<ul style="list-style-type: none"> *(<i>x</i>) Removal yields ungrammaticality. ?(<i>x</i>) Removal yields uncertain grammaticality. ?#(<i>x</i>) Removal yields uncertain conceptual consistency. #(<i>x</i>) Removal yields conceptual discrepancy. ✓(<i>x</i>) Removal preserves acceptability (highlight). ∞(<i>x</i>) Removal yields judgment indeterminacy.
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Word Attestedness and Grammaticality

<ul style="list-style-type: none"> ◦<i>word</i> Unattested word. †<i>word</i> Archaic word. ■<i>word</i> Scholar or literary. ↻<i>word</i> Back-formation. 	<ul style="list-style-type: none"> *<i>word</i> Impossible word. ?<i>word</i> Hypothetical word. !<i>word</i> Possible word. ✓<i>word</i> Attested word (highlight).
--	--

Abbreviations

Eng. / Fr. English / French ex. <i>n</i> example <i>n</i> fn. <i>n</i> footnote <i>n</i>	AS Argument Structure. $\textcircled{\text{AS}}\text{-}x / \textcircled{\text{non-AS}}\text{-}x$ [AS / non-AS]-projecting unit. $\textcircled{\text{AS}} / \textcircled{\text{non-AS}}$ Related to the $\textcircled{\text{AS}}\text{-}x / \textcircled{\text{non-AS}}\text{-}x$ type.
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General Introduction

Since at least the 60's, nominalizations have been central for understanding the interface between syntax and semantics. In particular, the study of nominalizations in relation to their ability to project Argument Structure (AS) has been a topic of great interest in linguistics. The complements of deverbal nominals can bear thematic roles inherited from their derivational sources. This has led some linguists to hypothesize that this is in fact a syntactic operation. A turning point was when Grimshaw (1990) established that there were in fact two types of nouns: one type projects AS obligatorily, the other type can never project AS. I call the two types $\overline{\text{AS}}$ -Ns and $\underline{\text{non-AS}}$ -Ns. While $\overline{\text{AS}}$ -Ns are compatible with internal aspectual modifiers such as “in *x* time”, $\underline{\text{non-AS}}$ -Ns are not, cf. (1).

- (1) a. ✓ the destruction of the city in two days
 b. * the earthquake in two days

The genitives of $\overline{\text{AS}}$ -Ns realize the external argument, whereas those of $\underline{\text{non-AS}}$ -Ns are possessors without a theta-role, cf. (2).

- (2) a. the doctor's examination of the patient
 b. Peter's exam

The literature, since at least Borer (2003) and continuing with such works as Alexiadou (2011), has acknowledged that $\overline{\text{AS}}$ -Ns are not necessarily built on events *per se*, but can also be built on states. *Eventualities*, in the sense of Bach (1986), conveniently refers to both Events and States. In this context, the present dissertation addresses a puzzle for the prevailing view that $\overline{\text{AS}}$ -Ns require a *lexical* source. On the basis of data from French, I will show that certain nominals such as *ascension*_N ‘ascent’ and *audition*_N ‘audition’ exhibit the standard properties of $\overline{\text{AS}}$ -Ns, such as modification by *in-x time* or *frequent/constant*, and yet are not derived from an

existing lexical base in the current state of the language: †*ascendre*_N ‘ascend’ and †*ouïr*_V ‘hear’ are both deprecated, cf. (3).

- (3) a. L’ascension en quelques jours de ce sommet escarpé m’a éreinté.
 ‘The ascent in a few days of this steep peak exhausted me.’
 b. La constante audition de ce même morceau commence à m’agacer.
 ‘The constant hearing of the same piece is starting to annoy me.’

Retaining the requirement for a lexical base would force the conclusion that the standard tests for identifying (AS)-Ns must be inconclusive, since they would wrongly identify as (AS)-Ns derived nominals that have no lexical bases and thus, could not be (AS)-Ns. This would go against an enormous literature on various languages that has, in the last 60 years, identified stable cross-linguistic properties of (AS)-Ns. Thus, nothing motivates such an approach. Besides, the primary reason for positing a constraint of Lexicality Requirement, for instance in Borer (2013), is the lack of counterexamples such as the ones I address in this research. In light of this state of affairs, the only valid alternative is to claim that there is no strong requirement for a lexically attested base. This is precisely what I will demonstrate in this thesis. Such perspective, however, requires a thorough discussion of which nominals effectively qualify as (AS)-Ns. Furthermore, contrary to certain analyzes, the possible absence of a lexical source will be used as an argument in favor of a syntactic approach to derived nominals, against the lexicalist approach: if sources are not necessarily lexical, it means that they are *never* lexical. In other words, the very notion of a *lexical source* is inherently contradictory. This research aims to demonstrate that sources are structures built in the syntax.

This thesis presents several contributions both within and beyond the field of nominalizations, outlined below.

I. The syntax/lexicon debate.

Drawing on extensive empirical data, it is shown that not all (AS)-Ns are built on existing words. It is argued that this state of affairs makes it extremely difficult to maintain that (AS)-Ns are built in the lexicon.

II. Tests for (AS)-Ns.

In order to determine whether the nominals presented truly project AS, tests have to be invoked, discussed, and adapted. These tests must be consistent with those used for (AS)-Ns that *do* derive from an attested base. I demonstrate that lexicalization of the source plays no part in the licensing of the grammatical properties of (AS)-Ns. I also introduce three new tests. The first one, called [DIV], relies on adjectival modification by *successif*_A ‘successive’, which operates through theme divisibility and may identify v in transitive structures. The second one is called the [GRAD] test. Based on modification by *à mesure* ‘as’, it also identifies v by detecting incrementality. The third one does not rely on modification at all, which constitutes a novel approach; this is the *Counterfactuality test* ([CF]), which assesses the ability of nominals to denote potential occurrences.

III. Internal structure of (AS)-Ns.

This research establishes that another level of tests is only passed by a subset of (AS)-Ns. The ability to take modulation particles such as *non-* or *manner / degree* adverbials is restricted to (AS)-Ns built on a base that can be identified as a lexicalizable verbal or adjectival structure, i.e. a *phase*. It is proposed that the phase head is responsible for licensing such adverbial modification.

IV. Taxonomy of derived nominals.

Extending beyond eventuality nominals (e.g. *destruction*_N ‘destruction’ and *invasion*_N ‘invasion’), this research demonstrates how other types of derived nominals, not traditionally regarded as (AS)-Ns, can also receive a syntactic analysis. Even more strikingly, their structure only slightly differs from that of eventuality (AS)-Ns. The study discusses Agent nominals, e.g. *géniteur*_N ‘progenitor’, as well as Quality nominals (e.g. *tristesse*_N ‘sadness’ as in *grande tristesse* ‘great sadness’), and Manner nominals (e.g. *placement*_N ‘placement’ as in *le placement de ces verres me convient* ‘the placement of these glasses suits me’).

V. Perspectives on various domains.

In addition to its focus on nominalization, this dissertation explores aspects that extend beyond this specific area. It examines how arguments are introduced into structures, how they combine to yield different setups, and how they differ from adjuncts. The *kind vs. token* distinction is discussed in relation to existential closure: first, it is demonstrated that (AS)-Ns inherently denote eventuality kinds; second, it is argued that the apparent non-omissibility of the arguments in the nominal domain is not a property of nouns but rather a byproduct of how the determination system works. Finally, a unified analysis of manner and degree modification is outlined.

The dissertation is organized as follows. Chapter 1 provides an overview of how (AS)-Ns have been addressed in the literature, in relation to the issue of the lexicalization of bases. Chapter 2 reviews existing tests for identifying the internal structure of (AS)-Ns, and proposes new ones. Most notably, the novel *Counterfactuality test*, not based on internal modification, provides independent evidence for the presence of an event inside the structure of (AS)-Ns. Chapter 3 proceeds by applying the tests to unlexicalized bases and establishes that whether or not the base is indeed lexicalized does not impact the grammatical properties of the derived nominal: (AS)-Ns without a lexicalized source pass all the tests that other (AS)-Ns pass and thus, their internal structure must embed the exact same functional projections. I further argue that this state of affairs can only be explained by a syntactic approach to derived nominals, where nominalization operates on *structures*. Chapter 4 provides a structural analysis of (AS)-Ns. I argue that (AS)-Ns are in fact of two types, i.e. built on bare bases or pbasal bases, and I demonstrate how this difference leads to a coherent taxonomy of all sorts of derived nominals.

Chapter 1

The Source of Derived Nominals

One central concern of this research is to investigate cases of AS projection by nominals not synchronically related to an autonomously lexicalized source of derivation. The aim of this chapter is to present literature on key aspects of the properties of (AS)-Ns, placing particular focus on the question of which theoretical assumptions support the notion that sources may not necessarily exist in a lexicalized form. This phenomenon, which I henceforth call *Lexical Sourcelessness* (i.e. *absence of a lexeme that could be argued to be the source*), stood at the center of the late 60's controversy over whether to adopt a lexical or a transformational analysis of nominalizations, having been discussed in such seminal studies as Chomsky (1970), Lakoff (1970) and Jackendoff (1975). However, to the best of my knowledge, it has not received much attention since then. Even more surprising is the fact that this critical issue of lexically sourceless nominals has not been reevaluated subsequent to the discovery of the (AS)-Ns vs. (non-AS)-Ns ambiguity in the late 80's. Now, sporadic mentions can be found, for instance in Borer (1993: 30; 2013: 57–58; 2014: 78), Harley (2009: 340–343, ex. 23–33), Alexiadou (2009: 257, ex. 8) and Newmeyer (2009: 103–104, ex. 31–32); but, predominantly relying on English data, they invariably present such cases as exceptions to an alleged rule of source lexicality — a conclusion that, based on French, I will demonstrate to be incorrect. Yet, the theoretical implications of the existence of unlexicalized derivational sources are huge: they constitute compelling evidence of the lexicon's inability to affect the syntax in any possible way.

The fact that some Ns project AS while no autonomously attested lexical source can be identified has been regarded as a milestone argument in favor of a strong lexicalist approach. The idea is that, if some nominalizations lack an identifiable lexical source, then nominalization cannot be a transformation, because the process lacks the level of systematicity that this

qualification demands. This is essentially Jackendoff (1975) and Newmeyer's (2009) position; I will henceforth refer to it as the *Idiosyncrasy Argument*. Non-transformational approaches stipulate that, instead of being transmitted through a syntactic process, AS becomes associated to a lexeme in the shape of unmotivated and redundant information listed at the corresponding entry. The argumentation developed in this research will aim to defend the exact opposite view. I contend that regarding such nominals as exceptions is misleading. It relies on a misconception according to which lexicalization should be governed by rules. But it is not: when it comes to listedness, there are no rules at all, and everything is particular in its own right. As a consequence, the very notion of a *rule of lexicality* is inherently contradictory: by virtue of its extragrammatical nature, listedness can never consistently constrain the grammar. Rather, one of the key ideas underlying this research is that if a lexical source is not required, this is precisely because derivational sources are inherently non-lexical. Thus, unlexicalized bases of (AS)-Ns, far from challenging the syntactic approach, are fully expected within frameworks that support the complete independence of the grammar from lexical content. In such models, syntactic computation is all the way down responsible for the formation and denotation of (AS)-Ns. Whether or under which conceptual or phonological variations each output happens to be lexicalized is contingent on the idiolect considered: spatiotemporal variation, context, individual specificities — these are all factors entirely irrelevant to the grammar, which operates at the level of structural permanence.

The chapter is organized as follows. Section 1.1 introduces the core theoretical debate regarding the nature of word formation, with a particular focus on the issue of attestedness of the nominalization base. Section 1.2 is dedicated to countering the *Idiosyncrasy Argument*, showing that no argument can be based on idiosyncratic facts. Finally, section 1.3 provides a state of the art on how the ambiguity in the nominal system has been described and accounted for.

1.1 Lexical Gaps at the Heart of the Theoretical Controversy

This chapter puts forward a selective overview of the literature on nominalizations as it has unfolded since the 60's, with particular focus on lexical gaps. I first show, in subsection 1.1.1, how Chomsky (1970) contributed to initiate a controversy around the lexical vs. syntactic nature of derivational sources. I also present the *Idiosyncrasy Argument*, which I am going to argue against throughout the dissertation and especially in this section and the next. In subsection 1.1.2, I discuss Lakoff's (1970) idea, criticized by Chomsky (1970), to posit *Hypothetical Lexical items* wherever gaps are observed.

1.1.1 The Nature of the Source

At the center of Chomsky's (1970) argumentation in favor of handling nominalizations through lexical rules was the *Idiosyncrasy Argument* (cf. *infra*, § 1.1.1.1), which, among other elements, relies on the claim that AS-Nominals which lack a lexical source constitute a serious stumbling block for the syntactic approach. The issue has been since discussed in other works — although quite rarely, e.g. in J. Lyons (1977).

J. Lyons (1977: 524):

“There is no derived noun in English that is related, syntactically and semantically, to the verb *salute* as *dilution* is related to *dilute*, *pollution* to *pollute*, etc. [...] Conversely, there are many lexemes in English which are morphologically, syntactically and semantically similar to various kinds of complex lexemes, but which cannot be derived synchronically from existing lexemes. For example, *doctor* and *author* are reasonably classified as agentive nouns (like *actor*, *painter*, etc.) and their stems are such that they might be held to contain the agentive suffix *-er/ -or*. But there is no verb whose stem is *doct-* or *auth-*. Examples of derivational gaps of this kind could be multiplied almost indefinitely.”

The common assumption within lexicalist views is that, when idiosyncrasy limits predictability regarding actual occurrences, it undermines regularity and thus serves as an argument against the transformational analysis. Yet, in this section, I propose that the theoretical status of lexical gaps — specifically, their relationship to the systematicity of the transformational component — is critical in determining whether a lexical or syntactic approach should be adopted. Some, such as Newmeyer (2009), view these gaps as irregularities that hinder a syntactic approach. Yet, as I will discuss in section 1.2, we can also treat them as *a*-regular, i.e. independent from the system of rules and, as such, not relevant to settling grammatical questions that may arise upstream of (non-) lexicalization. This perspective suggests that the absence of a lexically listed source is an incidental state of affairs and therefore, does not qualify as an exception. Exceptions refer to cases where a given rule fails to apply; but a rule is not meant to predict occurrence or non-occurrence: it never predicts *actual* use, but only *theoretical* possibility. Consequently, idiosyncrasies, not being governed by the grammar, are not exceptions. This raises the question of the definition of a rule: ideally, a rule is built from a substantial number of cases and is meant to be effective, i.e. observed in actual language use.

The section will be organized as follows. In § 1.1.1.1, I explore the Idiosyncrasy Argument and its implications. Subsequently in § 1.1.1.2, I present Borer's (2003) response to the Idiosyncrasy Argument, showing that her defense mostly attacks the data itself rather than the principle of the argument, to which she tacitly adheres. Finally, in § 1.1.1.3, I show how Borer's claim of the necessity of an attested lexical source for (AS)-Ns is contradicted by significant French data.

1.1.1.1 The Idiosyncrasy Argument

In an early account, Chomsky (1957) suggests to treat (4b.i–ii) as transformational outputs originating from (4c.i) and (4c.ii), respectively. Thus, (4a), for its part, will be ambiguous and have two distinct transformational origins.

- (4)
- a. the shooting of the hunters
 - b. (i) the growling of lions
(ii) the raising of flowers
 - c. (i) lions growl
(ii) (John) raises flower

Challenging this view, Newmeyer (2009) pursues the *Idiosyncrasy Argument*, which he attributes to Chomsky (1970) but was already well known at the time (cf. Marantz 1997). Relying on examples of nominalizations not related to a lexicalized source, he argues that at the word level, idiosyncrasy prevails over predictability, and that, consequently, the syntactic approach is not adequate. Expressed by Newmeyer as in (5), the argument is indeed meant to heavily question a grammatical approach to nominalizations.

(5) The Idiosyncrasy Argument

“The relationship between Derived Nominals and their corresponding verbs is highly irregular.” (Newmeyer 2009: 94)

The underlying idea is that for an operation to be regarded as transformational, it must be universally applicable to relevant inputs and yield predictable outputs. This is closely related to the notion of *productivity*. However, defining productivity as the proportion of relevant units effectively affected by a process, extragrammatical factors inexorably come into play. For a start, the number of occurrences required to establish a pattern for rule inference corresponds to an arbitrary threshold. In contrast, according to Dubois *et al.* (2012), a process is said to be *productive* “when it *can* generate new expressions [...], that is, expressions that *have not yet* been encountered in *realized* sentences” (emphasis mine). Here, productivity is not about the frequency of rule application, but rather the rule’s *potential* applicability.¹ Thus, for determining the regularity of a linguistic phenomenon, this generative approach to productivity relies on a *qualitative* rather than *quantitative* criterion.

The argument as commonly invoked relies on the general observations in (6).

(6) Empirical claims underlying the Idiosyncrasy Argument

- a. Not all nominalizations may be related to an autonomously occurring stem.

¹Theoretically, a rule could be inferred from as few as two occurrences. For a discussion on syntactic accounts of minimally productive facts, see e.g. Siddiqi (2019).

- b. Not all expected nominalizations are effectively attested.
- c. Not all meanings of a nominalization are straightforwardly compositional.
- d. Not all predictable meanings for a nominalization are effectively available.

However, I will demonstrate that these observations, do not, in fact, constitute a valid argument against a syntactic approach. First and foremost, (6a) is true and extremely relevant, but *contra* Newmeyer (2009), I contend that it raises serious issues for any lexicalist view. (6b–d), for their part, are entirely expected provided we clearly separate the grammatical and extragrammatical levels.¹

But for now, let us focus on (6a), which, interestingly, constitutes the cornerstone of my argumentation in favor of a syntactic approach; namely, *absence of a lexicalized derivational source*. An example of how such an absence has been analyzed as requiring a lexical approach to Derived Nominals is found in Matthews (1991). He notices that some $\{N \rightarrow V\}$ pairs lack one of the two expected members, leading him to infer a lack of regularity in the derivation; cf. (7).

(7) **Defective Pairs** (Matthews 1991: 51–54)

- a. $\{\checkmark dilute_v \rightarrow \checkmark dilution_N\}$
- b. $\{\circ elocute_v \rightarrow \checkmark elocution_N\}$
- c. $\{\checkmark salute_v \rightarrow \circ salution_N\}$

Along similar lines, Newmeyer (pp. 101–107), questioning the computational approach proposed in studies such as Alexiadou (2001), Borer (2003), Roeper (2005) and Harley (2009), argues that the existence of (AS)-Ns without a lexical source would be difficult to predict within a neoconstructionist framework. In Newmeyer's view, a major issue with syntactic approaches is overgeneration: some of the words whose existence would be expected are missing from the lexicon. Such unpredictable lexical gaps supposedly prove that idiosyncrasy plays a major role in word formation (cf. *infra*, § 1.2.1.2). He relies on instances of English (AS)-Ns that are either not derived from Vs, or, due to the lack of overt suffixation, not clearly derived, so as to further argue against the syntactic approach.

First, similar to Harley, he gives examples of English unsuffixed (AS)-Ns, among which (8a–c) are borrowed from Borer (2003) (cf. 28a–c in § 1.1.1.3 *infra*).²

- (8)
- a. my constant change of mentors from 1992–1997
 - b. the frequent release of the prisoners by the governor
 - c. the frequent use of sharp tools by underage children
 - d. an officer's too frequent discharge of a firearm

¹An example of how overgeneration has been used to counter the syntactic approach can be found in Siloni (1997: 66).

- e. the ancient Greek's practice of infanticide
- f. the constant abuse of prisoners by their guards
- g. France's test of nuclear weapons in the South Pacific

Second, Newmeyer gives alleged examples of English (AS)-Ns without a lexical source of derivation. In (9) below are selected examples among those that he gives, which I am going to discuss.

- (9)
- a. America's moratorium on helping to support UNESCO
 - b. my lab assistant's culture of new forms of bacteria
 - c. the frequent recourse to long discredited methods
 - d. Yahoo's homicide of AltaVista and AllTheWeb
 - e. the IRS's scrutiny of dubious looking tax forms

If e.g. (9c) seems rather convincing as Borer acknowledges, Newmeyer's examples are not systematically tested for eventivity and some of them, such as (9a), might actually involve mere adjuncts (cf. Grimshaw 1990), as any N referring to an official text may select an *on_p*-P specifying its topic.

- (10)
- a. Reagan's speech on arms policy
 - b. the UK's law on assisted suicide
 - c. the Soviet-American treaty on intermediate-range nuclear missiles

Although excessive generative power is often seen as detrimental to explanatory adequacy, I will argue that so-called *overgeneration* is a normal empirical effect of any generative process (cf. *infra*, section 1.2). Let us now review the discussion between Newmeyer and Borer (2013, 2014).

1.1.1.2 Controversial English Data

Objecting that Newmeyer's examples do not pass the canonical tests for (AS)-Ns, Borer (2013: 57, fn. 9) rejects most of his data as inconclusive. Among Newmeyer's examples, some clearly do not convincingly qualify as (AS)-Ns. As pointed out by Borer, examples such as in (9) do not mean anything in and of themselves. She insists that the *by_p*-P be proven to be on a par with Hebrew *ʔal-yedey* and that the N should accept event-related modifiers, as in (11).

- (11) the culture of new forms of bacteria [* by my assistant] [* in seven days / * for seven days] [* in order to find an antidote] (ad. fr. Borer 2013: 57–58, fn. 9)

²Such examples lead Alexiadou (2009) to suggest, *contra* Borer (2013), that there exist zero-derived (AS)-Ns in English, but that they tend to be built on Latinate or French roots (see also Borer 2013: 331, ex. 39; 158, fn. 14).

The argumental status of the *of_P*-P must thus be assessed through reliable tests that involve modifiers scoping over the internal event. Nothing in (9b) indicates whether *culture_N* is even used under its event reading. Judging by the possibility of frequency modification as illustrated in (12), Eng. *culture_N* seems indeed to be an (AS)-N that lacks an autonomously attested related V.

- (12) Both poly-d-lysine and matrigel coating of plastic culture vessels seemed to alter the assemblages of cells, allowing for **more frequent culture of fibroblasts**, spindle-shaped cells and larger cells. (research work — now R.W.)

Borer also performs further testing on phrases (9d–e), hereunder reproduced in (13).

- (13) Borer (2013: 57–58, fn. 9)
- a. the homicide of AltaVista and AllTheWeb (*by Yahoo) (*in order to increase the value of its shares)
 - b. the scrutiny (??by the IRS) of dubious looking tax forms (*in order to uncover tax evaders) (*for two months)

The following occurrences of *scrutiny_N* seem to feature event modifiers, cf. (14).

- (14)
- a. the **intensifying** scrutiny of the tech giants by federal watchdog agencies and Congress (NY Times)
 - b. maintain the current external scrutiny of the Care Plan by the child’s Guardian and the Court **before a child is taken into care** (UK Parliament)

Borer’s examples in (13) are qualified by Bruening (2014) as “perfectly fine” according to “all of the English speakers he has asked”, which would entail the following judgments in (13’).

- (13’)
- a. ✓ the homicide of AltaVista and AllTheWeb by Yahoo in order to increase the value of its shares
 - b. ✓ the scrutiny of dubious tax forms by the IRS for two hours in order to uncover tax evaders

However, the test performed by Bruening in (15) is, I argue, not conclusive.

- (15) It’s merely a justifiable homicide in order to protect others.

Indeed, as shown in (16), one can find a purpose clause with about any (non-AS)-N introduced by a weak indefinite.

- (16) a. It's a tactic in order to not honor our other responsibilities. (*New York Times*)
 b. Their marriage was a trick in order to keep Alian in the country.
 (*The Post and Courier*)

The non-presuppositional character of the nominal, as induced by the *weak* indefinite, generates some existential event independently of the properties of the noun. Thus, (15) does not tell us anything of the internal structure of *homicide_N*. Here below in (17) is another example, where the nominal is in a non-predicative position.

- (17) The law of self-defense can only be invoked in the justification of a **homicide** *in order to prevent an actual or reasonably apparent infliction of death or great bodily harm upon the slayer*. (*Oklahoma Court of Criminal Appeals*, 1919)

As a matter of fact, however, as (18) shows, the subject of the infinitive in (17) (and in 16a–b) need not be controlled by the implicit agent of an event supposedly denoted by *homicide_N*.¹

- (18) a. It was a **homicide** by a hitman in order [# ⟨ for the hitman ⟩] to force the group to surrender to the government.
 b. The purpose of the homicide was [# ⟨ for the hitman ⟩] to force the group to surrender to the government.
 c. The leader was assassinated by a hitman [# ⟨ for the hitman ⟩] to preserve American power. (adapted from Roeper 2016: 210–211)

I leave for now the discussion on *-cide* nominals and will come back to them in chapter 4. For now, let us discuss Borer's (2003, 2013) position on lexical attestedness of sources of (AS)-Ns.

1.1.1.3 The Lexicality Requirement

To the best of my knowledge, the few cases where lexically sourceless (AS)-Ns have been mentioned for English all involve a sort of conflation with *bare*, i.e. unsuffixed nominalizations. Indeed, in this language, overt suffixation has usually been regarded as mandatory in order for a verbal base to be analytically distinguished. Zero-derived nominals therefore occupy a key place in the discussion about the source of nominalizations: in the absence of overt suffixation, we need to determine whether we have a $\{V \rightarrow N\}$ pair, or a $\{N \leftrightarrow V\}$ pair, i.e. a pair for which directionality of derivation is unclear and not well established (cf. Tribout 2010: 160, Marchand 1963: 186, see chapter 4 *infra*). The two members of a $\{N \leftrightarrow V\}$ pair have been assumed in the literature not to be built from one another, but instead share a category-neutral *common Root* (Marantz 1996, Kiparsky 1997, Hale & Keyser 2002, see subsection 1.2.3 *infra*), which will

¹For discussion about the nature of the subject of infinitives in purpose clauses, whether *argument-* or *event-*controlled PROs, or arbitrary *pros*, see E. Williams (1985), Lasnik (1988) and Landau (2000).

now be expressed using the notation $\{N \swarrow \searrow V\}$: this notation symbolizes a pair whose members relate to each other through their sharing of a common ancestor.

In the lexicalist view adopted by Grimshaw (1990), AS is information arbitrary associated with lexical entries. The link to the source V is not clearly addressed, while, as Borer (2003) objects, such a link *almost systematically exists*: ability of a N to take arguments is “anything but arbitrary”, she states, being syntactically licensed through the relationship with a *lexical* V or A. Most neoconstructionist works assume $\overline{\text{AS}}$ -Ns to be necessarily built from a verbal or adjectival base: Alexiadou (2001), Harley (2009) and Fábregas (2012) for the DM framework, and Borer (2003, 2013) for the Exoskeletal model. As was explained in chapter 1, in Borer’s account, the structural difference between $\overline{\text{AS}}$ - and $\overline{\text{non-AS}}$ -Ns is that while the former require verbal categorization prior to nominalization, the latter lack an internal verbal projection, i.e. their base is not verbalized independently of the operation of the nominalizing functor. This is summed up through the following quote by Borer (2014: 84):

“In R-nominals, the base is rendered V-equivalent by virtue of being the complement of the nominal suffix itself. [...] Not so in AS-nominals, where the base is rendered V-equivalent as a result of being the complement of $\{\text{Ex}[V]\}$, a verbal extended projection.”

A central claim made by Borer is that all $\overline{\text{AS}}$ -Ns must be related to an autonomously attested V or A. However, she does not always express it in exactly the same way. (19a) represents a more restricted version of a position she had expressed in 2003, i.e. (19b), where the lexical link is allowed to be diachronically defined. From now on, I will be referring to (19a) as the *Strong Lexicality Requirement* statement (SLR), and to (19b) as the *Weak Lexicality Requirement* statement (WLR).

(19) **Borer’s formulations of the *Lexicality Requirement***

a. **Strong Lexicality Requirement** (Borer 2013: 273)

“In a broad range of languages which display the relevant typology, there simply exist no cases of AS-nominals which do not have a corresponding phonologically attested verb (including, but not limited to, French, German, Dutch, Russian, Polish, Greek, Hebrew, and Arabic).”

b. **Weak Lexicality Requirement** (Borer 2003: 50)

[We observe] “the absence of phonological realizations for AS-nominals which do not record an actual morpho-phonological history of having been derived from a verb or an adjective.”

The generalizations induced by the WLR and the SLR are clearly stated in Borer (2013: 461, ex. 77), cf. (20b).

- (20) a. *AS-nominals must be compositional; R-nominals may be non-compositional.*
(SLR and WLR)
- b. *AS-nominals must involve an affixation to an actually attested verb; R-nominals need not.* (SLR only)

Both statements in (20a–b) are essential to Borer, who builds her system in such a way that it can predict them. For Borer, the verbal projection embedded in (AS)-Ns both enforces compositionality (cf. 20a) and requires an autonomously attested verbal source (cf. 20b). Although standing in complete agreement with the syntactic approach, the argumentation developed in the present and following chapters will support the exact opposite view, i.e. (20a, b) are not empirically verified for French.¹ According to Borer (2013: 432), independent attestedness of the source, or lack thereof, has to be accounted for by the grammar:

“We therefore appear to have arrived at a rather counter-intuitive juncture, requiring us to somehow introduce into the system a coherent syntactic distinction between verbal constituents that may occur as free morphemes, and verbal constituents that may only occur as bound forms.”

Note that compositionality, in Borer’s (2013) terms, refers to full semantic predictability, i.e. *transmission_N* and *blackberry_N* are not compositional in Borer’s (10, fn. 11) sense. She shows that the (AS)-N reading is always associated with compositional meaning. See Borer (2013: 423; 2014: 73) for compositional readings of e.g. *government_N*, *civilization_N* and *prohibition_N*. The analysis I am going to provide throughout this work, mostly based on examples from French, on the one hand, challenges the SLR and, on the other hand, supports the WLR but for only one type of event (AS)-Ns — namely, those that are built on a phasal structure. I will defend in this work the two claims in (21).

- (21) My Claims on (AS)-Ns and Compositionality
- a. Compositionality may be enriched with idiosyncratic nuances (cf. *infra*, subsection 1.2.2).
- b. Compositional semantics of (AS)-Ns is related to the presence of a phasal structure.

I will argue that the *potentially free* vs. *obligatorily bound* character of the base is an issue that pertains to idiosyncrasy and is of no consequence for the syntax. Now consider this extract from Borer’s (2013: 274) argumentation:

“ATK nominals, with any realization, are directly barred from being AS nominals when there is no discernible V embedded within them (e.g. *nation*, *convenience*, *environment*), even when they plausibly do refer to a (simple) event, as [(22)] illustrates.”

- (22) a. * the vision of the mountain by the instructors for three hours this morning
- b. * the aviation of the plane for three hours by the novice pilot

The fact that *aviation*_N does not project AS is used by Borer as an example to support her claim that (AS)-Ns need to be built on autonomously attested Vs or As. However, I intend to make it very clear that the inability of *aviation*_N to project AS is not in any way related to the latter lacking an autonomously attested verbal source. It is true that among French (AS)-Ns that lack a lexical source, many do not project AS. This is the case for e.g. the Ns in (23).

(23)	<i>natation</i> _N ‘natation’	(° <i>nater</i> _V ‘swim’)
	<i>imprécation</i> _N ‘imprecation’	(° <i>impréquer</i> _V ‘imprecate’)
	<i>altercation</i> _N ‘altercation’	(° <i>alterquer</i> _V ‘altercate’)
	<i>libation</i> _N ‘libation’	(° <i>liber</i> _V ‘libate’)
	<i>ovation</i> _N ‘ovation’	(° <i>over</i> _V ‘acclaim’)
	<i>équation</i> _N ‘equation’	(° <i>éququer</i> _V ‘equate’)
	<i>tribulation</i> _N ‘tribulation’	(° <i>tribuler</i> _V ‘tribulate’)
	<i>fellation</i> _N ‘fellatio’	(° <i>feller</i> _V ‘suck’)
	<i>cognition</i> _N ‘cognition’	(° <i>cogner</i> _V ‘know’)
	<i>tractation</i> _N ‘bargaining’	(° <i>tracter</i> _V ‘bargain’)
	<i>dentition</i> _N ‘set of teeth’	(° <i>denter</i> _V ‘dent’)

Yet, if such inability were due to the lack of an attested verbal source, then it is not clear how we would be able to account for the same inability in the following French Ns.

- (24) a. (i) poser le stylo
 ‘put down the pen’
 (ii) * la **position** du stylo par les élèves
 the putting down of the pen by the pupils
- b. (i) tendre le câble
 ‘stretch the cable’
 (ii) * la **tension** du câble par les ouvriers
 ‘the stretching of the cable by the workers’
- c. (i) commettre le crime
 ‘commit the crime’
 (ii) * la **commission** du crime
 ‘the commission of the crime’

I suggest, furthermore, that independent reasons make (22a) *supra* inconclusive. First, the exact same impossibility is observed with Eng. *sight*_N ‘vue’, related to *see*_V, cf. (25).

- (25) * the sight of the mountain by the instructors

Besides, Fr. *vision*_N also rejects the *by*_P-P along with *vue*_N ‘sight’, while those Ns are clearly related to *voir*_V ‘see’, cf. (26).

- (26) * la [vue / vision] de la montagne par les moniteurs
 ‘the sight/vision of the mountain by the instructors’

Whether in (25) or (26), the impossibility of the *by*-P is more likely due to the lack of subject involvement, as induced by the perceptual meaning of their internal predicate. Consequently, by no means is the relation to an attested V a discriminating factor here. In (27), the telic modifier, and, perhaps even more strikingly, the preservation of the italicized small-clause predicate prove that nothing differentiates *vision*_N from *vue*_N in terms of their grammatical properties: the complement is argumental in both cases.

- (27) La [✓vue / ✓vision] successive de plusieurs de ces jeunes hommes *en*
 the sight / vision successive of several of those young men in
compagnie de sa fille en l’ espace d’ une minute le mit en colère.
 company of his daughter in the space of one minute him angered

We now turn to issue of the absence of overt suffixal morphology and how this relates to the current discussion.

1.1.1.4 Zero Suffixation

As previously mentioned, overt suffixation simplifies the identification of a derivational source. In the absence of a clearly emerging base, it is seemingly impossible to determine whether AS projection is inherited from a verb. However, the exceptions noted by various linguists, as well as what is observed in other languages such as French, suggest that there is no systemic impossibility of silent *-ion* allomorphy. Although Borer (2003: 53) claims that so-called *zero* nominalizers only give rise to (non-AS)-Ns (a position extensively argued for in Borer 2013: 322–363), she nevertheless mentions as possible exceptions the examples in (28).

- (28) Borer (2003: 53, fn. 13)
- a. my constant change of mentors from 1992-1997
 - b. the frequent release of the prisoners by the governor
 - c. the frequent use of sharp tools by underage children

To Roeper’s (1987: 286–290) credit goes, as far as I know, one of the first mentions of the existence of (AS)-[*Bare Nominalizations*], which, as he demonstrates, exhibit *Control* ability and may take a *by*_P-P when suited; cf. (29) (see also Cetnarowska 1993). He considers such (AS)-Ns as exceptions to what he claims constitutes a rule of obligatory suffixation that conditions inheritance of the thematic grid of a source predicate. The exact definition of the expression *bare nominalizations* is, however, not entirely clear, as it may refer either to a noun in the shape of the unaltered verbal base, cf. (29a), or to a slightly modified version thereof, cf. (29b). Note that I see no reason to consider such examples as zero-derived nouns, since alteration of the base is, by essence, overtly allomorphic.

- (29) Selected and adapted from Roeper (1987: 286–290, ex. 66, 75–76)
- a. Zero-Derived Nominals: pure unaltered base
 - (i) the review of the book by the New York Times (in order to...)
 - (ii) the use of drugs by children (in order to...)
 - (iii) ? the choice of a mate by Bill to live happily
 - (iv) ? the change of jobs by Bill to get more status
 - b. Alteration of the base
 - (i) the pursuit of money by Americans (in order to...)
 - (ii) the sale of handguns by the government (in order to...)
 - (iii) the theft of ideas by the insecure (in order to...)
 - (iv) the loss of power by the people

Borer (2003), Newmeyer (2009), Alexiadou (2009) and Harley (2009) also discuss similar examples (see also Iordăchioaia & Melloni 2023). Some, already reviewed in § 1.1.1.1 as (8), are hereunder repeated as (30).

- (30)
- a. my constant change of mentors from 1992–1997
 - b. the frequent release of the prisoners by the governor
 - c. the frequent use of sharp tools by underage children
 - d. an officer’s too frequent discharge of a firearm
 - e. the ancient Greek’s practice of infanticide
 - f. the constant abuse of prisoners by their guards
 - g. France’s test of nuclear weapons in the South Pacific

Harley (2009: 340–343), although claiming to have found no data featuring lexically sourceless (AS)-Ns in English, puts forward attested examples of English nouns that, while not derived by overt suffixation, nevertheless accept modification by *frequent/constant*, cf. (31). These data challenge Borer’s (2013) statement that there are no zero-derived (AS)-Ns in English.:

“I’ve looked at approximately 250 event-denoting nouns, both simplex and derived [...] but have not found any mass-event-denoting, argument-taking nouns that accept *frequent* modification which do not have a related verb.”

- (31) capture censure collapse defeat meltdown
 murder outbreak practice rape repair

Harley hypothesizes that such Ns might be “simplex” (AS)-Ns. The fact that they undergo the same kind of (AS)-N vs. (non-AS)-N ambiguity as genuinely deverbal nouns tends to show that (non-AS)-Ns are just (AS)-Ns whose AS is blocked from being projected when the noun is used as a count noun:

“If they *are* genuine examples of structurally simplex event nominals, however, then they can tell us something, namely, that when an argument-taking mass-event nominal without any internal verbal structure is transformed into a count noun, it loses its internal argument. That is, perhaps these nominals suggest that the licensing of *of*-marked argument NPs is blocked by the count-noun-deriving process, rather than by loss of internal verbal structure.”

As suggested in chapter 3 *infra*, French *-ure* nominals such as *capture*_N ‘capture’ and *censure*_N ‘censorship’ should be assumed to be in fact lexically sourceless (AS)-Ns. This is supported by (AS)-Ns such as *culture*_N ‘culture’ or *lecture*_N ‘reading’, both of which lack a related V of the type °*culturer*_v ‘cultivate’ and °*lecturer*_v ‘read’. The noun *culture*_N instead relates to *cultiver*_v ‘cultivate’ — but arguably embeds the same structure as that of the (AS)-N *culte*_N ‘worship’ (see *infra*, § 4.3.3.5). As for *lecture*_N, it is built on the allomorphic base *lect*_v of *lire*_v ‘read’ (cf. *infra*, subsection 4.3.1). Thus, *-ure* is clearly identified as a nominalizing suffix capable of transmitting the AS of the verbal base it attaches to.¹ The eight other Ns in (31) *supra*, however, seem rather clear.²

1.1.2 Lakoff’s *Hypothetical Lexical Items*

Lakoff (1970: 56–69), as part of a study on irregularities which was first published in 1965 — two years before Chomsky wrote his *Remarks*, was, to the best of my knowledge, the first to put forward the idea of positing theoretical, non-occurring verbal sources. He notices that while *aggression*_N takes what he assumes to be an argument introduced by *against*_p, no verb *aggress*_v is attested with this construction, which comes in contrast with e.g. {*transgression*_N ← *transgress*_v}:

“It has thus far been assumed by Chomsky, Lees, and all other writers on transformational grammar that **an abstract noun can be derived from a verb only if that verb can occur**³ in fully grammatical sentences of the language in question. All other abstract nouns, they assume, must be listed as nouns in the lexicon. Yet, it very often happens that one can find two abstract nouns that are used and understood in virtually the same way, but whereas one has a corresponding verb, the other has none. The consequence is that in the current theory of transformational grammar the former would not be listed in the lexicon, but would be derived from its corresponding verb, while the latter would be listed as a noun in the lexicon. [...] The same would be true for the corresponding agent nouns.”

Lakoff argues that the grammar needs to be able to somehow bypass the lexicon so as to account for the link between the two members of the pair {*aggression*_N ↙ ↘ *aggressor*_N}⁴ in a way similar to how rules derive both *transgression*_N and *transgressor*_N from a common ancestor *transgress*_v:

¹For the English counterparts, see (11) and (12).

²As I will show in chapter 4, there exist, at least in French, AS-Ns which exhibit weaker verbal properties and may be argued to be derived from a non-phasal event layer. I suggest that each N in (31) should be submitted to further testing. For example, we find in English literature many examples such as *the non-repair of the bridge*, which negation I will later argue to be the hallmark of true deverbal derivation in event-denoting (AS)-Ns.

³Bolding always mine unless otherwise specified.

⁴This notation will be used as a convenient way to express the sharing of a common base.

“*Transgression* and *transgressor* would not be listed in the lexicon, but would be derived from *transgress*. [...] *Aggression* and *aggressor* would both have to be listed in the lexicon as nouns — and as separate lexical items at that — since **there is no occurring verb to aggress**. Although *aggression* seems related to *aggressor* in the same way as *transgression* is related to *transgressor*, this relationship would go unexpressed.”

His base examples are reproduced in (32).

(32) **Lakoff’s base examples**

- a. (i) I was shocked by John’s transgression against society.
- (ii) I was shocked by China’s aggression against India.
- b. (i) John transgressed against society.
- (ii) * China aggressed against India.
- c. (i) John was a transgressor.
- (ii) China was the aggressor.

Lakoff thus argues against Chomsky (1957) and Lees’s (1960) common assumption that, in order for a nominal to inherit arguments from its base, the latter has to be autonomously attested. We will now review his analysis in further detail.

1.1.2.1 Bypassing Listedness

To account for the presence of agentivity in spite of the non-existence of a related V, Lakoff assumes *abstract*¹ underlying structures. However, the problem is the same as what we will see with Huyghe *et al.* (2017) in § 1.3.3.3 *infra*, i.e. that it is not sure at all that this agent is not active at a mere conceptual level (or *cognitive*, as Roeper 1987 expresses it; cf. § 1.1.2.4 *infra*). We might take a (non-AS)-N such as *storm* and use the same kind of PP as in (32) in order verify that it can be interpreted as having an Agent, independently of possessing any grammatical properties, cf. (33) (see § 1.3.3.3 *infra* for similar examples).

- (33) a. after his tantrum against the coach (*New York Times*, 2006)
 b. Poseidon’s storm against Odysseus (v.k.)

Note that $\mathcal{D}_{aggress}_v$ does occur nowadays and is listed in dictionaries (cf. Jackendoff 1997: 128). Aronoff (1976) considers $\mathcal{D}_{aggress}_v$ to result from back-formation. Although he eventually dismisses it as a stumbling block for his theory, he himself acknowledges the potential danger of that kind of data (cf. *infra*, § 3.1.2.1). The same can be observed with e.g. $\mathcal{D}_{predate}_v$ ‘prey upon’, referenced in the *Wiktionary* as back-formed from *predation*_N and *predator*_N.

¹Lakoff (1970) never uses the term *abstract* in conjunction with a lexical hyponym, but exclusively when referring to the structural level; see p. 63, for instance. The expression *abstract verb* only occurs in Chomsky (1970: 20, fn. 10; 31; 36).

The examples that Lakoff gives in order to justify abstract underlying structures are paradoxically flawed by a problem of lack of motivation: as we shall see, his proposal allows that any nominal phonological exponent may be associated with a freely chosen verbal base, even when it lacks a morphosemantic analysis — which is too powerful. Indeed, Lakoff (p. 58) takes (34a) and (34b) to mean ‘the ones who rules the people of Vietnam’ and ‘the one who bosses the union’, respectively; cf. (34).

- (34) a. the rulers of the people of Vietnam
 b. the **boss** of the union

Thus, he assumes every agent- (or *theme*-) denoting nominal to be derived from a corresponding VP structure, cf. (35)–(39).¹

- (35) a. (i) Harry is the ruler of Liechtenstein.
 (ii) Harry is the **king** of Liechtenstein.
 b. (i) Harry rules Liechtenstein.
 (ii) * Harry ^(o)**kings** Liechtenstein.
- (36) a. (i) John is a robber.
 (ii) John is a **thief**.
 b. (i) John robs things.
 (ii) * John ^(o)**thieves** things.
- (37) a. (i) John is a good writer.
 (ii) John is a good **poet**.
 b. (i) John writes well.
 (ii) * John ^(o)**poetizes** well.
- (38) a. (i) John is a transgressor.
 (ii) China was the **aggressor**.
 b. (i) John transgressed against the society.
 (ii) * China ^(o)**aggressed** against India.
- (39) a. (i) John was Harry’s helper.
 (ii) John was Harry’s **benefactor**.
 b. (i) John helped Harry.
 (ii) * John ^(o)**benefacted** Harry.

Importantly, it is necessary to constrain Lakoff’s device so that counterintuitive analyzes such as $\{king_N \leftarrow {}^o king_V\}$ can be blocked. Even when deverbality seems clear, as in (35a.i, b.i),

¹The unattestedness symbol placed between parentheses ^(o) is my own addition and is meant to justify Lakoff’s asterisk or double asterisk.

the grammatical properties of the N should be tested, since, for instance, the *of_b*-P in (35a.i, ii) might be a non-argumental complement (see Roeper 1987, cf. § 1.1.2.4 *infra*). Thus, in (40)–(43) taken from Lakoff (p. 65), the morphology is not sufficiently considered for the assumption of hypothetical verbs in the (b.ii) sentences.

- (40) a. (i) Greg's intention was to overthrow the government.
 (ii) Greg's **purpose** was to overthrow the government.
 b. (i) Greg intended to overthrow the government.
 (ii) * Greg ^(o)**purposed** to overthrow the government.
- (41) a. (i) John's aim was to conquer the world.
 (ii) John's **goal** was to conquer the world.
 b. (i) John aimed to conquer the world.
 (ii) * John ^(o)**goaled** to conquer the world.
- (42) a. (i) I read all of John's writings.
 (ii) I read all of John's **poems**.
 b. (i) I read all of what John wrote.
 (ii) * I read all of what John ^(o)**poetized**.
- (43) a. (i) John's beliefs shock me.
 (ii) John's **ideas** shock me.
 b. (i) John believes that there is no God.
 (ii) * John ^(o)**ideates** that there is no God.

The noun in each (a.i) sentence is assumed to have a meaning that is a function of the meaning of the verb in the corresponding (b.i) sentence; however, that this should be so is, in fact, unclear. For one thing, the deverbal character of the noun would be just as uncertain in (40a.ii, b.ii) and (41a.ii, b.ii), as it is in (41a.i, b.i) or (43a.i, b.i). Deverbality is excluded in (42a.ii, b.ii) and (43a.ii, b.ii): the verbs in (42b.ii) and (43b.ii) contain overt additional verbal morphology; now, they cannot serve as sources for their own base. And unlike clearly oriented pairs such as $\{intend_V \rightarrow intention_N\}$, such pairs as $\{goal_V, goal_N\}$ or $\{purpose_V, purpose_N\}$ — as Lakoff, it appears, fails to notice — do not necessarily involve derivation one from another but instead may represent some kind of $\{N \leftrightarrow V\}$ conversion — or, perhaps more accurately, a $\{N \swarrow \searrow V\}$ pairing of sisters.

1.1.2.2 Near-Grammaticality

Being the first, as previously mentioned, to hypothesize the existence of *abstract underlying structures*, Lakoff (1970: 61) also introduces the notion of *near-grammaticality*:

“English has a great number of abstract nouns like *aggression*, which we will claim must be derived from hypothetical verbs. Although these verbs do not occur in fully grammatical sentences of English, they do occur in sentences which are **very nearly grammatical**.”

He qualifies as *very nearly grammatical* examples such as (44) (cf. $^{\circ}\textit{critique}_v$).

(44) * Frye critiqued the book. (judgment Lakoff’s)

He observes that if restrictions on the noun are violated as in (45b.i), the acceptability of the hypothesized verbal counterpart will be proportionally degraded, as in (45b.ii) (notation Lakoff’s, but cf. *infra* for discussion). Indeed, if the conceptual selectional restrictions on the hypothetical verbs in (a.ii) and (b.ii) are correlated with those of the nouns in (a.i) and (b.i), it must imply that these restrictions are listed only once, as information indexed at a common source entry, to be subsequently inferred in parallel for the derived nominal and verbal structures.

- (45) a. (i) Frye’s critique of the book.
 (ii) * Frye $^{\circ}$ critiqued the book.
 b. (i) * the lawnmower’s critique of the book
 (ii) ** The lawnmower $^{\circ}$ critiqued the book.

Importantly, in (45), grammaticality is not at stake. In order to be fully acceptable, (45b.ii) would, similar to (45a.ii), require $\textit{critique}_v$ to be attested, but it also lacks the conceptual consistency that the latter benefits from. It is therefore necessary to distinguish between grammatical and conceptual ill-formedness: (45b.i) is only odd from a pragmatic angle and would be fine in a fictional context where a lawnmower had the ability to talk and read; therefore, using an asterisk here is not justified. Likewise, attestedness, which pertains to local assessing, is wrongly treated by Lakoff on the same level as global judgments, which relate to grammatical or conceptual well-formedness. What (45) really shows, is that conceptual consistency of the meaning of a predicate may be assessed independently of whether its head unit exists as a lexical V or A. Thus, what it illustrates, in the end, is that, *a fortiori*, grammaticality itself is left unharmed by unattestedness: pragmatic judgments only apply to grammatically well-formed units. In sum, we would not be able to determine conceptual consistency of (45a.ii, b.ii) if they were not grammatical to begin with. Thus, in (45), two levels of acceptability are involved:

- attestedness of every constituting lexeme, which is not respected in (a.ii) and (b.ii);
- conceptual consistency, which is at issue in (b.i, ii).

The *near-grammaticality* of Lakoff’s examples echoes the well-known distinction between grammaticalness and acceptability, as defined by Chomsky (1965: 11). In between stands the notion of *degree of grammaticalness*; see Chomsky (1957: 35–36, 78; 1965: 159–164). However, as stated by Leivada & Westergaard (2020), there is no such thing as *partial grammaticality*: “A rule of grammar [...] can be either violated or not, but it cannot be violated just a bit. Ungrammaticality cannot be a matter of degree, only acceptability can.” According

to Chomsky (1965: 11), “Acceptability is a concept that belongs to the study of performance, whereas grammaticalness belongs to the study of competence. Grammaticalness is only one of many factors that interact to determine acceptability.” Acceptability depends on at least two factors, namely, grammaticality on the one hand, and conceptual consistency on the other hand. Now, what Lakoff refers to as near-grammaticality has actually nothing to do with the grammar. Lakoff regards as a factor of unacceptability unattestedness of at least one of the words of the sentence judged. As a consequence, he uses a double asterisk to signal a pragmatically unacceptable phrase that additionally happens to involve an unattested V: (46c), in addition to requiring a pragmatic context similar to what is wanted for (46b) (i.e. a *talking-lawnmower* world), would furthermore require ${}^{\circ}\textit{critique}_v$ to be attested, which is not the case. His idea is that if the unattested verb in (46a, c) is assumed to convey a meaning similar to that of the underlying V of the N in (46b), then (46c) must have the same degree of conceptual consistency as (46b), i.e. it must be pragmatically odd unless a specific context is introduced — namely where *lawnmowers can think and talk like humans*. Therefore, the kind of judgment that (44) requires could be referred to as *conditional acceptability*, because the conceptual consistency is subordinated to the conceptual properties that we assume for the unattested word. In Lakoff, however, either side of the twofold unacceptability is marked with an asterisk, which notation I find confusing. Both abnormalities should be signaled separately from one another and from ungrammaticality by dedicated symbols. Besides, in the case of a *hypothetical* lexeme — which I shall signal using the notation ${}^?word$, it would be more exact to state that the acceptability value is *undefined* — which is formalized in (46a.ii) through the use of the *infinity* symbol ∞ .

(46) **Lakoff’s levels of grammaticality**

- a. (i) * Frye critiqued the book. (judgment Lakoff’s)
- (ii) ∞ Frye ${}^?critiqued$ the book. (judgment mine, but refined *infra*)
- b. (i) * the lawnmower’s critique of the book (judgment Lakoff’s)
- (ii) # the lawnmower’s critique of the book (judgment mine)
- c. (i) ** The lawnmower critiqued the book (judgment Lakoff’s)
- (ii) # The lawnmower ${}^?critiqued$ the book. (judgment mine)

Thus, reconsidering Lakoff’s judgments, a revised version of (45) could be as (45’).

- (45’) a. (i) Frye’s critique of the book
- (ii) ∞ Frye ${}^?critiqued$ the book.
- b. (i) # the lawnmower’s critique of the book
- (ii) ∞ The lawnmower ${}^?critiqued$ the book.

Obviously, the properties of unattested Vs such as ${}^{\circ}\textit{critique}_v$ cannot be judged directly, since by definition they do not exist as lexemes. However, we can judge the *sourceless nominal* — which Lakoff could not do, not having Grimshaw’s (1990) tests at his disposal. Thus,

hypothetical lexemes may become a suitable tool to identify the structures once we can test their nominalization for AS projection. If, relying on Lakoff's observations on (45), we assume a pair $\{critique_N \swarrow \searrow critique_V\}$, and if $critique_N$ turns out to inherit its (AS) ability from the common abstract structure underlying this pair, then there is no a priori reason why $critique_V$ in (45'a.ii, b.ii) would not constitute a *possible* lexeme $'critique_V$, i.e. lexicalize a valid structure (cf. *infra*, § 1.2.1.3). The judgments would then be as in (45").

- (45") a. (i) ✓ Frye's critique of the book
 (ii) ✓ Frye $'critiqued$ the book.
 b. (i) # the lawnmower's critique of the book
 (ii) # The lawnmower $'critiqued$ the book.

However, the judgments in (45"a.ii, b.ii) hold under the non-trivial condition that we take the grammaticality of $'critique_V$ for granted: they hold with $'critique_V$, not with $'critique_V$, as the contrast between (46, b) clearly illustrates. Crucially, the hypothetical lexeme $'critique_V$ can gain the status of possible lexeme once we can prove that $\checkmark critique_N$ is an (AS)-N. For this reason, using hypothetical lexemes to test (AS)-Ns is not an option since it would put the demonstration at risk of circularity.

To conclude, the total absence of constraints in the process of restoring possible lexemes makes Lakoff's proposal unsustainable as it stands. In fact, this major issue led linguists such as Chomsky (1970: 20, fn. 10) and Jackendoff (1975: 645–667) to altogether dismiss the entire hypothesis. We now turn to Chomsky's (1970) criticisms thereof.

1.1.2.3 Chomsky's Objection

Chomsky (1970: 19–20; 31–32) argues that assuming "abstract", i.e. non-lexicalized structures without any safeguard leads to absurd implications:

"It has been argued, quite plausibly, that such phrases as *the owner of the house* derive from underlying structures such as *the one who owns the house*; correspondingly, [*the author of the book*] might be derived from the structure *the one who *auths the book*, **auth* being postulated as a verb that is lexically marked as obligatorily subject to nominalization. However, the plausibility of this approach diminishes when one recognizes that there is no more reason to give this analysis for [*the author of the book*] than there is for *the general secretary of the party*, *the assistant vice-chancellor of the university*, and similarly for every function that can be characterized by a nominal phrase."

Chomsky (1970) points out that the noun $author_N$ should not be any more qualified as being derived from an abstract lexeme than any standard noun such as $secretary_N$. We cannot postulate unmotivated hypothetical lexemes. One of Chomsky's (20, fn. 10) core arguments against the syntactic approach to nominalizations is the difficulty to derive from their morphological verbal source the denotation of nouns such as *writing* in *John's writings*, since Ns like $poem_N$, while approximately meaning the same thing, may not be related to any V:

“We cannot derive *John’s beliefs* from *what John believes*, because of such sentences as *John’s beliefs are not mutually consistent, ... are numerous, etc.*, or *John’s beliefs, some of which are amazing, ...*; nor can we derive it from *the things that John believes*, since the semantic interpretation will then be incorrect in such expressions as *I respect John’s beliefs* or *John’s beliefs are intense*. It is difficult to see how one can transformationally relate *I read all of John’s writings* to *I read all of what John wrote*, in view of such expressions as *I read all of John’s critical writings*, etc. And if one is to postulate an abstract verb *poetize* underlying *John’s poems*, then what about *John’s book reviews, dialogues, sonnets, limericks, Alexandrines, etc.*?”

Thus, the real problem with Lakoff’s (1970: 64) argumentation is to entirely rely on semantic grounds. *Poet_N*, *king_N* and *boss_N* are arguably not more agentive than *knight_N*; and if a verb *knight_V* were to be created, it would be understood in function of the meaning of the noun *knight_N*. The problem is the same for *ide-ate_V* and *poet-ize_V*. It is irrelevant, and even contradictory, to identify a suffixed verb as the source of the noun corresponding to the base it precisely derives from. There is, consequently, a major stumbling block with Lakoff’s hypothetical lexemes: the morphological motivation that should be taken into consideration to legitimate the recourse to a hypothetical lexeme is completely overlooked. The issue is twofold, according to whether we consider verbalizing morphology or (AS) ability:

Assuming overt morphology to not be a reliable clue for knowing whether a nominalization should be derived transformationally or not, we need such disambiguation tools. Abstract structures should always be motivated on empirical grounds. This is why Lakoff admittedly goes too far in claiming that nominals headed by such Ns as *king_N* or *boss_N* are generated by the transformation of an underlying verbal structure: as we are going to show for *author_N* in subsection 3.3.1 *infra*, such apparently agentive Ns appear as relational Ns once we test them with the adequate methodology and tools. Since Grimshaw (1990) and E. Williams (1987) introduced the testing of nominalizations, linguists have been able to detect the presence vs. absence of internal event structure in nominals.

1.1.2.4 Conceptual vs. Argumental Agentivity

The agentive interpretation of a nominal does not obligatorily entail AS projection. Precise criteria must be defined in order to build thorough tests by means of which we should be able to distinguish between arguments and conceptual participants. Chomsky’s famous example *the author of the book* (cf. *supra*, 1.1.2.3) shows the necessity of eliminating from the list of (AS)-Ns nominals that do not exhibit any grammatical properties. The issue is to determine whether examples in (81) are any different from relational nominals such as (47).

(47) the king of the hill

The complement of Ns such as *successor_N* could be argued to occupy a *non-theta position*, i.e. this N would be *relational*. Indeed, as seen in (48), *succéder_V* ‘succeed’ takes a prepositional argument, which is not carried over to the corresponding nominalization.

- (48) a. Louis XVI a succédé à Louis XV.
 ‘Louis XVI succeeded to Louis XV.’
 b. le successeur [# à / ✓ de] Louis XV
 the successor to / of Louis XV

We owe Roeper (1987) the original idea of testing nominals in order to determine whether their complements are semantically or syntactically selected. He has shown that we need to distinguish between cognitive and argumental agentivity. Roeper observes a contrast in agentive nominals, between suffixed and non-suffixed ones. In order for an argumental *of_P*-P to be licensed, it is not enough that some agentivity be *cognitively* understood, but it must be licensed by a *thematic grid*. The suffix *-er* of the N in (49b) allows for the grid of the source V to be passed on to the nominalization, whereas the N in (49a), which lacks such a suffix, can not project a theme, whence the impossibility of using an *of_P*-P referring to the object of the stealing — a contrast unnoticed by Lakoff (1970: 64), cf. (36) in § 1.1.2.1 *supra*.

- (49) Roeper (1987: 268)
 a. * the thief of the bank
 b. ✓ the robber of the bank

Thus, Hypothetical lexical items cannot be posited without constraints. Instead, only those sources that yield genuine (AS)-Ns may be argued to have to be abstractly restored.

Let us now recapitulate what this section has taught us. In subsection 1.1.1, I demonstrated that the claim asserting a constraint on (AS)-Ns, that they must necessarily be built on lexicalized sources, fails to account for the French data presented. Numerous French nominals whose sources are not lexicalized are strongly suspected of projecting AS and possessing the same internal structure as any other (AS)-N. In subsection 1.1.2, I explored Lakoff’s (1970) idea to assume hypothetical lexical items and, more importantly for the present approach, abstract structures underlying the possible lexicalization of these items. I concluded that the assumption of such structures should be motivated by morphosyntactic properties, so that the power of this theory could be limited in accordance with explanatory adequacy.

1.2 The Grammatical Irrelevance of Idiosyncrasy

In section 1.1 *supra* I have shown that missing lexical sources of (AS)-Ns represent *accidental gaps*. The aim of section 1.2 is to argue, following linguists such as Allen (1978), Di Sciullo & Williams (1987) or Marantz (1995, 1996, 1997, 2001), that idiosyncrasy, being accidental by nature and referring to anything not ruled by the grammar, does not constitute an argument against the syntactic nature of nominalizations. Contrary to Newmeyer (2009) and following Nunberg, Sag & Wasow (1994), I will show why idiosyncratic considerations cannot support one grammatical theory over another. I will follow Marantz’s (1996) idea

that idiosyncratic facts, by definition pertaining to conceptual knowledge, should not direct conclusions about rules, specifically regarding the rejection of a strong computational approach to word formation.

The *Idiosyncrasy Argument*, as discussed in § 1.1.1.1, relies on the alleged unpredictability of both the existence and the actual range of meanings of a given nominalization. The optional character of the lexical existence of the base has been argued to support the notion that AS inheritance is not systematic, which entails that no transformational device is involved in AS projection. However, optionality can also be invoked to defend the exact opposite view — namely, that inheritance occurs not at the level of the lexicon, but at an independent computational level: the syntax. This section argues in favor of this position. Building on Marantz’s (1995, 1996, 1997, 2001) seminal series, I demonstrate that the so-called *idiosyncrasy argument* is flawed in that it conflates the grammatical level with that of language use. As Marantz (1997) rightfully points out, “it’s very difficult to argue anything from idiosyncrasies — one argues from systematic differences”. To claim that a process is not systematic because it fails to predict inherently unpredictable phenomena, such as lexicalization, essentially amounts to denying the essence of systematicity. Lexicalization does not belong to the domain of predictability, as it arbitrarily varies from one idiolect to another, reflecting *actual use* by specific speakers in a given context. Advocating Beard’s (1987) derivate polysemy — whereby grammatically productive derivatives are assigned idiomatically memorized referents, cf. also Jackendoff 1997, I argue that idiosyncratic meanings constitute contingent *interpretations* of predictable meanings, making it pointless to invoke their unpredictability as a grammar-related argument. Their *possibility of existence*, in turn, is generated by the grammar of the language. And so is what I shall call, following Beard (1987: 26) (cf. *infra*, subsection 1.2.2) their *primary meaning*, i.e. their purely compositional, fully predictable meaning, cf. subsection 1.2.2 *infra*. This view is summed up by Di Sciullo & Williams (1987: 2, 7):

“The *listed/unlisted* distinction has nothing to do with grammar. [...] In our view the listedness of a regular form is of no grammatical significance, and whether or not it is listed will vary from speaker to speaker, determined by such factors as its frequency of use in the speaker’s daily life.”

The major concerns previously mentioned in § 1.1.1.1 will be addressed. First, the availability of meanings that deviate from the compositional output of a structure (cf. 6c) does not tell us anything about the nature of that structure, because idiosyncrasy has nothing to do with the grammar. Second, the absence from the lexicon of an expected word or meaning (cf. 6b and 6d) cannot lead us to conclude anything about the principles of the grammar. However, the mere fact that this absence does not hinder the transmission of grammatical properties demonstrates that attestedness of the base as an autonomous lexeme is not a prerequisite. Therefore, the existence of lexically sourceless (AS)-Ns (cf. 6a), far from threatening neoconstructionism in any possible way, actually *proves*, to the opposite, that derivational operations apply not to a lexicalized form, but to the structure that makes its existence possible. For an (AS)-N to be generated, only this potentiality matters — not its *fulfillment*, which may not impact the

computational process, but only the post-processing addition of idiosyncratic content that will be associated with the output as a last step.

The section is organized as follows. Subsection 1.2.1 provides a brief overview of how accidental gaps have been addressed in the literature, highlighting the relativity of attestedness and exploring various notions, such as *overgeneration* and *possible words*. Subsection 1.2.2 advocates distinguishing between the structural and the conceptual levels, and discusses the notion of *idiom*. Finally, subsection 1.2.3 presents the theoretical assumptions adopted as a result of the developed rationale.

1.2.1 Accidental Gaps

The lexicalist lexicon is a place from which are drawn the elementary items of syntactic combination. Derived words and compounds are generated inside the lexicon. Lexicalist morphologists assume that word-formation rules are used only once for a given entry, i.e. at the creation of the word: the output of those rules serves as input to the syntax. According to views such as Selkirk's (1982: 11), the syntax does not access the internal structure of words, which are syntactically atomic:

“The word structure rules cannot be viewed as generating these words anew each time they are used for this contradicts the notion that they are listed. No distinction would then be drawn between existing and possible or newly generated words and no means would be available for representing their idiosyncratic noncompositional features.”

Thus, in the lexicalist view, lexical items are fundamentally different from sentences, because they acquire idiosyncrasy. Idiosyncrasy may be defined as information that pertains to world knowledge and makes the meaning of a word special, i.e. not retrievable through computation. In sum, word-based lexicalism regards idiosyncrasy as a defining feature of words. Notably, Aronoff (1976: 18) argues that from the moment a structure starts being used as a word, it starts dying as a structure to progressively become an arbitrary sign:

“But words are peculiar, not only in that not all of those that should exist actually do, but also in that those which do exist do not always mean what they are supposed to mean, or even look like what they are supposed to look like. Words, once formed, persist and change; they take on idiosyncrasies, with the result that they are soon no longer generable by a simple algorithm of any generality. The word gravitates toward the sign. The actual words of language, the members of the set of dictionary entries, are as a result not a subset of the items which are generated by a regular morphology, one which generates words and their meanings out of meaningful morphemes.”

In such a view, there can be no pure compositional meaning, since the lexicalization process begins to corrupt the output as soon as the word enters language use. While complex words, unlike non-lexicalized phrasal units, contain information that must be memorized — whether they actually occur, and what their idiosyncratic content consists of, this phenomenon is not limited to words. But it is much more obvious and largely spread at the word level. Aronoff

builds on this idea to grant words a *special status*. That asymmetrical conception “*words vs. phrases*” is summed up in Marantz (1997: 206–207):

“The idea here for Lexicalism is that the lexicon provides sound/meaning correspondences for word-size units while the syntax provides such correspondences for constructions made of words. There is a continuum between the meanings of atomic morphemes and, at least, derivationally derived words that ends abruptly at the word level. So words can have special meanings of the sorts that roots might have, but syntactically derived structures must have meanings predictable from the meanings of their parts and of their internal structures.”

That idiosyncrasy plays a major role at the word level is a fact I am not willing to deny, as it is easily observable. However, *contra* Newmeyer (2009: 101–107), acknowledging the prominence of idiosyncrasy at the word level is fully compatible with a syntactic approach to word formation. First, § 1.2.1.1 will highlight the relativity of attestedness. Second, in § 1.2.1.2, I will examine the notion of *overgeneration* and Halle’s idea of a *post-computational filter*. I intend to reverse the Idiosyncrasy Argument and demonstrate that lexical gaps constitute a cornerstone in defending the syntactic approach. To do so, I will follow the exact same line of reasoning as in Allen’s (1978) *Overgenerating Morphology*. Third, in § 1.2.1.3, I will show how the notion of a virtual lexicon can help apprehend lexically sourceless nominals.

§ 1.2.1.1 highlights the relative nature of attestedness or listedness. § 1.2.1.2 discusses overgeneration, arguing that it is not a parasitic phenomenon, but an expected one. § 1.2.1.3 introduces the notion of a *Virtual Lexicon*.

1.2.1.1 The Relativity of Attestedness

According to Corbin (1987: 19), accidental lexical gaps “represent unattested possible words, and, as such, should not be marginalized compared to attested regular words and meanings, let alone be mistaken for exceptions” (translation mine). Following her, I will argue against views that consider as exceptions nominalizations without a related V or A, arguing that such accounts fail to predict the regular patterns observed. My claim is that the rules always apply to structures and play no part in determining whether or how those structures should be lexicalized. Building on Marantz (1996), I will contend that the lexicalist position weakens considerably from the moment accidental facts cease to be construed as exceptions within the grammar and come to be acknowledged as external to it.

With the lexicon, as early as in the 60’s, but more prominently in the 70’s, gradually becoming an independent computational component equipped with its own formal devices, a concern emerged regarding unexpected non-occurrences. Quine (1961: 53) states that the set of all valid sequences ever occurring is always a subset of the infinite number of possible acceptable ones. Lees (1960: 121), advocating a transformational approach to nominalizations, follows Quine in pointing out that word-formation rules allow to construct “an indefinitely large number of compounds which do not occur in any extant corpus of English not because they are excluded by the grammatical rules of English, but rather because of various conventions

of usage and of historical vicissitudes”. As argued in subsection 3.1.3, attestedness is always assessed relatively to arbitrary limits. It is argued by Motsch (1962: 42–45), as quoted in Botha (1968: 129, 136–137), and by the latter himself, to be irrelevant to grammaticality:

“[Motsch] argues that in principle, any form that is derived from general rules may occur. Should this view be rejected, a grammar would be deprived of its predictive power. [...] It is clear that the occurrence, attestation or establishment of a form takes only place relatively to a particular corpus of linguistic data. [...] The crucial question is whether it can be claimed at a given moment that a particular form does not occur or rather that it cannot be established or attested.”

Crucially, the *corpus*, which determines attestedness, is a snapshot taken within a *specific idiolect* at a *precise point in time*. That makes attestedness a contingent phenomenon, not a systemic one. Corbin (1987: 3) notices that many morphological studies have suffered from some theoretical misconception regarding the nature of the object of the discipline: “The obviousness of the *de facto* lexicon (attested, or believed to be such) blocks assumptions about the *de jure* lexicon (possible because predictable from the rules), and the necessary hindsight with respect to the empirical materials on which the theory is built” (translation mine). If I understand her correctly, what she means is that concentrating too much on attestedness has led some morphologists to refrain from generalizing, while it should not have, since accidental gaps have nothing to tell us about the rules. Thus, the misconception, obviously, is about granting the status of exceptions to facts which in the first place are not even governed by grammatical rules. It is, therefore, of prime importance to acknowledge the finite and relative character of the corpus and to recognize the potential of the language as the true object of research of morphosyntax. The value of any isolated occurrence comes from the fact that it tells something about the system that licenses its integrity. An isolated non-occurrence, in turn, has no value in itself; only a set of non-occurrences can help identifying blocking factors — that is, if independent data converge towards such a direction. Ultimately, when it comes to attestedness, true falsifiability is never achieved, because there is no way to prove that something which does not exist *can* not exist. This is why absence of an expected nominalization cannot be used as an argument. As Allen (1978: 196) rightfully points out, relying on accidental facts to reason about the grammar is methodologically inappropriate:

“If an accidental fact about a non-occurring word is misconstrued as an illustration of the workings of a general principle, then the morphology based on this misconstrual will be empirically inadequate, resulting in incorrect predictions in other areas of the morphology.”

Directly challenging Aronoff’s (1976) idea that “words, once formed, persist and change” (cf. *supra*), the following passage by Corbin (1987: 40) expresses the idea of an eternity of the possible lexicon (translation mine):

“If dictionaries fail to follow the evolution of the lexicon, this is partly because the assumptions were wrong, at least regarding constructed words. The latter, in their regular uses, neither are “born” nor “die”. They are always already in the language, if the rules that construct them and the bases on which they are constructed are in the language. Their status is not, fundamentally, different from that of the regularly constructed sentences. It is as vain to want to date the appearance of a constructed word in the language as that of a sentence. What can be dated is its actualization in speech, not its entry into the language.”

That leads us to a critical review of the notion of *overgeneration*, and more specifically, the question of whether unattestedness of possible structures is really that much of an issue as some critics of the syntactic approach claim it to be.

1.2.1.2 Overgeneration and the Post-Processing Filter

In Jackendoff (1975: 645–650) for instance, lexically sourceless nominalizations are taken to support what he calls the *full-entry theory*. While Halle (1973) suggests to list every single occurring word as *attested* or *unattested* and Lakoff (1970) to treat them as exceptions to transformational rules, in Jackendoff's system deverbal Ns are fully specified in the lexicon instead of sharing information with their source V. He argues that postulating a fully specified entry for deverbal Ns is *less costly* (i.e. for the economy of the theory). In a strategy opposite to that of the present argumentation, Jackendoff actually relies on lexically sourceless nominalizations to defend, *contra* Halle's (1973) *filter*, a strong lexicalist view which he calls the *Full-Entry Theory*. According to him, deverbal Ns are fully specified in the lexicon instead of sharing information with their source V; he argues that postulating a *fully specified entry* for deverbal Ns is *less costly* than having to list every single occurring word as attested or unattested as Halle suggests, or to handle them as exceptions to transformational rules, as Lakoff (1970) proposes. However, following Marantz (1996), such argumentation weakens from the moment we stop trying to integrate accidental facts into the grammar and instead start considering idiosyncrasy as non-computational by nature. The so-called cost dissolves once the idea of redundantly listing computational material is abandoned.

Not going into the detail of each precise lexicalist implementation, what is noticeable during this period is the emerging idea of a separation between possible structures and effectively occurring outputs. Thus, Chomsky (1965: 182–183) starts to apply to the lexicon the notion of *accidental gap*, which Halle had been using for phonological problems: some words *could* exist in principle, but *happen not to*.

Thus, Allen's (1978: 195) definition of accidental gaps comes as follows:

“Morphologically well-formed words may or may not actually occur. The lexical nonoccurrence of a morphologically well-formed word is an accidental fact about the language under investigation. That is, no principled reason can be discovered to account for the absence of the word. Some accidental gaps in English are illustrated by the forms *derival* (cf. *arrival*), *arrivation* (cf. *derivation*), *wealthful* (cf. *healthful*), *girlhood* (cf. *boyhood*).”

If we take the grammar to only determine which words may be created, then the question whether each generated syntactic output gets lexicalized into an actual stem is of little concern. Hence Halle's (1973) idea of construing idiosyncrasy as a *filter*, which was clearly a turning point. Halle's basic proposal is that there is a massive rule-generated set of potential words that are available for lexicalization. The lexicon then “picks up” a subset of those viable structures according to idiosyncratic needs. Thus, possible words are filtered through the conventional

acceptation of the official dictionary before they can become actual words. Entries as such are unpredictable: neither their very existence, nor their conceptual content may serve to prove a theoretical point. Halle's post-computational filter includes not only the information of the existence vs. non-existence of the possible words, but also all the idiosyncratic meanings. This aspect of Halle's theoretical system characterizes the morpheme-based approach to lexicalism and is much more in agreement with how I argue idiosyncrasy should be construed, than Jackendoff (1975) or Aronoff (1976) lexeme-based ones. The linguistic reality of the possible lexicon was demonstrated in a decisive way through Allen's (1978) theory of *Overgenerating Morphology*. According to Allen (1978: 4–5), the non-existence of some derivational bases as occurring words supports a grammatical approach to derivation:

“The claim that stem-based formations are rule-generated is supported by the fact that there are stem-based words whose bases are also stem-based which do not exist as occurring words. For example, we have *conjecture* but not *to conject* (cf. *inject*, *reject*, *eject*), and *dejected* but not *to deject*: there are the derived nouns *áspect*, *perspective*, but not the verbs which assumedly are their bases; i.e. *aspéct*, *perspéct* (cf. *súspect_N*, *suspéct_V*).”

The non-problematic status of overgeneration was supported early by such linguists as Weinreich (1969: 74):

“Having a base that generates too much is tantamount to accounting for the structure not only of existing sentences and words, but also of possible sentences and complex words (made up of existing simplexes). The role of the filtering device is to differentiate, among possible words, those that are established from those that are not.”

The Possible Lexicon in particular is by definition constrained by the rules that define what is possible. To begin, a subset of the possible words are found as part of more complex words. As pointed out by Allen (1978: 185), the derivation process may take as its object a structure that is not autonomously attested, i.e. does not exist as a word in Aronoff's (1976) sense (cf. *supra*, § 1.2.1.2). That is, some words are built on well-formed but non-occurring words:

“Rules of word formation must generate an **infinite set of possible well-formed words, only some of which are actual or occurring words**. A distinction must consequently be made between a **Conditional Lexicon** (the set of morphologically possible words) and a **Permanent Lexicon** (the list of actual words). The central empirical datum in support of Overgenerating Morphology is the fact that words derived by regular derivational process may not be occurring words (e.g. *handed*, *sightly* and *toothed*), but when subsequent derivational processes apply, occurring words may result (e.g. *handedness*, *unsightly* and *sabre-toothed*).”

Thus, the abstract existence of non-attested but possible words is supported by the fact that they may be used as derivation bases.

Corbin (1987: 161) calls such models “stratified”, which (translation mine): “start by overgenerating, insofar as they produce regular forms that they subsequently either eliminate or load with idiosyncrasies”. Note that under such a definition, so-called overgeneration comes down to the expected difference between theoretical possibilities and actual realizations, and thus implies no systemic flaw. In turn, denying the very principle of overgeneration is akin to claiming that all valid structures must be attested, which is not only wrong but also contradictory,

since it implies mapping an infinite set of theoretical combinations onto a finite set of actual occurrences. Should we suppose, now, that a lexeme, in the traditional lexicalist sense, is not a structure in itself, but a listed conventional use of the Primary Meaning of a structure, and that the rules only determine which valid combinations can arise, and not which ones are effectively used and how in each idiolect, then we may argue the derivation to operate not on lexemes, but on structures, i.e. completely independently of idiosyncrasy. Thus, however significant the role of idiosyncrasy might be in the constitution of the set of actually occurring words, its strong presence as such can hardly be invoked to rule out the transformational character of this process. It is, consequently, not required that the transformations apply effectively to all possible cases. Occurrences are not generated, but their *possibility* is: grammatical rules are not about the actual *obtaining* of real-world linguistic facts, but about their theoretical *licensing*.

It is fair to mention that in a way, Aronoff (1976) is right when saying that actual words do not constitute a subset of the possible words. The reason is that actual words are not structures but lexicalizations of structures, i.e. outputs that come along with idiosyncrasies. Thus, we must reformulate that assumption and say that the encoding structures of the actual words, not the words themselves, are a subset of all possible structures. I would like to suggest that once we consider lexicalization as a post-computational filter, Newmeyer's so-called *Idiosyncrasy Argument* can somehow be reversed. It is *by virtue* of idiosyncrasy that words are not mere structures, and that we can eventually claim that rules, in fact, do not predict more words than there actually are. Rules simply generate more structures than the amount of words that are empirically found, i.e. more structures than the amount of structures that are used to create lexical entries, which is, of course, a completely different statement: while the discordance expressed through the first formulation would imply a clear flaw in the system, the revised version, on the other hand, comes down to the expected difference between possibilities and realizations. This is the exact definition of overgeneration, which implies no abnormality.

To conclude, the fact that idioms are not a subset of predictable meanings is a consequence of their very definition: they emerge from extragrammatical parameters, such as *ex-nihilo* invention, borrowing, onomatopoeia, etc. Note that words are not unique in this respect: any structure is prone to acquiring special meanings and connotations over time, which may alter the original output. Relevant to my point is that lexicalization, i.e. the emergence of idiosyncratic properties, does not in any way interact with the computational device. As Weinreich (1969: 76) states, "the relation between idiomatic and literal meanings is so unsystematic as to deserve no place in the theory".

1.2.1.3 The Virtual Lexicon

I will now suggest Lakoff's (1970) notion of hypothetical lexemes can work at the condition of restricting the set of restorable lexemes to grammatically well-formed outputs. Building on Allen's notion of a possible lexicon, I will posit a difference between, on the

one hand, merely hypothetical lexemes — which have not been tested yet — and, on the other hand, *virtual*, i.e. grammatically validated ones. Coming back, for instance, to the $\{\checkmark aggression_N \leftarrow \checkmark aggress_V\}$ case, what would be crucial, and would match the kind of data I will present regarding French, would be if *aggression_N* were used transitively while *aggress_V* were not; but that is not the case. Thus, on the basis of the lately attested $\checkmark aggress$, *aggression_N* could be argued to be on a par with e.g. (10) hereunder repeated, i.e. lack a grammatical internal event. If we want to consider the possibility that *aggression_V* embeds a verb *aggress_V*, it must not be the same verb as the above mentioned $\checkmark aggress$, which does not project a theme.

- (10) a. Reagan’s speech on arms policy
 b. the UK’s law on assisted suicide
 c. the Soviet-American treaty on intermediate-range nuclear missiles

Indeed, many $\overline{\text{non-AS}}$ -Ns may take conceptually associated prepositional adjuncts. The *aggression* case does, however, remain of the utmost interest as it emphasizes the major stakes of the issue of attestedness. Such authors as Borer (1993, 2003, 2013) tend to regard $\overline{\text{AS}}$ -Ns as systematically requiring an autonomously attested lexical source, the few possible exceptions constituting potential threats to the syntactic approach. As seen in § 1.1.1.3 *supra*, Borer’s line of reasoning is as follows, at least regarding the *weak* version of the *lexicality requirement* (WLR, as a reminder): if Ns may project AS independently of their derivational history, then the initial motivation to treat $\overline{\text{AS}}$ -Ns syntactically disappears, because nominalizations can no more be argued to inherit $\overline{\text{AS}}$ properties from an embedded verbal source. Importantly, the *aggression* case is regarded by Borer as a possible exception to her SLR generalization (cf. *supra*, § 1.1.1.2). Borer (2013: 57, fn. 9) states that “English *aggression* appears to be an exception, in that it allows, at least for some speakers, an AS-nominal reading, as in [50], in the absence of the verb *aggress* (in the standard language)”.

- (50) the frequent aggression towards sovereign nations in order to gain control over their natural resources

Borer goes on the following way:

“As is well established, however, although the verb *aggress* may be missing as such, all its verbal derivatives, including *aggression*, *aggressive*, and *aggressor* are present. In view of this, postulating an entry for a verb *aggress* which happens to be phonologically unattested in isolation is inevitable.”

What leads Borer to take the *aggression_N* case seriously is the fact that it passes Grimshaw’s tests; in order to account for such data, she has no choice but to come back to a more flexible version of her position, i.e. acknowledge that the $\overline{\text{AS}}$ -base may *lack autonomous attestedness*.

My claim regarding such apparently *sourceless* $\overline{\text{AS}}$ -Ns is as follows. If such examples can be found, then the theoretical implications, as somehow sensed by Aronoff himself before he suggests a workaround (cf. *supra*, § 1.1.2.1), will not be in favor of the lexicalist approach: if attestedness of the base is optional for AS projection, then it tends to prove that AS is not part

of lexical information, but is projected at a level which is insensitive to diachronic fluctuation, i.e. at a *structural* level. In other words, if it turns out to be the case that the source need not be a lexeme, then it means that lexical listedness plays no role at all in AS projection. Therefore, the existence of lexically sourceless (AS)-Ns can never constitute an argument in favor of lexicalism: not only can it not weaken the syntactic approach in anyway, but more so, it even *strengthens* it.

Besides, the gradual appearance of *aggress_v*, which corresponds to what is sometimes (cf. e.g. Jackendoff: *ibid.*) regarded as a phenomenon of *back-formation* (noted \circ *aggress_v* in the present work) clearly shows that if the word itself is not quite used, there must be, in turn, an underlying grammatical structure making the existence of that word possible and, crucially here, allowing the creation of derivatives. That the existence of the listeme as such merely depends on extragrammatical factors, can be clearly seen from the fact that attestedness varies both in time and in function of the idiolect under consideration. Thus, \checkmark *agresser_v* does exist in French and takes a direct object. Countless examples could be given. Thus, in French, while *rotation_N* exists, there is no such V as \circ *rotater_v*; in English, though, we find \checkmark *rotate_v* altogether with *rotation_N*. The same goes for eventive *revolution*, French *révolution*, whose verbal source is attested in English \checkmark *revolve_v*, but not in French \circ *révoluer_v*. *introspection*, in English, relates to \checkmark *introspect_v*, but in French, lacks an attested \circ *introspecter_v*. The same goes for the stative *dereliction_N*, *déréliction_N* in French, with the contrast \checkmark *derelict_A* vs. \circ *déréliqué_A*. Even within English, we may note that e.g. *pel_v* is only attested in compounds, such as *compel_v*, *impel_v*, *propel_v*, *dispel_v*, *repel_v* and *expel_v*: there is no such V as \circ *pel_v* — but what really matters is that there *could* be one. Those contingent facts do not entail any systematic constraints on derivative bases, and there is no reason to assume that it would not be possible to restore a source verb.

Lakoff's idea of abstract structures is somehow connected to the notion of a *virtual* lexicon, relayed by Jackendoff's (1997) in connection to Hankamer's (1989) observation that in agglutinative languages, verbs may occur under an indefinite number of forms, which cannot reasonably be argued to be memorized, but are clearly generated. This argument is notably mentioned by Di Sciullo & Williams (1987: 15):

“Perhaps the division of labor between words and phrases peculiar to English and the other Indo-European languages has misled linguists to regard listedness as a criterial property of word. In highly agglutinative languages it is inconceivable that every lexical item could be listed.”

However, Jackendoff (1997: 117) himself rightfully criticizes this expression when applied to fully productive rules, claiming that such “virtual place” is not a lexicon at all, but a *generative space* similar to that which generates phrases:

“It is sometimes advocated that lexical rules create a “virtual lexicon”, **the space of possible derived forms** — and that this is distinguished from the “actual lexicon”, the list of occurring items.

[...]

Why should “virtual lexical items” be any different from “virtual phrases”? Seen in this light, the “virtual lexicon” generated by productive rules looks like just the output of another generative system: a combinatorial system that applies *within* X^o constituents.”

Building on such reflections, it seems worth reconsidering Lakoff's (1970) idea, addressing Chomsky's (1970) critics by filtering hypothetical lexemes according to whether they may correspond to possible outputs, thus eliminating such VPs as *°auth the book*.¹ To achieve this, I suggest calling *virtual* and noting as *'word_v* any lexeme whose possibility of existence is substantiated by the verified (AS)-N status of the nominalization whose source structure it supposedly lexicalizes. Note that virtual lexemes by definition not existing as such, their possibility of existence only proves the regularity of their underlying structure: as previously stated, the source of derivation is in this study argued to be always a syntactic structure, never a lexical stem. Temporarily positing them is as a mere heuristic: since assuming the existence of a non-existing lexical source is inherently contradictory, it may only serve as part of an argument *ad absurdum*. We can only rely on the fact that the hypothetical source *could* exist, and that if it did, the properties of the related nominalization would be correctly predicted in a lexeme-based view of AS inheritance. Therefore, I will not claim that some factually non-existing lexemes exist theoretically, which would be nonsensical. But they *could* exist, because the underlying structure that they would lexicalize is grammatically valid: therefore, I construe virtual lexemes as *lexicalizable structures*. Quite problematically for any lexeme-based account, it is unclear how the notion of lexical virtuality could be integrated into a framework that construes bases as listed lexemes rather than syntactic outputs: lexically sourceless (AS)-Ns are only predicted in frameworks that acknowledge a clear-cut separation between structures and idioms.

1.2.2 Structures and Idioms

To further support the points just made about generation and attestedness, I would like to clarify, essentially following Marantz's (1996, 1997) analysis, that the structure itself, along with its output, does not — and *can* not, for that matter — get corrupted as long as the idiosyncratic meaning arises from the Primary Meaning (cf. *supra*, section 1.2). Thus, these structures remain intact, and their meaning unaltered, even when they give rise to special senses; only, the *interpretation* of this meaning evolves. Thus, the (non-AS)-N reading of nominalizations does not enforce compositionality any less than the (AS) reading. While Borer considers such Ns as *transmission_N* 'car part' as semantically non-compositional, I will argue its idiosyncratic meaning to pertain to derivate polysemy (cf. Beard 1987), which implies the idiosyncratic interpretation of a compositional meaning (cf. *infra*, § 1.2.2.3). I would like to support and illustrate Beard's (1987: 26) idea that in cases like *transmission_N* the idiomatic meaning is pragmatically attached to the computational output of the derivation. The output yields a compositional meaning that he calls the *primary* meaning, and this primary meaning is then interpreted according to various extragrammatical factors (cf. *infra*, § 1.2.2.1).

¹Similar to Lakoff, J. Anderson (2022: 393) acknowledges the existence of *lexically sourceless* nominals, but does not proceed to grammatical testing thereof, going as far as to contend that "both *king* and *kingdom* are based on a verb that has no independent lexical existence".

1.2.2.1 Syntactic Words

As Marantz (1997) points out, idiosyncratic meanings of complex words are usually subtle interpretations of compositional meanings. Idiosyncrasy as such never implies any loss of internal structure; this mere idea is nonsensical from the moment we define idiosyncrasy as information that specifies which interpretation a given output should be given. To further illustrate my point, I will stop on a few French compounds which, as noted by Villoing & Desmets (2009) — who refer to them as *lexicalized syntactic phrases*, preserve at the same time — unlike the *V-N* type, represented by *essuie-glace_N* ‘windscreen wiper’ or *porte-manteau_N* ‘coat rack’ — some functional words of the original syntactic phrase and the original word order of the source sentence. Di Sciullo & Williams (1987: 78–88) do not grant such words the status of phrasal idioms. In their view, they must be classified among what they call *syntactic words*, i.e. “words that have the internal structure of syntactic phrases”. They regard them as “cases in which the line that separates syntax and morphology seems to blur”, even stating that “morphology is essentially useless in providing insight into their internal structure” (p. 83). According to them, *syntactic words* are phrases *reanalyzed as syntactically atomic words* — contrary to phrasal idioms, which have a syntactic internal structure.

Siding with Villoing & Desmets (2009), I claim that, whatever the exact nature of *syntactic words* may be, idiosyncrasy does not question internal structure. Instead, it is an *interpretation* of the PM of the structure. The PM is the pure logical output: it is the strictly compositional, fully predictable denotation. The question of whether and how the PM is realized in actual language use is irrelevant for the grammar. Now consider the compounds in (51) and (52).

- (51) a. un *trompe- la- mort*
 a deceives- the- death
 PM₁ → ‘someone who deceives the death’
 ⇒ ‘someone who survives deadly events’
 ⇒ ‘someone who likes to take risk’, ‘daredevil’
 PM₂ → ‘something that deceives the death’
 ⇒ ‘~~a ruse to escape death~~’
- b. un *pousse- au- crime*
 a pushes- to the- crime
 PM₁ → ‘someone who incites to crime’
 ⇒ ‘someone who purposefully incites to crime’
 ⇒ ‘~~someone who is very attractive~~’
 ⇒ ‘~~someone whose behaviour triggers anger~~’
 PM₂ → ‘something that incites to crime’
 ⇒ ‘something which is compelling’
 ⇒ ‘~~something which triggers anger~~’
 ⇒ ‘strong red wine’

- (52) un sot- l' y- laisse
 a silly- it/him/her- there- leaves
 'a silly-leaves-it/him/her-there'

PM₁ → 'someone who is left by a silly person'

⇒ ~~'someone who is so pleasant that only a silly person would leave them'~~

PM₂ → 'a place where only a silly person would leave their friend alone'

⇒ ~~'a disreputable place'~~

PM₃ → 'something that is left by a silly person'

⇒ ~~'something that is so pleasant that only a silly person would leave it'~~

⇒ 'chicken oyster'

For each compound, I propose a possible — whether attested, or (in strike-through) non-occurring — interpretation of the PM. Such interpretations may be recovered without requiring significant extragrammatical knowledge: they are symbolized by a regular double arrow '⇒'. Others, which are *special* in Marantz's (1997) sense, i.e. fully idiosyncratic, are signaled by a barred double arrow '⇒̄', indicating that the link with the phonological output is broken. Of course, if the phonological realization is ambiguous between several homonymous structures, each one of them will yield its own Primary Meaning PM_n. Words such as *sot-l'y-laisse_N* 'chicken oyster' and *pousse-au-crime_N* 'red wine' represent the extreme case of a full lexicalization of the structure (cf. e.g. Roeper & Siegel 1978: 216–217), when idiosyncrasy becomes so powerful that it corrupts and destroys the complexity of the word: the compositional meaning is no longer available. Although the input clause, now holistically apprehended, *de facto* becomes a minimal conceptual unit, it nonetheless still needs to be embedded into a category-defining functional projection in order to be associated with an interpretable conceptual meaning.¹ Acknowledging the fact that constructed meanings may lose their structure once lexicalized, is in no way incompatible with the claim that all words lexicalize syntactic structures. Indeed, if idioms are defined as having unpredictable meaning, then it naturally and immediately follows that they must lack sense-generating internal structure, i.e. once *sot-l'y-laisse_N* is no more understood intensionally, it becomes a Root. But inasmuch as the category-defining functional semantics may not be eliminated, since minimal units lack category by hypothesis, then the idiom is still embedded in a structure anyway, which may then be called, following Marantz (1996), a phrasal idiom, i.e. an idiom that still needs to be embedded in a phrase in order to be used as a stem. In such a view, the idiom is not a minimal syntactic unit, but a minimal *conceptually interpretable* unit, that is, an interpretable Root embedded in a category-defining functional projection (cf. Acquaviva 2009). The Root, in DM terms (cf. Marantz 1997), is *the non-grammatically definable part of a word* according to Acquaviva (2009).

¹ See Lehmann (2002: 13): "Lexicalization involves a holistic access to a unit, a renunciation of its internal analysis." and Lehmann (2004: 14): "Lexicalization is loss of internal structure, thus, of compositional motivation."

1.2.2.2 Phrasal Idioms

Fraser (1970: 26, 31) suggests that phrasal idioms have the same deep structure representation as their literal counterparts. Otherwise, he argues, one could not account for the fact that idioms, first, may undergo syntactic operations, and second, always exhibit the same phonological representation as their literal counterpart. Nunberg, Sag & Wasow (1994: 495–499), in opposition to many widespread assumptions, have claimed the compatibility of idiosyncratic information — what they call *conventionality* — with meaning compositionality:

“Say for example that you hear the sentence *John was able to pull strings to get the job, since he had a lot of contacts in the industry*, and that the context enables you to conclude correctly that *pull strings* means something like ‘exploit personal connections’ even though you might not have been able to predict that the phrase had this meaning if you had heard it in isolation. At this point you will be able to establish correspondences between the parts of the structured denotation of the expression (the relation of exploiting, the connections exploited) and the parts of the idiom (*pull* and *strings*), in such a way that each constituent will be seen to refer metaphorically to an element of the interpretation. That is, **the idiom will be given a compositional, albeit idiosyncratic, analysis.** [...]

When we hear *spill the beans* used to mean ‘divulge the information’, for example, we can assume that *spill* denotes the relation of divulging and *beans* the information that is divulged, even if we cannot say why *beans* should have been used in this expression rather than *succotash*. This is not to say, of course, that *spill* can have the meaning ‘divulge’ when it does not co-occur with *the beans*, or that *beans* can have the meaning ‘information’ without *spill*. The availability of these meanings for each constituent can be dependent on the presence of another item without requiring that the meaning ‘divulge the information’ attach directly to the entire VP. Rather it arises through **a convention that assigns particular meanings to its parts when they occur together.** [...]

So, inasmuch as the use of an idiom like *spill the beans* requires learning some facts about the collocation itself, over and above the rules that govern the use of each of its constituents in isolation, it has seemed to follow that the phrase could not be compositional, particularly if one believes as well that the test for compositionality should be a speaker’s ability to produce or comprehend the expression solely on the basis of knowledge about its constituents and about the relevant semantic combinatorics. Thus conventionality has seemed to entail noncompositionality, with the result that many linguists use the two terms interchangeably in talking about idioms. In contrast, we have suggested that **while phrasal idioms involve special conventions, these do not entail the noncompositionality of such expressions;** the conventions can be attached to the use of the idiom constituents, rather than to the collocation as a whole.”

Importantly, though, it is actually not certain at all that the idiosyncratic information does not, in fact, apply to “the collocation as a whole”. The idea is that anything that we utter may be associated with memorized information, regardless of grammaticality. Consider, in this respect, the shuffled clause “Bleus les yeux Isabelle a.” ‘Blue the eyes Isabelle has.’, which is part of the refrain of a French parodic song: whether or not a given speaker has the knowledge required to access the interpretation of that sentence has absolutely no impact on the fact that every speaker will immediately recognize in it a flipped syntactic pattern and understand the literal meaning of the corresponding grammatical structure. But the meaning of the ungrammatical word order itself is also part of the idiosyncratic information, and it applies to the whole sentence. In other

words, memorized information about the representation of the unit as a whole does not interfere in any way with the computational access to its internal structure. Jackendoff (1997: 64) calls it *clichés*:

“Often such memorized units have some special situational or contextual specification; for instance, *whistle while you work* means literally what it says, but at the same time it evokes Disneyesque mindless cheerfulness through its connection with the movie *Snow White*.”

Building on e.g. Fillmore, Kay & O’Connor (1988) and Goldberg (1995), he argues that languages possess idiosyncratically interpreted syntactic constructions, not fully derivable by rules. Note that syntactic approaches do not prevent a structure from being diachronically reinterpreted as a different structure. They are not hindered from analyzing, for instance, *given* — as in *given your mood, I won’t insist* — as a P. They do not deny the existence of a process of *full lexicalization*. Thus, Fillmore, Kay & O’Connor’s argument, that structures such as *let alone* get to be idiosyncratically reinterpreted as adverbs and give rise to grammatically characterizable constructions, actually has nothing to do with the grammar. The authors assume that *let alone* is composed of a verb and an adjective, i.e. that its phonological form reflects its meaning. However, since the meaning of *let alone* seems to be approximately the same as Fr. *encore moins*, we might assume that it is of an adverbial nature. Such cases are not relevant to the discussion, since the original structure is clearly no longer here in the first place, having been replaced by another one that — just like *sot-l’y-laisse_N* (see *supra*, § 1.2.2.1) — no more matches the surface form.

According to Marantz (1996: 6–10), the meanings denoted by structures are not special but purely compositional; they are not listed construction by construction. He states that there is “a redundancy in Jackendoff’s representation of the phrasal idiom *kick the bucket*. The structure of a transitive verb phrase is listed in this lexical entry, but presumably this structure is licensed by the syntax independent of the construction.” Marantz claims that idioms actually *preserve* the compositional output, i.e. idiosyncratic information can never replace the predictable meaning of a syntactic structure with a new compositional semantics: the structure is a *linguistic representation*, and an idiosyncratic interpretation of such a representation arises from real-world knowledge about that representation; knowledge about an object can obviously not affect that object; thus, the representation is licensed totally independently of the knowledge that becomes associated with it, and consequently, idiosyncrasy does not affect the grammar:

“What Jackendoff’s entry is doing is saying, “given a structure of a certain sort built by the grammar, we can interpret the pieces of the structure in a particular way”. [...] This is precisely Encyclopedic knowledge about structures independently licensed. [...] **Such knowledge doesn’t enter into the licensing or construction of the representations, only into their interpretation.**”

Marantz, *contra* Jackendoff, contends that in *kick the bucket*, the structure is preserved. “To associate *kick the bucket* with *die* would be to transform one bit of syntactic structure into another. Rather, the idiomatic/Encyclopedic knowledge can only say special noncompositional things about a structure.” He points out that the special meaning of *kick the bucket* does not

alter in any way its compositional meaning — or, more specifically, adopting Beard’s (1987) terminology, its *Primary Meaning*. If we posit a locus dedicated to idiosyncratic meanings, i.e. the Encyclopedia, then this place has no access to the compositional meaning; all it does is it contains the noncompositional part of the meaning: “The picture of the Encyclopedia as the locus of noncompositional meanings in the sense of meanings that can’t be structurally represented denies the possibility for the Encyclopedia to suppress compositional meanings in idioms.”

Of the utmost importance here is the dichotomy between the structure as a grammatically constrained construction, and the *interpretation* of that structure. According to Jackendoff (1975: 662), “idioms are fixed syntactic constructions which are made up of words already in the lexicon, but which carry meanings independent of the meanings of their constituent”. We may thus define an idiom as a memorized product of human perception, construed rather than constructed. Marantz (2001) points out that there is no correlation between memorization of the information associated with a structure, and that structure having special morphophonological properties: we store previously encountered sentences the same way we store words, completely independently of what kind of structures they contain, if any (cf. also Marantz 2013: 105).

The conclusion I draw for the reflections to come is that a clear distinction is needed between, on the one hand, the persistent internal complexity of a grammatical structure and, on the other hand, its interpretation at a particular point of space and time, which fluctuates according to extragrammatical factors. Indeed, these two kinds of linguistic material — memorized content and computational output — are independent of one another. Some idioms, such as *tree_N*, have no recognizable structure in them, while some structures, such as *I have eaten all the fruits*, have a meaning that is exclusively compositional — or at least, insofar as they are not associated with any implicit references shared by a particular group of speakers — as is the case with e.g. “J’ai lu tous les livres.” ‘I have read all the books.’, which may refer to Stéphane Mallarmé’s poem “Brise marine”, thus evoking the notion of disenchantment. Certainly, outputs can still be memorized; only, they do not *need* to: solely the external information associated to them must. Similarly, if full lexicalization of a structure has occurred and the meaning has become purely idiosyncratic, this is of absolutely no concern for the grammatical rules; only the *synchronic link* to the structure has faded. As Marantz (2001: 2) states, “knowledge about *any friend of yours is a friend of mine* is clearly knowledge about a linguistic object — but that linguistic object is constructed via the generative system of the language”: there is the structure, and there is memorized information about that structure.

1.2.2.3 The case of *transmission*

The now famous noun Aronoff gives as an example of a non-compositional meaning being associated with a morphologically complex word, i.e. *transmission_N* referring to the

‘transmission system of a car’, appears to me as a perfect example to illustrate the fact that idiosyncratic meanings do not question the structure of a word in the slightest way.

Aronoff (1976: 18–19):

“There are words which are so idiosyncratic that their meanings are totally divorced from what is expected by the general rule. In Halle’s system, a word can mean more than it is expected to mean, but it is difficult to see how it could mean something completely different from what its predicted meaning is without severely damaging the rules of the system or weakening it to the point that its predictive powers are obliterated. For example, the word *transmission*, which according to the general rules of the morphology should be an abstract nominal meaning something like ‘the action of transmitting’, means nothing of the sort when it refers to a car’s transmission. It does not just mean more than it is supposed to. In a system such as Halle’s (1973), in which a word is provided with a meaning by general rules and this meaning can be expanded upon, words like this are very problematic.”

I argue, *contra* Aronoff, that the so-called *special* meaning of *transmission*_N is to be analyzed on a par with that of *administration*_N, i.e. ‘a set of elements which concur to the realization of a process’. This interpretation, far from questioning the compositionality of the meaning it modifies, is a pure by-product of that meaning, i.e. it straightforwardly ensues from the output. This idea is essentially represented in the lexicalist field through Beard’s (1987: 38–38) idea of a *polysemy* of the derivational output:

“A third alternative would have *transmit* generated by the English lexicon with only its transparent meaning. This is required to preserve the nature of the grammar as a system of linguistic regularities. It also implies that **all irregularities must lie somewhere outside the grammar**. [...] The storage of secondary meanings such as that of *transmission*, may also be stated in terms of general memory, **pragmatic knowledge**. The secondary meaning becomes the knowledge that the lexical stem *transmit* may be submitted to the perfective nominalization in sentences and associated PERFORMATIVELY with the referent class of automotive transmissions. This approach has the appeal of representing all regularity as regularity and all but only irregularity as irregularity. Moreover, it will occasion **no new theoretical apparatus** since pragmatic knowledge must include knowledge of how to use lexemes in real contexts. [...] Reference is knowledge of how a lexeme’s sense is used in performance to predict referent classes in the real world. It is possible by this definition of reference for a lexeme to have a misbalance in the number of its senses and referents - more or fewer of one or the other. **Polysemous derivates are thus derivates with one sense but more than one referent.**”

Marantz (1995: 407) (cf. also Harley 2014: 33–34) expresses similar views:

“The idiosyncrasy of *transmission* must be separated into two parts. First, there is the noncompositional idiosyncrasy that *transmission* refers to a particular part of an automobile. This noncompositional meaning is clearly idiomatic in the sense that meanings in DM’s List are idiomatic. This part of *transmission*’s idiosyncrasy causes no more trouble for DM than does the meaning of *cat* that separates it from *dog*. On the other hand, the meaning of *transmission* is not completely noncompositional since a transmission in a car does have the function of transmitting.”

Jackendoff (1997: 166) introduces the notion of *non-totally noncompositional idioms*:

“*Eat humble pie*, which means roughly ‘humbly acknowledge a mistake’, is not totally non-compositional: *humble* clearly plays a role in its meaning. Less obviously, *eat* can be read metaphorically as ‘taking something back’ or ‘accepting’. [...] Thus the lexical listing of idioms like these must override in whole or in part the meanings of the constituent words and the way they are combined in the literal meaning.”

Marantz (1997: 292), in a famous paper technically redacted *before* Marantz 1996 was finished, straightforwardly counters Aronoff's *transmission* argument by emphasizing the fact that an idiosyncratic interpretation, far from altering the compositional output, *relies* on it:

“Nouns like *transmission*, *ignition*, and *administration* carry the semantic implication of their internal structure. [...] If these words refer to things, then these things should be for accomplishing something — and this is in fact the case. [...] Whether or not it is correct that all structural combination of morphemes are interpreted regularly, without exception, what's crucial here is that no one has shown or even tried to argue that words have special structure/meaning correspondences in some sense that phrasal idioms don't.”

As an example, consider the French word *peignoir*_N ‘bathrobe’ (cf. *peigner*_V ‘brush’), which has acquired a meaning unrelated to that of its base word *peigne*_N ‘comb’. The point is that nothing would prevent an educated speaker to be aware that this word initially referred to a specific kind of towel used in the context of brushing one's hair. Now, if, in the process of learning this word, the speaker is taught the etymological link, then they may learn this word as part of a list of other Ns in *-oir* such as *rasoir*_N ‘razor’ (cf. *raser*_V ‘shave’) or *arrosoir*_N ‘watering can’ (cf. *arroser*_V ‘water’). In sum, being aware of the compositionality of this word does not in any way imply that the speaker cannot simultaneously learn the idiosyncratic interpretation of this primary meaning. The instrumental semantic value of *-oir*, as well as the actual meaning of the verbal base, are here being processed as a memorizing strategy (see also e.g. *carpette*_N ‘rug’; cf. Corbin 1987, who addresses such cases). Motivating the sign does not mean removing all arbitrariness, but it means entrusting the memory with the lightest task possible.

1.2.2.4 Aronoff's *Blackberry* Argument

This subsection addresses Aronoff's (1976) argument regarding non-autonomously-occurring stems, such as *black-* in *blackberry*_N. According to the word-based perspective, *black-* should not have an interpretable meaning outside of its autonomous form. Yet, the term *blackberry*_N may refer to fruits not necessarily black, implying that *black-* in this context is flexible enough to include, for instance, green or red fruits of the same species. I would like to suggest that such facts align with the notion of *derivate polysemy*, as defined by Beard (1987) (cf. *supra*, § 1.2.2.3): idiosyncratic meanings in compounds coexist with and even *rely* on the grammatical output. For instance, in *blackberry*_N, the compound meaning is an idiosyncratic interpretation of the literal *black berry*, where *black-* does not cease to be associated with the color *black*. Instead, its meaning is adapted to refer to a specific type of berries commonly associated with *blackness*. Aronoff contends that within such compounds, elements like *black-* diverge significantly from their meanings as independent words. In sum, arguing that non-autonomously-occurring stems, such as *cranberry morphs* are not interpretable in and of themselves, Aronoff (1976: 10) claims that the element *black-* in *blackberry*_N does not have the same meaning as the adjective *black*_A.

When they do appear in independent words, [Ns such as *straw*, *black*, *blue* and *goose*] have meanings which bear no relation to the meanings they might be assigned [as parts of the corresponding *-berry* compounds]. For example, one might think that a blackberry is black. However, not all black berries

are blackberries, and furthermore, many blackberries are green or red. [...] There is therefore no way to assign a meaning to the item *black* which will be valid both when it occurs as an independent word and when it occurs in the word *blackberry*. The same holds for *blueberry*. [...] It is possible to get around this problem of a morpheme having different meanings in different words without entirely giving up the claim that morphemes are meaningful. The basic tack is to give morphemes underdetermined meanings, with contextually determined allo-meanings. Since, as noted, some blackberries are red, and since something cannot be both black and red at the same time, the two allo-meanings of *black* will be contradictory. [...] Allowing a device which permits such a situation is very dangerous, it essentially gives homophony as the only criterion for deciding whether two things are instances of the same meaningful entity.

Yet, it seems rather clear that the element *black-* in the compound *blackberry*_N retains a semantic connection to the color *black*, albeit in a contextually nuanced manner: it simply undergoes a contextual reinterpretation. It admittedly does not strictly refer to the color *black* as it would independently. Instead, it broadly indicates a category of berries typically associated with the color *black*, even if individual berries may not always be black. Whence the idea, brought forward then rejected by Aronoff, to “give morphemes underdetermined meanings, with contextually determined allo-meanings”. That is in substance the idea behind DM (cf. *infra*, subsection 1.2.3). Also consider the sentence in (53).

(53) Not all little boys are little.

However idiosyncratic the meaning of *little boy* in (53) may be, no linguist, I believe, would go so far as to declare that in this expression, *little* is *completely unrelated* to the adjective *little*_A that we find in non-lexicalized phrases such as *little house*. One only needs to assume that the word *little*_A conveys a conceptual meaning which allows a whole range of interpretations, and the context merely provides orientation, directing the receiver to the appropriate one, either ‘very young’ or ‘small in size’. In a similar fashion, we may very well state that a *black berry* is a fruit which may either be black in the literal sense, or alternatively, just belong to a species which is referred to on the basis of its members *tending* to be black — although they may also be green or red, and without any contradiction being involved. Also consider (54) below, where the two instances of *black* are exactly the same word: contradiction is a notion which pertains to pragmatics; the fact that adding an explanation makes the first clause suddenly acceptable shows that its structure is not at stake, but only the *context*. The syntax does not see contradictions.

(54) Not all black fruits are black # (— some can be almost dark blue if you look closer).

In other words, *black*_A does not have ‘red’ in its meaning range; it never stops meaning ‘black’. A contradiction may only arise in the case of a lack of contextualization. In the case of *blackberry*_N, it is only a matter of having the idiosyncratic knowledge that the expected denotation of *blackberry*_N is lightly modified so as to designate a fruit which is not necessarily *effectively black*, although it is classified in the same species as other fruits which are often black. Crucially, this meaning of *black*_A follows from a particular interpretation of the meaning of *black*_A in the context of being part of *blackberry*_N: it is, thus, motivated by the knowledge that the element *black-* means ‘black’. Thus, the phenomenon is to be distinguished from what

occurs in the case of e.g. *straw-*, which is rather opaque, let alone in the case of *cran-*, which is not understood at all. Consequently, since it is quite obvious that the identity of the item remains consistent when idiosyncrasy applies to the predictable meaning range, this is not homophony we are dealing with, not even homonymy, but this is *polysemy* all along. I suggest that Beard's (1987) notion of *derivate polysemy*, defined as “the use of grammatically productive derivates with idiomatically memorized referents” (p. 40), correctly captures the mechanism by which idiosyncratic meanings not only coexist with, but *rely on* the grammatical output.

To conclude, this line of argumentation by Aronoff becomes harmless for the syntactic approach from the moment we clearly distinguish between the *compositional output*, which relates to the grammatical level, and the *conceptual interpretation*, which pertains to extragrammatical factors. There seems to be an implicate assumption in Aronoff's reasoning, that native speakers use the word *blackberry* without awareness of what it is made of. However, in the same way as we may, on the one hand, be clearly aware of what Fr. *sot-l'y-laisse_N* refers to (cf. *supra*, § 1.2.2.1, 52), and, on the other hand, still acknowledge that the latter is in fact the lexicalization of a clause whose constituting units are perfectly identifiable (cf. *supra*, § 1.2.2.2), we can also acknowledge that *not all blackberries are black* while still relating *black-* to *black_A*. The idiosyncratic meaning of *blackberry_N*, thus, is only an interpretation of the same compositional meaning that is the output of *black berry*. In other words, *black-* doesn't stop being identified with *black_A* when the lexical interpretation of *blackberry_N* is extended to the designation of those green or red fruits that happen to be the exact same fruits as *black blackberries*, color excepted. (cf. Jackendoff 1997: 164)

1.2.3 Theoretical Assumptions

As seen in section 1.2 *supra*, I follow Marantz's claim that computation and memorization do not exclude one another but act in parallel. In that spirit, what I call *word* is a generated structure which on the one hand conveys a compositional denotation and, on the other hand, acquires its own idiosyncrasies. The goal of subsection 1.2.3 is to present my theoretical assumptions. I will henceforth adopt the framework built throughout the Marantzian seminal series, i.e. Marantz (1995, 1996, 1997, 2001, 2007, 2013), which roughly corresponds to a phase-based implementation of the original DM program as sketched by Halle & Marantz (1993, 1994).

1.2.3.1 Roots

The basic DM claim is that the input units are not the words as we traditionally understand them: words as we know them are outputs already. Roots are analytic by nature. They are abstractions (see Marantz 1997) over “the non-grammatically definable part of a word” (Acquaviva 2009). According to Acquaviva (2009: 16), “[Roots] are just differential indices

that fix the identity of larger constructs. It is these constructs which constitute the minimal units for semantic interpretation” (see also Harley 2014: 1). In DM, a single engine, the *syntax*, manipulates those units all along. Words are not listed but *Roots* are.

The notion of *root* was built by Kiparsky (1983, 1997) from observations by Hayes (1980: 311–316), as an abstraction of the purely conceptual part of a word. { N ↔ V } pairs, which are pairs that exhibit similar morphology and accentuation and unclear directionality of derivation (cf. Marchand 1963: 186, Tribout 2010: 160), needed to be accounted for. To that purpose, a common acategorial unit was posited, the *root*. Chomsky (1970) had previously suggested the idea of category-neutral entries in order to apply the theory of syntactic features to nominalizations: “We can enter *refuse* in the lexicon as an item with certain fixed selectional and strict subcategorization features, which is free with respect to the categorial features [noun] and [verb]. the feature structure of the ”neutral” lexical entry, as are selectional properties.”

The Root may be construed as the variable on which the computation operates. It acts as an interface between computation and world knowledge. According to the *subset principle*, VIs only need to partially match the features available at the terminal node that they apply for inserting into, i.e. they may be underspecified for those features (Halle & Marantz 1993, 1994, Harley & Noyer 1999, 2000). Depending on which kind of DM implementation is adopted, the Root may (Marantz 1997, Alexiadou 2001, Harley 2014) or may not project (a common view in recent accounts, e.g. Alexiadou 2014). Importantly, Roots do *not* directly denote anything. Acquaviva (2009), who defines the Root as “the non-grammatically definable part of a word”, states that it is not conceptually interpretable until it has merged with a category-assigning head (cf. also Embick & Noyer 2007), which implies that we may only access meaning through computation: “not only words, but even the minimal units of meaning arise through linguistic construction” (Acquaviva: 16). DM’s *Root* — whose initial I will conventionally capitalize — is typically construed as a mere index whose function is to associate conceptual content with an atomic phonological exponent (Harley & Noyer 2000, Acquaviva 2009).

1.2.3.2 Late Insertion

DM accounts assume post-syntactic insertion of the conceptual content of the Root, listed in a separate place called the *Encyclopedia*, cf. Embick & Noyer (2007) and Acquaviva (2009). This is in that sense that the content may be stated to be invisible to the syntax: the syntax never processes idioms, but it processes the lexical terminal nodes (L-nodes in Acquaviva). I assume Embick & Noyer’s distinction between three repositories. The *Encyclopedia* lists the conceptual content, instructions for interpreting the Root. The *Vocabulary* lists the phonological content, instructions for pronouncing the Root. Finally, the list of *Terminals* is constituted of Roots and functional heads. The latter are bundles of abstract grammatical features. The features of a functional head constrains its insertion into a terminal node, whose own features, according to

the *subset principle*, it only needs to partially match, i.e. be underspecified for (cf. Harley & Noyer 1999, 2000).

Embick (2000: 187) defines Late Insertion as “the idea that phonological pieces instantiate terminals containing abstract features postsyntactically, with the syntax proper manipulating sets of features.” The idea behind Late Insertion is simple: Syntax and Concept do not interfere with each other. Marantz (1995) defines the principles of Vocabulary insertion:

“The non-compositional meanings of simple constituents like *cat* and *dog* would appear in the List, as would the non-compositional meanings of larger constituents usually known as idioms. In fact, we might take the List as the set of idioms of a language that any theory must acknowledge. What’s unusual about the List in DM is that items like *dog* and *cat* (terminal N nodes with Vocabulary items inserted) are recognized as idioms alongside *kick the bucket*. On this view, all words are idioms to the extent that they have idiosyncratic meanings or uses not completely predictable from their (general) syntactic and semantic features. Moreover, all words, like all sentences, are derived, through the creation of a structure into which Vocabulary items are inserted.”

Borer (2005a: 11) also uses the expression *substantive listeme*:

“A substantive listeme is a unit of the conceptual system, however organized and conceived, and its meaning, part of an intricate web of layers, never directly interfaces with the computational system. The use of any particular substantive listeme [...] will return a meaning based fundamentally on its conceptual value. [...] Where, then, does the grammar meet the substantive listeme? At some very narrow portal, I suggest, where little conceptual packages, hermetically sealed, are passed from one side of the wall to the other, and where, at the receiving end, the grammar stamps them with an identifying mark, assigning to them a unique phonological index. Those packages, properly marked, are now embedded within structures, but as such, they may not affect those structures, nor can the structures affect them directly. Only when the derivation is over, and the grammar has assigned interpretation to structures, can the conceptual packages be opened.”

The structure in which the Root is inserted determines the way conceptual content will be interpreted: this is called *contextual allosemy* (Marantz 2013: 103). In sum, the structure does not directly manipulate conceptual content, but it *coerces* Root interpretation. The *Root* may be regarded as the locus of idiosyncrasy insofar as it shelters the arbitrary contextual conditions in which one specific piece of content will be picked up at spellout among a set of possible realizations: which phonological representation (*allomorph* in the narrow sense) or which possible *conceptual*, i.e. non-compositional (cf. Marantz 1995) meaning (*alloseme*).

The structure only becomes interpretable at first phasal spellout: this is polysemy resolution. The notion of *Phase* refers to the closure of a cycle at the boundary of a locality domain for spellout and interpretation. The *First Phase* fixes Root meaning by resolving allosemy. At this stage, the syntactic output is shipped off to the phonetic and the semantic interfaces cf. Marantz 1997. Likewise, roots do not have a phonological representation until allomorphy resolution.

1.3 Two Types of Nominals

I argued in section 1.1 that the derivation operates independently of whether sources exist as autonomous words. It has been shown in section 1.2 that such data can only be predicted by assuming a clear-cut separation between the grammar, which is a deterministic system of rules, and the idiosyncrasy, construed as a contingent set of facts. Grammatical accounts to (AS)-Ns became more salient when emerged the understanding that nominals can be ambiguous between an (AS)- and a (non-AS) variants. I will briefly review various accounts the analysis of which will set the stage for our investigation of the properties of (AS)-Ns. Subsection 1.3.1 introduces the ambiguity in the nominal system and provides a preliminary overview of the tests thanks to which (AS)-Ns and (non-AS)-Ns can be reliably distinguished. Subsection 1.3.2 proposes a selective overview of the syntactic accounts of the properties of (AS)-Ns. Subsection 1.3.3 focuses on the importance of overt morphology.

1.3.1 Complex vs. Simple Event Nominals

Grimshaw's (1990) still largely influential, massively discussed disambiguation tests (cf. Smirnova & Jackendoff 2017, featuring a critical overview of her tests) are originally meant to be run with the dominating DP being kept in the singular and bearing, in most cases, the definite article or a genitive (although the zero article may also be used), since she assumes those conditions to be required in order to get an (AS)-N reading. Such restrictions, however, were proved in later studies to be unnecessary. As pointed out by e.g. Zaenen & Goldberg (1993), any determiner may fit, and as shown, subsequent to Mourelatos (1978), in Borer (2005b), Iordăchioaia & Soare (2008, 2009), Alexiadou (2009) and Alexiadou, Iordăchioaia & Soare (2010b, 2010a), and Roodenburg (2010) and Knittel (2011) for French specifically, pluralization is actually possible with telic (AS)-Ns. I will henceforth, without further specification, assume each test to work only in the singular. Besides, for the tests involving a prepositional modifier, the tested DP will be assumed to have to be introduced by a definite article, a prenominal genitive, or a possessive or demonstrative determiner but never by an indefinite quantifier. Using indefinites is universally prohibited for all tests we are going to use, since they may skew the tests as we shall argue, because of the so-called "weak", i.e. non-presuppositional reading that they may induce (cf. Heim & Kratzer 1998).

1.3.1.1 Argument Structure

E. Williams (1981) has established a separation between, on the one hand, the thematic relations associated with a predicate and, on the other hand, their syntactic realization. In Grimshaw (1990), the expression *Argument Structure* (AS) is defined as follows, continuing

from *Government & Binding* (Chomsky 1988) and *Lexical Functional Grammar* (Bresnan 1982) theories:

- *the lexical representation of grammatical information about a predicate,*
- *a complex of information critical to the syntactic behavior of a lexical item.*

AS is thus conceived as a bridge between lexicon and syntax. As a kind of genotype encoding the parameters that condition the syntactic behavior of the predicate, it remains associated with a lexicon conceived as non-generative, the positions being in some way pre-associated with a given entry, prior to any form of syntax — including the external argument, which will be the first, a few years later, to be separated from the verb, cf. Kratzer (1996). This is far from neoconstructionist theories such as Borer (2013), which assume real-time introduction of each argument through a dedicated functional morpheme: the lexicalist framework, based on the principle of projection, posits a subordination of syntactic constructions to lexical data, the former being supposed to reflect the latter, while the neoconstructionist movement argues for an underspecification of atomic items. The correlation between informational content of AS and its syntactic impact can be expressed through the definition in (55).

(55) **Definition of Argument Structure**

The structured representation of prominence relations between a predicate's arguments, as they contribute to determining its syntactic characteristics.

AS, in Grimshaw, is indeed devoid of any semantic information: its content, purely logical, is reduced to a hierarchy of nested variables, of the type $(x (y (z)))$. It therefore consists in attributing a numerical value (rank) to a series of variables: $x \rightarrow 1, y \rightarrow 2, z \rightarrow 3$, etc., no access being granted to the semantic value of these positions, i.e. the thematic roles assigned to them. In other words, its role is limited to formalizing a certain order, the source of which must be sought elsewhere. What Grimshaw calls the *relative prominence* of arguments emanates in part from the *Lexical Conceptual Structure* (LCS), from which AS retains only the thematic hierarchy, and in part from the Event Structure, via *Aspect*. The link between the semantic face and what we can cautiously call the numerical face takes place during mapping, a one-to-one association of thematic roles to argument positions, each of the ordered variables then being provided with a value (*theta-criterion*: each role is assigned to one and only one argument, every argument receives one and only one role).

Theta-marking is the act of a predicate assigning a thematic role to a phrase placed under its governance. This phrase must necessarily occupy an argument position: thus, highlighting theta-marking by observing specific syntactic consequences reveals AS projection. In the absence of theta-marking, we can only speak of semantic selection. Theta-roles can be attributed directly by the syntactic head by virtue of the latter's LCS, but, in the case of a defective head incapable of ensuring thematic marking, the latter can also operate through a grammatical word that does not have its own LCS and only serves as a *theta transmitter*. Said transmitter projects the required argument position, whose semantic content is then identified with that of a role

indirectly assigned by the LCS of the defective marker.¹ It follows that LCS can only impact syntax through AS. The realization of arguments (*linking*, cf. Fillmore 1968) in Deep Structure (cf. Chomsky 1964) in the form of syntactic relations allows the connection with the final form of the message, before its phonological materialization.

1.3.1.2 Complex Event Structure

According to Grimshaw (p. 26), the aspectual dimension is a *projection of the event structure of predicates*, which *represents the aspectual analysis of the proposition*. *Event Structure* is defined, following Vendler (1967) and Dowty (1979), as the subdivision of the event into *aspectual subparts*, referred to as *subevents*. This aspectual hierarchy tends to modify the thematic order. The compositional nature of the Event Structure explains the mechanism by which this modification occurs: the embedding of one event within another. Among the key notions used by Grimshaw is that of relative prominence: “An argument that takes part in the first subevent is more prominent than an argument that takes part in the second subevent.” Therefore, Event Structure is responsible for the generation of an AS: the *mapping* — the assignment of thematic roles from the LCS to argument positions — can only occur through the combination of simple events into a Complex Event. An event that lacks an internal structure takes on no syntactic dimension. For an event to be translated into specific syntactic properties, it must be complex.

Pairs of the type $\{fear_v, frighten_v\}$ — with *frighten_v* taken in its non-agentive variant, constitute a cornerstone of the theory developed. The roles would be identical for both verbs, an *experiencer* and a *theme*, with inverted positions. According to Grimshaw, this inversion cannot be due to a contingency, but it must be related to the aspectual difference between the two verbs: refuting the proposal of Belletti & Rizzi (1988), of resorting to lexical case-marking implying a $[-ACC]$ feature which, by virtue of Perlmutter’s (1978) *Unaccusative Hypothesis*, would prevent any Deep-Structure subject, she argues in favor of the predictability of mapping. Note that by adopting this strong position, Grimshaw departs from pure lexicalism since she attempts to motivate the argument hierarchy by providing a logical account for it: in other words, we glimpse the beginnings of a progressive withdrawal of the constitution of lexical entries towards the generative component of the language. The *subject/object* reversal implies that the thematic hierarchy can be overridden by a linguistic element taking precedence over it. Grimshaw is thus led to the conclusion that the thematic dimension of the prominence relation between the different actors, transmitted by the LCS, is not sufficient for the generation of an AS. The latter also requires a second dimension, capable of modifying the order encoded in the

¹Grimshaw points out the inability of nouns to receive a clausal complement that is a true argument and not just a modifier. She asserts that the noun is a defective marker, and that within an argumental PP dependent on a noun, the preposition is the transmitter.

LCS: *Aspect*. According to her, “the two classes of verbs have the same thematic prominence relations, although they differ with respect to their aspectual properties and hence with respect to the d-structure realization of their arguments”.

In Belletti & Rizzi (1988), the hypothesis of a *derived subject*, as introduced in Perlmutter (1978), is advanced. Such a subject initially occupies, in deep structure, the object position, and is then relegated outside of the VP due to an unavailable right position. Perlmutter associates unaccusativity with the absence of agentivity, indicating that a verb like *slide*_v can be considered either unergative or unaccusative depending on whether its use implies a voluntary or undergone action. Grimshaw shares with this conception the idea that Object-Experiencer psychological predicates would lack an external argument. However, she argues against the idea of the derived subject to defend the hypothesis of a subject already present as such in Deep Structure. Aspect intervenes, according to her, at the AS level to confer a status of cause to the distinguished argument. For the coherence of her theory, the movement towards the subject position must necessarily occur prior to linking (unlike what happens for the derived subject, which is only generated at the level of surface structure). The fact that Grimshaw adopts this hypothesis of a subject generated early allows her to attribute to the intervention of the aspectual dimension the promotion to subject position of a thematically non-prominent argument. Aspect thus overrides the order given by the LCS, and the argument ends up occupying the most salient syntactic position. The argument that is aspectually the most prominent projects in syntax in the form of a subject, even if this contradicts the canonical hierarchy of thematic roles. Aspect is therefore determinant for linking.

1.3.1.3 Obligatory Arguments

Deverbal nouns often receive a complementation structure seemingly inherited from the AS of the source verb. The reasoning in Grimshaw is that if nouns manage to project an AS inherited from that of the verb, they should be capable of assigning obligatory positions. Grimshaw disputes a standpoint of her predecessors that considers that Ns accept arguments but their realization is always optional, a hypothesis that, as early as Chomsky (1970), led to assuming a fundamental structural difference between the verb and its nominal derivative. However, if one follows this hypothesis, the question remains about the optional nature of these PPs. To account for this apparent optionality of the noun’s argument, Grimshaw reveals, following M. Anderson (1984), that independently of their event-denoting nature, action Ns exist in two variants; one accepting and even *requiring* arguments, the other lacking any. These nouns would be ambiguous between a reading under which they would be capable of thematic marking and an interpretation that would completely disable this potential. The conclusion about the optionality of the N’s arguments would therefore be fallacious and would result from the confusion between two homonymous versions with fundamentally distinct properties. This hypothesis is based on an observation: the suppression of any argument induces a change in the interpretation of phrases dependent on it.

- (56) a. John's examination was long.
 b. John's examination of the patients took a long time.

A contrast emerges from (56). In (56a), the genitive is a mere possessive, and thus does not result from thematic marking, whereas in (56b), where a phrase realizing the object position of the source verb is present, the genitive takes on an agentive role. Therefore, the grammatical properties of the noun seem to change depending on whether or not it projects AS; the polysemy of the genitive hides this variation. Building on observations from Lebeaux 1986 (cf. *infra*, § 1.3.2.1), Grimshaw points out that the internal argument cannot disappear without making the subjectal interpretation of the genitive impossible. This fact is illustrated by (57), which corresponds to Grimshaw (1990: 51, ex. 10b–c), here synthesized.

- (57) The instructor's examination #(of the papers) took a long time.

We recall indeed that deverbal nouns project an AS inherited from the source verb from the moment their denotation is associated with an Event Structure: every noun denoting a Complex Event projects an AS, which AS must be imperatively satisfied, all its positions needing to be filled. The semantic actants of the LCS can therefore be projected as grammatical arguments, which is impossible in the absence of an Event Structure. We note that the term *argument* is used not to designate the phrase itself but the variable that the latter phrase saturates: the phrase *realizes* the argument. This point is crucial because the optional realization of an argument does not necessarily signify the optionality of the argument position itself: the position can be obligatory without its realization being so, the argument being able to remain underlying in some cases. Thus, although the denotation of a verb like Fr. *prendre*_v is incomplete without a theme, however, if the context allows, the object can be omitted, cf. (58).

- (58) a. # J'aime bien prendre.
 'I like to take.'
 b. ✓ Quand on me fait le gambit dame, j'aime bien prendre (le pion). (v.k.)
 'When I face the Queen's Gambit, I like to take (the pawn).'

Therefore, in terminology like that of Grimshaw (or Zucchi 1989, 1993), the adjective *obligatory* is confusing because it is difficult to delineate the scope of application of obligatoriness. We indeed find in GS (p. 49) a sentence that could lead one to think that the author takes into consideration this possibility of an implicit realization.: "Of course, *obligatory* must mean the same for nouns as for verbs: capable in principle of being obligatory, but perhaps subject to lexical variation. After all, even direct objects of verbs are sometimes optional." This passage has sometimes been interpreted as a concession to the obligatory nature of the effective phonological realization of present arguments, which can be implied through a phenomenon of ellipsis allowed by the obviousness of the context (see Huyghe 2013: 14). However, it is clear that Grimshaw does not envision this possibility: to show that an argument is obligatory, she systematically bases her tests on the irremovability of the PP that realizes it. Therefore, when

Grimshaw speaks of *lexical variation*, she clearly refers to the intransitive variant of certain verbs, which is not at all the same thing as the ellipsis in context observed in (58b), where the verb is indeed transitive and where no change of lexical entry is involved. As Schoorlemmer (1998) points out, not all internal arguments of verbs are obligatory.

1.3.1.4 Tests for Identifying (AS)-Ns

The main characteristics of the theta-marking version are as follows:

- (59)
- a. It only occurs in the singular and only with the definite article, the possessive, or the zero article.
 - b. It is compatible with a purpose modifier.
 - c. It is compatible with an aspectual modifier, either of the type “in *x* time”, or of the type “for *x* time”
 - d. It is compatible with an iteration modifier like frequent or constant.

- Criterion (a): The Singular Definite Article

Grimshaw (1990: 54):

“The indefinite determiner and the numeral one occur only with result nominals; the same holds for demonstratives like that [...]. Only the definite determiner ‘the’ occurs with both kinds of Noun. [...] In addition, complex event nominals do not pluralize, while result nominals do. Moreover, with complex event nominals it is possible to have no determiner at all [...], although this is not generally possible with singular count nouns.”

In reality, as shown by Zaenen & Goldberg (1993: 814, ex. 22–23), (a) does not hold:

- (60) **Zaenen & Goldberg’s counterexamples to the *definite article* requirement**
- a. A careful cleaning of the pool by professionals was performed.
 - b. Who performed that careful examination of the body?

Counterexamples can be multiplied, cf. (61).

- (61)
- a. They hoped for a prolongation of the war and an invasion of France by the Russians. (R. Palmer, 1959)
 - b. The invasions of England by the Romans, by the Vikings, by the Normans, all ended with assimilation. (M. Paine, 2005)

In French as well, cf. (62).

- (62) a. Une invasion de la France en seulement deux jours requerrait des moyens extraordinaires. (v.k.)
 ‘An invasion of France in just two days would require extraordinary means.’
- b. De multiples invasions de la Gaule par différentes hordes toutes plus sanguinaires les unes que les autres s’échelonnèrent tout au long du siècle. (v.k.)
 ‘Multiple invasions of Gaul by different hordes, each more bloodthirsty than the last, were staggered throughout the century.’

Yet, criterion (a) is not devoid of relevance. Indeed, pluralization and use of a demonstrative both turn the abstract event description into a token reference, which is not desirable because it introduces noun-external functional material. Therefore, although I do not retain it as a test, I will by principle never use pluralization or demonstrative determination in the tests, lest we should fail to identify the strictly noun-internal part of structure we are trying to identify.

- Criterion (b): Argument Control

Roeper (pp. 275–281), building especially on E. Williams (1985, 1987), introduces a new test for nominalizations: Argument Control. Grimshaw states:

“Unambiguous result nominals never allow control. The difference is explicable if the control here is by an event and if only CENs denote events in the relevant sense.”

She notably proposes the following pair in (63).

- (63) Grimshaw (1990: 58, ex. 26c, 27b)
- a. The examination of the patient in order to determine whether, etc.
- b. * The exam in order to determine whether, etc.

Note that in her examples, Grimshaw uses *to_p* ‘pour’ and *in order to_{pp}* ‘afin de’ indifferently. However, compatibility with the former is not significant as it can introduce a simple modifier, cf. (64).

- (64) a. Britain also had to convince the Americans that the message had not been concocted as part of a *ruse to get them into the War*. (BBC News, 2017)
- b. The ruse was to get them into the War.

The test, moreover, may not apply to non-agentive predicates. However *contra* Schoorlemmer (1998), this restriction also holds within the realm of transitive (AS)-Ns, since stative transitives such as *possession_N* ‘possession’ have been shown to project AS, notably in relation to their passing [FOR-X], cf. Alexiadou (2011). That makes it a *weak* diagnostic in Schoorlemmer’s sense.

- **Criterion (c): Aspectual Modifiers**

Two tests dating back to Vendler (1967) and Dowty (1979), namely *in x hours/years, etc.* ‘in (the space of) a duration *x*’ and *for x hours* ‘for a duration *x*’, highlight the preservation of the aspect of the source verb.

(65) Grimshaw (1990: 58)

- a. The total destruction of the city in only two days appalled everyone.
- b. Only observation of the patient for several weeks can determine...

- **Criterion (d): *frequent / constant***

The adjectives *frequent_A* and *constant_A* are used by Grimshaw as modifiers likely to eliminate the possibility of a non-event reading, cf. (66).

- (66)
- a. The frequent expression *(of one’s feelings) is desirable.
 - b. The constant assignment *(of unsolvable problems) is to be avoided.

For the needs of the present work, I will retain (59c, d). Now, we turn to a quick overview of the syntactic approach.

1.3.2 Syntactic Approaches

Parallel to Grimshaw’s (1990) account emerged the idea of a syntactically generated AS. AS, in such views, is not associated as part of lexical information, but dynamically introduced from inside (AS)-Ns.

1.3.2.1 Events vs. Results: Lebeaux’s Seminal Work

Lebeaux (1986) is really the point of departure of the idea of an ambiguity in the nominal system. He is the first both to establish a structural difference between object-denoting and event-denoting nominals, and to observe that in the presence of a subject, the object is obligatory. He observes a contrast between the subject, which is strictly optional, and the object, which cannot be removed without the agentive interpretation of the subject being lost; see also Safir (1987): *only nominal predicates that link internal arguments will be able to have true external ones*. The diagnostic is rather clear-cut. The determiner in (67a.iii, b.iii) can only receive a *patient* reading or be interpreted as merely relational (as in ‘the destruction/release *that we are responsible for*’). Therefore, the generalization is as follows: in the absence of an object, the subject cannot retain the thematic role that he has in (67a.ii, b.ii).

- (67) Lebeaux (1986: 236, ex. 12–13):
- a. (i) the destruction (of the city)
 - (ii) our destruction of the city
 - (iii) our destruction
 - b. (i) the release (of the prisoners)
 - (ii) our release of the prisoners
 - (iii) our release

Similarly, in (68a.ii), the interpretation of *our* cannot be agentive, but has to be relational. I have added the subexample (68b.ii) to show that indeed, only a passive interpretation is possible in the event reading.

- (68) Adapted from Lebeaux (237, ex. 15):
- a. (i) our election of the candidate
 - (ii) our election
 - b. (i) our election of the candidate to a vaunted position
 - (ii) our election to a vaunted position

The principle remains true with a genitive, as seen in (69); I added (69b.ii) in the same spirit.

- (69) Adapted from Lebeaux (236, ex. 14):
- a. (i) Bill's elimination of his opponent
 - (ii) Bill's elimination
 - b. (i) Bill's elimination of his opponent from the contest
 - (ii) Bill's elimination from the contest

Lebeaux suggests that the two types of nominalizations can be disambiguated by means of a *while*-clause, as seen in (70); which is a novel and astute observation, cf. (70).

- (70) Adapted from Lebeaux (1986: 240, ex. 25–26):
- a. the doctor's examination *(of the patient) while looking out the window
 - b. the presentation *(of this material) while groggy from cold medicine

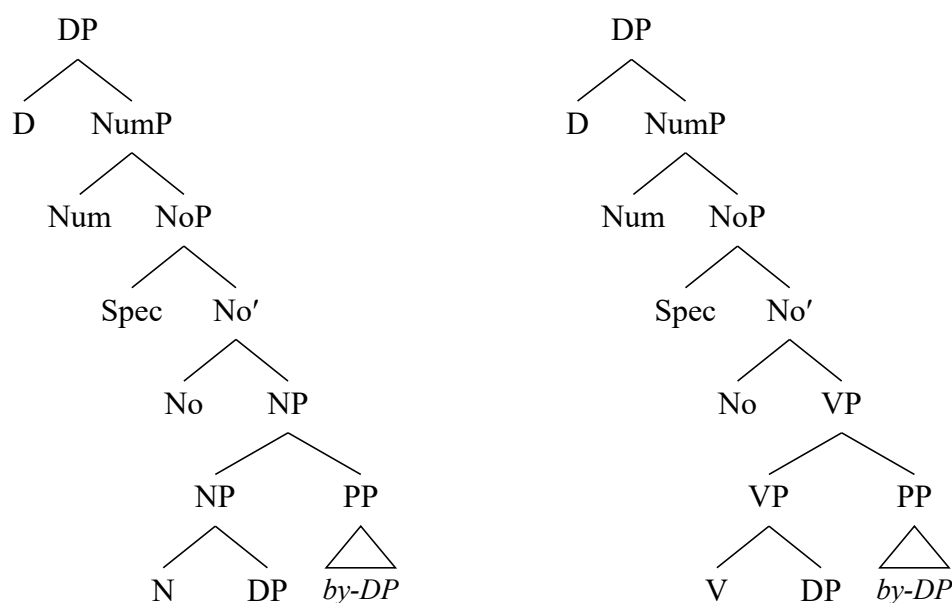
Lebeaux also claim that to a lesser extent, *although* clauses may be able to discriminate the two types. As we can see, the beginning of the eighties was crucial in setting the path towards a syntactic account of AS inheritance. Roeper's and Lebeaux's observations and tests would later play a preponderant part in Grimshaw's (1990) account of the nominal ambiguity and other works.

1.3.2.2 Evidence for Verbal Internal Structure

Valois (1991), among other languages, addresses French data. Based on binding and extraction facts related to the theme and the *by_v*-P assumes an “affix projection [...], more precisely a nominalizing affix in event nominals, and a zero-affix in underived and result nominals”. The derivation is performed by the syntax in the case of Event Nominals, or by the Lexicon in the case of Result Nominals. The representations he assumes are given in (71).

(71) **Valois’s (1991) Structures for French**

- a. **Result and Underived Nominals** b. **Event Nominals**



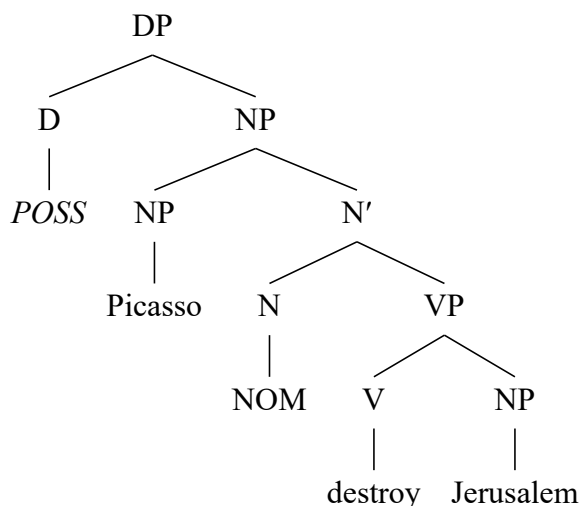
More syntactic accounts of a similar type have been proposed based mostly on accusative case marking in Hebrew, and compatibility with adverbs. Thus, Hazout (1991, 1995) and Borer (1993) have proposed accounts along similar lines based on data from Hebrew.

- (72) a. harisat pikasso ‘et yerušalayim
destruction picasso ACC Jerusalem
‘Picasso’s destruction of Jerusalem’
- b. harisat yerušalayim šel pikasso
destruction Jerusalem šel picasso
‘Picasso’s destruction of Jerusalem’

(72a) can only refer to an event, authorship being excluded: if the complement is in the Accusative case, i.e. is introduced by *’et*, then the subject is interpreted as the external argument of the internal verb, independently of the context. Therefore, it is “the output of a syntactic process of nominalization”. In (72b), by contrast, the apparent agent is actually non syntactically

projected, the subject receiving context-sensitive interpretation as with possessors such as *John's* in *John's book*. Hazout's representation of the nominal in (72a) is reproduced in (73).

(73) **Hazout's (1991: 194, ex. 74) proposal**



Borer (1993) also argues that the object marker *'et* and, when applicable, the preposition *ʔal yedey* 'by the hands of', support the presence inside the relevant nominals of a VP at a syntactic level, i.e. a verbalizing internal event projection; occurrence of adverbs as well. See (74).

(74) Adapted from Borer (1993: 25):

- a. ✓ ha.pinnui šel ha.cava 'et ha.mitnaxlim **be-'ityut**
 the.evacuation of the.army OM the.settlers slowly
 'the army's evacuation of the settlers slowly'
- b. * ha.pinnui **be-'ityut** šel ha.cava 'et ha.mitnaxlim
 the.evacuation slowly of the.army OM the.settlers
 'the army's evacuation slowly of the settlers'
- c. * ha.pinnui šel ha.cava 'et ha.mitnaxlim be-mešex ha.xodeš ha.'axaron
 the.evacuation of the.army OM the.settlers during the.month the.last one
be-'ityut
 slowly
 'the army's evacuation of the settlers during last month slowly'

According to her, the contrast between (AS)-Ns and (non-AS)-Ns is very clear, since only nominals with a morphophonological verbal source accept the accusative marker *'et* and adverbs, cf. (75).

(75) Adapted from Borer (2013: 98–99):

*re'ayon*_N ‘interview’ (non-deverbal) vs. *ri'ayun*_N ‘interviewing’ (deverbal)

- a. (i) * *ha.re'ayon šel Dan 'et ha.mu?amad*
 the.interview of Dan OM the.candidate
 ‘Dan’s interview of the candidate’
- (ii) ✓ *ha.ri'ayun šel Dan 'et ha.mu?amad*
 the.interviewing of Dan OM the.candidate
 ‘Dan’s interviewing of the candidate’
- b. (i) * *ha.re'ayon šel ha.mu?amad ?al yedey ha.hanhala*
 the.interview of the.candidate by the.management
- (ii) ✓ *ha.ri'ayun šel ha.mu?amad ?al yedey ha.hanhala*
 the.interviewing of the candidate by the management
- c. (i) * *ha.re'ayon šel ha.mu?amad be-mehirut*
 the.interview of the candidate in quickness
- (ii) ✓ *ha.ri'ayun šel ha.mu?amad be-mehirut*
 the.interviewing of the.candidate in-quickness

Siloni (1997: 65–66) also points out accusative case (see 76a) and adverbs (see 76b).

- (76) a. (i) *ha-harisa šel ha-cava 'et ha-'ir*
 the.destruction of the.army ACC the.city
 ‘the army’s destruction of the city’
- (ii) *harisat ha-cava 'et ha-'ir*
 destruction the.army ACC the.city
 ‘the army’s destruction of the city’
- b. (i) *harisat ha-cava 'et ha-'ir bi-mehirut*
 destruction the.army ACC the city in quickness (= *quickly*)
 ‘the army’s quick destruction of the city’
- (ii) *harisat ha-cava 'et ha-'ir be-'axzariyut*
 destruction the.army ACC the city in cruelty (= *cruelly*)
 ‘the army’s cruel destruction of the city’

Insofar as they induce accusative case marking of their thematic complement and take Adverbs, Hebrew transitive (AS)-Ns exhibit the strongest verbal properties an adjective-taking (i.e. excluding non-finite forms) nominal can have, even stronger than the type of French (AS)-Ns that I shall argue exhibit strong verbal properties. In this respect, Hebrew nominalizations seem to be characterized by a polarized bipartite typology, where the two types show strongly contrastive sets of properties: no mention is made of any intermediary cases. However in French, the situation is different. Even (AS)-Ns that exhibit strong functional properties, i.e. (Φ)-Ns as I shall call them (the reason for this term will be explained in chapter 4), reject both direct

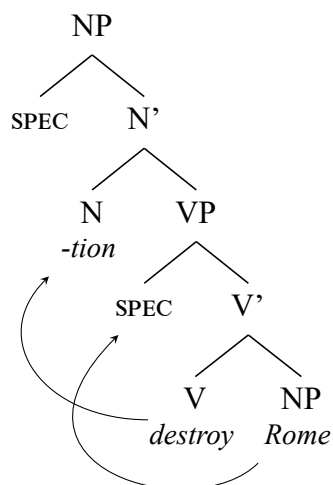
complements and Adverbs. Hebrew data, combined with the French data I will present would thus require the grammatical theory to assume no less than three levels of verbalness for nominalizations across languages. Within a syntactic approach, steps inside this continuum can correspond to different setups of functional layers. By contrast, it is not clear how a formalism entailing lexical construal of nominalizations could be successful in building such a fine-grained typology. Borer (1997) synthesizes the respective properties of both types as in (77).

(77) **Borer's (1997) Synthesis**

Result	Process
Non-θ-assigners. \Rightarrow No obligatory arguments.	θ-assigners. \Rightarrow Obligatory arguments.
No event reading.	Event reading.
No agent-oriented modifiers.	Agent-oriented modifiers.
Subjects are possessives.	Subjects are arguments.
<i>by_p</i> -Ps are non-arguments.	<i>by_p</i> -Ps are arguments.
In Spanish, selects <i>de</i> .	In Spanish, selects <i>por</i> .
No implicit argument control.	Implicit argument control.
No aspectual modifiers.	Aspectual modifiers.
<i>frequent/constant</i> only with plural.	<i>frequent/constant</i> appear with singular.
May be plural.	Must be singular.

She proposes that the argument undergoes *of_p*-insertion and raises to [Spec, VP], cf. (78).

(78) **Borer (1997), *the destruction of Rome***



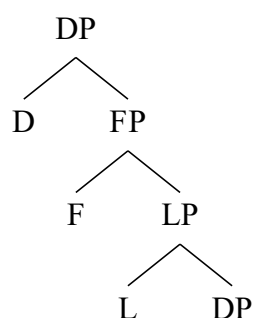
Kratzer (1996), building on the examples by Jespersen's (1940: 109) given in (79), regards the presence of adverbs as evidence that *OF-ings* are built in the syntax (see *infra*, § 4.1.3.3) for further discussion.

- (79) a. The shutting of the gates regularly at ten o'clock had rendered our residence very irksome to me.
 b. From the daily reading of the Bible aloud to his mother...

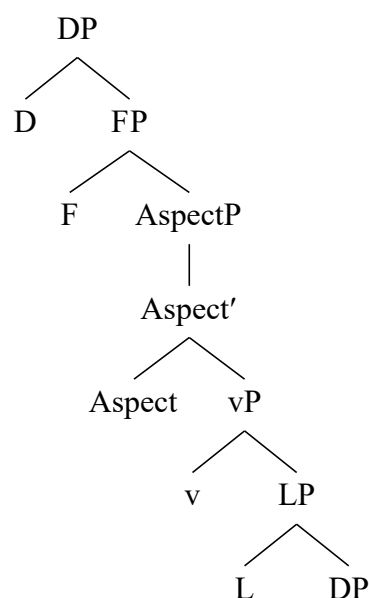
Building on these syntactic accounts, Alexiadou (2001) proposes the structures in (80).

(80) **Alexiadou's (2001) structures**

a. **Result Nominals**



b. **Event Nominals**



The structure I assume for Event (AS)-Ns is strongly close to that in (80b): a *little v* eventivizer topped by Outer Aspect. I will however not assume the Root to project any complement. Instead, the Root first merges with a *v* or *a* categorizer, and the first argument is introduced in [Spec, vP] or [Spec, aP].

1.3.2.3 Outer Aspect in Agent (AS)-Ns

Lees (1960: 64–71) follows the same path as Chomsky (1957) in his attempt to address *-ing* Action Nominals and *-er* Agent nominals, as in (81), as two sides of the same regular process.

- (81) a. the seller of the car
 b. the cooker of the meat

According to many, e.g. F. Schäfer (2011), a type of *-er* nominals “typically denote the external argument of the underlying verb”: they obey the *External Argument Generalization*. Alexiadou & Schäfer (2010) show that even nouns denoting instruments can project AS, cf. (82).

- (82) Alexiadou & Schäfer (2010: 20, ex. 26)
- a. a protein that is a potent inducer of new blood vessel growth
 - b. Woks have always been conservers of cooking oil as well as fuel.

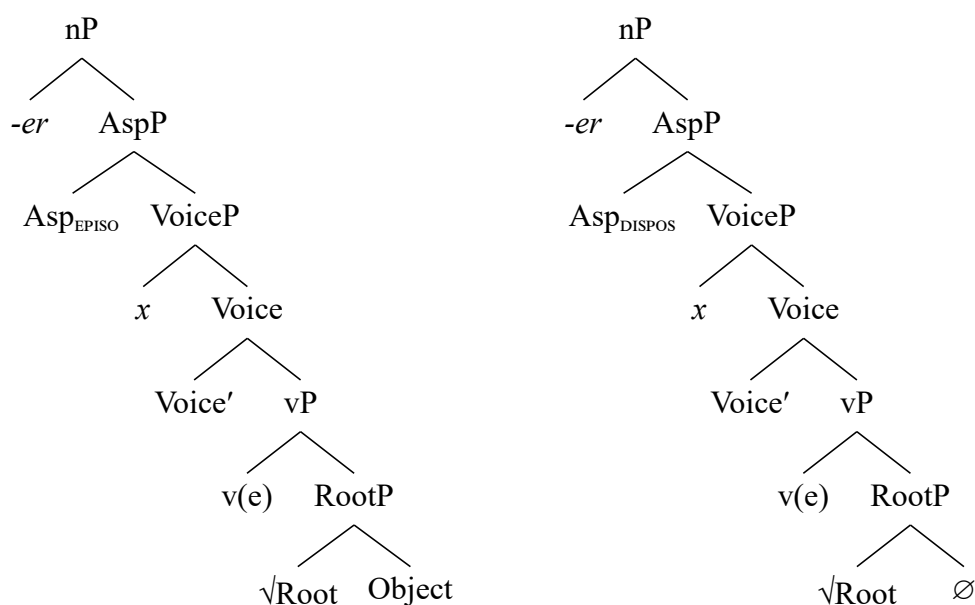
The authors build on Mittwoch (2005), who has shown how objects can remain unspecified in habitual sentences. Middles, for instance, do not refer to an actual event but exhibit stative denotation (see Ackema & Schoorlemmer 1994, 2017), cf. (83).

- (83) The sewing instructor always cuts \emptyset in straight lines.

Building on Lekakou (2005), Alexiadou & Schäfer (2010) have established that two subtypes of Agent $\overline{\text{AS}}$ -Ns are found, distinguished by whether their event variable is bound by *Episodic* or *Dispositional* aspect. They propose that the entity-level referential argument (, see E. Williams 1981, Grimshaw 1990, Larson 1998, cf. § 2.1.1.1 *infra*) of the noun *binds the external argument* — which, building on Kratzer (1996), is assumed to be introduced in [Spec, VoiceP]. See their representations in (84).

- (84) **Episodic vs. Dispositional *-er* Nominals** (Alexiadou & Schäfer 2010)

- a. [+event]-*er* — $\text{ASP}_{\text{EPISODIC}}$ b. [+event]-*er* — $\text{ASP}_{\text{DISPOSITIONAL}}$



An argumentation along similar lines has been developed, partly based on data from French, by Roy & Soare (2012, 2013, 2014). They propose that the suffix *-er* realizes the external argument: it is generated in the specifier of the relevant projection and then raises to its final position to

check for nominal features. I will come back to this crucial issue in § 4.3.5.2. But for now, let us review a few of the early syntactic accounts of the *Event vs. Result* ambiguity found in deverbal nominalizations.

1.3.3 Morphology Matters

Further evidence that AS projection is not of a conceptual nature but is grammatically encoded, lies in the importance of overt morphology. If we take an (AS)-N and we try to remove the suffix or to reduce the noun to a mere letter as part of an acronym, the special properties disappear. I will discuss these two issues in § 1.3.3.1 and § 1.3.3.2, respectively. In § 1.3.3.3, I will show that disambiguation tests are required, addressing French nominals that have been argued to exhibit theta-marking properties.

1.3.3.1 Substitution by Acronyms

To further illustrate the issue, consider the following. Although the Ns in Lakoff's (1970) examples (34b) and (35a.ii) repeated below do not exhibit any particular event-related property, their meaning can only be understood in relation with some other referent — be it contextually inferred (see § 2.1.1.1 *infra* for discussion related to adjectival modification).

(34b) the **boss** of the union

(35a.ii) Harry is the **king** of Liechtenstein.

However, we could very well be only dealing with conceptual dependency, with no internal event being involved. To show this, a simple method is to substitute an acronym such as *CEO* 'Chief Executive officer' or *CTO* 'Chief Technology Officer', as in (85) below.

- (85) a. I insisted on a meeting with the CEO of my company. (*New York Times*, 2017)
 b. Pilhofer and Ericson sat down with deputy managing editor Jonathan Landman and Marc Frons, the CTO of Times Digital. (*New York Magazine*, 2009)

The acronym, by definition, does not phonologically realize the logical structure but merely symbolizes it with initials. Using an acronym is akin to replacing a motivated phonological form with an arbitrary one: whether the speaker knows the details of how the acronym is constructed makes no difference. Consider, for instance, the noun *PDG*_N 'CEO', literally *Président - Directeur Général* 'President and General Director'. While *directeur*_N 'ruler' *de x* can be understood as meaning *celui qui dirige x* 'the one who rules *x*', *PDG*, by contrast, cannot. Thus, if the acronym accepts the same type of complement as its overtly complex semantic counterpart, it demonstrates that the occurrence of this complement is not syntactically conclusive. In sum, since the denotation of the complement in (34b) and (35a.ii) is not different in any way from that of (85a, b), it is unlikely to be syntactically licensed.

1.3.3.2 Clipped Forms

The argument I am giving is similar to the *exam* argument borrowed from Grimshaw's (1990) example (cf. *supra*, § 1.3.1.4) of *exam*_N being a (non-AS)-N as opposed to *examination*_N, cf. (86).

(86) his [\checkmark examination / *exam] of the patient in five minutes

In French, the same phenomenon can be observed. Štichauer (2018), confirming insight from Kerleroux (1997, 1999) (see also Anselme, Bonami & Burnett 2021, Fradin 2003), has shown that clipped nouns may not be (AS)-Ns. As the contrasts in (87)–(90) show, while the object reading is available for both variants, clipping blocks the event reading.

(87) Adapted from Štichauer's (2018) Italian examples.

- a. J'ai fait une petite [\checkmark modification / \checkmark modif] dans le texte, tu me diras ce que tu en penses.
'I made a small modification in the text, let me know what you think.'
- b. La [\checkmark modification / * modif] du règlement a bouleversé nos habitudes.
'The modification of the rules has disrupted our habits.'

(88) Adapted from Kerleroux (1997: 99).

- a. (i) L' [\checkmark introduction / \checkmark intro] de ta dissertation nous a bien fait rire.
'The [introduction / intro] of your dissertation made us laugh a lot.'
- (ii) L' [\checkmark introduction / * intro] du lynx dans le Vercors provoque des tollés.
'The [introduction / intro] of the lynx in the Vercors causes uproars.'
- b. (i) La [\checkmark manifestation / \checkmark manif] des étudiants a duré cinq heures.
'The [demonstration / demo] lasted five hours.'
- (ii) La [\checkmark manifestation / * manif] de la vérité aura pris cinquante ans.
'The manifestation of the truth will have taken fifty years.'

(89) Adapted from Kerleroux (1999: 88–89), except (a.i), which is my own addition.

- a. (i) J'ai fini mon [\checkmark exercice / \checkmark exo] de maths sur les fonctions linéaires.
'I have finished my math exercise on linear functions.'
- (ii) L' [\checkmark exercice / * exo] de ces hautes fonctions l'a transformé.
'The exercise of these high functions has transformed him.'
- b. (i) La [\checkmark publicité / \checkmark pub] pour le nouveau produit est amusante.
'The [advertising / ad] for the new product is amusing.'
- (ii) La [\checkmark publicité / * pub] des débats est de rigueur.
'The publicity of the debates is mandatory.'

- (90) Adapted from Fradin (2003: 249–250).
- a. Ma dernière [✓ manipulation / ✓ manip] sur les acides a duré deux semaines.
‘My last manipulation of the acids lasted two weeks.’
 - b. La [✓ manipulation / * manip] des acides met en danger la vie des employés.
‘Frequent handling of acids endangers the employees’ lives.’

The same applies to *photo*_N ‘photo’ vs. *photographie*_N ‘photography’: in the absence of a phonologically motivated compositionality, no grammatical event properties are observed. A relevant eventive meaning is not available for clipped forms, cf. (91).

- (91) a. (i) Le moindre mouvement *lors de la photo*(graphie) de textures* peut entraîner une photo inutilisable. (WEB, 2019)
‘The slightest movement during the photography of textures can lead to an unusable photograph.’
- (ii) *Lors de la photo*(graphie) de portraits*, il est essentiel de choisir l’objectif qui mettra en valeur les traits du visage. (WEB, 2023)
‘During the photography of portraits, it is essential to choose the lens that will enhance the features of the face.’
- (iii) flou artistique créant des stries circulaires *lors de la photo*(graphie) d’étoiles* (WEB, 2023)
‘artistic blur creating circular streaks during the photography of stars’
- (iv) les réglages qui entrent en jeu *lors de la photo*(graphie) d’œuvres d’art* (WEB, 2021)
‘the settings that come into play during the photography of artworks’
- b. lors de la photo [* de textures / portraits / étoiles / œuvres d’arts]
‘during the photo [of textures / portraits / stars / artworks]’

By “*relevant eventive meaning*”, I mean an (AS) reading: crucially, clipped forms have no problems denoting entities with temporal extension (cf. e.g. *film*_N ‘film’), cf. (92a), or even conceptual events as defined by selection for *se produire* ‘occur’, cf. (92b).

- (92) a. Il ont rigolé pendant [la photo / la manif / l’exo / la pub / l’intro / la manip]
‘They laughed during the [photo / demo / exercise / ad / intro / manipulation].’
- b. Au moment où la manif se produit, ils préfèrent mettre l’accent sur le congrès du PC en URSS. (WEB)
2011 ‘At the time when the demo occurs, they prefer to emphasize the congress of the Communist Party in the USSR.’

Indeed, as seen in (93), clipped forms are not compatible with internal modification (cf. *infra*, section 2.1 and § 3.3.1.1).

- (93) a. Le dessin animé, basé sur la *photo*(graphie) successive* de dessins plats en deux dimensions, et l’animation en volume, basée sur la *photo*(graphie) progressive* d’objets réels que l’on bouge légèrement avant chaque prise de photographie, sont les deux plus anciennes techniques d’animation (WEB, 2019)
 ‘The cartoon, based on the successive photography of flat two-dimensional drawings, and stop-motion animation, based on the progressive photography of real objects that are slightly moved before each photograph is taken, are the two oldest animation techniques.’
- b. Les cartes de référence serviraient alors à la confection automatique du film codé, par *photo*(graphie) simultanée* de leur zone signalétique et de leur zone perforée. (R.W., 1962)
 ‘Reference cards would then be used for the automatic creation of the coded film, by simultaneous photography of their signal area and their perforated area.’

Similar observation may be made for Agent nominals (see the structures in § 3.3.1.1 *infra*, ex. 404), cf. (94).

- (94) a. Et le **prof*(esneur)** de ces maximes absolutistes est aujourd’hui ministre de l’Instruction publique en France ! (B. Barère, 1843)
 ‘And the professor of these absolutist maxims is now the Minister of Public Instruction in France!’
- b. M. Marat est le principal **prof*(esneur)** de cette doctrine (J. Jaurès, 1901)
 ‘Mr. Marat is the principal professor of this doctrine.’
- c. Auparavant, tu étais une vraie merde de **prof*(esneur)** d’insultes crues et cruelles. (WEB, 2014)
 ‘Before, you were a real piece of shit of a professor of raw and cruel insults.’
- d. En 2011, ce **prof*(esneur)** de mensonges avait dit : dans 5 ans la Guinée va dépasser le Nigéria. (WEB, 2020)
 ‘In 2011, this professor of lies had said: in 5 years, Guinea will surpass Nigeria.’

To conclude, the data just reviewed only confirms what we have inferred from acronyms in § 1.3.3.1. It clearly appears that overt morphology is a determining factor for the grammatical properties of nominals. Change in the phonological representation entails change in the structure itself. This is a strong argument against non-syntactic approaches. Let us now further confirm this insight with an overview of French event nominals discussed in the literature.

1.3.3.3 Identifying French (AS)-Ns

To the best of my knowledge, the first mention of genuine French lexically sourceless (AS)-Ns are mentioned in the literature — though without distinction among numerous (non-AS)-Ns — appears in Kupferman (2000: 217). He notices that not all nominalizations involving a *par*-phrase (*by*-phrase) “are related to a verbal predicate”. Relevant examples are reproduced in (95) below.

- (95)
- a. l’**apologie** du crime par Sam
‘the apologia of crime by Sam’
 - b. l’**éloge** de ton attitude par Léa
‘the eulogy of your attitude by Léa’
 - c. le **meurtre** de Smith par Almoni
‘the murder of Smith by Almoni’
 - d. le **panégyrique** du Vieux de la Montagne par le poète
‘the panegyric of the Old Man of the Mountain by the poet’
 - e. le **portrait** de l’homme idéal par ma voisine
‘the portrait of the ideal man by my neighbor’
 - f. le **sac** de la ville par les pillards
‘the sack of the city by the plunderers’

Although Kupferman does not delve into the detection of internal eventivity, I will argue in chapter 4 that *éloge*_N ‘worship’, *meurtre*_N ‘murder’ and *sac*_N ‘sack’, in (95b, c, f), qualify as (AS)-Ns. Van de Velde (2006: 108), seemingly unaware of Kupferman’s study, mentions *meurtre* as well and notes that not all predicate-embedding Ns are synchronic deverbals — which retrospectively challenges Borer’s SLR (2013), while leaving the door open for the WLR (2003), cf. § 1.1.1.3 *supra*.

Huyghe *et al.* (2017) — henceforth H. *et al.* — notice that “some Underived Event Nominals combine with *of*- phrases denoting elementary participants in the event” (p. 122), leading them to conclude that “many Underived Event Nominals are role assignors, determining the semantics of their prepositional complements” (p. 132). It should be pointed out that the term *Event Nominals* as used by the authors actually refers to the whole set of event-denoting Ns, including Grimshaw’s (1990) *Simple Event Nominals*. According to their analysis, all such Ns “have *Aktionsart* features that are similar to those of nominalizations”. However, this statement is issued without examining the grammatical internal properties of those Ns, which are not tested following Grimshaw (1990) and Lebeaux’s (1986) protocol (cf. *supra*, subsection 1.3.1). The focus is solely on the presence of conceptual participants, leading to a questionable classification. For example, the authors are led to separate *crime*_N ‘crime’ and *séisme*_N ‘earthquake’ from one another, which I will argue do not differ in terms of their internal structure. As established by Grimshaw, participants are not necessarily grammatical arguments.

(96) **Huyghe et al. — Role-Assigning Event Nominals** (translations theirs):

<i>crime</i> _N ‘crime’	<i>grève</i> _N ‘strike’	<i>exode</i> _N ‘exodus’
<i>raid</i> _N ‘raid’	<i>séances</i> _N ‘mistreatments’	<i>esclandre</i> _N ‘rumpus’
<i>lapsus</i> _N ‘slip of the tongue’	<i>uppercut</i> _N ‘uppercut’	<i>régime</i> _N ‘diet’
<i>embargo</i> _N ‘embargo’	<i>striptease</i> _N ‘striptease’	<i>procès</i> _N ‘trial’
<i>campagne</i> _N ‘campaign’	<i>baptême</i> _N ‘baptism’	<i>obsèques</i> _N ‘funeral’
<i>duel</i> _N ‘duel’	<i>émeute</i> _N ‘riot’	<i>stage</i> _N ‘internship’
<i>culte</i> _N ‘cult’	<i>conférence</i> _N ‘conference’	<i>expérience</i> _N ‘experiment’
<i>moue</i> _N ‘pout’	<i>penalty</i> _N ‘penalty’	<i>bisbille</i> _N ‘squabble’
<i>trajet</i> _N ‘journey’	<i>oraison</i> _N ‘oration’	<i>agonie</i> _N ‘death throes’
<i>pénurie</i> _N ‘shortage’	<i>tollé</i> _N ‘outcry’	

In fact, most of the so-called *role-assigning nominals* listed in (96), such as *bilan*_N ‘recapitulation’¹ or *régime*_N ‘diet’, arguably fail to actually theta-mark their complements. In some of H. et al.’s tests, the target of the aspectual modification is uncertain. Since internal reading of the modifiers used in these tests is not always secured, external syntactic factors may influence the apparent compatibility. For instance, avoiding the use of an indefinite is necessary if one wants to be sure that the modifier is not, in fact, targeting an existential event denoted by a weak reading of this indefinite. Similarly, positioning the nominal in a subject slot ensures that the modifier does not take scope over the matrix VP. As can be seen in (97b), imposing these constraints yields ungrammaticality.

- (97) a. On vous propose un/le bilan du trimestre en deux heures. (ad. fr. H. et al.: 128)
 ‘One offers you a/the review of the trimester in two hours.’
 b. Le bilan du trimestre [* en deux heures] m’a épuisé.
 ‘The review of the trimester in two hours exhausted me.’

For similar reasons, (98a) does not tell us anything about special grammatical properties of the N; all it shows is that its denotation involves duration, cf. (98b).

- (98) a. Ils ont annoncé une grève des tweets pendant 24 heures. (H. et al.: 128, ex. 37)
 ‘They have announced a Twitter strike for 24 hours.’
 b. Ils annoncent une forte pluie pendant une semaine à partir de jeudi.
 ‘They are announcing a strong rain for one week starting on Thursday.’

Likewise, in such cases, aspectual modification is not conclusive. As (99) shows, any N denoting an object equipped with conceptual temporal extension can be modified in such a way.

¹For remarks on *bilan*_N, see Kupferman (2004).

- (99) a. La di  th  tique ne se r  sume pas    un r  gime en trois semaines.
(ad. fr. H. *et al.*: 128, ex. 39)
'Dietetics isn't just about a diet in three weeks.'
- b. (i) Nous voil   d  s 9:00 sur un VTT pour un tour de la ville pendant deux
bonnes heures. (WEB)
'There we are as soon as 9 am on an MTB for a tour of the city for a
good two hours.'
- (ii) Cette course de pirogues polyn  siennes r  unit les meilleurs sportifs
d'une discipline spectaculaire pour un tour en trois jours de l'  le de
Tahiti. (WEB)
'This Polynesian pirogue race gathers the best sportsmen in a
spectacular discipline for a tour in three days of the island of Tahiti.'

Modification by $\boxed{\text{IN-X}}$ and $\boxed{\text{FOR-X}}$, here, does not indicate any grammatical properties inherent to the Ns under consideration. It is true that under certain conditions, $\boxed{\text{FOR-X}}$ appears to be compatible with such nominals, even though the construction might sound a little bit degraded compared to when an $\boxed{\text{AS}}$ -N is involved.

- (100) a. L'embargo sur la Libye [? pendant plusieurs ann  es] a isol   le pays.
'The embargo on Libya for several years isolated the country.'
- b. Le r  gime de Pierre [? pendant trois mois] lui a permis de perdre du poids.
'Pierre's diet for three months allowed him to lose weight.'

The $\boxed{\text{IN-X}}$ test as intended in Grimshaw (1990) involves trying to remove the complement while disambiguating the nominal; but note that the N in (101a) does not even have a complement.

- (101) a. Un embargo pendant quinze ans    isol   la Libye. (ad. fr. H. *et al.*: 128, ex. 38)
'An embargo for fifteen years isolated Libya.'
- b. L'embargo [? pendant quinze ans] a isol   la Libye.
'The embargo for fifteen years isolated Libya.'
- c.    Un bain d'algues pendant vingt minutes l'a revigor  .
'A seaweed bath for twenty minutes invigorated him.'

As seen in (101a), the indefinite article does improve acceptability. Importantly, it is not inherently problematic to use other determiners than the definite article. On the contrary, the fact that Grimshaw's (1990) analysis relies so much on examples featuring the definite article constitute a major issue for her account. Indeed, the exact same effect is observed with derived nominals used without phonologically overt argument realization. I will argue in    4.3.2.2 that the apparent obligatoriness of overt argument realization in $\boxed{\text{AS}}$ -Ns is due to constraints inherent

how nominal reference works and how adjunction seems conditioned on existential closure. Consider the following sentences, where a demonstrative D is used instead of the definite article.

- (102)
- a. ✓ Cet embargo pendant plusieurs années à isolé la Libye.
'This embargo for several years isolated Libya.'
 - b. ✓ Ce bain d'algues pendant vingt minutes l'a revigoré.
'This seaweed bath for twenty minutes revitalized him.'
 - c. ✓ Ce régime pendant trois mois a permis à Pierre de perdre du poids.
'This diet for three months allowed Pierre to lose weight.'
 - d. ✓ Cette grève des transports pendant deux jours m'a empêché de venir.
'This transportation strike for two days prevented me from coming.'
 - e. ✓ Cette forte pluie pendant deux semaines m'a démoralisé.
'This heavy rain for two weeks demoralized me.'

The examples in (102) show that acceptability is clearly improved when a demonstrative D introduces the nominal. Again, this cannot constitute an argument against viewing aspectual modification as structurally conclusive. However, what matters when using modification tests is that we should get an internal reading of the modifier, as defined in subsection 2.1.1 *infra*. This is not the case here — but in order to avoid circularity, independent evidence is required. Now consider (103), featuring one of the nominals that, according to H. *et al.* (122:13), “assign semantic roles” — namely, *entorse_N* ‘sprain’.

- (103) une entorse de la cheville
'a sprain of the ankle'

The noun *entorse_N* ‘sprain’, diachronically related to †*entordre_v* ‘sprain’, is interesting for the issue of relative attestedness (cf. *infra*, subsection 3.1.3) — I will shortly explain how. However, (103) in itself does not prove anything beyond semantic selection. As (104) emphasizes, we cannot be sure that morphology is really at stake in the selection process for this type of complement (cf. *CEO_N* vs. *director_N*; see § 1.2.1.3 *supra*).

- (104) une IRM de la cheville
'an MRI of the ankle'

Admittedly, as (105) illustrates, *entorse_N* may occasionally function as an (AS)-N.

- (105)
- a. lors de l'entorse de ma cheville (v.k.)
'at the time of the spraining of my ankle'
 - b. Roland Blum minimise l'entorse de cette promesse. (*Le Figaro*, 2014)
'Roland Blum minimizes the spraining of this promise.'
 - c. Le quotidien anglais dénonce donc l'entorse de ce pacte par la Turquie. (WEB)
'The english daily denounces the spraining of this pact by Turkey.'

Although the event reading observed in (105) is rather uncommon, what matters here is the fact that some speakers have spontaneously used it. If it really is eventive in the relevant way, it should be able to allow event-related modification. This seems to be the case, cf. (106).

- (106) a. lors de l'entorse de ma cheville en une fraction de seconde
'at the time of the spraining of my ankle in a split-second'
- b. Roland Blum minimise la constante entorse de cette promesse.
'Roland Blum minimizes the constant spraining of this promise.'
- c. Le quotidien anglais dénonce l'entorse systématique de ce pacte par la Turquie.
'The English daily denounces the systematic spraining of this pact by Turkey.'

Therefore, it is plausible that *entorse_N* is — not only diachronically, but also synchronically — derived from the past participle of †*entordre_V* 'twist'. As I will argue all along, the fact that a structure is not lexicalized any more does not prevent it to constitute a source (see *infra*, § 3.1.1.2).

Besides, I mentioned in § 1.1.2.4 the issue of non-grammatical agentivity. H. *et al.* (p. 123) argue that Ns such as *crime_N* "include eventive roles in their semantic structure" and that "there is a semantic correspondence" between (107a) and (107b) below.

- (107) a. le crime de Pierre
'Peter's crime'
- b. Pierre a commis un crime.
'Peter committed a crime.'

But concomitantly, they state (p. 124) that Ns such as *séisme_N* 'earthquake' "differ from those in (96) in that they do not combine with participant-denoting *de-* complements. They do not assign semantic roles to their linguistic environment. [...] These nouns denote autonomous events. They cannot be used as the internal argument of agentive support verbs." However, it is not obvious at all that *crime_N* should have any special properties over *séisme_N*; see (108).

- (108) a. le séisme de Poséidon
'Poseidon's earthquake'
- b. Poséidon a déclenché un séisme.
'Poseidon triggered an earthquake.'

Indeed, one may argue that (108a) is related to (108b) in exactly the same way as (107a) is related to (107b), i.e. through *cognitive agentivity* as defined in Roeper (1987) (cf. *supra*, § 1.1.2.4); cf. (109) below for an attested example of *earthquake_N* with an agent-denoting genitive.

- (109) ... just as Poseidon's earthquake at the end of Euripides' Erechtheus would have reminded the audience of the Persian destruction of the Acropolis. (E. Cook, 1995)

Furthermore, H. *et al.* (p. 133) suggest that Ns such as *crime*_N or *régime*_N may be eventive in Grimshaw's (1990) sense since they "can occur with event control modifiers"; see (110).

- (110) H. *et al.* (Translation mine.)
- a. le régime de Pierre pour perdre cinq kilos
'Pierre's diet to lose five kilos'
 - b. une expérience du chercheur pour valider son hypothèse
'an experiment of the researcher to confirm his hypothesis'

However, using such purpose clauses as a test to isolate specific role-assigning properties of nouns raises concerns. First, *afin de* 'in order to' (as well as *de façon/manière à* 'so as to') does not work, cf. (111).

- (111) a. le régime de Pierre [*afin de perdre cinq kilos]
'Pierre's diet in order to lose five kilos'
- b. l'expérience du chercheur [*afin de valider son hypothèse]
'the researcher's experiment in order to confirm his hypothesis'

Second, nominals such as *séisme*_A in (108a) can always take purpose clauses in *pour*_p 'to' in the right context, cf. (112).

- (112) a. le séisme de Poséidon contre Ulysse pour retarder son retour à Ithaque
'Poseidon's earthquake against Odysseus to delay his return to Ithaca'
- b. la tempête de Saruman sur Caradhras pour ralentir l'équipée adverse
'Saruman's storm over Caradhras to hinder the opposing expedition'

It is therefore inaccurate to classify *crime*_N and *séisme*_N in two distinct semantic types based on the compatibility with such a purpose clause: clearly, whatever semantic feature allows this compatibility is present in both Ns. Note that both (112a) and (112b) also reject *afin de* 'in order to', thus making it impossible to interpret the possessor as a syntactic agent. Thus, *crime*_N arguably denotes what Roy & Soare (2013) call a *conceptual* event, i.e. an event that is referred to by means of an entity-denoting structure. Consequently, what (111) above involves is *not* control by the external argument of a verbal event. As seen in (113) below, clauses in *pour*_p can act as modifiers of entities: for instance, any *tool*-referring DP may receive such a purpose modifier indicating the purpose of the tool.

- (113) La clé [✓ pour / *afin d'] ouvrir le placard est sur la table.
'The key [to / in order to] open the cupboard is on the table.'

These reservations notwithstanding, of all the nouns mentioned by Huyghe *et al.*, a few do happen to embed an internal event. *Rapt*_N 'kidnap' (cf. ??), as well as *baptême*_N, *exode*_N, *agonie*_N, and, possibly, *striptease*_N (cf. 96), all qualify as proper (AS)-Ns, according to specific

criteria that will be established in chapter 2 (in a nutshell, they pass “in *x*-time”, the Progressivity test and the Counterfactuality test). Their internal structure, however, could be argued to lack certain functional layers if they turned out to exhibit only limited event properties (cf. chapter 4).

To conclude, unless a given noun exhibits special grammatical properties reminiscent of that of a verb, there are no reasons to posit for it an internal structure different from that of any entity-denoting N. Now that this has been established, I am now going to delve deeper into the tests and propose new ones.

Conclusion

Here are the main conclusions of this chapter. In section 1.1, the theoretical controversy regarding the nature of nominalization was introduced. The Idiosyncrasy Argument relies on the moderate level of predictability of the existence and meaning of (AS)-Ns to argue against a transformational analysis of this phenomenon. However, I argued that regularity, while still taking explanatory adequacy seriously, should be assessed at the level of potential generation rather than that of language use. The generated objects are always structures, never lexical entries. In French, and perhaps even in English, there are nominals that seem to have grammatical event properties despite not being related to an attested word. If we can confirm this, then it means that the derivation does not see what is listed and what is not, but only the potential for lexicalization, i.e. the structure. Lakoff (1970) proposes positing hypothetical entries, but without constraining the device, this idea cannot work.

In section 1.2, I argued that idiosyncrasy and attestedness occur in a dimension completely parallel to that of grammar. There is no way idiosyncratic facts can ever serve as an argument to decide what the syntax carries out and what it does not. Following Marantz (1996, 1997, 2007, 2013), I illustrated how idioms are always built on top of structures and can by definition never affect the latter.

In section 1.3, I discussed the ambiguity inherent to nominals, highlighted by Grimshaw (1990). Some nouns do not project AS and have no grammatical properties. Other nouns, which I call (AS)-Ns, seem to inherit the event properties of the verb or adjective on which they are built. Syntactic approaches have been proposed, on which we can elaborate a structural account. I also demonstrated that overt morphology is to be taken seriously. The *examination vs. exam* minimal pair discussed by Grimshaw (1990) has many parallels in the French language. It is consistently observed that whenever the integrity of its *physical body* becomes compromised, a noun loses its grammatical properties. Moreover, several French nominals sometimes argued to be special, such as *régime*_N ‘diet’ and *bilan*_N ‘review’, actually lack any grammatically relevant properties and must therefore be concluded to have the exact same internal structure as any other

(non-AS)-Ns. As extensively argued in the literature, a clear distinction must be maintained between conceptual participants and syntactic arguments.

I will now introduce tests to identify (AS)-Ns and their projections. Relying on these, we will later be able to determine which underlying structures to posit in relation to specific grammatical properties.

Chapter 2

Tests for Event $\overline{\text{AS}}$ -Ns

This chapter is concerned with the tests used to identify $\overline{\text{AS}}$ -Ns. The various tests identify different projections inside nominals. Advocating a syntactic analysis of word formation, I assume that the projection of arguments of noun-internal eventualities is syntactically achieved through functional heads: arguments are introduced in the *specifier* positions, as commonly assumed since Bowers (1993) and Kratzer (1996). The *little v* head is responsible for the introduction of a theme. The *Voice* head adds to the vP a second argument, thus turning an unaccusative structure into a transitive one.¹ This computational approach correctly predicts that the bases of $\overline{\text{AS}}$ -Ns will not necessarily be lexicalized. As previously discussed, whether or not a derivative's base is autonomously attested is not *a priori* expected to be relevant to the grammar. However, that nominalizations without a lexical source may qualify as proper $\overline{\text{AS}}$ -Ns will have to be demonstrated. That will be done in the next chapter — but before doing so, the first step, which we are now conducting, is to establish these tests in order to define a clear protocol. A number of existing tests will be reviewed, most of which, based on modification, are typically used in relation to a lexically construed V or A.

The Chapter is divided into two sections. Section 2.1 discusses internal modification and the parts of structure they identify. It reviews internal modifiers broadly used in the literature, as well as novel ones which I will introduce. Section 2.2 introduces the novel *Counterfactuality*

¹Independently motivating the presence of Voice could be achieved, notably using tests based on argument control, but I will not specifically elaborate on this subject. In any case, only by positing Voice can we understand the causative vs. anticausative alternation observed in the possible denotations of $\overline{\text{AS}}$ -Ns.

test, only marginally mentioned by Van de Velde (2006) and never taken over or analyzed until now. Based on the ability of (AS)-Ns to denote *potential occurrences*, the Counterfactuality test provides independent evidence of the presence of an eventuality variable inside (AS)-Ns.

2.1 Internal Modification

Since Grimshaw (1990), adjectival modification such as *frequent/constant* has been a widespread test for disambiguating nominals. This first section addresses such tests in detail. Subsection 2.1.1 focuses on modification by frequency adjectives, such as *fréquent/constant* (frequent / constant). Subsection 2.1.2 presents the *Divisibility Test* [DIV]¹, which introduces two novel modifiers, namely the French adjectives *successif*_A ‘successive’ and *simultané*_A ‘simultaneous’. Subsection 2.1.3 addresses prepositional modification.

2.1.1 Iterative Modification

Iterativity is a form of pluractionality that involves repetition of an input event, thus deriving a global event whose theme will necessarily be divisible into subobjects. I will argue that iterative modifiers only constitute a test when they take scope under the grammatical subject. I will call this test the [MULT] test because it consists in multiplying the event, yielding several iterations thereof. I will begin with theoretical preliminaries regarding modification: § 2.1.1.1 aims to provide a brief overview of how the notion of *internal reading* is defined in the literature. § 2.1.1.2 introduces the notion of *theme-related* internal reading. § 2.1.1.3 narrows the analysis more specifically on theme-related iterativity.

2.1.1.1 Internal Adjectival Modification

The most widespread adjectival modifiers for disambiguating nominals are *frequent*_A and *constant*_A. This test, proposed by Grimshaw (1990) to disambiguate the (AS)- and the (non-AS) readings, has been criticized. E. Williams (1987) notices that frequent / constant is compatible with the (non-AS) reading, cf. (114).

(114) The [frequent / constant] choice of the committee is Chablis. (E. Williams 1987)

We find many examples in both English and French, such as the ones on (115) below, where modification by *frequent/constant* is compatible with (non-AS)-Ns. Those are, at least in French, intersective uses, which can be seen by the fact that they can be used in predicative position, cf. (115b.ii).

¹This notation indicates a test.

- (115) a. Edith Crawley's *constant bad fortune* (New York Times, 2016)
 b. (i) sa constante guigne
 'her constant bad luck'
 (ii) sa guigne est constante
 'her bad luck is constant'

Because of this possibility of intersective use, modification by *fréquent/constant* is compatible with non event-denoting Ns (cf. Martin 2010: 111, who gives e.g. *état constant* 'constante state', *maladie constante* 'constant illness') and especially with expressions of the form N_1 *de* N_2 'of' N_2 , the former being (non-AS) but conceptually stative (*climat*_N 'climate', *atmosphère*_N 'atmosphere', *risque*_N 'risk'...), cf. (116).

- (116) a. (i) la constante atmosphère d'insécurité qui règne dans la ville
 'the constant atmosphere of insecurity that prevails in the city'
 (ii) l'atmosphère d'insécurité est constante
 'the atmosphere of insecurity is constant'
 b. (i) le constant esprit de sacrifice que demande ce travail
 'the constant spirit of sacrifice that this job demands'
 (ii) l'esprit de sacrifice est constant
 'the spirit of sacrifice is constant'

When used with nominalizations, *fréquent/constant* can have both readings. Consider the sentence in (117a), which is ambiguous. In one reading, some defendants contextually identified are constantly proclaiming their innocence. In the other reading, a generic statement is issued, namely that accused people tend to always claim innocence. The nominalization in (117b) exhibits similar ambiguity.

- (117) a. Les accusés clament constamment leur innocence.
 the accused claim constantly their innocence
 b. la constante proclamation de leur innocence par les accusés
 the constant proclamation of their innocence by the accused

The pluractional modifier can either take narrow scope over the internal argument, as in (118a), or take wide scope over the whole predication, subject included, as in (118b).

- (118) a. la constante relecture du même livre
 'the constant rereading of the same book'
 b. la constante destruction des vieux bâtiments
 'the constant destruction of the old buildings'

The possibility of adjectival modifiers does not necessarily imply the presence of internal event layers. More specifically, generic DPs, such as *les vieux bâtiments* ‘old buildings’ in (118b) may induce a generic reading.

Building on Bolinger’s (1967) canonical example of *occasional sailor*, Larson proposes to distinguish an *internal* adverbial reading and an *external* adverbial reading; see (119).¹

- (119) a. (i) That claim was made by an occasional sailor.
 (ii) That claim was made by someone who occasionally sails.
 b. (i) This occasional sailor also happens to be a habitual liar.
 (ii) This man who sails occasionally also happens to lie habitually.

The scope ambiguity in adjectival modification has been well captured in Vendler’s (1968) and Larson’s (1998) seminal studies, and more recently Gehrke (2007, 2019), Gehrke & McNally (2011, 2015) and Winter & Zwarts (2012a, 2012b); and the application to nominalizations most saliently initiated by Roy & Soare (2012, 2013, 2014, 2020) and Grimm & McNally (2015). Larson posits two referential arguments for all nouns; see (120), a reproduction of Maienborn (2021: 64, ex. 3) — itself based on Winter & Zwarts (2012b: 639, ex. 2), which synthesizes Larson’s (pp. 151–154) proposal.

(120) **Intersective vs. Non-Intersective Readings**

- a. $\llbracket \text{dancer} \rrbracket = \lambda x \lambda e. [\text{dance}(e) \ \& \ \text{agent}(e, x)]$
 b. $\llbracket \text{beautiful} \rrbracket = \lambda y. [\text{beautiful}(y)]$
 c. $\llbracket \text{beautiful dancer} \rrbracket = \lambda x \lambda e. [\text{dance}(e) \ \& \ \text{agent}(e, x) \ \& \ \text{beautiful}(x)]$
 $\lambda x \lambda e. [\text{dance}(e) \ \& \ \text{agent}(e, x) \ \& \ \text{beautiful}(e)]$

Thus, in (121), borrowed from Bolinger (1967), it is not the event variable of the N itself that is being tested, but the existential event induced by the weak indefinite (which is exactly why we want to avoid weak indefinites in all tests). The reading of the adjective in (121a) corresponds to that of the adverb in (121b). It is referred to as the *external* adverbial reading in Larson (1998) and the present work.

- (121) a. An occasional sailor strolled by.
 b. Occasionally, a sailor strolled by.

The difference between the two readings may be formalized as in (122), reproduced from Winter & Zwarts (2012a).

¹(119a) is borrowed from the first draft of Gehrke & McNally (2015), whereas (119b) is my own addition.

- (122) the beautiful dancer (Winter & Zwarts 2012a: 7, ex. 18)
- a. $\iota x \exists e. [\mathbf{dancing}(x, e) \wedge \mathbf{beautiful}(x)]$
 ‘the beautiful entity that functions as the agent of some dancing event’
- b. $\iota x \exists e. [\mathbf{dancing}(x, e) \wedge \mathbf{beautiful}(e)]$
 ‘the entity that functions as the agent of some beautiful dancing event’

As shown by e.g. Gehrke & McNally (2015), adjectives can sometimes play the same role inside the nominal projection as adverbs inside the vP or the TP. This is the reading we must be looking for. For example, *graduel_A* ‘gradual’ and *progressif_A* ‘progressive’ have been argued to be sensitive to quantization (see e.g. Schoorlemmer 1998). However, the intersective reading of *graduel_A / progressif_A* is by definition compatible with $\overline{\text{non-AS}}$ -Ns, cf. (123).

- (123) Un régime progressif vaut mieux qu’un jeûne brutal.
 ‘A progressive diet is better than a brutal fast.’

The noun *régime_N* ‘diet’ (cf. § 1.3.3.3 *supra* for discussion) refers to the set of all the objects that correspond to its definition. But once modified by the adjective *progressif_A* ‘progressive’, the set of referents is now reduced to only those objects that also happen to have the property defined by that adjective. This is called the *intersective* reading, because the extended nominal projection refers to the set of objects located at the intersection of the sets denoted by the two predicates. A *subsective* reading, by contrast, refers to modification of only a subset of the meaning of the nominal phrase the adjective combines with (see M. Siegel 1976, Larson 1998, Roy 2010), cf. (124).

- (124) She is a beautiful dancer. (Vendler 1968: 88–89)

Thus, in (125a), the adjective receives an intersective reading: the nominal refers to the intersective set of objects that meet both conditions of being girls and being beautiful. In (125b), the set of dancers intersects not with the set of individuals that are inherently beautiful, but with the set of individuals whose dancing is beautiful. That is, *beautiful_A* modifies not the entire individual denoted by *dancer_N* but the *dancing* event internal to the noun *dancer_N*.

- (125) a. beautiful girl
 b. beautiful dancer

Vendler (1968) suggests that adjectives like *beautiful_A* used as in (124) modify an event that is an argument of nouns such as *dancer_N*, which he calls “*e*-nominals”, cf. (126).

- (126) Vendler (1968: 90)
- a. (i) He is a slow dancer. ← His dancing is slow.
 (ii) He is a careful worker. ← His work is careful.
- b. (i) He is a fast polka-dancer. ← His dancing of the polka is fast.
 (ii) He is a careful chess-player. ← His playing of chess is careful.

However, Vendler, and Larson (1998) after him, point out that the behavior described does not exclusively apply to morphological agentive Ns. A first possible issue concerns evaluative adjectives such as *good_A*, for which Vendler proposes the gloss ‘A at Ving’, cf. (127).

(127) Vendler (1968: 91)

- a. He is a good dancer ← He is good at dancing.
- b. He is a careful observer ← He is careful in observing.

Vendler observes that while, in (127), the denotation of the adjective seems to be a function of a morphologically identifiable nominalized verb, other Ns such as *king_N* and *thief_N* lack, for their part, a morphologically transparent verb.

(128) Vendler (1968: 93)

- a. He is a weak king. ← He is weak as a king.
- b. He is a good father. ← He is good as a father.

When such an adjective combines with a noun, the output meaning relies on the specific interpretation of the adjective relatively to the denotation of that noun. This is formalized in (129a–b). Thus, the meaning of *good_A* undergoes subtle variation according to the nature of the referent of the noun it modifies, which is expressed using the notation introduced in (129c).

(129) **Relative Interpretation of Evaluative Adjectives**

- a. $\llbracket \lambda x. [\mathbf{good}(x)] \mid_{x=\text{apple}} \rrbracket \neq \llbracket \lambda x. [\mathbf{good}(x)] \mid_{x=\text{book}} \rrbracket \neq \llbracket \lambda x. [\mathbf{good}(x)] \mid_{x=\text{dancer}} \rrbracket$
- b. (a) $\xrightarrow{\text{induces}} \llbracket \lambda x. [\mathbf{good}(x)] \rrbracket = f(\llbracket x \rrbracket)^1$
- c. (i) $\llbracket \mathbf{good}_x \rrbracket = \lambda x. [\llbracket \mathbf{good}_x(x) \rrbracket] = \text{‘good relative to the nature of } x\text{’}$
 (ii) $\llbracket \mathbf{good}_{\text{book}} \rrbracket \neq \llbracket \mathbf{good}_{\text{apple}} \rrbracket \neq \llbracket \mathbf{good}_{\text{dancer}} \rrbracket$

Thus, the fine-grained meaning is not related to any form of grammatical inheritance arising from an internal verb. That can be highlighted using for instance a set of differentiated elatives (i.e. purely semantic, non-morphological absolute superlatives) of Fr. *bon_A* ‘good’, each of which is dedicated to a specific semantic specialization of *bon_A*. As (130) illustrates, relative interpretation of the adjective also applies to simple nominals: *bon danseur* ‘good dancer’, contrary to *big drinker* (cf. *infra*), does not necessarily involve an internal reading; it can, in one interpretation, be analyzed along the same lines as *bonne pomme* ‘good apple’ or *bon livre* ‘good book’, i.e. *bon_A* may be assumed to receive a *relative interpretation* (cf. Asher 2011: 256–261). In this case, the internal structure of the noun is not at stake. Consequently, because of this possibility of *relative interpretation* of intersective evaluative As such as *good_A*, using evaluative As cannot constitute a test for determining the presence of a noun-internal eventuality.

¹Read: ‘The denotation of *good_A* is a function of that of its argument’.

- (130) Elatives of *bon*_A ‘good’:
- a. un(e) excellent(e) [✓ pomme / ✓ livre / ✓ danseuse]
‘an excellent [apple / book / dancer]’
 - b. un(e) délicieux/-euse [✓ pomme / # livre / # danseuse]
‘a delicious [apple / book / dancer]’
 - c. un(e) [✓ livre / # pomme / # danseuse] passionnant(e)
‘a thrilling [book / apple / dancer]’
 - d. un(e) [✓ danseuse / # pomme / # livre] expert(e)
‘an expert [dancer / apple / book]’

A relative interpretation of the adjective can also be found in a predicative position. Again, it does not tell us anything of the internal structure of the noun; cf. (131), where *intelligent mother* gets the evaluative reading although *mother*_N does not contain a verbal structure.

- (131) Sharon is an intelligent accountant, but she is not an intelligent mother.
(ad. fr. M. Siegel 1976: 4–5)

For this reason, Vendler’s example in (124), repeated below, does not prove that *dancer*_N contains any internal event: we cannot know whether we are dealing with genuine internal reading, or with relative interpretation of an intersectively used A. And if it’s ambiguous between the two, it might still prove challenging to determine and show.

- (124) She is a beautiful dancer. (Vendler 1968: 88–89)

Moreover, as pointed out to me by I. Roy, further complication arises from using the nominal in a predicative context: that is not felicitous, as we want to avoid any externally generated predication that the modifier could be hypothesized to modify.

Finally, there is the case of relational Ns, such as *friend*_N. In [[old friend]], for instance, *old* is interpreted by Larson (1998) relative to the notion of friendship. Additionally, unlike e.g. *good book*, the adjective in *old friend* shares with the internal reading of *beautiful dancer* the property of lacking a predicative use, cf. (132). This fact seems to hold for all relational Ns; see for instance *little brother* or *far north*.

- (132) Larson (1998: 161)
- a. # That dancer is beautiful.
 - b. # That friend is old.

Thus, the subjective reading seems in some way connected to argument projection. Indeed, intersective modification by definition occurs outside the domain of existential closure. Since arguments are part of the description, they are introduced inside this domain and thus, argument-taking nominals may not refer until their arguments have been introduced. Therefore, any intersective modification that occurs must be situated at the kind level (cf. *infra*, § 4.3.2.2).

I therefore follow Gehrke's (2019) and Anderson & Morzycki's (2015) in their treatment of internal modifiers such as Frequency Adjectives, which they analyze as kind modifiers. However, Vendler (1968: 91) proposes for underived Ns a similar analysis:

“It seems reasonable to assume that *just* functions the same way in *just king* or *just emperor*. Yet, unlike *ruler*, *king* and *emperor* are not verb-derivatives. Then it is obvious that the co-occurrence of *just* and *king* or *emperor* must determine a verb with respect to which the adjective is ascribed to the noun. [...] Thus we get the derivation: *just king* ← *king who rules justly*.”

Vendler states that, while in (133a) “the appropriate verb is morphologically recoverable from the noun”, in (133b) “the verb [...] is merely associated with the noun with respect to the adjective involved”.

- (133) **Internal Reading with Agent Nouns**¹ (ad. fr. Vendler 1968: 92)
- a. (i) good ruler
 - (ii) A N_(<V) ← N_(<V) who V Adv_(<A)
 - b. (i) good king
 - (ii) A N ← N who VP Adv_(<A)

Larson (1998: 159) interprets Vendler's position as hypothesizing a hidden V inside *king*_N, and gives the example set in (134), reminiscent of Lakoff's examples, discussed in chapter 1.

- (134) a. (i) Arthur is a just ruler.
- (ii) Arthur rules justly.
- b. (i) Arthur is a just king.
- (ii) * Arthur °kings justly.

Now, crucially for the present dissertation, the near-totality of the tests used in the literature on nominalizations are performed relative to the corresponding sentential structures. Internal modification is indeed akin to how adverbs modify verbs. The issue has been discussed many times in the literature, cf. e.g. Bolinger (1967), Stump (1981), Larson (1998), Gehrke & McNally (2015), Roy & Soare (2010, 2013, 2014), Winter & Zwarts (2012a, 2012b) and Maienborn (2021). We may actually use about any event-modifying adjective equivalent to a VP-internal adverb, but we have to make sure that it plays this internal role. See for instance the nominal *big drinker* in (135), which is is ambiguous. In one reading, it can denote the set located at the intersection of the set of all drinkers and the set of all people who are *big*, i.e. ‘fat’. Importantly, a relative interpretation only makes sense with this meaning of *big*_A. Being *big* relative to being a drinker can make sense with *big*_A denoting a physical property appreciated relative to a standard. In the other reading, *big drinker* refers to the set of people who *drink a lot*, which corresponds to the intersection between the property of being *big* and the *action* of *drinking*.

¹I have slightly adapted Vendler's notation for the purpose of avoiding confusion: D was replaced with Adv; $X_{(<Y)}$ means that X is derived from a word that bears the category Y .

(135) the big drinker

The quantificational denotation of big_A is thus to be distinguished from the relative interpretation. Thus, *contra* Vendler (1968), while nominals such as in (128)–(131) arguably exhibit relative interpretation of intersective reading, (135) is ambiguous between that reading and the internal reading. A proof that big_A , in the event-related sense, is not intersective, is that it cannot be used in a predicative position, cf. (136).

- (136) a. ✓ This [apple / book] is good.
b. # This drinker is big.

To conclude, adjectival modification is informative if we use it internally: an adjective can directly modify the eventuality variable denoted by an (AS) -N, but only under specific circumstances, which we will now determine.

2.1.1.2 Theme-Related Internal Reading

This subsection addresses a scope issue that systematically arises when using any sort of adjectival modification as a disambiguation test. Internal modifiers can be either subject-related or theme-related. There are two types of internal reading, namely *theme-related* internal reading and *subject-related* internal reading. The issue is that the internal reading can only be secured in the case of *theme-related* modification. That is, only theme-related modification constitutes a test for disambiguating nominals, because as seen in § 2.2.2.4 *infra*, subjects are not necessarily arguments (see Borer 1999: 1)[52]BOR13. By contrast, modification occurring above the subject (henceforth *subject-related* modification) can be used at the condition we make sure that an internal reading is at stake. This contrast for instance emerges with the help of the adjective $même_A$ ‘same’, used to *lock* the scope. Thus, while in (137a), the theme clearly receives narrow scope with respect to *fréquent/constant*, in (137b) it is the subject that is being targeted.

- (137) a. **Theme-related internal modification**
 (i) La [fréquente / constante] réparation de ce même téléviseur me fatigue.
 ‘The [frequent / constant] repair of this same television tires me.’
 (ii) De constamment réparer ce même téléviseur me fatigue.
 ‘To constantly repair this same television tires me.’
- b. **Subject-related internal modification**
 (i) La [fréquente / constante] protestation de ce même salarié me fatigue.
 ‘The [frequent / constant] protestation of this same employee tires me.’
 (ii) Que ce même salarié proteste [fréquemment / constamment] me fatigue
 ‘That this same employee [frequently / constantly] protests tires me.’

With subject-related reading, we must determine whether we have an argumental subject, or a non-argumental one, i.e. a mere possessor (in the sense of Zribi-Hertz 2003: 141): when modification is not related to a theme, it can be challenging to determine whether or not we are dealing with an internal predicate. Unergative and stative eventualities, specifically, can be tricky to identify. For instance, such adjectival modifiers cannot help us distinguish the structural differences between the nominalizations in (138).

- (138) a. la constante protestation de la conscience (1860)
 the constant protestation of the consciousness
- b. (i) avec la constante verve du conteur qui déborde d'
 with the constant verve of the story-teller who overflows with
 histoires révélatrices (Le Soir, 1995)
 stories revealing
- (ii) narration remise en cause par le constant travail des
 narration called into question by the constant work of the
 historiens (R.W., 2009)
 historians
- (iii) vitrines menacées par la constante hargne du peuple des
 storefronts threatened by the constant rage of the people of the
 chômeurs (R. Boudjedra, 1969)
 unemployed

While all nominals in (138) accept modification by *constant_A*, intuitively, only (138a) possibly embeds an internal predicate. Now consider the following examples in (139), where the N refers to the punctual manifestation of a quality (cf. Martin's 2008 *endo-actional state predicates*). The nominals in (139a, b) can be glossed as in (139c).

- (139) a. Le constant courage de ces personnes lors de la prise d'otages permit
 the constant courage of those people during the hostage taking allowed
 une issue favorable. (V.K.)
 an outcome favorable
- b. Le constant zèle de ces employés lors de la période critique
 the constant diligence of those employees during the period critical
 favorisa la relance de l'entreprise. (V.K.)
 favored the recovery of the company
- c. 'the [courage/zeal] that those [people/employees] constantly exhibited
 during the [hostage taking/critical period]'

As we can see from (139), the modifier may in principle target *any predicative relation*, including the predicative relation that relates a (non-AS)-N to its possessor. In sum, we have to integrate

the fact that subjects of predicates may be introduced by noun-external syntax. In some way, (139) still features a sort of internal reading — since it relates to the subject of a predication, but an adverbial one — this is Larson’s (1998) terminology. However, this is not always the case. Let us now exemplify the external reading, cf. (140).

- (140) a. Le constant courage de ces pompiers lors de chaque intervention
 the constant courage of those firefighters during each intervention
 suscite notre admiration. (v.k.)
 arouses our admiration
- b. Son constant zèle lors de chaque réunion constitue un atout
 his constant diligence during each meeting constitutes an asset for
 pour l’entreprise. (v.k.)
 the company

In one possible reading, the modifier takes wide scope over the subject, along with the temporal localizer. Such uses of adjectival modification are far from the goal of the present work, which is to identify predicates inside nominals.

Therefore, such multiple ambiguities make it difficult to use *fréquent/constant* to analyze nominals in the absence of a transitive pattern. Derivational morphology does not help. In (141), in spite of the presence of a deverbal noun, the reading could be argued to be no less external than in (140a–b) and thus, we are not in presence of a conclusive test with respect to noun-internal structure.

- (141) La constante sidération des victimes lors de chaque accident impose la présence de psychologues. (v.k.)
 ‘The constant shock of the victims during each accident necessitates the presence of psychologists.’

The external reading is also called the *generic* reading in Gehrke & McNally (2015) (see also Stump 1981, R. Schäfer 2007), because it involves intersective modification over entity kinds. That it is so becomes particularly salient when noticing that the referent is handled in a taxonomic fashion, cf. (142).

- (142) Le constant repas de famille du samedi soir commence à me peser. (v.k.)
 ‘The constant family dinner every Saturday night is starting to weigh on me.’

A major difference with the internal adverbial reading is that the generic reading is not related to agent denotation at all and consequently, it is not found with endo-actional states more particularly, but is compatible with all sorts of conceptual events.

To sum up, in order for *fréquent/constant* and other such modifiers to be informative with respect to the internal structure of the nominal under consideration, the *theme-related* reading

must be triggered, which means that a proper instantiation of the **MULT** test requires that the modifier take narrow scope over the theme. **MULT** correctly identifies internal arguments of transitive predicates; but with respect to intransitives, I will later suggest alternative tests. As I shall argue in subsection 4.3.3, what I will call the *Counterfactuality Test* allows a clear distinction between argumental and non-argumental subjects. For instance, it is a little bit tricky, at this stage of the study, to demonstrate the difference between (138a) on the one hand, and (138b) on the other hand. Intuition is temporarily enough to tell us that whereas in (138a), *constant_A* modifies an argument, in (138b) it modifies a possessive predication as defined in Zribi-Hertz (2003: 141) (cf. § 2.2.2.4 *infra*; also see Borer 1999: 1; 2013: 52). But for now, let us stay on adjectival modification. Other iterative As exist, as we are now going to see; and similar scope issues apply.

2.1.1.3 Theme-Related Internal Iterativity

According to van Geenhoven (2004, 2005), building on de Swart (1993), frequency adverbs such as *regularly* express an unbounded plurality of events since they imply an unspecified number of occurrences, cf. Stump (1981: 226). Thus in (143), the iterative modification scopes over the whole internal eventuality.

- (143) La révision régulière de ces véhicules accroît leur longévité.
 ‘The regular maintenance of these vehicles increases their longevity.’

However, if *régulier_A* does instantiate **MULT** in (143), this is because crucially, all revision subevents apply to subparts of one and the same existentially quantified theme. By contrast, if, as is the case in (144a), the complement denotes a kind, then iterative modification is not of any help, since the external adverbial reading is triggered, as the gloss in (144b) shows.

- (144) a. La restauration régulière des logements vétustes assure la sécurité des habitants.
 ‘The regular restoration of dilapidated dwellings ensures the safety of the residents.’
 b. ‘Regularly, dilapidated dwellings are restored.’

Some As, such as *systématique_A* ‘systematic’ in the relevant sense, can only be used generically, cf. (145).

- (145) a. La restauration systématique des logements vétustes assure la sécurité des habitants.
 ‘The systematic restoration of dilapidated dwellings ensures the safety of the residents.’
 b. ‘Systematically, dilapidated dwellings are restored.’

When the complement does not denote a kind, the process may apply repeatedly to the same object, as in (146).

- (146) Le Ministre des Sports rappelle la nécessité impérieuse pour ce type de matériel, de procéder à une révision régulière du mécanisme de déclenchement (au moins une fois par an, selon la recommandation des fabricants) et à son changement si nécessaire.
(Assemblée Nationale, 2012)

‘The Minister of Sports emphasizes the imperative need for regular reviewing of the triggering mechanism for this type of equipment (at least once a year, according to manufacturers’ recommendations) and its replacement if necessary.’

Another valid adjectival modifier is *répété*_A ‘repeated’, cf. (147).

- (147) lettre de l’ONU dénonçant le bombardement répété de zones densément peuplées par les hélicoptères de l’armée de l’air syrienne (AFP, 2015)
‘UN letter denouncing the repeated bombing of densely populated areas by the Syrian Air Force helicopters’

Following Bertinetto & Lenci (2012), I construe iterativity as a form of event plurality, as defined in Cabredo Hofherr & Laca (2012: 1):

“We consider under the general term *event plurality* any linguistic means of expressing a multiplicity of events, be they verbal markers (re-read), adverbials (twice, often, always, again), or adnominal markers (John lived in different countries, each boy built a canoe, John repaired several bicycles).”

Bertinetto & Lenci (2012) distinguish between what they term as *event-internal* and *event-external* pluractionality, cf. (148). While event-external pluractionality refers to a situation where an overall event is repeated multiple times, event-internal pluractionality designates multiple subevents occurring in a single situation. This is illustrated in (148).

- (148) Bertinetto & Lenci (2012: 852–854)
- a. Yesterday at 5 o’clock, John knocked **insistently** at the door.
event-internal
 - b. John swam **daily** in the lake.
event-external
 - c. **Every Saturday evening**, Sam knocked **twice** at her girlfriend’s door.
event-external *event-internal*

I use the same terminology, cf. (149).

- (149) a. Sam came to knock **several times** at Julie’s door. ⇒ Internal Pluractionality.
b. **Every night**, Sam came to Julie’s home. ⇒ External Pluractionality.

As (150) illustrates, extraposed PPs take wide scope over the matrix clause. By contrast, verbal domain, here emphasized, is the locus for dividing the eventuality into subevents.

- (150) a. Twelve times, Sam *knocked twice at the door* and Julie *three times at the window*.
- b. For three months, Sam *cleaned the door in two minutes* and Julie *the window in five minutes*.
- c. For three months, a total of twelve times, Sam and Julie *came to the house* and in two minutes, Sam *cleaned the door* and Julie *the window*.

Thus, targeting a succession of subevents sharing a common object is a way to identify v. Internal pluractionality is the hallmark of theme-related Quantization. [MULT] can be instantiated in French with such adjectival modifiers as *régulier_A* or *répété_A*, when they take scope over the internal argument of a transitive predicate. By contrast, *systématique_A* ‘systematic’ and *habituel_A* ‘habitual’ will always yield a generic reading, which is not informative.

Let us now recapitulate what we have learnt in this subsection. Iterative Adjectival modification can be used as a test for detecting transitive predicates inside nominals, at the condition that an internal reading is yielded. Even when the same object is repeatedly affected by a given agent, such nominals can always be interpreted as taking wide scope over the subject, thus entailing event-external pluractionality. [MULT] can be used under a generic reading, and that makes it compatible with about any singular kind, regardless of whether AS projection is involved. Thus, [MULT] does not help for identifying intransitives, as it does not clarify whether the subject of the denoted eventuality is an argumental one: the eventuality could be denoted by material external to the nominal under investigation.

Now that I have delineated the limits of the [MULT] test, I am going to introduce more adjectival modifiers.

2.1.2 The Divisibility Test

I will here introduce the *Theme Divisibility* test or [DIV], based on modifiers widespread in corpora, namely *successif_A* ‘successive’ and *simultané_A* ‘simultaneous’, in the singular. The major asset of *successif_A* is that contrary to its English counterpart, it can never be used without a complement. Instead of multiplying the event, [DIV] divides it into subevents, each applying to one common subobject, thus emphasizing *theme-related Quantization*. § 2.1.2.1, presents the modifier and the way it works. § 2.1.2.2 is concerned with arguing that [DIV] presents a certain number of benefits over [MULT]. § 2.1.2.3, discusses some scope issues to be considered in order for [DIV] to be instiated in the intended way.

2.1.2.1 Theme Distributivity over Time

I now introduce the French adjectival modifier *successif*_A ‘successive’ (in the singular — similar to **MULT**), which, to the best of my knowledge, has previously only been used casually by Samvelian (1995: 163): *successif*_A ‘successive’ in the singular. I argue that this modifier is licensed by a pluractional operator which in some cases takes narrow scope over the theme. The nominalization in (151), for instance, means that multiple objects were affected one after another in a sequence. It implies that the buildings were not demolished all at once, but rather in a series of stages.

- (151) la destruction successive de différents immeubles
 ‘the successive destruction of various buildings’

Since it relies on theme divisibility, it can only be passed if the argument is *count*, i.e. can undergo discrete quantification, and thus, is dividable into subobjects¹. Requirement of *count* quantification is shown in (152).

- (152) a. ✓ L’attaque successive de plusieurs villes côtières par l’armée ennemie m’inquiète.
 ‘The successive attack of several coastal towns by the enemy army me worries.’
 b. * Le jet successif d’une grande quantité de sable peut être dangereux.
 ‘The successive throwing of a great quantity of sand can be hazardous.’

For this to work and as pointed out by van Geenhoven (2004), the referent of the argument has to be *distributable over time*. Addressing *one N after another* (cf. *infra*, § 4.1.3.4), the author claims that *succession markers must be dealt with as a case of pluractionality, namely, a special case of ongoing repetition that involves increase*. While I follow van Geenhoven (2004: 185–187) in regarding the expression of succession as a form of pluractionality, let me precise that the division of the theme over *time* may involve a null timespan: modification by *simultané*_A ‘simultaneous’ involves *spatial* distribution of subobjects at a given point in time, as seen in (153).²

- (153) Nous avons assisté à l’activation simultanée des deux dispositifs.
 ‘We attended the simultaneous activation of the two devices.’

The test may safely be used with clearly anticausative predicates, since we can be sure we are in presence of an affected theme, cf. (154).

¹This kind of pluractionality has been reviewed by Filip (1999: 264), who mentions the Czech prefix *po-* ‘gradually’, ‘successively’ in relation to theme incrementality.

²A third form of distributive pluractional testing is found with *alterné*_A ‘alternate’:

- (i) le repassage alterné des chemises et des pantalons
 ‘the alternate ironing of shirts and pants’

- (154) Ainsi s'expliquerait la formation successive de ces trois fleuves. (R.W., 1903)
 'Thus would be explained the successive formation of these three rivers.'

To sum up, the major benefit from using [DIV] is that their use is heavily constrained and thus, particularly reliable, due to limited ambiguity. Let us discuss this point into further details.

2.1.2.2 Benefits over Iterative Modification

The most salient safeguard using [DIV] is that, contrary to [MULT], they cannot feature in predicative position — which, as seen in § 2.1.1.1 *supra*, constitutes a consensual test for unambiguous non-intersectivity. *Successif_A* and *simultané_A* necessarily range over a countable series of subevents, specifying their distribution over time. In some cases, as in (151), they distribute over time subparts of the object, thus highlighting the thematic status of the complement. What makes modification by [DIV] appealing, is its lack of an intersective use, cf. (155)¹

- (155) a. ✓ Le bombardement de cette ville était [fréquent / constant].
 'The bombing of this city was [fréquent / constant].'
 b. * La destruction de ces immeubles fut [successive / simultanée].
 'The destruction of those buildings was [successive / simultaneous].'

As we immediately observe, there is a clear-cut aspectual difference between the respective outputs of modification by [MULT] and modification by [DIV]. First, [MULT] induces an unbounded plurality of events, and the reason, I argue, is that the quantity of iterations it expresses is non-count. By contrast, consider for instance the adverbial *x fois* 'x times', which also represents an iteration operator, but does count the number of iterations and thus, induces a bounded plurality of events. See (156).

- (156) a. Il a constamment reconstruit sa maison [*en / ✓ pendant] cinq ans.
 'He has constantly rebuilt his house [in / for] five years.'
 b. Il a reconstruit sa maison trois fois [✓ en / *pendant] cinq ans.
 'He has rebuilt his house three times [in / for] five years.'

As we can see, bounded pluralities of events yield a perfective reading.

A second obvious difference pertains to theme quantification. The test is, I shall argue, sensitive to Quantization, and is a better alternative than [MULT] provided we target the *theme*. The theme-related use of *successif_A* and *simultané_A*, which instantiates the [DIV] test, relies on the ability of a theme to be *distributable*. Contrary to [MULT] and [FOR-X], and similar to [IN-X],

¹Empirically, *successif_A* turns out to be extremely effective to search for French (AS)-Ns using regular expressions (e.g. on *Sketch Engine*).

$\overline{\text{DIV}}$ saves *Quantization*. If the theme is count, $\overline{\text{DIV}}$ keeps trace of the number n of subobjects and makes explicit the succession or simultaneity of n corresponding subevents, thus preserving homomorphism. $\overline{\text{DIV}}$ therefore highlights the division of the event into subevents, each of which takes as its theme a subpart of the theme of the global event. This is seen in (157), where $\overline{\text{DIV}}$ can indifferently be removed or added without disturbing in any way the compatibility with aspectual modification.

- (157) a. (i) Il construisit successivement divers bâtiments pendant plusieurs années.
‘He successively built various buildings for several years.’
(ii) the successive construction of various buildings for several years
‘the successive construction successive of various buildings for several years’
- b. (i) Il construisit successivement trois bâtiments en cinq ans.
‘He successively built three buildings in five years.’
(ii) la construction successive de trois bâtiments en cinq ans
‘the successive construction of three buildings in five years’

With $\overline{\text{MULT}}$, the argument can be introduced by *the same*, cf. (158a–b). With *successif_A*, this is only possible by means of an overt iterative prefix, cf. (158c) (see van Geenhoven 2004: 174–179 for a similar observation about $\overline{\text{FOR-X}}$).

- (158) a. la constante (re)lecture du même livre pendant deux jours
‘the constant (re)reading of the same book for two days’
- b. la (re)lecture du même livre plusieurs fois dans l’année
‘the (re)reading of the same book several times in the year’
- c. la [?](re)lecture successive du même livre
‘the successive (re)reading of the same book’

Thus, with *possession_N*, which can hardly express a multiplicity of events affecting the same object, $\overline{\text{MULT}}$ cannot be correctly instantiated, because the theme will need to be generic: in (), a generic reading of the modifier is unavoidable and therefore, the test cannot be conclusive. By contrast, $\overline{\text{DIV}}$, which does not require theme unicity, works well (see 159b).

- (159) a. La constante possession de ce genre de voitures commence à le rendre ivre de vitesse.
‘The constant possession of this kind of car is starting to make him speed-crazed.’
- b. La possession successive de ces différentes voitures l’a rendu ivre de vitesse.
‘The successive possession of these different cars has made him speed-crazed.’

Modifiers used in the **[DIV]** test, contrary to iterative modifiers, are incompatible with **(non-AS)** stative nouns; see (160) and (161).

- (160) a. ✓ Cette [fréquente / constante] odeur de suie nous dérange.
 ‘This [frequent / constant] smell of soot bothers us.’
 b. * Cette odeur [successive / simultanée] de suie et de charbon nous a dérangés.
 ‘This [successive / simultaneous] smell of soot and coal bothers us.’
- (161) a. ✓ le [fréquent / constant] désordre de ses deux bureaux
 ‘the [frequent / constant] disorder of his two desks’
 b. * le désordre [successif / simultané] de ses deux bureaux
 ‘the [successive / simultaneous] disorder of his two desks’

In sum, **[DIV]** is, in French, an overall better test than **[MULT]**, because the modifiers it involves are more constrained in their use and thus, the risk of false positives is less high.

Another benefit relates to high conceptual compatibility with stative verbal predicates. With nouns such as *connaissance*_N ‘knowledge’, the adjective *constant*_A is interpreted as denoting an uninterrupted state rather than the repetition of an event: this is an intersective reading, irrelevant to targeting a possible internal event, cf. (806).

- (162) La constante connaissance de ces éléments est absolument indispensable à l’organisme de commandement. (R.W., 1964)
 ‘The constant knowledge of these elements is absolutely indispensable to the command organization.’

By contrast, it is relevant that such nominals pass the **[DIV]** test, cf. (163).

- (163) La connaissance simultanée de la position et de la vitesse d’un objet quantique est impossible. (R.W., 2009)
 ‘Simultaneous knowledge of the position and speed of a quantum object is impossible.’

2.1.2.3 Remaining Caveats

Use of **[DIV]** comes with a number of precautions. Importantly, the tested nominal cannot occupy a predicative position, because doing so, we would be modifying the matrix state.

- (164) a. Elle fut la demeure successive des gouverneurs espagnols, britanniques et américains de 1595 à 1821. (P. Meunier, 2011)
 ‘It was the successive residence of Spanish, British and American governors from 1595 to 1821.’

- b. Thérèse Lachmann, maîtresse successive des ducs de Guiche et de Gramont
(C. Guignon, 1998)
‘Thérèse Lachmann, successive mistress of the dukes of Guiche and Gramont.’

Besides, for similar reasons, the modified noun must not be introduced by a light verb, cf. (165).

- (165) Ils effectuèrent le bilan successif des différentes actions menées.
‘They conducted the successive review of the different actions taken.’

In addition, the modified nominal should not be the complement of a P, cf. (166), since DIV could modify the predicate denoted by the preposition itself.

- (166) a. With *de_p* ‘of’:
- (i) relater du point de vue successif d’ un rabbin, d’ un
relate from the point of view successive of a rabbi of a
derviche et d’ un prêtre, l’ histoire et la dispersion du
dervish and of a priest the story and the dispersion of the
peuple khazar (WEB)
people Khazar
- (ii) une popularité qui se forme du suffrage successif du
a popularity which arises from the suffrage successive of the
petit nombre d’ hommes d’ élite de chaque génération.
small number of men of elite of each generation
(V. Hugo, 1834)
- b. With *à_p* ‘to’:
- (i) Le juge doit examiner les faits sous tous leurs aspects
the judge must examine the facts under all their aspects
juridiques, à la lumière successive de toutes les règles de droit
juridical in the light successive of all the rules of right
susceptibles de les régir. (Legifrance, 2010)
susceptible of them governing
- (ii) Cette trompe dite d’ Orléans subit ses derniers
this horn said of Orléans underwent its latest
perfectionnements à l’ instigation successive de deux facteurs de
refinements at the instigation successive of two makers of
trompes. (WEB)
horns

c. With *sous_p* ‘under’:

- (i) Nous proposons ce tour d’horizon sous l’ angle successif des
we propose this overview under the angle successive of the
espèces, des espaces et des exploitations. (O. Clément, 1991)
species of the spaces and of the exploitations
- (ii) Beaucoup de plantes fleurissent en été sous l’ effet
a lot of plants flower in the summer under the effect
successif du froid et de l’ augmentation de la durée de
successive of the cold and of the increase of the duration of
jour. (R.W., 2015)
day
- (iii) sous l’ égide successive de deux ministères (*Le Monde*, 1971)
under the aegis successive of two ministries
- (iv) sous la houlette successive de Félix Gouin, Georges Bidault et
under the guidance successive of Félix Gouin Georges Bidault and
Léon Blum (P. Geneste & J.-P. Bat, 2016)
Léon Blum
- (v) sous le patronage successif du fils et du petit-fils de
under the patronage successive of the son and of the grandson of
Louis (F. Quesnay, 2005)
Louis

Numerous examples are found.¹

¹Ns which can occur after the preposition *sous_p* ‘under’ are numerous, and morphologically disparate. Among them, two semantic subtypes stand out, closely related through the notion of *domination*:

- authority/impulse-denoting Ns:

- ▶ *égide_N* ‘aegis’, *houlette_N* ‘guidance’, *férule_N* ‘iron rule’, *œil_N* ‘eye’ ;
- ▶ *autorité_N* ‘authority’, *responsabilité_N* ‘responsibility’, *supervision_N* ‘supervision’ ;
- ▶ *impulsion_N* ‘impetus’, *pression_N* ‘pressure’;
- ▶ *influence_N* ‘influence’;

- status/term-denoting Ns:

- ▶ *règne_N* ‘reign’;
- ▶ *direction_N* ‘leadership’
- ▶ *présidence_N* ‘presidency’, *régence_N* ‘regency’;
- ▶ *patronage_N* ‘patronage’, *parrainage_N* ‘sponsorship’, *chaperonnage_N* ‘chaperonage’;
- ▶ *ambassade_N* ‘ambassadorship’, *ministère_N* ‘ministry’;
- ▶ *mandat_N* ‘mandate’, *supériorat_N* ‘superiorship’, *protectorat_N* ‘protectorship’, *consulat_N* ‘consulship’, *épiscopat_N* ‘episcopate’, *rectorat_N* ‘rectorship’, *émirat_N* ‘emirate’, *califat_N* ‘caliphate’, *sultanat_N* ‘sultanate’, etc.

We have seen that *fréquent/constant* and *graduel/progressif* need to be used in such a way that they take narrow scope over the internal argument: the former tolerates any stage-level predicate regardless of its internal structure, while the latter is compatible with conceptual events. In this respect, $\overline{\text{DIV}}$ is no different from $\overline{\text{MULT}}$ and *graduel/progressif*. Therefore, in order to target N-internal quantization, $\overline{\text{DIV}}$ must target the complement that we intuitively hypothesize to be the theme. In (167) for instance, the operator scopes over the whole predication.

- (167)
- a. Trois clients se sont successivement plaints.
'Three customers successively complained.'
 - b. Successivement, trois clients se sont plaints.
'Successively, three customers complained.'
 - c. La plainte successive de trois clients a causé du tort à l'employé.
'The successive complaint of three customers harmed the employee.'

The purpose of $\overline{\text{DIV}}$ is to target nP-internal quantization. But the way the operator is used in (167c) does not prove anything in terms of the internal structure of the noun investigated: *successif_A* 'successive' is compatible with whatever $\overline{\text{non-AS}}$ -Ns denote stages. Exactly as we have seen is the case for $\overline{\text{MULT}}$, $\overline{\text{DIV}}$ does not filter Martin's (2008) *endo-actional states*, i.e. Ns which denote the punctual manifestation of a quality, cf. (168) and (169).

- (168)
- a. L'héroïsme successif de ces deux personnes permit la libération des otages.
'The successive heroism of these two people allowed for the liberation of the hostages.'
 - b. Le zèle successif des magistrats et des administrateurs améliora progressivement les choses. (A. de Villeneuve-Bargemont, 1826)
'The successive zeal of the magistrates and the administrators gradually improved things.'
 - c. Il a fallu le courage successif de lanceurs d'alerte et de citoyens pour que soient déverrouillés de grands scandales financiers. (R.W., 2019)
'It took the successive courage of whistleblowers and citizens to unlock major financial scandals.'

In section 2.2, I will introduce the $\overline{\text{CF}}$ test, thanks to which we will be able to see why the N in (168a) has an $\overline{\text{AS}}$ -N reading while (168b, c) do not. As seen in (169a–b), $\overline{\text{DIV}}$ outputs a derived eventuality (see Smith 1997) marked with progressive aspect: this output is compatible with a modifier introduced by *à mesure de* (cf. *infra*, § 3.2.2.1).

- (169) a. Le courage successif de ces différents héros tout au long de la prise d’otages a permis une issue favorable.
 ‘The successive courage of these different heroes throughout the hostage taking allowed for a favorable outcome.’
- b. Le zèle successif de ces différents ouvriers à mesure de l’intensification du rythme de production a permis une hausse des bénéfices.
 ‘The successive zeal of these different workers in the gradual course of the intensification of the rhythm of production allowed an increase of profits.’

As will be shown in subsection 4.3.3, the fact that (non-AS)-Ns such as *travail_N* ‘work’ accept the subject-oriented reading of *successif_A* or *simultané_A* makes it impossible to regard that reading as an instance of the [DIV] test. In this respect, the same caveats that we have seen for [MULT] apply: because *fréquent_A* or *constant_A* are used does not mean we are facing an instance of [MULT], and because *successif_A* or *simultané_A* are used does not mean we are dealing with a proper instance of [DIV]; only theme-related occurrences ensure it. For subject-related occurrences, only the [CF] test can help us (cf. *infra*, section 2.2).

2.1.3 Prepositional Modification

One way to test nominals for AS projection has been to modify them by means of modifiers of eventualities. Such modifiers are those typically found in the verbal domain. Among them, aspectual modifiers especially have been used as evidence that a given nominalization inherits its aspect from its derivational source. This section investigates in which way such modifiers can inform us of the presence of specific structural layers inside nominals. § 2.1.3.1 delves deeper into the identifying characteristics of the theme, proceeding to define quantization and affectedness. § 2.1.3.2 discusses scope issues related to telic modification, focusing on the location of the modifier, and introducing a distinction between *inherent* and *derived* Quantization. § 2.1.3.3 introduces the [GRAD] test.

2.1.3.1 Quantization and Affectedness

Event Nominals in the narrow sense, i.e. excluding states, have been tested since Grimshaw (1990) by means of aspectual modifiers. More specifically, usual aspectual tests for AS detection inside nominals, at least since Grimshaw (1990) (cf. *supra*, subsection 1.3.1), target *telicity*, which I will assume instantiates a form of *Inner Aspect*. The notion of *Inner Aspect* as introduced in Verkuyl (1988) is intrinsically tied to quantification that scopes over the internal argument. This connection, which has been named *Quantization*, homomorphically relates a predicate to its argument (cf. Quine 1960, Dowty 1979, 1991, Krifka 1992, Borer 1994, 2005b, 2013). Krifka (1998) has formalized the correlation between event quantification and theme quantification in terms of a *mereological* relationship, cf. (170).

(170) **Krifka's Mereological Mapping from Objects to Events**

- a. Whenever a relation θ holds for an object x and an event e , then every proper part y of x stands in the relation θ to some proper part e' of e . (Krifka 1998: 211)
- b. If an event bears a relation to an object, any subpart of the object bears the same relation to some subpart of the event. (Borer 2005b: 130, ex. 10d)
- c. If x is part of y , then if a telic predicate maps y (as Theme) onto event e , it must map x onto an event e' which is part of e . (Dowty 1991: 567)

As we see, Krifka formalizes a relation of *homomorphism* by virtue of which any subpart of the theme is *affected* (in the broad sense, cf. *infra*) by a subpart of the event in the same way as the whole theme is affected by the whole event. Thus, *predicate* \rightarrow *argument* mapping preserves the relations between elements: quantification of the object and quantification of the event are intricately linked. According to Dowty (1991), a theme is *incremental* if it is *gradually affected* until some point in time (the *telos*) which constitutes *event culmination*: the most widely used test to verify telicity, the $\boxed{\text{IN-X}}$ test, measures out the event between its initiation point and its culmination. Now, let us define *affectedness* more thoroughly.

Affectedness (Tenny 1994, see also Alexiadou 2001: 93–103) is defined as the property of undergoing a form of *consumption*. Importantly, affectedness does not necessarily involve alteration. For instance, you can *read a book in two hours* — the fact that the book is not physically impacted does not change anything to its gradual *consumption* as an abstract object. Formal definitions for affectedness and incrementality are given in (171).

- (171) **Affectedness** refers to the relation between a predicate P and an object x such that the quantity of x to be processed by P can be interpreted as gradually decreasing through time. **Incrementality** is the property of an x effectively interpreted in such a way.

Affectedness, therefore, is the condition of possibility of incrementality, which may be expressed as in (172).

(172) **Affectedness Condition**

Theme incrementality can arise iff a relation of affectedness holds between the predicate and its argument.

However, whether an affected theme ends up incremental or not does not solely depend on affectedness. Affectedness needs temporal extension to correspond to an incremental affection. And temporal extension, for its part, is narrowly correlated with the *quantification* of the theme. This is particularly salient when argument quantification triggers an accomplishment reading, as in (173).

- (173) a. Les bombes ont mis deux heures à toutes exploser.
 ‘The bombs took two hours to all explode.’
- b. Les spectateurs ont mis dix minutes à sortir de la salle.
 ‘The spectators took ten minutes to exit the room.’

The traditional distinction between achievements and accomplishments, drawn from Vendlerian verb classifications, instead of being inherent to the verbs themselves, can blur based on how the event is perceived and described. For instance, *sortir*_v ‘exit’ is not inherently an achievement any more than it is an accomplishment. It depends, among other factors, on the physical properties of the exit threshold. If this is an imaginary line, then it has only one dimension and it takes no time to cross it. By contrast, two-dimensional thresholds take time to go through, cf. (174). It is, therefore, heavily influenced by pragmatic and contextual factors.

- (174) a. Le bébé a mis plusieurs minutes à sortir du ventre.
 ‘The baby took several minutes to come out of the womb.’
- b. Mon oncle est en train de sortir de l’aéroport.
 ‘My uncle is currently leaving the airport.’

Another parameter to consider is the temporal granularity at which the event is observed. An event typically classified as an achievement, suggesting an instantaneous transition, can be perceived as an accomplishment, unfolding over time, when considered from a different perspective: it is always possible to slow down or expand the timescale of the event. An example is Gyarmathy’s (2015) well-known *Slow-Motion Camera* effect, cf. (175).

(175) **Slow-Motion Camera**

Quand on passe la scène au ralenti pour détailler le processus, à notre échelle de temps, la bombe met plusieurs minutes à exploser. (v.k.)
 ‘When we slow down the scene to detail the process, on our time scale, the bomb takes several minutes to explode.’

A simple and widely used test for *affectedness* is theme preposing, first suggested by M. Anderson (1978). In French, an arguably similar manipulation can be achieved using the so-called *possessive* Determiner, as illustrated in (176).

- (176) a. Ce livre est intéressant; ✓ sa lecture vous sera utile.
 this book is interesting its reading to you will be useful
- b. Cet objet est fort ingénieux; * sa possession vous sera utile.
 this object is very ingenious its possession to you will be useful

Thus, the nominal in (176b) does not exhibit affectedness. Therefore, there is no relation of quantization between the predicate and its argument.

I will assume that in all quantized predicates, the *little v* head establishes a mereological relationship between the theme and a thereby introduced event. Following Burzio's (1986) Generalization (built on Perlmutter 1978), I distinguish between unaccusative and unergative predicates. I assume unergatives to have their internal argument saturated by an arbitrary element, which *de facto* rules out Quantization. Those assumptions make a number of predictions regarding unergative nominals, especially imposing that they be built on a phasal base, so that Quantization may arise higher, in relation to a grammatical subject: this is the *Phasality Requirement* (see *infra*, subsection 4.3.3).

Let us now discuss scope issues: the place of the modifier within the nominalization may have its importance.

2.1.3.2 The $\boxed{\text{IN-X}}$ Test

For the testing of $\boxed{\text{AS}}$ -Ns, one of the most widely used methods is to try to apply a semantically compatible aspectual modifier to the nominalization. In § 2.1.3.1 I have shown that quantification plays a major role in triggering incrementality in the presence of affectedness. In this subsection, I highlight the importance of the place of the modifier. More specifically, scope issues make it crucial in some cases to insert the modifier *before* the complement. This is an efficient way to ensure to target the eventuality denoted by the verb itself, and not by some higher projection. I will first discuss weak quantification, arguing that it introduces additional predication turning out to be parasitic when testing noun-internal structure. I will then show that modifiers placed *after* the *of*-P complement may be licensed by derived theme-related or subject-related Quantization.

Unaccusative and unergative nominalizations, while clearly diverging when applying the low $\boxed{\text{IN-X}}$, may in some cases behave similarly to one another with respect to its high application. This is the case in (177), where both *arrivée*_N 'arrival' and *protestation*_N 'protestation' apparently accept $\boxed{\text{IN-X}}$ independently of their respective event structures.

- (177) a. l'arrivée de plusieurs véhicules en quelques minutes
 'the arrival of several vehicles in a few minutes'
 b. la protestation de plusieurs clients en quelques jours
 'the protestation of several customers in a few days'

However, further examination shows that such similarity is, in fact, superficial, as the results are skewed by the fact that the complement is applied weak, i.e. non-presuppositional, quantification. As seen in (178), once a non-presuppositional reading of the complement is excluded, the postposed $\boxed{\text{IN-X}}$ now discriminates between the unaccusative nominal in (178a) and the unergative one in (178b).

(178) **Inherent Quantization**

- a. ✓ l'arrivée de ces véhicules en quelques minutes
‘the arrival of the vehicles in a few minutes’
- b. * la protestation de ces clients en quelques minutes
‘the protestation of the customers in a few minutes’

In (179a), the event measured out can correspond to the arrival of the totality of the cars. By contrast, (179b) entails distributive interpretation of the quantifier, where the arrival of each car is measured out. The difference of interpretation between (179a) and (179b) is due to the following fact. In (179a), the extraposed aspectual modifier takes wide scope over the remaining of the clause; by contrast in (179b), the aspectual modifier takes narrow scope over the vP, the subject being kept outside.

- (179) a. En quelques minutes, plusieurs véhicules arrivèrent sur le lieu du drame.
‘In a few minutes, several vehicles arrived on the scene.’
- b. Plusieurs véhicules arrivèrent en quelques minutes sur le lieu du drame.
‘Several vehicles arrived in a few minutes on the scene.’

Now consider the pair in (180).

- (180) a. L'arrivée sur le lieu du drame de plusieurs véhicules en quelques minutes permit de sauver les victimes.
‘The arrival on the scene of several vehicles in a few minutes allowed to save the victims.’
- b. L'arrivée en quelques minutes de plusieurs véhicules sur le lieu du drame permit de sauver les victimes.
‘The arrival in a few minutes of several vehicles on the scene allowed to save the victims.’

Clearly, with unaccusative (AS)-Ns, [IN-X] can be either preposed or postposed with respect to the complement. The contrast between (180b) and (181b.ii) tells us that in the presence of an internal argument, the preposed [IN-X] is grammatical, otherwise it is impossible. Thus, when we want to know which type of predicate we are dealing with, involvement of weak quantification is not desirable, since it does not allow to distinguish between unaccusatives and unergatives: the nominalizations in (180a) and (181a.ii) are both perfectly fine with [IN-X], but this is, of course, misleading. While unaccusative (AS)-Ns are unconditionally telic by the very fact that they project a theme, unergative (AS)-Ns only take [IN-X] if their argument receives weak quantification. This is expected if they do not provide their own telicity and if weak quantification provides the endpoint, i.e. limits the event.

- (181) a. (i) ✓ En quelques jours, plusieurs clients protestèrent contre la hausse des prix.
‘In a few days, several customers protested against the price increase.’
- (ii) ✓ la protestation de plusieurs clients en quelques jours contre la hausse des prix
‘the protestation of several customers in a few days against the price increase’
- b. (i) * Plusieurs clients protestèrent en quelques minutes contre la hausse des prix.
‘Several customers protested in a few minutes against the price increase.’
- (ii) * la protestation en quelques minutes de plusieurs clients contre la hausse des prix
‘the protestation in a few minutes of several customers against the price increase’

Thus, whenever the complement receives weak quantification, as is the case in (181a.ii), unergative nominalizations will accept the modifier even though they do not possess a quantized theme. By contrast, $\overline{\text{IN-X}}$ preposing allows to correctly filter out unergatives, because in this case, the modifier adjoins before a subject is introduced. In sum, as in all tests, the quantification involved should always be strong, never weak. Weak quantification makes the postposed $\overline{\text{IN-X}}$ work, but it introduces an existential event that complexifies the reading — thus *skewing*, so to speak, the straightforward use of the test.

Now, we turn to derived Quantization — which involves strong quantification. Using the PP *en l’espace de* ‘within’, unergative $\overline{\text{AS}}$ -Ns can also exhibit their own derived Quantization, through quantification of their external argument — or, more, exactly, of their *subject*.¹ See (182), where the complement is strongly quantified, i.e. receives a presuppositional reading; also note how the use of *successive_A* seems to facilitate the interpretation of the nominal as a series of subevents (see also § 4.3.3.5 *infra*).

- (182) La protestation successive de ces centaines clients en l’espace de quelques mois doit vous interpeller.
‘The successive protests of these hundreds of customers over the course of a few months should concern you.’

¹Hypothesizing that unergative $\overline{\text{AS}}$ -Ns simply fail to provide AS-related derived Quantization correctly predicts what will be demonstrated in subsection 4.3.3, i.e. that the generation of what could be unergative nominals will crash unless the predicate is dominated by a subject-introducing projection. In sum, VoiceP in itself cannot trigger Quantization.

Contrary to weak quantification, which incorrectly instantiates the $\overline{IN-X}$ test and must be avoided, strong quantification is fully authorized. Importantly, not only unergatives, but also atelic transitives reject the preposed $\overline{IN-X}$. But atelic nominals, which — contrary to unergative ones — accept non-generic themes, may draw their Quantization from theme quantification. In (183a), we can verify that *observer_v* ‘observe’ and *observation_N* ‘observation’ inherently reject $\overline{IN-X}$: they lack inherent Quantization, because their theme is non-affected. As the contrast between (183a, b) shows, theme quantification can also trigger a form of Quantization with inherently non-quantized transitive predicates. Thus, $\overline{IN-X}$, when not used in a preposed fashion, can accommodate non-inherently-quantized predicates. This is shown in (183b). Preposing the modifier, in turn, is barred; see (183c).

- (183) a. (i) Le policier a [\checkmark repéré / # observé] les véhicules en quelques minutes.
 ‘The policeman [spotted / observed] the vehicles in a few minutes.’
- (ii) [\checkmark Le repérage / # L’observation] des véhicules en quelques minutes a rassuré les victimes.
 ‘The [spotting / observation] of the vehicles in a few minutes reassured the victims.’
- b. (i) \checkmark Le policier a observé ces différents véhicules suspects en l’espace de quelques minutes.
 ‘The policeman observed these various suspicious vehicles within a few minutes.’
- (ii) \checkmark l’observation de ces différents véhicules suspects en quelques minutes
 ‘the observation of these various suspicious vehicles within a few minutes’
- c. (i) # Le policier a observé en l’espace de quelques minutes ces différents véhicules suspects.
 ‘The policeman observed in a few minutes these various suspicious vehicles.’
- (ii) # l’observation en l’espace de quelques minutes de ces différents véhicules suspects
 ‘the observation in a few minutes of these various suspicious vehicles’

Note that we can always find contexts where the observation event is inherently quantized, i.e. the theme, being inherently affected, does not require bounded quantification, cf. (184a). Thus, in one sense of ‘examine’, the preposed $\overline{IN-X}$ is passed, cf. (184b).

- (184) a. (i) ✓ En utilisant la fonction avance rapide, le chercheur a été en mesure d’observer en quelques minutes dans son intégralité le phénomène filmé.
 ‘Using the fast-forward function, the researcher was able to observe in a few minutes the entire filmed phenomenon.’
- (ii) ✓ L’observation en quelques minutes, grâce à la fonction avance rapide, de l’intégralité du phénomène filmé a permis au chercheur de rendre son rapport dans la soirée.
 ‘The observation in a few minutes, using the fast-forward function, of the entire filmed phenomenon allowed the researcher to submit his report in the evening.’
- b. Ce phénomène atmosphérique est remarquable; ✓ son observation a permis des avancées majeures.

Clearly, even for nominals such as in (183b.ii), theme quantification provides an endpoint; therefore, we are in a situation of Quantization — but I call it *derived* Quantization. If, in such nominals, the theme projected is by default non-affected, incrementality can however be introduced through bounded theme quantification — that is, necessarily *after* realization of the theme as a quantified phrase. In any case, $\overline{\text{IN-X}}$, whether preposed or postposed, proves to be a robust test to identify event-denoting $\overline{\text{AS}}$ -Ns: weak quantification in and of itself is not sufficient to make even the postposed $\overline{\text{IN-X}}$ work, cf. (185). Only, the postposed $\overline{\text{IN-X}}$ does not tell us if we are dealing with an inherently quantized event predicate.

- (185) * [la colère / le travail] de vingt personnes en quelques minutes
 ‘the anger/work of twenty people in a few minutes’

I will now introduce another method for identifying *little v* — namely, the $\overline{\text{GRAD}}$ test.

2.1.3.3 The Graduality Test

Telicity, we have seen, can be tested through graduality-related modification. However, as seen in § 2.1.1.1 *supra*, the presence of *progressif*_A ‘progressive’ alone is not sufficient to draw any conclusions in terms of aspectual properties. The *graduel / progressif* modifier can be reinforced with the help of the $\overline{\text{GRAD}}$ test, which eliminates the possibility of an intersective reading of the modifier, ensuring that the internal reading is at play. Graduality, which is related to Quantization (cf. *supra*, § 2.1.1.1), can be tested through the locution (*au fur et*) *à mesure de_p / que_c*, translatable by *as_c* or *in the gradual course of_{pp}*, which is only compatible with telic eventualities. As previously seen, gradual progressivity reveals dynamicity of the event, moving forwards towards a *telos*.

- (186) a. texte prévoyant la **fermeture** progressive du camp *au fur et à mesure des départs des personnes migrantes* (Europe 1, 2016)
‘text foreseeing the gradual closure of the camp as migrants depart’
- b. prendre en compte la **disparition** progressive des engins *au fur et à mesure de leur vieillissement* (WEB, 2020)
‘take into account the gradual disappearance of machines as they age’

The GRAD test allows us to disambiguate between actual (AS)-Ns, and Ns such as *régime*_N ‘diet’ (cf. *supra*, § 1.3.3.3). Those Ns accept *progressif*_A ‘progressive’, as seen in § 2.1.1.1, and yet, they fail GRAD, cf. (187).

- (187) le régime progressif de Pierre [* à mesure de l’intensification de son désir de plaire] (V.K.)
‘Pierre’s progressive diet [as his desire to please intensifies]’

We also need to ensure that the presence of *graduel / progressif* is not responsible for licensing GRAD. Some subjective As do license GRAD at the expense of informing us of the properties inherent to the noun itself. This can be observed in (188), where removing *croissant*_A ‘increasing’ results in GRAD failing.

- (188) la colère *(croissante) de mon père à mesure de mes outrecuidances (V.K.)
‘my father’s increasing anger as my audacity grows’

The adjective *croissant*_A apparently includes an operator of gradual progressivity whose effects are not to be confused with telicity inherent to the internal structure of the N. In (189), we can see that *importance* embeds no telic component, which is expected if it is built on the stative verb *importer*_v ‘matter’. This comforts the hypothesis according to which *-ance* and *-ence* telic nominals must inherit telicity from an aP-internal vP.

- (189) On a perçu l’**importance** *(croissante) de la présence des manades *à mesure que l’on se rapproche de la Petite Camargue*. (R.W., 1997)
‘We noticed the increasing importance of the presence of herds as we moved closer to the Petite Camargue.’

Some examples are found directly in corpora, cf. (190).

- (190) Le connexionnisme va mettre en avant l’émergence de nouvelles fonctions à mesure que le nombre de neurones d’un système augmente. (WEB, 2016)
‘Connectionism will highlight the emergence of new functions as the number of neurons in a system increases.’

Another typical use is after finding genuine examples that feature the *progressif*_A ‘progressive’ or *graduel*_A ‘gradual’ modifier. All we have to do is check whether *à mesure* can be added, even after removing *progressif*_A or *graduel*_A, cf. (191).

- (191) a. favoriser l'émergence progressive d'une véritable conscience nationale [✓ à mesure des discussions et des échanges] (U.N., 2001)
 'promote the progressive emergence of a genuine national consciousness as discussions and exchanges progress'
- b. favoriser la convergence progressive des méthodes utilisées [✓ à mesure de l'évolution des technologies] (Sénat, 2017)
 'promote the gradual convergence of the methods used as technologies evolve'

To conclude, the $\overline{\text{GRAD}}$ test usefully completes $\overline{\text{IN-X}}$. It is a reliable indicator of the presence of a vP inside the investigated nominals.

2.2 The Counterfactuality Test

I will now introduce a novel test, namely the *Counterfactuality Test*, symbolized as $\overline{\text{CF}}$. It will allow me to independently motivate the claim that $\overline{\text{AS}}$ -Ns are built in the syntax. What we need at this point is a universal disambiguation method (i.e., working with all types of predicates) to exclude $\overline{\text{non-AS}}$ -Ns. The $\overline{\text{CF}}$ test relies on a principle drastically different from those based on internal modification: it identifies $\overline{\text{AS}}$ -Ns through their ability to introduce potential occurrences in a counterfactual context. See the minimal pair in (192).

- (192) a. Le bombardement de la ville [✓ incita / ✓ **inciterait**] la population à fuir.
 'The bombing of the city [incited / would incite] the population to flee.'
- b. Le bombardement sur la ville [✓ incita / # inciterait] la population à fuir.
 'The bombing on the city [incited / would incite] the population to flee.'

What makes this test unique is the fact that it is not subject to the typical set of conceptual constraints encountered with internal modification. Insofar as it has rarely been used and never thoroughly analyzed, it is necessary to detail its conditions of application and understand how it works and what it tells us about the internal structure of $\overline{\text{AS}}$ -Ns. The section is structured as follows. Subsection 2.2.1 introduces the $\overline{\text{CF}}$ test, as well as key notions required for its understanding. More specifically, I will argue that the test targets the ability of $\overline{\text{AS}}$ -Ns to refer to possible instantiations of events over worlds. Subsection 2.2.2 delves deeper into the semantic analysis of $\overline{\text{CF}}$, focusing on *Weak Definites* and *event-kind* denotation. Subsection 2.2.3 explains the type-shifting phenomenon involved in the interpretation of $\overline{\text{AS}}$ -Ns as inserted in a counterfactual context.

2.2.1 Potential Occurrences

The *Counterfactuality* test was first introduced for French by Van de Velde (2006) but relies on a general semantic phenomenon discovered around the same time — although apparently independently — by Schueler (2006, 2008, 2013, 2016). It is succinctly illustrated in (193), where (a), as opposed to (b), is grammatical although the referent of the nominal has not been previously introduced: it verifies the ability of a given nominalization to be interpreted as the logical antecedent of a V in Conditional mood in an *out-of-the-blue* context, i.e. to range over worlds.

- (193) **A contrastive pair** (ad. fr. Van de Velde 2006)
- a. ✓ L'attaque **de** la ville (**par** les ennemis) aurait de terribles conséquences.
 'The attack **of** the city **by** the enemy would have terrible consequences.'
- b. # L'attaque (**des** ennemis) **sur** la ville aurait de terribles conséquences.
 'The enemy's attack **on** the city would have terrible consequences.'

I will demonstrate throughout the chapter that the reason why (228b) does not work is that in (non-AS)-Ns, the merge of a complement triggers existential closure. For (CF) to be passed, the output resulting from that merge must denote an event subkind, instead of an entity token; and for a nominal to denote an event subkind requires that the head noun denotes an event. The event predicate takes a thematic argument and remains temporally free: assuming, for instance, an ontology where it is of type $\langle e, \langle v, t \rangle \rangle$, the event subkind derived from theme saturation is then of type $\langle v, t \rangle$.

The tested nominalization is used as the *subject* (Van de Velde) or *factive object* (Schueler) of the verb. According to Van de Velde (2006), only (AS)-Ns may receive a counterfactual interpretation. Thus, she considers Nominals such as the one in (195a.ii) to be (Non-AS), the complement being a simple possessor. She judges ungrammatical the occurrence of (non-AS)-Ns as subjects of a verb in Conditional Mood, as in (195a.ii). However, that is not exactly true; rather, they are *pragmatically unacceptable in an out-of-the-blue (now OOTB) context*. Indeed, if the judgment is not intended in an OOTB context, i.e. if a world has been created prior to utterance, then modal subordination is externally provided, and the sentence is acceptable independently of the properties of the nominal under investigation. In order to illustrate this point, I provide the examples in (194), where the deictic *alors*_{ADV} 'then' refers to the hypothetical world that determines the truth conditions of the matrix verb — the *Modal Anchoring* of the conditional (cf. § 2.2.1.3).

- (194) Nous pourrions lancer une offensive aérienne contre cet État...
 ‘We could launch an aerial offensive against this state...’

Introduces a Hypothetical World

- a. ✓ Le bombardement sur la capitale nous permettrait **alors** de gagner la guerre.
 ‘The bombing on the capital would then allow us to win the war.’
- b. ✓ L’attaque sur la capitale nous permettrait **alors** de gagner la guerre.
 ‘The attack on the capital would then allow us to win the war.’

Therefore, the judgments must always be intended in an OOTB context: from now on, the hash symbol # indicates semantic oddity as arising in such a context. Van de Velde (2006: 105–131) uses [CF] to demonstrate a structural difference between two types of event nominalizations: only (228a), but not (228b), can be uttered in a context where no actual or potential attack against the city has been priorly mentioned: while *de la ville* ‘of the city’ realizes the internal argument of the destruction event, *sur la ville* ‘on the city’ is base-generated directly as an adjunct. Very importantly, I am not denying the existence of oblique arguments: the PP featured in (195b), which is my own example, does not block [CF] and therefore, we can conclude that it does not trigger existential closure (cf. *infra*, subsection 2.2.2). The [CF] test is, to the best of my knowledge, unrivaled when it comes to its ability to easily and directly distinguish between mere adjuncts and genuine arguments.

(195) **Filtering out non-arguments**

- a. (i) ✓ Le **bombardement** *de* la capitale nous permettrait de gagner la guerre.
 ‘The bombing of the capital would allow us to win the war.’
- (ii) # Le **bombardement** *sur* la capitale nous permettrait de gagner la guerre.
 ‘The bombing on the capital would allow us to win the war.’
- b. ✓ L’**accès** à cette technologie de pointe nous permettrait de gagner la guerre.
 ‘Access to this cutting-edge technology would allow us to win the war.’

The Conditional mood, however, is here intended with its literal conditional semantics. Most saliently, epistemic modality cannot be involved, cf. (196), since it represents a special use of the Conditional mood, not relevant to the working principles of the [CF] test: as shown in (196), such uses allow any definite DP to work in an OOTB context.

- (196) Le chien de Vincent pourrait mordre.
 ‘Vincent’s dog could bite.’

This section introduces notions required to explain the [CF] test. § 2.2.1.1 introduces the notion of *Implicit Conditional*, and § 2.2.1.3 that of *Weak Clauses*.

2.2.1.1 Implicit Conditionals and Non-Presuppositionality

Kasper (1992) addresses a class of expressions that he calls *simple subjunctives*: conditionals that lack an overt *if*-style clausal antecedent. Schueler (2006, 2008, 2016), for his part, calls them *implicit conditional* constructions (ICs; IC-[*x*] refers to phrases as used in ICs). Among ICs, non-presuppositional ones, as Schueler (2016) explains, have an *understood* antecedent, i.e. an antecedent *inferred* from the context. He observes that some event-denoting Ns — which he calls *Definite Process Nominals*, along with infinitives and ACC-*ing* gerunds, all subsumed under the name *Weak Clauses*, are felicitous in OOTB ICs *because they trigger the non-presuppositional reading typical of weak indefinites*. This is illustrated in (197).

- (197) a. La destruction de la ville par cette météorite causerait de nombreuses victimes.
‘The destruction of the world by this meteorite would cause numerous casualties.’
- b. Une destruction de la ville par cette météorite causerait de nombreuses victimes.
‘A destruction of the city by this meteorite would cause numerous casualties.’

(AS)-Ns and Schueler’s *Definite Process Nominals*, I argue, form one and the same class, characterized by event-introducing noun-internal functional material.

The definite article typically refers to something familiar, i.e. either belonging to common knowledge or having been previously introduced as part of the context. The subject DP in (197a) refers to a very precise potential event; yet, it does not refer to any occurring of that event, but only to its *theoretical description*. Crucially, the OOTB use of counterfactual conditionals makes their subject or factive object act as the logical equivalent of the missing *if*-clause: they are interpreted as *potential occurrences* of the theoretical eventualities that they respectively denote. Schueler notices that definite DPs, when used in OOTB ICs, yield conceptual oddity, cf. (198).

- (198) a. # John would regret the war. (Schueler 2013: 3, ex. 9c)
- b. # The war would be costly. (v.k.)

Presuppositional phrases such as *the war* in (198) are only felicitous in ICs in a context which provides them with the logical antecedent they need so that their referent may be identified: uttered *out of the blue*, they become infelicitous. Definite descriptions are commonly assumed to be presuppositional (cf. Heim 1982, Lasersohn 1993): their referent is assumed to preexist the utterance (see 199).

- (199) Partee (1986):
[[the]] = ‘ $\lambda Px . [P(x)]$ ’

Stalnaker (1978) has established that assertion of existence and presuppositional reference to it exclude one another. Presupposition of existence is the implicit assumption that the referent

exists, instead of the assertion of its existence. According to Davies & Dubinsky (2003), “the use of *the* with process nominals does not require presupposed existence”, cf. (200).

- (200) Scientists have posited the **revolution** of the sun around some unknown gravity source. (Davies & Dubinsky 2003)

Crucially, only (AS)-Ns fulfill Davies & Dubinsky’s remark. The [CF] test relies on this property.

2.2.1.2 Weak Indefinites

For phrases to be unconditionally felicitous in ICs, they have to be *non-presuppositional*, as in (201a, b), which feature a *weak* indefinite.

- (201) a. ✓ John would regret a war.
b. ✓ A war would be costly.

As seen in (201), *a war* is always felicitous, regardless of the context: an indefinite suffices to make any nominal work in a non-presuppositional way (cf. Carlson 2003); cf. (202a). Likewise, as shown by Poesio (1994), definite descriptions acquire a non-presuppositional reading if the complement is introduced by a weak indefinite. Such non-presuppositional reading makes any stage-denoting nominal pass the test, cf. (202b).

- (202) a. Un chien déclencherait des disputes.
‘A dog would trigger arguments.’
b. Le coup de sang [✓ d’un / # du] dictateur déclencherait une guerre.
‘The rush of blood of [a / the] dictator would trigger a war.’

Therefore, (203a) should be regarded as inconclusive, as opposed to (203b).

(203) Weak Indefinites in non-head position

- a. La naissance d’un enfant pourrait rapprocher les deux jeunes gens.
(Van de Velde 2006)
‘The birth of a child could bring together the two young people.’
b. Un avortement n’est pas souhaitable : la naissance de cet enfant comblerait le jeune couple. (v.k.)
‘An abortion is not desirable: the birth of this child would fulfill the young couple.’

The mechanism highlighted in (202b) shows that [CF] is sensitive to the interaction between non-presuppositionality and some level of event denotation. A weak indefinite, by entailing non-presuppositional reading of the nominal, prevents a complement from triggering existential closure over the latter. This makes [CF] succeed out of factors independent from the internal

structure of the nominal, thus depriving the test of its substance. By contrast, in existentially closed descriptions, there is no way (non-AS)-Ns can pass [CF]. This is shown in (204), where it clearly appears that use of a strong indefinite does not trigger success at [CF].

- (204) # Le coup de sang d'**un certain** dictateur déclencherait une guerre.
 ‘The rush of blood of a certain dictator would trigger a war.’

Similar observations hold for examples such as (205a, b), which both feature subject inversion in a relative clause. If *hégémonie*_N ‘hegemony’ and *idée*_N ‘idea’ seem to pass [CF], crucially, however, the weak indefinite is responsible for this success: no conclusions can be drawn with respect to the internal structure of these nominals.

- (205) a. En plaidant pour un plurilinguisme de la pensée, vous dénoncez le risque d'appauvrissement que constituerait l'hégémonie d'**une seule** langue. (WEB, 2019)
 ‘By advocating for a multilingualism of thought, you denounce the risk of impoverishment that would constitute the hegemony of a single language.’
- b. La réalité des personnes étant passées par ces locaux et ayant témoigné auprès de nos associations de ce qu'elles ont subi apparaît clairement très éloignée de ce que supposerait l'idée d'**un abri**. (WEB, 2020)
 ‘The reality of the people who have been through these premises and have testified to our associations about what they have endured is clearly very far from what the idea of a *shelter* would suggest.’

In sum, a weak indefinite *de facto* induces an entity kind denotation, which licenses the OOTB use of the Conditional mood and thus, breaks the test. In (203b) *supra*, by contrast, [CF] is correctly instantiated: the Conditional mood is fine although the demonstrative determiner of the complement existentially binds the entity variable of the nominal. This suggests that some distinct variable — in all likelihood, the same variable that internal modification targets — remains free from existential binding. Given that the complement further specifies the event description, then the type of kind that the resulting nominal denotes must be an eventuality kind. Therefore, I propose that this free variable is none other than the eventuality variable itself — the very same eventuality variable that I have argued all (AS)-Ns possess in their denotation. With [CF], we have a method to directly target this variable, allowing for a straightforward discrimination between (AS)-Ns and (non-AS)-Ns: the underlying idea is to determine whether the nominal in question *provides its own eventuality variable*.

To conclude, the [CF] test relies on the observation that only (AS)-Ns can independently provide the denotation required to play the role of an antecedent to a conditional. To explain why (AS)-Ns, and only (AS)-Ns, can play this role, I will now discuss their key ability to provide *Intensional Modal Anchoring*, in the sense of Farkas (1992).

2.2.1.3 Weak Clauses and Sets of Worlds

The $\overline{\text{CF}}$ test inserts a nominal inside an IC to see whether that nominal can play the role of a logical antecedent to the conditional, similar to what an *if*-clause would do. In this subsection, I argue that $\overline{\text{AS}}$ -Ns, when used within ICs, can play the role of a modal antecedent precisely because they refer to properties of events instead of specific instances. Schueler (2013, 2016) introduces the expression *Weak Clauses*, by which he refers to a special kind of phrases that are felicitous as subjects or factive objects in IC constructions *in an OOTB context*, just as if they were introduced by a Weak Indefinite, cf. (206).

(206) Adapted from Schueler (2016)

- a. John would hate [\checkmark for Mary to leave early / # that Mary left early].
- b. John would regret [\checkmark Mary leaving early / # Mary's leaving early].
- c. John would regret the destruction #(of the city).

Stalnaker (1968) claims that the antecedent of a conditional selects a hypothetical possible world. Lakoff (1968) and Morgan (1969) introduce the notion of *world-creating predicates*. Building on those studies, Farkas (1992) introduces *Modal Anchoring*, which refers to the *imaginary setting* within which events take place. Farkas (1992: 85) defines it as follows:

“Now there are linguistic expressions whose effect on the context is to introduce a world or a set of worlds, and propositions in the scope of these expressions are interpreted with respect to the world or worlds thus introduced. Predicates that have this property are called *world-creating predicates*. The modal anchor of propositions within the scope of world-creating predicates is the world or set of worlds introduced by the predicate in question.”

Predicates are qualified as *world-creating* when they introduce such an imaginary setting, cf. (207). My claim is that $\overline{\text{AS}}$ -Ns qualify as Weak Clauses because they provide Modal Anchoring to ICs: they embed an eventuality susceptible to being interpreted as world-creating.

(207) **Modal Anchoring** (Farkas 1992: 88, ex. 28)

The islanders believe a lot of strange things about the world.

World-Creating Predication

- *Death is never natural and each death must be avenged.*
- *The gods punish those who do not avenge the death of their family members.*

Farkas distinguishes between *extensional* and *intensional* reference, cf. (208).

(208) Referents introduced in a particular world will be called extensional and referents introduced in a set of worlds will be called intensional. (Farkas: 95)

Farkas defines the notions of *extensional anchoring* and *intensional anchoring*, cf. (209).

(209) **Farkas’s (1992: 86, ex. 23) definitions**

- a. A proposition *p* is **extensionally** anchored iff the value of its world variable is **a particular world**.
- b. A proposition *p* is **intensionally** anchored iff the value of its world variable ranges over **a set of worlds**.

Intensionality (Carnap 1947) refers to the property by virtue of which the meaning of an expression depends on the internal content (*intension*) rather than pointing to range of referents in a given world (*extension*). This distinction turns out to be crucial for understanding the difference between (AS)-Ns and (non-AS)-Ns. In ootb ICs, the Conditional mood seeks for Intensional Anchoring. The ability of (AS)-Ns to provide Intensional Anchoring is expected if the event variable remains *unbound* within the nominalization. I therefore propose that (AS)-Ns denote the set of properties common to all possible instantiations of the event they refer to, which allows them to refer to ranges of possible instances across worlds. Thus, *Intensional Anchoring* accounts for the specificity of (AS)-Ns: they may provide their *own Intensional Anchoring* — whereas (non-AS)-Ns need to draw it from real-world knowledge, through a process of *semantic enrichment*. This is synthesized in (210).

(210) **Weak Clauses**¹ (updated from Krebs 2022)

Referential Phrases Unfelicitous in ootb ICs Induce Contextually Inferred Modal Anchoring (?# ... would V <u>XP</u> / ?# <u>XP</u> would V...)		Weak Clauses Felicitous in ootb ICs Provide Intensional Modal Anchoring (✓ ... would V <u>XP</u> / ✓ <u>XP</u> would V...)	
Poss-ings	Mary's leaving early	Infinitives	(for Mary) to leave early
		Acc-ings	(Mary) leaving early
Indicative that-clauses	that Mary left early	Subjunctive que-clauses	que Marie parte tôt that Mary leave.SUBJ early
(non-AS)-Ns	the war	(AS)-Ns	the destruction of the city

Let us now delve deeper into (AS)-Ns’ ability to be used non-presuppositionally, by exploring the possibility of the presence inside such Ns of a *free eventuality variable*.

¹Schueler (2016) acknowledges dialectal variation in the ability of *poss-ings* to work as Weak Clauses. In any case, as pointed out to me by A. McIntyre and G. Iordăchioaia, the judgments are not always clear-cut. We might follow Grimm & McNally’s (2015: 93–94) analysis: “*Poss-ing*, like all possessives, will carry what Peters & Westerståhl (2013) refer to as *possessive existential import*. That is, if the relation holds, the possessee must exist.” See the discussion in § 2.2.2.4 *infra*.

2.2.2 A Free Eventuality in (AS)-Ns

In the previous subsection I have introduced key notions in order to be able to describe how the $\overline{\text{CF}}$ test works. To understand how IC-[(AS)-Ns] can come to denote the occurrence of an event, I will now delve deeper into the analysis of the test, presenting the correlation between this test and the salient grammatical properties that characterize (AS)-Ns as opposed to (non-AS)-Ns. (non-AS)-Ns fail $\overline{\text{CF}}$ because of their inability to refer to sets of worlds, they just refer to sets of individuals. Crucially, among nominals, all and only (AS)-Ns, before receiving an optional existential closure, denote *event kinds* as defined by Gehrke (2007, 2019), and never *entity kinds*. $\overline{\text{CF}}$ is sensitive to one essential characteristic of (AS)-Ns (crucially shared with ACC-ings), which is the presence in the structure of the nominalization of a *free eventuality variable*. The fact that this variable is not existentially bound allows event-denoting (AS)-Ns to refer to event kinds, cf. (211).

(211) **Event (AS)-Ns inherently denote event kinds.**

Specifically, (211) means that the structure headed by the nominalizer denotes an *event kind*, same way as (non-AS)-Ns denote entity kinds. The $\overline{\text{CF}}$ test can be passed because of this event kind denotation. As can be clearly seen, in order to better understand how the $\overline{\text{CF}}$ test works, we first have to understand the denotation that OOTB ICs need to have in order to be accepted: that will be discussed in § 2.2.2.1. § 2.2.2.2 then delves into the semantics of *weak definite DPs*. Afterwards in § 2.2.2.3, I elaborate on the idea that IC-[(AS)-Ns] denote event kinds, and I introduce the notion of *event subkinds*. Finally, § 2.2.2.4 focuses on *of*-Ps that do not entail existential closure of the referent of the structure they merge with: I will show that arguments always further specify the denotation and may never trigger reference, which supports the claim that they derive event subkinds rather than specifying entity tokens.

2.2.2.1 The Denotation of Event (AS)-Ns

Schueler claims that (AS)-Ns denote the fact that the event or state occurs or obtains in a hypothetical world (*l'avoir-lieu de l'événement* ‘the taking place of the event’ in Van de Velde’s terms). Schueler (2006) uses the notion of *Internal Coercion*. According to him, when used as Weak Clauses, (AS)-Ns are coerced into denoting facts. However, I do not follow him along this path, i.e. I wish to demonstrate that the eventuality variable remains free inside (AS)-Ns. I will show in subsection 2.2.2 that an IC-[(AS)-Ns] are only *interpreted* as potential instantiations of eventualities in the context of being used as subjects or objects of a Tensed Verb: the (AS)-N provides the eventuality variable, but it is the Tensed Verb that provides existential quantification over that variable. As acknowledged by Schueler (2006: 360–361, ex. 31–32; 2008: 129–130, ex. 218–220, 222) himself, although IC-[(AS)-Ns] do not select for *se produire*_v ‘occur’, they need not denote facts (see Vendler 1967). First, Schueler (2006) notices that the propositional

reading is not what we obtain with examples such as (212), where an event reading is clearly selected.

(212) The destruction of the city would last five hours. (Schueler 2006: 360–361)

Second, unlike French IC-*[que-clauses]* in the subjunctive mood (cf. 213a, see also Kupferman 1996b), and similar to IC-*[infinitives]*, IC-*[(AS)-Ns]* select for “take *x*-time”, as Schueler (2008) notices (cf. 213b).

- (213) a. * Que tu détruises la ville prendrait des mois.
that you destroy.SUBJ the city would take months
- b. ✓ [Détruire la ville / La destruction de la ville] prendrait des mois.
‘[To destroy the city / The destruction of the city] would take months.’

Observing the similarity with infinitives (cf. 214) and following Pesetsky (1991), Schueler argues that the existence of IC-*[subjects]* proves the *irrealis* semantics to be encoded in the internal syntax of Weak Clauses.

(214) ✓ To leave early would be unfortunate.

According to Schueler (2016: 306, ex. 20a–b), ACC-*ings* are very similar to (AS)-Ns insofar as they “can occur as a subject, whether *realis* or *irrealis*” (cf. 215).

- (215) a. John leaving upset me.
b. John leaving would upset me.

The contrast observed in (215) is construed by Grimm & McNally (2015) in terms of a *kind vs. token* opposition. Thus in (216), the ACC-*ing*, which denotes a potential occurrence, is clearly kind-referring.

- (216) **Kind Reading of ACC-ings**
She told him to come see her on Friday and they’d talk about **him running the bar once a week.** (Grimm & McNally 2015: 92, ex. 22b)

As seen in (210) *supra*, clauses in the subjunctive mood are Weak Clauses, unlike those in the indicative. According to Farkas (1992), “the choice between the indicative and the subjunctive is crucially affected by whether the modal anchor of a proposition is a single world or a set of worlds”. Thus, a hypothesis we can safely formulate is that IC-*[WCs]* denote *event kinds*. That brings me to the claim in (217).

(217) Event **(AS)**-Ns pass **(CF)** because they denote *event kinds*.

I will argue that arguments fail to trigger existential closure because they further specify an eventuality, yielding an event kind; by contrast, possessors turn an entity kind into an entity token.

We now turn to Weak Definites.

2.2.2.2 Weak Definites

All nominalizations introduced by *the* correspond to definite descriptions, and yet, they are not always associated with a presuppositional reading. This is particularly salient in the case of event-denoting nominals, as presupposition of existence of a generic event description does not entail the presupposition of *occurrence* of an instantiation of it. As seen in (218), the definite article may be used in a non-presuppositional way (see C. Lyons's 1999 *situational* uses).

(218) Il faut opérer rapidement ce patient : l'hémorragie lui serait fatale.
'We need to operate on this patient quickly: the hemorrhage would be fatal to him.'

However, crucially, the interpretation of (218) does not come straightforwardly: we need to restore from the context some modal subordination that, I will argue in § 2.2.3.1, constitutes a shift of a conceptual nature. This phenomenon makes all kinds of nouns work in ICs, that is, not only event-denoting ones as in (219a, b), but also, for instance, object-denoting ones as in (219c). As agreed in subsection 2.2.1, the judgment of each sentence is intended in an OOTB context.

- (219) a. ✓ L'embargo sur ce pays aurait des conséquences géopolitiques funestes.
'The embargo on this country would have dire geopolitical consequences.'
- b. ✓ Le mat en trois coups me permettrait une victoire rapide.
'The mate in three moves would allow me a quick victory.'
- c. ✓ Pour ce soir, mets un noeud papillon; la cravate serait une faute de goût.
'For tonight, wear a bow tie; the necktie would be a lack of taste.'

Dayal (2004: 439, ex. 80a) (followed by Krifka 2003: 200–201) argues, building on Vergnaud & Zubizarreta (1992: 644, ex. 117a) and elaborating on the well-known restrictions for English, that generic kinds involve the same semantics of the definite article as with tokens. The difference, she claims, lies in the ability of nominals to receive a taxonomic reading. An example is given in (220).

(220) **Singular Definite Generic NPs**

The lion vanished from Asia.

(Krifka 1995: 16, ex. 32g)

For instance, Borik & Espinal (2012) assume the semantics given in (221).¹

(221) **Definite Kinds** (reproduced from Borik & Espinal: 131, ex. 16b, 17b)

- a. $\llbracket N \rrbracket = \lambda P \lambda x_k . [P(x_k)]$
 b. $\llbracket DN \rrbracket = \lambda P \iota x_k . [P(x_k)]$

Imposing a uniqueness condition is here the definitory feature of the definite article. As will be justified in §§ 4.3.2.2 and 4.3.2.3, existential closure — or lack thereof — is assumed to be introduced before uniqueness — by a dedicated projection dominated by D and whose function is to transform a kind into a token. In (222) below, the sentences are intended to be understood in a context where the possibility of occurrence of the denoted eventuality has not been previously discussed, i.e. *in an OOTB context*.

(222) Salut ! Tu sais, ...

‘Hi! You know, ...’

- a. (i) ... un concert causerait des perturbations
 a concert would cause some disruptions
 (ii) ... qu’ il y ait un concert causerait des perturbations
 that there be a concert would cause some disruptions
- b. (i) # ... le concert causerait des perturbations
 the concert would cause some disruptions
 (ii) ... choisir d’ organiser un concert causerait des perturbations
 choosing to organize a concert would cause some disruptions

The oddity judgment is performed in this spirit, i.e. with the idea of assessing the sentence’s ability to convey a meaningful and plausible message in such a context. Likewise, every sentence that will be used as part of the application of the $\llbracket CF \rrbracket$ test, is to be understood as uttered without any prior reference to the event described by the investigated nominal. Proper use of $\llbracket CF \rrbracket$ requires that judgments be performed with such a context in mind.² In (222a.i), the use of a weak indefinite entails non-presuppositional reading of the subject DP, which makes the conditional mood work fine. Indeed, *Modal Subordination* (cf. Roberts 1989), or rather, *Modal Anchoring* as we are going to call it, is provided by existential quantification scoping over a concert event, cf. (222a.ii). In (218), kind reading of the DP is intended; however, crucially, this reading is unfelicitous unless the proper context has been set up, cf. (222b.i). This reading of the definite article, which does not entail uniqueness, corresponds to what is sometimes called a *weak definite*. Building on the identification criteria established by Carlson & Sussman (2005),

¹I do not assume a k type; for me, kinds are generic properties of type $\langle a, t \rangle$, a standing for either an e or v primitive.

²The role of *Hi! You know...* is to make it unambiguous that the conversation is starting and ensure that no prior reference to the potential holding of a concert can have been made.

Aguila-Guevara (2014), Aguilar-Guevara & Zwarts (2010, 2013), Aguilar-Guevara & Schulpen (2014), Gehrke (2019) and Beyssade (2013), I claim that the definite article in WCs is a *weak definite*. Most saliently, weak definites entail *sloppy reading*, cf. (223).

- (223) Borrowed from Beyssade (2013: 126):
- a. Anna read the newspaper and John did, too.
⇒ Not necessarily the same newspaper.
 - b. Anna read the book and John did, too.
⇒ Necessarily the same book.

Let us now try to apply the *sloppy identity* criterion to nominalizations as used in ICs, cf. (224).

- (224) a. Je dois partir à **la guerre** de la même manière que mon grand-père
I have to go to the war in the same way as my grandfather
dut s' y rendre à son époque.
had to REFL.3SG to it go at his time
- b. L' **invasion** de la France me dévasterait comme **elle** dévasta
the invasion.FEM of the France me would devastate as she devastated
mes grands-parents.
my grandparents.

As we can see, the article used in the $\boxed{\text{CF}}$ test entails sloppy identity: *elle*_{PRO} 'she' refers to the theoretical description of *the invasion of France*, beyond the question to know which specific instantiation is being implied. Scholten & Aguilar-Guevara (2010) notice that weak definite descriptions cannot be referred to through pronominal anaphora, i.e. *it* cannot be used to refer back to them. However, a crucial difference appears between regular weak definite descriptions on the one hand, and IC- $\boxed{\text{AS}}$ -Ns on the other hand. Whereas the former are indeed unable to establish discourse referents, the latter can do so. This contrast is illustrated in (225).

- (225) a. Lola a pris le train. [# Hélas, il est tombé en panne au bout de vingt minutes.]
'Lola took the train. [Alas, it broke down after twenty minutes.]'
- b. La destruction de la terre signerait la fin de la vie telle que nous la concevons.
[✓ Elle obligerait les humains à trouver un nouveau foyer.]
'The destruction of the earth would signal the end of life as we conceive it. [It would force humans to find a new home.]'

The observation of the ability of $\boxed{\text{AS}}$ -Ns to create discourse referents is consistent with the claim made earlier, that $\boxed{\text{AS}}$ -Ns act as world-creating predicates. As stated in § 2.2.1.3, only $\boxed{\text{AS}}$ -Ns can provide Intensional Anchoring. Weak definite descriptions such as *the newspaper*, by contrast, only provide *Extensional* Anchoring. According to Aguilar-Guevara & Zwarts

(2010: 181), “sentences with weak definites usually carry more information than what seems to be conveyed by the straightforward composition of its constituents”. This is seen in (222b.ii), which expresses a free interpretation of the subject DP in (222b.i). Such contextually inferred additional information is referred to by the authors as a form of *semantic enrichment*. I will argue in subsection 2.2.3 that crucially, whereas Extensional Anchoring requires context-dependent semantic enrichment, ability to provide Intensional Anchoring is *structurally encoded* inside (AS)-Ns.

Considering the properties highlighted, I will adopt the same analysis as in Aguilar-Guevara & Zwarts (2010: 183) (see 226).

(226) Weak definites refer to abstract objects that have a context-independent uniqueness.¹

The claim in Aguilar-Guevara & Zwarts (2010, 2013) is that weak definite descriptions refer to *kinds*. The distinction between kind and token denotation provides another layer of understanding of how definite descriptions can refer to hypothetical instances, which, I argue, leads to the right predictions with respect to (AS)-Ns. Reference to *event* kinds, specifically, allows (AS)-Ns to denote abstract eventualities. If (AS)-Ns denoted event tokens, they would refer to occurrences within the topic world and thus, they would fail to provide Modal Anchoring (, see § 4.3.2.1 *infra* for discussion). Only by means of the tensed verb of the matrix or a subordinate clause can a specific occurrence be denoted. In other terms, Eventuality (AS)-Ns can always pass [CF] because the event variable introduced by *v* does not get to be temporally bound. (AS)-Ns pass [CF] because they refer to the set of various potential instances of the event description across possible worlds, which is precisely what provides intensional anchoring to the apodosis. Thus, the ability of event (AS)-Ns to provide for intensional anchoring constitutes a milestone argument to claim that all (AS)-Ns in French lack Tense. The typical case when the variable gets bound is with indicative mood. But similarly, within anchored (i.e. non-implicit) conditionals the event variable is also bound to a specific time in a specific world. The typical case aside (AS)-Ns when it remains free, is with the Subjunctive Mood, cf. Farkas 1992. This brings us to the next section, which focuses on the ability of (AS)-Ns to denote *event subkinds*.

¹Abstract objects here must not be confused with *idealities* in the sense of e.g. Flaux & Stosic (2014a, 2014b), i.e. *book* as referring to the content instead of the physical object (see Chomsky 1970: 17-18, fn. 7 and 22, fn. 11; cf. also Godard & Jayez 1994: 47, ex. 27). As seen in (i), the anaphora is blocked even though *like_v* here induces reference to contents: *it* can only refer to the act of reading the newspaper, not to the content read; so the blocking is no different that it would be with e.g. *train_N*.

(i) # Lola read the newspaper on the Internet and she liked it.

2.2.2.3 Event Subkinds

I have argued that IC-[$\overline{\text{AS}}$]-Ns] denote weak definite descriptions. As seen in (218) *supra*, non-presuppositional use of the definite article is tied to a *kind* reading. And yet, kind reading does not, of course, require AS projection: hence the fact that *embargo_N* or *hémorragie_N* may occur in ICs. But then, what is the point in the $\overline{\text{CF}}$ test? The $\overline{\text{CF}}$ test, I argue, is relevant from the moment a specific complement intervenes: within the realm of entity-denoting nominals, a specific complement triggers existential closure and consequently, invariably turns any kind into a token. This is made clear by the fact that in the presence of a specific complement, the non-presuppositional interpretation becomes impossible: the nominal cannot receive a kind reading any more, and therefore, the judgment in an OOTB context becomes “odd”, cf. (227).

(227) # Le concert à Paris le week-end prochain de cette chanteuse célèbre serait un événement exceptionnel.

‘The concert in Paris next weekend of this famous singer would be an exceptional event.’

A crucial property of $\overline{\text{AS}}$ -Ns, which comes as a decisive identification criterion, is as stated in (228).

(228) **Ability of $\overline{\text{AS}}$ -Ns to receive non-closing specific complements**

La destruction de cette énorme ville causerait de nombreuses victimes.

‘The destruction of this huge city would cause many casualties.’

I argue that the non-blocking of specific complements with $\overline{\text{AS}}$ -Ns in OOTB ICs is straightforwardly accounted for if such $\overline{\text{AS}}$ -Ns denote *event kinds*: an *of*-P complement may in this case very well derive an *event subkind* instead of token, thus explaining why a specific complement may occur. Thus, in (193) repeated below, (b) fails as opposed to (a) because the only way a specific complement can be authorized, is if it derives a *subkind of the event*, i.e. if it is an argument.

(193) **A contrastive pair** (ad. fr. Van de Velde 2006)

a. ✓ L’attaque **de** la ville (**par** les ennemis) aurait de terribles conséquences.

‘The attack **of** the city **by** the enemy would have terrible consequences.’

b. # L’attaque (**des** ennemis) **sur** la ville aurait de terribles conséquences.

‘The enemy’s attack **on** the city would have terrible consequences.’

However specific a given *argumental* complement might be, it will always just further specify the event description rather than triggering entity-level existential closure. Thus, if we try to add a temporal modifier to the nominal in (228a), it will subspecify the event instead of localizing a token: since existential closure has not been triggered prior to this adjunction, there is no token to localize. See (229).

- (229) L'**attaque** de la ville *une fois la trêve signée* [✓ aurait de terribles conséquences].
 ‘The attack on the city once the truce has been signed would have terrible consequences.’

This crucial understanding was brought to light by Van de Velde (2006, 2015). Van de Velde (2006: 92–96) points out that the mechanism at play in the potential or counterfactual interpretation of nominalizations involves an *event vs. occurrence disjunction*: according to her, “the *existence* of the event, being *ideal*, does not depend on its *temporal anchoring*” (translation mine). Besides, JVDV15 observes that although occurrences (i.e. entity tokens) can receive a date, only theoretical descriptions (i.e. event kinds — what Van de Velde calls “facts”) can *contain* one, cf. (230).

- (230) La signature du traité le jour de Pâques [* eut lieu en terrain neutre / ✓ parut de bon augure].
 (Van de Velde 2015: 83, ex. 44–45)
 ‘The signing of the treaty on Easter day [took place on neutral ground / appeared auspicious].’

In order to show that *le jour de Pâques* does not localize an occurrence, but rather proves to be an integral part of the event, let us move the date before the complement (see *infra*, § 4.3.2.1) (to that purpose, the complement has been made slightly heavier), cf. (231).

- (231) La signature le jour de Pâques du traité sur la non-prolifération des armes [* eut lieu en terrain neutre / ✓ parut de bon augure].
 ‘The signing on Easter Day of the treaty on the non-proliferation of weapons [took place on neutral ground / appeared auspicious].’

Now, to verify that the interpretation at work in IC-[(AS)-Ns] is indeed the *event-kind* one in (231) — that is, the one induced by *parut de bon augure* ‘appeared auspicious’, all we have to do is apply the [CF] test, cf. (232).

- (232) La signature le jour de Pâques du traité sur la non-prolifération des armes [✓ paraîtrait de bon augure]. ‘The signing on Easter Day of the treaty on the non-proliferation of weapons [would appear auspicious].’

As expected, the predicate that induces

In § 4.3.2.1 *infra*, I shall argue that the introduction of a temporal localizer that contributes to event description provides evidence for the presence of a vP within that nominalization. But for now, consider the contrast in (233).

- (233) a. La **destruction** de la planète par cette météorite [\checkmark en l’an 2250] nous obligerait à trouver un nouveau foyer.
 ‘The destruction of the planet by this meteorite [in the year 2250] would force us to find a new home.’
- b. Le cataclysme [# en l’an 2250] nous obligerait à trouver un nouveau foyer.
 ‘The cataclysm [in the year 2250] would force us to find a new home.’

As we can see from (233a), event-internal dating does not entail existential closure over the entity, as opposed to what happens with e.g. *concert*_N. Therefore, instead of analyzing the \square CF test in terms of the presence of *irrealis* semantics as Schueler (2016) suggests, I favor Grimm & McNally’s (2015) approach, based on the *token vs. kind* ambiguity. Following Carlson (2003), arguments of a verb modify its denotation and derive a subset of the eventuality that it denotes. This is illustrated in (234), borrowed from Gehrke (2007).

- (234) $\llbracket \text{eat cake} \rrbracket \leq \llbracket \text{eat} \rrbracket$

Carlson (2003: 203) distinguishes between event types (or *kinds*, in Gehrke’s terminology) and event *tokens*, which are spatiotemporal instantiations of a given type:

“If I write the letter *t*, and ten seconds later, write the letter *t* again, there are two distinct token events, even though they are of exactly the same type, writing the letter *t*.”

The purpose of \square CF is to induce an event-kind reading, so as to ensure that the temporal modifier derives an event subkind rather than an entity token, cf. (235).

- (235) La destruction le jour de ton anniversaire de la peluche de ton enfance aurait une grande portée symbolique.
 ‘The destruction on your birthday of the plush toy of your childhood would have great symbolic significance.’

Beysade (2013) claims that in weak definite descriptions, “the definite article combines with a noun phrase [...] which is interpreted as a type-referring noun, not as a token-referring noun”. We can also use iterative modifiers, cf. (236).

- (236) a. L’écriture de la lettre *t* t’entraînerait.
 ‘The writing of the letter *t* would train you.’
- b. L’écriture de la lettre *t* plusieurs fois d’affilée t’entraînerait.
 ‘The writing of the letter *t* several times in a row would train you.’

These data are expected if such Ns as e.g. *concert*_N can never refer to the theoretical description of an event, i.e. if, following Roy & Soare (2013), their denotation is distinct from that of $\overline{\text{AS}}$ -Ns: $\overline{\text{non-AS}}$ -Ns denote an event only at a conceptual level, i.e. an event that is not *syntactically encoded*. In conclusion, $\overline{\text{non-AS}}$ -Ns fail \square CF because they are unable to be interpreted as sets of possible occurrences. This is expected if they never denote event kinds, but always entities.

Two parameters in the selectional system of modifiers, in relation with the conceptual semantic context, inform us of the size and nature of the projection that they modify: type (event vs. entity) and sort (kind vs. token). Event tokens require an existentially bound event variable, which quantification only Tense can provide. Based essentially on Stowell's (1982) account, I assume (AS)-Ns to lack a [+TENSE] feature.

2.2.2.4 Possessors vs. Arguments

Borer (1999: 1; 2013: 52): subjects are possessors in (non-AS)-Ns, arguments in (AS)-Ns. Zribi-Hertz (2003: 141) defines possessors as “DPs which include a subject located *outside the existential-closure domain*” (emphasis mine); in § 4.3.2.2, I shall propose to introduce them in [Spec, F_{REF}P], where F_{REF}P is the projection that turns the default kind into a token. There are two types of *de_p* ‘of’-Ps: those that trigger existential closure, thus turning an entity kind into an entity token, and those that do not trigger existential closure, thus turning a kind into a subkind. I will call *non-closing* the subkind-defining type, and *closing* the token-defining one. Token-defining genitives correspond to what Milner (1982a) calls the *grammatically distinguished* nominal phrase, or the *syntactic subject*. The notion of *subject* of a Noun Phrase for Romance has been introduced and defined by Vergnaud (1974), Cinque (1980), Milner (1982a, 1982b, 1982c), Godard (1986), Kupferman (1996a, 2004) and Zribi-Hertz (2003), building on e.g. Chomsky (1970: 36) and Kayne (1994: 26) (see also Shlonsky 1988, Aoun 1985). Cinque (1980) has shown that it is always the most prominent argument that may raise to the possessor's position.

The genitives in (238a.i–iii) (on the next page) do not entail existential closure, as evidenced by the fact that they do not block further referential specification: an additional genitive, a restrictive relative clause or a possessive or demonstrative D can still occur. Their reference to kinds can be easily verified by their compatibility with indefinites and by the fact that can be used without an overt D (as commonly seen in image captions). Note that the *de_p* used here is not a conceptually full preposition, since the *de*-P found in these examples cannot be used in a predicative position, as in *ce livre est de Victor Hugo* ‘this book is by Victor Hugo’ (see *infra*, § 4.3.2.2). Adopting by and large Zamparelli's (2013) view, that nominal phrases denote kinds by default, I assume that the denotation type of a nominal is a function of the presence of a closing phrase — whether it be a genitive, a non-generic restrictive relative clause, or a possessive or demonstrative determiner entailing specific spatiotemporal or discourse localization. As long as no closing phrase has merged, the nominal still denotes a kind. The merging of a token-denoting genitive always yields a token-denoting output; this is illustrated in (237a), as opposed to (237b).

- (237) a. la montre en or de mon grand-père
 ‘my grandfather's gold watch’
 b. la montre en or du nouveau-riche lambda
 ‘the gold watch of the typical nouveau riche’

- (238) a. (i) ✓ (un / ce / son / ∅) koala du Queensland
 a this his ∅ koala of the Queensland
- (ii) ✓ (un / ce / son / ∅) koala du Queensland de la réserve du
 a this his ∅ koala of the Queensland of the reserve of the
 Lone Pine
 Lone Pine
- (iii) ✓ le koala du Queensland de la réserve du Lone Pine que j'
 the koala of the Queensland of the reserve of the Lone Pine that I
 ai pu observer hier
 could observe yesterday
- b. (i) * (un / ce / son / ∅) koala de ma grand-mère
 a this his ∅ koala of my grandmother
- (ii) * le koala de ma grand-mère que j' ai pu observer hier
 the koala of my grandmother that I could observe yesterday

As seen in (239a) and contrasting with (239b), the argument must be *specific*, lest a generic statement be denoted instead of a particular occurrence (see Knittel 2010, Roy & Soare 2022).

- (239) a. ✓ L'invasion de la ville de son grand-père le chagrinerait.
 'The invasion of my grandfather's city would make him sad.'
- b. # L'invasion de la ville lambda nous permettrait de nous entraîner.
 'The invasion of the typical city would allow us to train.'

Crucially, a specific DP does not entail existential closure if it realizes the argument of an internal verb. This is shown in (240). While (240a) can receive either a token or a kind interpretation, (240b), which features a possessive — hence closing — determiner on top of an argumental genitive, may only refer to a token and, as a consequence, fails CF.

- (240) a. L'invasion de la France par la Chine [✓ n'est pas près de se produire / ✓ me
 surprendrait beaucoup].
 'The invasion of France by China [is not about to happen / would surprise me
 greatly].'
- b. Pierre a des idées saugrenues : son invasion de la Terre par les aliens [✓ n'est
 pas près de se produire / # me surprendrait beaucoup].
 'Pierre has fancy ideas: his invasion of Earth by aliens [is not about to
 happen / would surprise me greatly].'

As soon as a closing genitive, relative clause or participial phrase is merged, the CF test fails. Indeed, when a nominalized phrase gets existentially bound by a closing phrase, it becomes problematic in OOTB conditionals. Presuppositionality restricts the set of possible worlds to

a single world: the world where the referent of the nominalization is presupposed to exist. The OOTB IC becomes pragmatically odd, as the existential binding constrains the nominal to referring to a specific token, ruling out an event kind reading. In contrast, the (AS)-N in (240a) is not subject to existential closure, which authorizes an event kind reading. The example in (241) further substantiates this point. Here, the closing phrase, by confining the reference to a specific instance, that which is documented in history books of the utterance world, blocks [CF].

- (241) La destruction de Paris par Hitler (# [mentionnée / qu'on mentionne] dans les livres d'histoire) aurait changé l'issue de la guerre.
 'The destruction of Paris by Hitler ([mentioned / that one mentions] in history books) would have changed the outcome of the war.'

As seen in (242), (AS)-Ns, when they come to denote an entity token, i.e. after they have undergone existential closure, provide discourse referents just the same way as (non-AS)-Ns. In so far as they do, it is still possible that they might be able to be compatible with the Conditional Mood. However, this does not enter the conditions for the [CF] test, as we enter the real of presuppositionality. In this example, the closing relative clause anchors the hypothetical event to a topic world previously introduced in discourse context, the internal modifier *hypothétique*_A 'hypothetical' in some way signaling the creation of a world.

- (242) a. L'hypothétique invasion de la France par la Chine que nous avons évoquée hier aurait de terribles conséquences.
 'The hypothetical invasion of France by China that we discussed yesterday would have terrible consequences.'
- b. L'hypothétique séisme que nous avons évoqué hier aurait de terribles conséquences.
 'The hypothetical earthquake that we discussed yesterday would have terrible consequences.'

The conclusion is that arguments of (AS)-Ns, although specific, are by definition never closing genitives, but always non-closing genitives. The reason is that, just like KP-adjuncts (cf. *infra*, § 4.3.2.2), arguments of an internal verb contribute to intensional description and not to reference to entities corresponding to this description. Genitives leave the entity variable existentially free as long as they wear an argumental status, contributing to the event description. By contrast, non-argumental genitives, such as possessives, invariably close it. Since argumental genitives leave entity-level existential quantification pending, one more genitive may merge, however with a non-argumental genitive, the loop stops unless it is also non-presuppositional. Now, let us see how denoting event kinds allows (AS)-Ns to pass [CF].

2.2.3 Interpretive Shifting

I argued in subsection 2.2.2 that the reason why $\overline{\text{AS}}$ -Ns pass $\overline{\text{CF}}$ is that they denote eventualities and not entities. In order to further support this correlation, we will now proceed to an in-depth discussion of Schueler (2006) and Van de Velde's (2006) observation that IC- $\overline{\text{AS}}$ -Ns are interpreted as *occurrences* of eventualities (cf. *supra*, § 2.2.2.1). Drawing from Zucchi (1993), Schueler (2006) suggests that the ability of $\overline{\text{AS}}$ -Ns to provide the lacking Modal Anchoring when used in ICs is due to their undergoing a *shift* in interpretation. Building on their insight, I will demonstrate that IC- $\overline{\text{AS}}$ -Ns are interpreted as the occurring or obtaining in the utterance world of an event or state — *l'avoir-lieu de l'événement* 'the taking place of the event', would say Van de Velde. I will first show in § 2.2.3.1, building on Aguilar-Guevara & Zwarts (2013), that OOTB ICs, insofar as they denote *Weak Definite Descriptions*, indeed involve a form of interpretive shifting from a kind to an *instance* of that kind, in the sense of Carlson's (1977) *Realization Relation*. I will then claim in § 2.2.3.2 that the reason why IC- $\overline{\text{AS}}$ -Ns pass $\overline{\text{CF}}$ is that their interpretation shifts towards instances of *event* kinds: I will argue that the interpretation of instances of event kinds, contrary to the interpretation of instances of *entity* kinds, is not conceptually induced from context and real-world knowledge, but rather, *grammatically determined*. Finally in § 2.2.3.3, I briefly introduce a test that appears to be based on this same shifting phenomenon, namely $\overline{\text{POT}}$.

2.2.3.1 Conceptual vs. Grammatical Shifting

As discussed in § 2.2.1.3, the essential difference between referential phrases and weak clauses as presented in Schueler (2006, 2008, 2013, 2016) is that only the latter may provide their own Modal Anchoring; the former, by contrast, force us to induce modal anchoring from the context. Therefore, in the interpretation of OOTB ICs, inferences work completely differently whether we are dealing with a an $\overline{\text{AS}}$ -N or a $\overline{\text{non-AS}}$ -N. This is illustrated in (243).

(243) $\overline{\text{AS}}$ -Ns can provide their own *Modal Anchoring* (M.A.)

- a. Should an attack be launched, the destruction of the city would traumatize the inhabitants. [M.A. provided by clausal antecedent.]
- b. The city has always been preserved, which is a good thing: the destruction of the city would traumatize the inhabitants. [M.A. provided by N-internal event.]

Following Gehrke & McNally (2015), I suggest that (243) is made possible by the fact that $\overline{\text{AS}}$ -Ns, denoting event kinds, can be interpreted as sets of occurrences. Non-presuppositional IC-[XPs], we have seen, are Weak Definite Descriptions. In a study on Frequency Adjectives, R. Schäfer (2007), followed by Gehrke & McNally (2011), shows how kinds can be interpreted as *instances*, through a form of *coercion*. According to R. Schäfer's (pp. 563–564) definition,

coercion is here to be understood as *a cover term for rescue processes which change the representation of linguistic entities to make some expression meaningful*:

“In *A daily cup of coffee is good for your health.*, my analysis will assume coercion of *cup of coffee* to some kind of event description. In fact, it seems to be not the cup of coffee itself which has a positive effect on one’s health, but rather what one does with it. [...] In the case at hand, coercion forces the frequency adjective to contribute its own completely underspecified event description and to find a way of consuming the object-denoting nominal correctly.”

Schueler (2006: 359) distinguishes between two methods of coercion: *external* for regular nominals, *internal* for (AS)-Ns. The corresponding formulas are reproduced in (244).

(244) **Schueler’s Coercion Types**

a. **External Coercion**

$\llbracket x \rrbracket =$ ‘the state of affairs *a* such that $\forall w. [Holds(a)(w) \Leftrightarrow x \text{ exists in } w]$ ’

b. **Internal Coercion**

$\llbracket P \rrbracket =$ ‘the state of affairs *a* such that $\forall w. [Holds(a)(w) \Leftrightarrow \exists e. [P(e) \text{ in } w]]$ ’

Building on Schueler, I argue that both (AS)-Ns and (non-AS)-Ns are induced to refer to an instance, but the difference in terms of their semantic type, i.e. *event* (kind) vs. *entity* (kind) affects the form of shifting that such induction entails. We can see that the subjects of the ICs in (245a–c) are entity-referring, and yet, because of the context, they can still be interpreted as eventualities. We could call it *entity-to-event* shifting.

(245) **Conceptual Interpretive Shifting**

a. Tu peux prendre l’avion, mais le train serait moins onéreux.

‘You can take the plane, but the train would be cheaper.’

b. J’ai beau aimer la chaise sur laquelle je suis assis, le fauteuil de ma grand-mère me procurerait tout de même un meilleur confort.

‘However much I like the chair I’m sitting on, my grandmother’s armchair would still provide me with better comfort.’

c. Le séisme tant redouté causerait d’énormes dégâts.

‘The much-feared earthquake would cause massive damage.’

Central to the study of Weak Definite Descriptions is the notion of *semantic enrichment*, without the understanding of which the shift that occurs with ICs cannot be correctly apprehended. Weak definites entail various manifestations of idiosyncratic enrichment (see e.g. Aguilar-Guevara & Zwarts 2013). However, entity-to-event shifting may or may not involve a weak definite as in (245a): as seen in (246b, c), whether the nominal denotes a kind or a token makes no difference. Such shiftings may be expressed as in (246), where the curly arrow \rightsquigarrow denotes a semantic drift.

- (246) a. *le train* ‘the train’ \rightsquigarrow ‘to travel using one or more trains’
 b. *le fauteuil* ‘the armchair’ \rightsquigarrow ‘to be sitting on the armchair’
 c. *le séisme* ‘the earthquake’ \rightsquigarrow ‘an effective occurrence of the earthquake’

Likewise, in (246), we can see that modal anchoring is reconstructed by inferring the most plausible eventuality inferred from the little bit of context that we can draw from the denotation of the subject DP. Thus, *train*_N, *séisme*_N and *fauteuil*_N induce contextually inferred extensional anchoring (Schueler’s *external coercion*): this is what I call *conceptual* shifting. (AS)-Ns, by contrast, provide their own Modal Anchoring, which invariably results in interpreting the Definite Description as the occurrence of a *set of event tokens*. Such interpretive shifting is not related to context or world knowledge. It does not involve any form of enrichment, but is a direct consequence of the properties of *the nominal itself*: I call it *grammatical* shifting. Following Aguilar-Guevara & Zwarts (2013), this general process of Type Shifting may be best captured by Carlson’s *Realization Relation*, given in (247).

- (247) **Carlson’s (1977) Realization Relation** (Aguilar-Guevara & Zwarts: 44)

$R(a,A)$ if the object a instantiates the kind A .

Aguilar-Guevara & Zwarts (2010: 186) apply the *Realization Relation* to weak definite descriptions such as *the newspaper* in *read the newspaper*:

“If N is the newspaper kind, then $R(x_i)(N)$ means that the individual x_i is a realization of that kind, i.e., a specific newspaper.”

Aguilar-Guevara & Zwarts (2013: 44–45) further elaborate on this matter:

“If T is the train kind, then $R(a, T)$ means that the individual a is a realization of that kind, i.e. a train. Crucially, this kind can be instantiated not just by an entity but also by a sum of entities. So, in the case of the kind T , not only is every individual train a realization of T , but also every plural sum of trains.”

They give the sentence in (248).

- (248) Lola took the train from Amsterdam to Nijmegen.

As seen in (245), the shift observed in ICs arises not only with eventive meanings but also with any sort of conceptual meaning. Thus, the shifting phenomenon in and of itself occurs independently of the internal structure of the IC-[nominal]. The subjects in (249a.i, b.i, c.i) each embed an appositive headed by a kind-denoting noun phrase, thus indicating that they refer to kinds. As subjects of ICs, they are coerced into being interpreted as conditionals. This shift occurs through an underspecified **R**: for each sentence, I suggested one possible gloss among an unlimited number of possibilities — the interpretation is freely inferred from context. The exact content of **R** is pragmatically determined, based on context and world knowledge. This process pertains to a phenomenon of *Extensional Modal Anchoring* — where reference to an entity is extrapolated towards an event interpretation.

- (249) **Pragmatic Semantic Enrichment**

- a. (i) La voiture volante, fascinante invention, révolutionnerait notre quotidien.
‘The flying car, a fascinating invention, would revolutionize our daily lives.’
- (ii) ‘If an indeterminate number of representatives of this type of vehicle existed, our daily life would be revolutionized.’
- b. (i) Le fauteuil en velours, meuble confortable s’il en est, me détendrait.
‘The velvet armchair, a comfortable piece of furniture if there ever was one, would relax me.’
- (ii) ‘If an indeterminate number of representatives of this type of furniture were at my disposal, it would relax me.’
- c. (i) Le Labrador à poils longs, chien réputé pour sa gentillesse, plairait beaucoup aux enfants.
‘The long-haired Labrador, a dog known for its kindness, would be very popular with children.’
- (ii) ‘If at least one representative of this breed lived with us, it would be popular with the children.’

By contrast, if the subject or object of the Verb in Conditional Mood is an (AS)-N instead of an entity-denoting noun such as the ones found in (249), then the Realization Relation acquires a level of regularity that it clearly does not have in the realm of (non-AS)-Ns. Indeed, the crucial difference is that with an (AS)-N, the Modal Anchoring of the OOTB IC is straightforwardly provided by the hard-coded event denotation of the (AS)-N, without any pragmatic inference being required. This is expressed in (250).

(250) **Predictable interpretation of the Realization Relation with (AS)-Ns**

With and only with (AS)-Ns, the interpretation of the *Realization Relation* is predictable.

2.2.3.2 Occurrence Interpretation of Event Kinds

Considering the previous analysis, I would like to suggest that the interpretation of event kinds in IC-[(AS)-Ns] may be best captured by resorting to a specific type of Realization Relation that differs from that in (249) in being non-freely interpreted. As mentioned in (247) *supra*, Carlson’s *Realization Relation* **R** is defined as a relation between an object and a kind, where the object instantiates the kind. I here propose that in the case of (AS)-Ns, **R** is not contextually interpreted on the base of arbitrary semantic enrichment, but corresponds to a grammatically determined *event instantiation* relation, where the event kind is interpreted as a set of event

tokens. Following Gehrke & McNally (2011), existentially quantifying over an event kind is tantamount to denoting the *occurrence* of at least one instance of the corresponding event.

(251) **Existence/Occurrence Entailment** (Gehrke & McNally 2011: 193)

Any assertion that an event type exists at an index i will entail the existence of at least one token event at i that supports the existence assertion.

Consequently, I propose that the systematic interpretation is as in (252).

(252) **Occurrence interpretation of Event Kind Realization**

The *Realization Relation* \mathbf{R} between the event kind denoted by an $(\overline{\text{AS}})\text{-N}$ and its instantiation is systematically interpreted as the *occurrence* of a subset of the set of event tokens that the kind refers to.

Now, in order to understand how (251) may apply to the interpretation of IC- $[(\overline{\text{AS}})\text{-Ns}]$, let us first consider how an ordinary noun needs to be interpreted in order to provide Modal Anchoring under its kind reading, i.e. using a weak definite. As seen in (253), conceptual events, which cannot provide their own Modal Anchoring, do not provide modal anchoring unless explicitly quantified over. This is straightforwardly accounted for if they denote entity kinds and therefore, lack an event variable.

- (253) a. (i) Il y eut un bruit. \Leftrightarrow Un bruit se produisit.
 ‘There was a noise.’ ‘A noise occurred.’
- (ii) Un bruit me ferait sursauter.
 ‘A noise would make me jump.’
- (iii) # Le bruit me ferait sursauter.
 ‘The noise would make me jump.’
 \rightsquigarrow S’il y avait un bruit, je sursauterais.
 ‘If there were a noise, I would jump.’
- b. (i) Il y eut un accident. \Leftrightarrow Un accident se produisit.
 ‘There was an accident.’ ‘An accident occurred.’
- (ii) Un accident me traumatiserait.
 ‘An accident would traumatize me.’
- (iii) # L’accident me traumatiserait.
 ‘The accident would traumatize me.’
 \rightsquigarrow S’il y avait un accident, je serais traumatisé.
 ‘If there were an accident, I would be traumatized.’

According to Milsark (2014: 165), the item *there* is a marker of existential quantification and an analogue of the operator \exists in the predicate calculus. Building on an original idea by Strawson

(1959: 241) and following Milsark (2014) and Carlson (1977), McNally (1998: 353–354) suggests to equate existential quantification with the instantiation of a *non-particular*:

“We might interpret *There was* [i.e., in *There was snow*.] as if it were synonymous with the predicate *to be instantiated*, a predicate that holds of expressions interpreted as properties or as what Strawson calls *nonparticulars*.”

She afterwards illustrates her point by the formula reproduced in (254a) (bolding hers). The generalization that ensues in (254b) is my own addition.

(254) **Existential Quantification**

- a. **is-instantiated**($\hat{\lambda}x . [\text{snow}(x)]$)¹ (McNally 1998: 354)
 b. $\llbracket \exists \rrbracket = \lambda P . [\text{is-instantiated}(\hat{\lambda}x . [P(x)])]$ (v.k.)

Building on McNally (1998), I propose to describe the shift that occurs in ICs as in (255).

(255) **Occurrence Interpretation of Kinds**

Existential quantification over a kind is interpreted in ICs as occurrence of an eventuality semantically associated with an instantiation of that kind.

Now, drawing from Gehrke & McNally’s (2011) *existence / occurrence* entailment as given in (251), I propose the following formalization. Assuming for grammatically relevant events a specific ontology as in Roy & Soare (2013), we can say that a grammatical event $x_{\langle v, t \rangle}$ is interpreted in ICs as a set of instantiations of type v : this is a special case for the *Realization Relation*, where the shift in interpretation operates specifically from an *event* kind to a set of *event* tokens.² The formula in (256) defines the Instantiation Relation for Event Kinds. I construe kinds as generic properties $X_{\langle \alpha, t \rangle}$ — α standing for either the entity type e or the event type v , i.e. as sets of possible instances x_α . I assume that the index i represents a complex variable composed of parameters that act as coordinates for the event, such as time, location, and world. The Instantiation Relation turns the event kind into an event token occurring at a given index.

(256) **Instantiation of Event Kinds**

$$\llbracket \mathbf{I} \rrbracket = \lambda i \lambda X_{\langle v, t \rangle} \exists x_v . [x \in X \wedge \mathbf{OCCUR}(x, i)]'$$

To conclude, the sort shifting that occurs in ICs with (AS)-Ns is not of a conceptual nature, but is grammatically encoded, through what I called the *Instantiation Relation I*. The difference is that now, the existentially quantified event is actually present in the structure, it is not a mere

¹The *caret* operator $\hat{\ }$ is a formal notation introduced by Montague (1973: 23–24), which turns a token-denoting expression into its intensional counterpart (the converse being the *caron* $\bar{\ }$). This is an abstraction over a variable to output a higher-order one, whence the name *type-lifting* (or *-lowering*).

²The same remark applies as in Aguilar-Guevara & Zwarts’s (2013: 186) quote (cf. *supra*, § 2.2.3.1): “not only is every individual train a realization of T, but also every **plural sum** of trains”; which means the interpretation is not necessarily into a single token, but more generally, into a set of tokens.

interpretation as was the case with $\overline{\text{AS}}$ -Ns such as *fauteuil_N*, *train_N*, *concert_N* or *séisme_N*. Event $\overline{\text{AS}}$ -Ns do not need anything else than themselves to provide Modal Anchoring, precisely because they denote a predicate of events, which provides the required intension without the need for any context. Although $\overline{\text{AS}}$ -Ns never provide existential quantification over the event, in the context of ICs, the event variable, now under the scope of a clausal verb, becomes bound by Tense, thus turning into an event token x_e . This is, I have argued, how the $\overline{\text{CF}}$ test works. More evidence of this mechanism is given by another phenomenon that also gives rise to another test, namely the *Potentiality Test*.

2.2.3.3 The Potentiality Test

Only $\overline{\text{AS}}$ -Ns, we have established, can denote potential occurrences. Beyond the $\overline{\text{CF}}$ test, another property that unfolds from that fact, is that only $\overline{\text{AS}}$ -Ns can be modified by logical antecedents introduced by *si* ‘if’ or *en cas de* ‘in the event of’, cf. (591). This is, to the best of my knowledge, a novel observation, at least for French. I call it the *Potentiality Test* (henceforth the $\overline{\text{POT}}$ test).

As was observed when introducing $\overline{\text{CF}}$, $\overline{\text{non-AS}}$ -Ns can only work non-presuppositionally if they are introduced by a weak indefinite. And indeed, we can verify that definite descriptions are rejected in the syntactic context just described, unless their head is an $\overline{\text{AS}}$ -N.

- (257) a. Les spécialistes avaient annoncé [**le / √ un*] séisme en cas d’explosion nucléaire.
 ‘Experts had predicted [the/an] earthquake in the event of a nuclear explosion.’
- b. Les spécialistes avaient annoncé [*√ la / √ une*] destruction de la ville en cas d’explosion nucléaire.
 ‘Experts had predicted [the/a] destruction of the city in the event of a nuclear explosion.’

I will not make a detailed demonstration of why this is indeed the case that $\overline{\text{AS}}$ -Ns work non-presuppositionally, insofar as I have already extensively analyzed this phenomenon, and as $\overline{\text{POT}}$ and $\overline{\text{CF}}$ are actually both sides of one and the same coin. That $\overline{\text{POT}}$ relies on the same Realization relation as $\overline{\text{CF}}$ can be seen through the following example.

- (258) Poutine prédit le chaos en cas de nouvelles frappes en Syrie. (*La Tribune*, 2018)
 ‘Putin predicts chaos in the event of new strikes in Syria.’

As we see, the conditional modifier scopes over the existential quantification that results from the shift from kind to token, by virtue of existential quantification being interpreted as event occurrence. Therefore, all I have said about $\overline{\text{CF}}$ in subsection 2.2.2 will also apply to $\overline{\text{POT}}$: the semantic analysis is the same, both tests being based on a property shared by all $\overline{\text{AS}}$ -Ns, which

is that they denote *event kinds*. The only difference is that in [CF], the (AS)-N plays the role of the antecedent, while in [POT], it plays the role of the apodosis.¹

The reason I call it the *Potentiality Test* is that contrary to [CF], which is about both *potential* and *counterfactual* occurrences, this test is generally about potential occurrences, not counterfactual ones.² Note however, that retrospective predictions are always possible, cf. (259).

- (259) Les spécialistes calculèrent rétrospectivement la destruction de notre planète au cas où la trajectoire de l'astéroïde eût été légèrement différente. (v.k.)
 'Experts retrospectively estimated the destruction of our planet in the event that the trajectory of the asteroid had been slightly different.'

Again, those are basically the two sides of the same coin and therefore, it should not surprise the reader, if both names are somehow swappable. I only use them for convenience. Anyway, [POT] works with all types of predicates. It works especially very well to reveal arbitrary pronouns. See (260), where the holder can be removed without compromising the test.

- (260) a. La directrice avait promis l'indulgence √(de l'équipe éducative) si le coupable venait à se dénoncer. (v.k.)
 'The principal had promised leniency from the educational team if the guilty party were to come forward.'
- b. L'oracle avait prédit la clémence √(de l'empereur) en cas de défaite du gladiateur. (v.k.)
 'The oracle had predicted the emperor's mercy in the event of the gladiator's defeat.'

It is also a way to test (AS)-Ns that are conceptually incompatible with [IN-X], cf. (261).

- (261) a. √ L'oracle avait prédit la **vénération** du dieu Mars au-delà des limites de l'Empire *en cas de victoire*. (v.k.)
 'The oracle had predicted the worship of the god Mars beyond the limits of the Empire in case of victory.'
- b. √ La première ministre avait souhaité le **maintien** en fonction du ministre *en cas de condamnation*. (v.k.)
 'The prime minister had wished for the minister to remain in office in the event of a conviction.'

¹A deeper analysis might turn out to reveal some differences with respect to the [CF] test. However, I leave this matter for further research.

²The choice of the name *Counterfactuality Test* instead of *Potentiality Test* is only motivated by this difference.

In sum, $\overline{\text{POT}}$ is a good complement to $\overline{\text{CF}}$. It reinforces the argumentation about $\overline{\Psi}$ -Ns, which are $\overline{\text{AS}}$ -Ns not containing a full verbal structure. More precisely, it will be shown that $\overline{\Psi}$ -Ns, while rejecting strong categoriality tests, pass $\overline{\text{CF}}$ and $\overline{\text{POT}}$.

Now to conclude the whole section, the Counterfactuality and Potentiality tests are novel approaches to the testing of $\overline{\text{AS}}$ -Ns, which have the benefit of not relying on modification. As such, they directly target the event variable in $\overline{\text{AS}}$ -Ns. Both tests thus turn out to be particularly relevant for testing $\overline{\text{AS}}$ -Ns independently of source lexicalization.

Conclusion

This chapter was dedicated to presenting all the tests that will be used to disambiguate $\overline{\text{AS}}$ -Ns and $\overline{\text{non-AS}}$ -Ns. Let us recapitulate them, as well as the conclusions drawn.

Adjectival modifiers in an internal reading may target the internal argument of an embedded event. However, they cannot identify external arguments, as they can be licensed by non-argumental subjects, leading to the incorrect detection of many $\overline{\text{non-AS}}$ -Ns as $\overline{\text{AS}}$ -Ns. The $\overline{\text{MULT}}$ test uses *fréquent/constant* or other iterative modifiers. The $\overline{\text{DIV}}$ test involves dividing the event into subevents, thereby testing for the presence of Quantization through theme distributivity. It employs modifiers like *successif_A* ‘successive’ or *simultané_A* ‘simultaneous’, which have the advantage of always being used internally. Additionally, PP modification can sometimes reveal the presence of internal event layers.

Another set of tests relies on prepositional modification. Success at $\overline{\text{IN-X}}$ is the hallmark of Quantization. The preposed variant of $\overline{\text{IN-X}}$ marks the presence of theme-related Quantization, which we assumed identifies a vP event projection. The postposed $\overline{\text{IN-X}}$ guarantees Quantization, but does not necessarily react to an inherently incremental theme. Instead, it can be sensitive to *derived* Quantization, whereby incrementality arises through bounded argument quantification. I also introduced the $\overline{\text{GRAD}}$ test, which I argued to identify a *little v* projection inside $\overline{\text{AS}}$ -Ns.

The Counterfactuality Test, or $\overline{\text{CF}}$, universally identifies all types of $\overline{\text{AS}}$ -Ns, by coercing nominals into an event kind denotation. The ensuing occurrence interpretation directly signals the presence of an eventuality variable in the internal structure of the nominal.

Now that all the tests have been introduced and discussed, we can turn to $\overline{\text{AS}}$ -Ns that lack a lexically attested source.

Chapter 3

Unlexicalized Sources

Chapter 2 was dedicated to introducing tests to identify (AS)-Ns. Nominals we have been discussing could all be related to an autonomously attested verbal or adjectival base. The aim of chapter 3 is to demonstrate, on the basis of French, that bases do not need to exist as freely occurring stems in order to give rise to (AS)-Ns. The strong claim is that if sources do not need to be lexically attested, it is simply because sources are not lexical in essence: instead, they are syntactic structures. As extensively argued in chapter 1, whether the source base exists in the dictionary is not *a priori* expected to have any impact on the grammatical properties inherited by the derivatives. That is, the only impact idiosyncrasy could have would be conceptual. I will apply the previously established tests to event nominals for which no related lexicalized structure can be found, and I will show that the tests can be passed regardless of whether a related lexicalized structure exists. Thus, grammatical properties, I will show, are inherited not from lexical entries, but from the structures by virtue of which such entries may optionally be created. A syntactic approach to derivation predicts such data.

The various tests will be argued to target chunks of various sizes of the internal structure of nominals. Under this kind of accounts, it makes no difference whether or not those parts of structures happen to be found as lexicalized within the considered idiolect, i.e. the spatiotemporally delimited language state for which the nominalization, along with its conceptual meaning range, is attested. Bases, I will show, are fully grammatical syntactic

structures that *can* lexicalize in a so-called *autonomous* way, but *ought* not to.¹ The grammatical properties that they transmit and, in particular, their ability to project AS, does not depend on whether or not they exist as so-called autonomous stems. This fact, I claim, proves that AS pertains to the grammar, i.e. it can *not* be reduced to mere lexical information associated to an entry through language use. While, in the literature, (AS)-Ns have been taken to inherit their AS from an autonomously attested lexical V or A (I will henceforth use the notation L as a generic to refer to Vs and As at the same time) (cf. *supra*, section 1.1), abundant French data go directly against such a claim, and Borer's (2013) SLR cannot be maintained.

There exist in French many nominals exhibiting morphosemantic properties typical of derivatives but whose base is not independently attested as a freely occurring form. I have been calling them *lexically sourceless* (cf. chapter 1), not that we should expect the derivational sources to exist as free forms, but because *from a lexicalist perspective*, no source can be found for those nominals. Using disambiguation tests the scope of which was extensively discussed in chapter 2, I will show that a high number of those nominals actually bear the exact same grammatical properties as nominals whose base does exist as an autonomously lexicalized verbal or adjectival structure. The key idea is that once such properties emerge despite the absence of a lexical source, it becomes necessary to adopt an approach that does not assume derivational sources to be lexical entries. We may instead assume, loosely building on Lakoff's (1970) proposal, abstract underlying structures made of specific functional projections, i.e. posit the *syntactic nature of derivational sources*. We are not interested, thus, in the *hypothetical Ls* that appear to be missing (cf. *supra*, subsection 1.1.2), but in the grammatically valid syntactic structures by virtue of which those hypothetical Ls might very well have existed as the lexical entries they are (cf. *supra*, chapter 1). When a structure underlying a hypothetical L turns out grammatical, that makes that L more than hypothetical, but *virtual* as defined in § 1.2.1.3 *supra*: virtual Ls are best defined in terms of lexicalizable, because grammatical, phasal structures. (AS)-Ns therefore inherit their AS from structures, which I will therefore call (AS)-bases; yet, whether those bases are lexicalizable or still depend on whether they correspond to a *phase*; that issue will be addressed in chapter 4.

So, here is what we will do in Chapter 3. First, we need to take a moment to determine what the notion of internal modification means when trying to apply it to lexically sourceless nominals. Indeed, this notion has always been applied with the idea of a base necessarily attested

¹Using the term *autonomous* in this sense raises critical issues. The so-called *autonomous* unit is actually selected for by *inflectional morphology* and as such, corresponds to what has been traditionally referred to as a *stem*: one possible realization of an abstract entry, namely the *lexeme*, which subsumes all attested forms (cf. *supra*, subsection 1.2.3). In realizational models, which assume late insertion of vocabulary (cf. Stump 2001), the notion of stem somehow becomes less relevant and tends to merge with that of *base*. From the moment inflection loses its special status, so does the word² (cf. *supra*, § 1.2.1.2); and we could grammatically wonder whether *tree*-_N (see the hyphen) is any more autonomous than e.g. *audit*-_v. Therefore, the very use of the term *autonomous* distorts the issue: it is not theory-neutral, since it induces a specific understanding of the notion of *lexeme* (cf. *infra*, subsection 4.3.1).

autonomously. It is therefore appropriate to review the definition of internal modification and the method. The main problem is that in the absence of a lexicalized base, it is not necessarily obvious to distinguish between conceptual incompatibility and structural blocking. Secondly, we will have to apply the previously established tests, to see if lexically sourceless nominals behave in the same way as those whose base is autonomously attested. Finally, we will do the same with agent nouns.

The chapter is organized as follows. § 3.1.3.1 gives an overview of what it means for an (AS)-N to lack an autonomously attested lexical source, showing the issues raised by the relative nature of the notion of lexical attestation. Section 3.2 provides French data in support of the presence of Theme- and/or Outer Aspect inside relevant lexically sourceless nominals. Finally, section 3.3 addresses *-eur* Agent nominals.

3.1 Lexical Sourcelessness

The goal of this section is twofold. Firstly, lexical sourcelessness, which was defined in chapter 1 as *absence of a lexeme that could be argued to be the source*, is a vague notion used in first approximation and thus, in need for clarification. For a lexeme to be regarded as the source of a nominal, two conditions must be filled: that it be morphologically related and that its meaning at least partly matches that of the nominal. However, in many cases, only one of those two conditions is fulfilled; besides, actual language use occurrence and associated idiosyncrasy are in constant evolution. We will address those issues and demonstrate that contingencies of lexicalization are of no relevance for the transmission of grammatical properties. In (262) is a list of French nouns which I shall argue possess verbal properties despite the fact that they are not derived from a lexically attested V. They are, for each type of suffixation, classified according to the AS setup they exhibit. Some are built on a transitive predicate (cf. a.i, c.i and d), others are unaccusative (cf. a.ii, b and c.ii), and others may be both, i.e. they exhibit a form of *transitivity alternation* (cf. a.iii); there are also unergatives (cf. a.iv).

(262) **Lexically Sourceless Event (AS)-Ns**a. *-ion*(i) **Exclusively Transitive***ablation_N* ‘ablation’*ablution_N* ‘ablution’*abnégation_N* ‘abnegation’*abscision_N* ‘abscission’*addition_N* ‘addition’*audition_N* ‘audition’*circumnavigation_N* ‘circumnavigation’*collation_N* ‘collation’*collection_N* ‘compilation’*contemption_N* ‘contempt’*déjection_N* ‘dejection’*délation_N* ‘delation’*déprédation_N* ‘depredation’*détraction_N* ‘detraction’*fraction_N* ‘fraction’*intellection_N* ‘intellection’*intromission_N* ‘intromission’*manutention_N* ‘handling’*oblation_N* ‘oblation’*olfaction_N* ‘olfaction’*ostentation_N* ‘ostentation’*prédation_N* ‘predation’*prestation_N* ‘prestation’*sélection_N* ‘selection’.(ii) **Exclusively Unaccusative***accrétion_N* ‘accretion’*attrition_N* ‘attrition’*collision_N* ‘collision’*conflagration_N* ‘conflagration’*émulsion_N* ‘emulsion’*éruption_N* ‘eruption’*expansion_N* ‘expansion’*intrusion_N* ‘intrusion’*irruption_N* ‘irruption’*maturation_N* ‘maturation’*protrusion_N* ‘protrusion’

*récession*_N ‘recession’
*reptation*_N ‘reptation’
*révolution*_N ‘revolution’
*rotation*_N ‘rotation’
*station*_N ‘stopping’
*subduction*_N ‘subduction’.

(iii) **Alternating**

*abduction*_N ‘abduction’
*adduction*_N ‘adduction’
*ascension*_N ‘ascension’
*circumduction*_N ‘circumduction’
*coction*_N ‘coction’
*combustion*_N ‘combustion’
*crémation*_N ‘cremation’
*décoction*_N ‘decoction’
*effraction*_N ‘breaking, rupture’
*extrusion*_N ‘extrusion’
*gestation*_N ‘gestation’
*parturition*_N ‘parturition’
*péjoration*_N ‘pejoration’
*rédemption*_N ‘redemption’
*sédation*_N ‘sedation’
*ségrégation*_N ‘segregation’
*solution*_N ‘solution’
*tradition*_N ‘tradition’.

(iv) **Unergative**

*collusion*_N ‘collusion’
*connivence*_N ‘connivance’
*défection*_N ‘defection’
*incursion*_N ‘incursion’
*intrusion*_N ‘intrusion’
*nidation*_N ‘nidation’
*sécession*_N ‘secession’
*sédition*_N ‘sedition’.

b. *-ment*

*avènement*_N ‘advent’ (unaccusative)
*engouement*_N ‘obstruction’ (unaccusative)

- c. *-{a/e}nce*
- (i) Transitive
intelligence_N ‘understanding’.
- (ii) Unaccusative:
carance_N ‘failing’
occurrence_N ‘occurrence’
recrudescence_N ‘recrudescence’.
- d. *-age* (transitive):
usage_N ‘use’
- e. *-∅*
essor_N ‘rise’, cf. †(*s*)*essorer_V* ‘rise’ (unaccusative)
succès_N ‘success’, cf. †*succéder_V* ‘succeed’ (unergative)
hausse_N ‘raise’, ‘rise’, cf. √*hausser_V* ‘raise’ but †*hausser_V* ‘rise’ (alternating).

This list is by no means exhaustive; and will gradually be enriched as we determine that in many cases, the related verb cannot be argued to be the source. For instance, the source of *incision_N* ‘incision’ should, on the model of {*circoncire_V* ‘circumcise’ → *circoncision_N* ‘circumcision’}, be *incire_V* ‘incise’. Nouns such as the following are dealt with separately, as intermediary cases: *traction_N* ‘traction’, *attraction_N* ‘attraction’, *contraction_N* ‘contraction’, *rétraction_N* ‘retraction’, *surrection_N* ‘uplift’, *résurrection_N* ‘resurrection’ and *maturation_N* ‘maturation’. Many *-{a/e}nce* nominals with a corresponding adjective will be addressed in § 3.2.2.5 *infra*. Finally, a number of lexically sourceless (AS)-Ns, absent from the list, borrowed from Greek compounds in *-sis*, such as *exérèse_N* ‘exerESIS’ or *apoptose_N* ‘apoptosis’, will be addressed in § 4.2.3.1.

All tests, with the exception of the [CF] and [POT] tests previously introduced, rely on internal modification, which in standard views requires testing relative to a lexical source. The issue is therefore to determine how we can extend the method to cases where the base does not correspond to an L. Now, in the absence of a lexically attested base, determining the expected conceptual compatibility with the different aspectual modifiers becomes challenging. Therefore, the protocole to apply internal modification needs to be refined.

The section is organized as follows. Subsection 3.1.1 shows how cases of borderline sourcelessness constitute a proof that lexicalization, being fluctuant et contingent on real-world factors, cannot constitute the source of the grammatical properties observed in (AS)-Ns. Subsection 3.1.2 argues against the lexicalist view of bases as stems of lexemes, more specifically criticizing *ad-hoc* accounts to allomorphy, such as truncation or the *direct relationship* hypothesis. Subsection 3.1.3 is concerned with issues related to the application of internal modification to bases that are not available autonomously.

3.1.1 Borderline Cases and their Relevance

This subsection addresses cases of borderline sourcelessness. Attestedness being a relative notion as previously established, in many cases it is not clear whether or not we should consider the base as autonomously attested. Nor does it matter for the grammar. § 3.1.1.1 refines the definition of *lexical sourcelessness*: the *semantic matching* condition is introduced, according to which a phonologically related base cannot count as a possible source if its meaning does not match that of the nominal considered. § 3.1.1.2 addresses the issue of nominals whose grammatical properties either have been observed since before the creation of the alleged source entry, or continue to be observed in spite of that entry having gradually disappeared. § 3.1.1.3 discusses the notion of suppletion.

3.1.1.1 The *Semantic Matching* Condition

The definition of *lexical sourcelessness* as established in chapter 1 *supra* requires that there be no phonologically *and* semantically related free stem. In cases where a phonologically related V exists but its denotation does not match the denotation of the (AS)-N, the latter should and will be regarded as lexically sourceless. Thus, the verb *user_v* can only be used transitively in the sense of ‘deteriorate through use’, ‘wear down’: *user ses chaussures* ‘wear down one’s shoes’. Otherwise, it requires *de_p*: *user d’un couteau* ‘use a knife’. The same construction is found with the sense of ‘exercise some quality’ in idioms such as *user d’ingéniosité* ‘exercise ingenuity’ or *user de patience* ‘exercise patience’, which do not have a corresponding nominalization, cf. * *l’usage d’ingéniosité* ‘the exercising of ingenuity’, * *l’usage de patience* ‘the exercising of patience’. In (263) we can observe two distinct meanings for *prestation_N*, only one of which can be related to *prêter_v*, cf. (263a). The other sense, by contrast, is not related to a lexical verb.

- (263) ✓ *prêter serment* ‘take an oath’
vs. ° *prêter des soins / des services* ‘provide care / services’
- a. décennie marquée par la **prestation** *successive* de plusieurs serments (WEB)
‘decade marked by the successive taking of several oaths’
- b. (i) **prestation** *simultanée* de services commerciaux et aéronautiques
(R.W., 2009)
‘simultaneous provision of commercial and aeronautic services’
- (ii) **prestation** *simultanée* de soins palliatifs et de soins oncologiques
(R.W., 2020)
‘simultaneous provision of palliative care and oncological care’

As we can observe, not only (263a), but also (263b.i, ii) pass DIV. Thus, the absence of a conceptually matching lexicalized source has no impact on the grammatical properties of the nominal, which, therefore, may be regarded as a lexically sourceless (AS)-N. The same occurs

with deadjectivals. In for the nominal in (264a), a phonologically corresponding adjective exists, but its meaning range lacks the human feature exhibited by the nominal, cf. (264b).

- (264) a. la vivacité de cet enfant
 ‘the vivacity of this child’
 b. # un enfant vivace
 ‘a vivacious child’

Thus, if we consider *vivace*_A in the relevant sense, i.e. the sense implied by the nominalization, and we note it *vivace*_{A(human)}, then we can write: °*vivace*_{A(human)}, and therefore, *vivacité*_N ‘vivacity’ may be regarded as lacking a related lexical source. This may be further illustrated by the issue of Vs ended in *-ion(n)*_{N-er}_V or *-ur*_{N-er}_V. Consider (265).

- (265) °*audit*_V ‘listen’
 a. (i) L’**audition** pendant deux minutes de la mélodie par les élèves a suffi à leur faire retrouver la partition.
 ‘The audition during two minutes of the melody by the pupils was enough for them to retrieve the partition.’
 (ii) Les élèves ont [# ouï / # auditionné] la mélodie.
 ‘The pupils [heard / auditioned] the melody.’
 b. ✓*écouter*_V ‘listen’
 l’écoute de la mélodie pendant deux minutes
 ‘the hearing of the melody for two minutes’

Here, semantic mismatch makes it hardly arguable to regard *auditionner*_V ‘audition’ as the source of *audition*_N ‘listening’. The derivation clearly operates the other way around, i.e. Vs in *-tion*_{N-ner}_V are likely denominal: the meaning of the V in *-tion*_{N-ner}_V is sometimes more specialized than that of the corresponding N (see Marchand 1963 for this criterion). In such cases, there is no way the verb could be regarded as the source of the noun. See (266).

- (266) a. *réception*_N d’un signal → [# réceptionner / ✓ recevoir] un signal
 ‘reception of a signal’ ‘receive a signal’
 b. *collection*_N de textes → [# collectionner / ✓ colliger] des textes
 ‘collection of texts’ ‘collect texts’
 c. *audition*_N d’un morceau → [# auditionner / ✓ écouter] un morceau
 ‘listening of a tune’ ‘listen to a tune’
 d. *addition*_N de sel → [# additionner / ✓ ajouter] du sel
 ‘addition of salt’ ‘add salt’

Considering such data, it becomes difficult to argue that the respective sources of *addition*_N and *audition*_N are *additionner*_V and *auditionner*_V. Rather, their source does not correspond to an

autonomously attested verb. Likewise, it is difficult to prove that one would not be entitled to positing such pairs as in (267).

- (267) a. {*confection*_N ‘confection’ ← ‘*confaire*_V ‘confect’ }
 b. {*sélection*_N ‘selection’ ← ‘*sélire*_V ‘select’ }
 c. {*perquisition*_N ‘perquisition’ ← ‘*perquérir*_V ‘search’ }

The same rationale could also apply to Ns in *-ure*, such as *culture*_N ‘culture’, which is ambiguous between an event and a result readings, and of *fracture*_N ‘fracture’ and *structure*_N ‘structure’, which have a result reading only. Note that we should expect, if the ambiguity comes from a syntactic alternation, that those three Ns might in principle be able to denote an event. And actually, exactly as for *fraction*_N ‘breaking’, we have *la fraction du pain* ‘the breaking of the bread’, *la fraction de l’uranium* ‘the breaking of uranium’, similarly then, the event-denoting variant †*fracture*_N ‘fracture’ is attested in that sense: *la fracture d’un vase* ‘the breaking of a vase’. As for *fissure*_N ‘fissure’, it can be regarded as synchronically related to *fendre*_V ‘split’, along with *fission*_N ‘fission’ and *fissile*_A ‘fissile’ (cf. *infra*, § 4.1.4.2). Another interesting case is that of *apprent-iss-age*_N. In the absence of a V °*apprentir*_V ‘learn’, it arguably lacks a lexical source V that could be regarded as the source. And indeed, we observe partial semantic mismatch (cf. *supra*, § 3.1.1.1) with respect to *apprendre*_V ‘learn’, cf. (268).

- (268) ✓ *apprendre une nouvelle* → # *l’apprentissage d’une nouvelle*
 ‘learn a piece of news’ → ‘the learning of a piece of news’

Such observations matter for the criteria to use when deciding whether an (AS)-N may be regarded as lexically sourceless. For instance, *partition*_N ‘partition’ will be regarded as an (AS)-N without a lexically attested source, because †*partir*_V ‘divide’ does not exist in the current state of the language. The existence of *partitionner*_V ‘partition’ does not change anything, as its semantics points towards a denominal analysis. Now, beyond conceptual matching, diachronic factors also come into play in the definition of lexical sourcelessness. This is the concern of the next section.

3.1.1.2 Surviving Orphans and Preemptive Progenies

A strong argument in favor of the syntactic nature of derivational sources involves the timing of an alleged source’s existence. It is possible that this related L does not exist when the grammatical properties of an (AS)-N are first observed. It may have disappeared or, conversely, not have come into existence yet. Therefore, temporary lexical sourcelessness can manifest retroactively or proactively, either outliving a dead form or anticipating one that has yet to become attested. Let us consider each of those two cases successively.

In the case when a free stem used to exist in Middle French but has since become archaic or disused, (AS) ability of the corresponding (AS)-N is not affected, as can be observed in (269). The

related entry may fade away without affecting its alleged derivatives. Accordingly, the source of AS cannot be the lexeme; instead, the source ought to be the *structure* which makes this (AS)-N a *possible word* (cf. *supra*, subsection 1.2.1). The SLR (cf. *supra*, § 1.1.1.3) predicts that the (AS)-N, once deprived from its alleged lexical ancestor, should die along with it; but here, this prediction is *not* fulfilled. Thus, the only explanation to the existence of the (AS)-N is that its ancestor is an object *whose existence does not fluctuate through time*. The *structure* is such an object. We may call this the *Surviving Orphan* argument. For instance, the passing of [IN-X] and [GRAD] clearly identifies as (AS)-Ns nominals in (269)–(394e).

(269) †*intromettre*_v ‘intromit’

L’**intromission** *en deux secondes* du stérilet par le gynécologue afin de satisfaire la requête de sa patiente me priva d’un petit frère. (V.K.)

‘The intromission of the IUD by the gynecologist in two seconds in order to satisfy the request of his patient deprived me of a little brother.’

(270) †*abluer*_v ‘wash’

l’**ablution** *progressive* du résidu putréfié (1931)

‘the progressive ablution of the putrefied residue’

(271) †*rédimmer*_v ‘redeem’

a. décrire la **rédemption** *progressive* d’un ange (S. Parizet, 2016)
‘describe the progressive redemption of an angel’

b. quelques scènes hilarantes, comme la **rédemption soudaine** de Billie au milieu d’un cercle de grenouilles (WEB)
‘a few hilarious scenes, such as the sudden redemption of Billie in the middle of a circle of frogs’

Now we could of course, apply Jackendoff’s (1997) “full-entry theory” and claim (AS)-Ns to be fully specified for AS projection. However, doing so, we would irremediably lose the generalization that we observe in most (AS)-Ns — at least those built on a phasal base, namely that the (AS) properties of a nominal are predictable from its base. And besides, we cannot account for the fact that the same base also builds other types of words, such as adjectives, which exhibit similar grammatical properties — see e.g. the base of *intelligence*_N ‘understanding’, which we also find in *intelligible*_A, or in English *legible*_A (cf. *infra*, § 4.1.4.2).

Now comes the corollary of the *Surviving Orphan* phenomenon: the lexically understood source may not exist at the time the (AS)-N is spotted with its special properties, but still be created afterwards. Typically, this manifests as a back-formation: the missing verb is analytically recreated — most often under the influence of an existing English counterpart, but marginally so. Such back-formations will be signaled by the *anticlockwise circle arrow* symbol ↻. As seen in § 1.2.1.3, the fact that hypothetical source Ls of French (AS)-Ns exist

in English or may be created *a posteriori* proves that the structures that they lexicalize are available in the grammar. Such *virtual* structures, although not autonomously attested, are not only available for derivational operations but also prone to further lexicalization. An example is given in (272), where DIV is passed without any issue.

(272) \mathcal{V} *médiquer*_v ‘medicate’

La **médication** *simultanée* de l’estomac et de l’intestin est plus constamment provoquée par le mélange des médicaments émétiques et purgatifs. (1820)

‘Simultaneous medication of the stomach and intestine is more consistently induced by the combination of emetic and purgative drugs.’

Likewise, while the corresponding (AS)-Ns exist, namely \mathcal{V} *déforestation*_N ‘deforestation’, \mathcal{V} *maturation*_N ‘maturation’ and \mathcal{V} *nomination*_N ‘nomination’, the related Vs, i.e. \mathcal{V} *déforester*_v ‘deforest’, \mathcal{V} *maturer*_v ‘mature’ and \mathcal{V} *nominer*_v ‘nominate’ are not attested in traditional reference dictionaries (CNRS (1976–1994) — henceforth *TLF*, *Littre*, *Larousse*, etc.), but may be found in online free-content dictionaries such as the *Wiktionnaire* (French counterpart to the *Wiktionary*).¹ *Nomination*_N ‘nomination’, for its part, is much older than \mathcal{V} *nominer*_v ‘nominate’, which has been referenced but also criticized.² Another example is given in (273).

(273) \mathcal{V} *circumnaviguer*_v ‘circumnavigate’

cet esprit aventureux et hardi qui conduisit les Portugais à la **circumnavigation** *graduelle* de l’Afrique et à l’empire de l’Inde (C. Vogel, 1864)

‘this adventurous and bold spirit that led the Portuguese to the gradual circumnavigation of Africa and to the empire of India’

The verb \mathcal{V} *circumnaviguer*_v, created recently, is used both in the literal sense as in (274a) and in a figurative way, as in (274b).

(274) a. Nous relevons les amarres avec l’ambition de **circumnaviguer** les trois îles. (WEB, 2018)

‘We are casting off with the ambition to circumnavigate the three islands.’

b. Il me suffisait d’avoir une orthopédagogue qui m’aide à **circumnaviguer** les écueils de mes difficultés. (WEB, 2013)

‘All I needed was an orthopedagogue who helped me circumnavigate the reefs of my difficulties.’

¹Also worth mentioning are *insalivation*_N ‘insalivation’ and *upérisation*_N ‘uperization (= ultra-pasteurization)’, whose respective source Vs \mathcal{V} *insaliver*_v ‘insalivate’ and \mathcal{V} *upériser*_v ‘uperize’ are only attested in the *TLF* as a hapax in French literature for the former, and under the form of the adjectival participle for the latter.

²See e.g. Simone Signoret in 1976, on the substantivized past participle (un(e)) *nominé(e)*: “Je sais bien qu’il faudrait employer un autre mot que ce barbarisme: ce serait *candidate désignée*.” ‘I am well aware that I should use another word than this barbarism: that would be *designated candidate*.’

Semantic matching must also be taken into consideration. Consider for instance *ségrégation_N* ‘segregation’, cf. (275)–(277). While †*ségréger_V* ‘separate’ has been deprecated since at least the 18th century (cf. *TLF*), ☺*ségréguer_V* ‘segregate’ (a human group) was formed afterwards under the influence of English and, contrary to *ségrégation_N*, is exclusively transitive.

- (275) a. au cours de la **ségrégation** *successive* des chromosomes et des chromatides pendant les deux divisions méiotiques (R.W., 2000)
 ‘during the successive segregation of chromosomes and chromatids during the two meiotic divisions’
- b. différents événements cellulaires qui permettent la **ségrégation** *successive* des paires de chromosomes homologues et de chromatides-sœurs (R.W., 2016)
 ‘different cellular events that allow the successive segregation of pairs of homologous chromosomes and sister chromatids’
- (276) La disjonction désigne la **ségrégation** *régulière* des chromatides ou des chromosomes homologues vers les pôles opposés pendant les divisions mitotiques ou méiotiques. (R.W., 2015)
 ‘Disjunction refers to the regular segregation of chromatids or homologous chromosomes towards opposite poles during mitotic or meiotic divisions.’
- (277) Les chromosomes **ségrègent** pendant la prophase de la première division de la méiose. (*Dictionnaire de L’académie Française*)
 ‘The chromosomes segregate during the prophase of the first division of meiosis.’

We may hypothesize two different nominals: {*ségrégation*}₁, understood in the scientific sense, capable of alternating, and {*ségrégation*}₂, only transitive, referring to the isolation of a human group. Although the usage of *ségréger_V* in (277) could be a loan translation from English, it is also possible that †*ségréger_V* may in fact have survived in the scientific lexicon. In that case, we may posit for {*ségrégation_N*}₁ a source ☐*ségréger_V*. However, {*ségrégation_N*}₂, for its part, appears to be a *surviving orphan*.

Such diachronic issues can be further complicated when historical sources are replaced by lexicalized structures that are related conceptually, but not phonologically so, leading us to explore the notion of *suppletion*.

3.1.1.3 Suppletion

Suppletion is defined as the phenomenon by which gaps in a paradigm come to be filled by forms historically built on a distinct Root, but synchronically attached. My point here is that so-called suppletion does not deprive the borrowed Root from its original meaning. The suppletive forms, thus, keep their conceptual autonomy and exhibit an allosemy of their own. For instance, *friction_N* and *surrection_N* nominalize *frotter_v* ‘rub’ and *surgir_v* ‘emerge suddenly’. While *frottement_N* ‘rubbing’ and *surgissement_N* ‘sudden emergence’, as can be observed in (278), both exhibit a purely compositional meaning from their base verbs, *surrection_N* and *friction_N* have developed a special meaning.

- (278) a. Le **frottement** des yeux engendre la libération du liquide lacrymal et par conséquent l’humidification de l’œil. (R.W., 2023)
 ‘Eye rubbing leads to the release of tear fluid and consequently to the moisturization of the eye.’
- b. Si l’on veut maintenir la fiction de l’émergence progressive de la première cellule vivante ou celle de son soudain **surgissement**, il faut admettre que cette cellule était unique (WEB, 2008)
 ‘If one wishes to maintain the fiction of the gradual emergence of the first living cell or of its sudden appearance, it must be acknowledged that this cell was unique.’

Thus, *friction_N* is never agentive; instead, it always nominalizes the unaccusative variant of *frotter_v* ‘rub’, cf. (279); *surrection_N*, for its part, can only refer to a geological ‘uplift’, cf. (280).

- (279) un revêtement parfaitement lisse qui diminue la **friction** du sang contre les parois cardiaques [✓ à mesure de l’intensification des battements] (WEB)
 ‘a perfectly smooth coating that reduces blood friction against the cardiac walls’
- (280) °*surger_v* ‘surge’
- a. La **surrection** des Vosges semble avoir déchaîné de bonne heure des forces torrentielles. (vidal de la blache, 1908)
 ‘The uplift of the Vosges appears to have unleashed torrential forces early on.’
- b. La **surrection** des Vosges à mesure de l’évolution tectonique semble avoir déchaîné de bonne heure des forces torrentielles.
 ‘The uplift of the Vosges as tectonic activity progressed seems to have unleashed torrential forces early on.’

As for *résurrection_N*, which initially refers to the process of ‘resurgings’, it gradually came to suppletively replace †*ressuscitement_N*, as the nominalization of *ressusciter_v* ‘resurrect’.

(281) °*résurger*_v ‘resurrect’

Pourquoi donc les Juifs iniques n’ont-ils pas cru en la **résurrection** *en trois jours* de Notre Seigneur Jésus-Christ ? (R.W., 2014)

‘Why then did the wicked Jews not believe in the resurrection in three days of Our Lord Jesus Christ?’

But beyond suppletion, the question extends to the status of different phonological realizations of a given Root, i.e. alloemes. I have previously mentioned, in § 3.1.1.2, *maturation*_N ‘maturation’ in connection with °*maturer*_v ‘maturate’. It might be possible to list this nominal as lacking a lexical source with the idea that the natively formed {*mûrir*_v ‘mature’ ← Lat. *maturare*_v ‘mature’} may be too phonologically different to be synchronically related to it. Here lies the issue of the nature of allomorphic bases: should *matur*-_v be an allomorph for *mûrir*_v, then in what way would *mûrir*_v ‘mature’ and *maturer*_v ‘maturate’ be supposed to differ? What of *mûrissement*_N ‘maturing’ and *maturation*_N ‘maturation’? An example is *péjoration*_N ‘pejoration’. In standard French, *péjoration*_N means ‘depreciation’, and there is no lexeme °*péjorer*_v ‘depreciate’. Since *empirer*_N ‘worsen’ cannot mean ‘depreciate’, then the semantic matching condition is not satisfied in order for *péjoration*_N ‘pejoration’ to be considered as derived from *empirer*_v ‘worsen’ through suppletion. Therefore, *péjoration*_N must be derived from the structure underlying °*péjorer*_v ‘pejorate’. The latter is absent from dictionaries and only marginally found, essentially with the sense ‘worsen’. The derivational pair {*péjorer*_v ‘worsen’ → *péjoration*_N ‘worsening’} does exist as a Helvetism, cf. (282).

(282) a. Puis son état s’est **péjoré**, au point que la malade a dû rester alitée et est devenue entièrement dépendante. (Court of Justice of Geneva)

‘Then her condition worsened, to the point that the patient had to remain bedridden and became completely dependent.’

b. maladie évoluant depuis cinq jours avec **péjoration** *progressive* de l’état général et apparition d’une fièvre (Revue Médicale Suisse, 2015)

‘disease evolving for five days with progressive worsening of the general condition and appearance of a fever’

Thus, here again, we can observe that what matters for property inheritance is not entry existence, but possibility thereof. Similarly, consider *adjudication*_N ‘adjudication’, in the absence of °*adjudiquer*_v ‘adjudicate’. Let us suppose there were a N °*adjudgement*_N ‘adjudgment’, similar to what we get with {*juger*_v → *jugement*_N}. Then °*adjudgement*_N could be to *adjudication*_N what *envahissement*_N is to *invasion*_N (see *infra*, § 4.3.1.5). Should it be the case, could we still regard *adjudication*_N as derived from *adjudiquer*_v ‘adjudicate’? It seems that the existence of the latter is rather fortuitous and unnecessary for the former to exist.

These remarks also apply to cases of ancient suppletion for Latin verbs that are defective with respect to the supine stem. For instance, the latin suppletive base *lat*-_v ‘bear’ is paradigmatically

attached to the verb *fero*_v ‘bear’. Thus, there is no phonologically related V corresponding to the source of *-lat_v-ion_N* nominals. Now, if we had evidence pointing in this direction, we could acknowledge such nominals as cases of true suppletion, i.e. consider that *-férer_v* verbs are the derivational sources of *-lat_v-ion_N* nominals. True suppletion, by definition, overcomes the phonological link that usually relates derivatives to their sources. Just as in Latin, we could posit in French a $\sqrt{\text{fer-}/\text{lat-}}$ Root: since the Root, in the present work, is construed as a mere index, that index could simply associate a specific phonological representation to the Third Stem (cf. *infra*, subsection 4.3.1). And therefore, we could extend the definition of “phonologically related” to cases of suppletion. However, in French, it does not seem to work this way. In (283), theme-related internal modifiers reliably inform us of the presence of a vP inside *délation_N* ‘denunciation’ (cf. *supra*, § 2.1.1.1). And yet, the historical source is, in modern French, no longer attested with the relevant meaning.

(283) †*déférer_v* ‘denounce’

- a. La **délation** *successive* des différents protagonistes conduirait au démantèlement du réseau criminel. (V.K.)
‘The successive denunciation of the various protagonists would lead to the dismantling of the criminal network.’
- b. L’objectif est de rendre impossible la **délation** *simultanée* de tous les membres du cartel. (R.W., 2016)
‘The goal is to make the simultaneous denunciation of all the cartel members impossible.’
- c. Les journaux communistes appellent à la **délation** *immédiate* des collaborateurs. (C. Jamet, 1947)
‘Communist newspapers are calling for the immediate denunciation of collaborators.’

As seen in § 2.1.2.3, the internal reading is not guaranteed in all cases and must be verified. Although the complement in (283a–c) intuitively bears the role of theme, the theme-related character of the modifier can be verified by replacing *délation_N* with *dénonciation_N* ‘denunciation’. As for *°déferer_v*, it lacks the meaning ‘denounce’ and therefore, it is not the source either. Besides, the made-up example in (283a) is made even more robust by the use of the Counterfactuality Test, previously introduced in section 2.2. However, that the structure *-X-lat_v* is indeed possible, is evidenced by \checkmark *relater_v* ‘relate’, \circ *ablater_v* ‘ablate’ and \circ *translater_v* ‘translate’ — whose expected denominals should be *°relationner_v*, *°ablationner_v* and *°translationner_v*. Note that the meaning of *relation_N* ‘relationship’ does not correspond to that of *relater_v*, which can only mean ‘relate a story’. The latter, thus, cannot be regarded as the source of the former, and generally, *-lat_v-ion_N* nominals cannot be assumed to find their source in *-lat_v-er_v* verbs. Instead, we would expect *-lat_v-er_v* verbs to yield *-lat_v-at_v-ion_N*

denominals, as in e.g. {*capter*_v ‘capture’ → *captation*_N ‘caption’}. Therefore, positing such pairs as {*X-later*_v ↖ ↗ *X-lation*_N} solves the issue.

We may also mention *coction*_N ‘coction’, related to *cuire*_v ‘bake’, which was replaced by *cuisson*_N ‘baking’, and whose meaning specialized in the sense of ‘boil’. See examples in (284).

- (284) a. Le mezcal résulte de la **coction** de la racine et de la plante. (R.W.)
 ‘Mezcal results from the cooking of the root and the plant.’
- b. Aristote émet l’hypothèse de la **coction** de l’enfant par le père.
 (A. Naouri, 2012)
 ‘Aristotle hypothesizes the cooking of the child by the father.’
- c. poudre de chaux obtenue par la **coction** de coquillages (R.W., 2007)
 ‘lime powder obtained by the cooking of shells’
- d. Il recommande la **coction** successive de la tumeur dans l’alcool et dans de
 l’acide acétique glacial. (1830)
 ‘He recommends the successive cooking of the tumor in alcohol and in glacial
 acetic acid (1830).’

Moreover, *décoction*_N ‘decoction’ also lacks a lexicalized source *décuire*_v ‘decoct’. Note that, although *concoction*_N is related to *concocter*_v ‘concoct’, it is not sure at all that the later is the source of the former. As previously argued, *-ion*_N always selects for the projection spelled out by Third-Stem morphology: we should expect a yet non-existing *°concuire*_v.

Let us recapitulate the conclusions of subsection 3.1.1. Borderline cases of lexical sourcelessness are expected if attestedness is a relative notion: relative to conceptual matching, relative to a particular state of the language, and relative to suppletion phenomena. Grammaticality, by contrast, is a property of structures existing essentially and absolutely. The tests for grammatical properties are passed by (AS)-Ns independently of the degree of attestedness of their base.

3.1.2 The Autonomy of Bases

Some deadjectival nouns, such as *témérité_N* ‘temerity’, are apparently built on a base that lacks the final affix that their corresponding lexicalized form includes. I argue that truncation is not the right way to view derivation from such bases. Instead, compelling evidence supports the notion that such bases are words in their own right, not merely truncated versions of their lexicalized counterparts. Now, if this claim holds true for these specific bases, then it may generalize to all bases. Acting as a step towards this autonomy of bases is the idea that derivational bases, just like autonomous words, bear a *category*. This shift is represented in the lexicalist movement within later versions of morpheme-based lexicalism, most prominently by Lieber (1980: 221–225) and Selkirk (1982: 98–99) for English, and by Corbin (1987: 193–194) for French (cf. also Villoing 2012: 33). In such frameworks, bases, being the lexical units on which word-formation rules operate, are selected for by the subcategorization frame of the suffix; thus, even bound bases are treated as lexical morphemes. Word-based lexicalism, in contrast, does not allow bases to constitute independent lexical entries, since every base must relate to an autonomous L, of which it constitutes one possible realization (or *stem*, cf. subsection 1.2.3 *supra*).

However, it is not clear how phonologically close a base must be to an autonomous L so as to be considered as a bound realization of the latter. Even in cases of so-called “free” bases, i.e. where a non-bound variant of the base exists, e.g. with {*atomique_A* ← *atome_N*}, the phonological representation of the autonomous word may differ from that of the corresponding base. This phenomenon is common in French, due to the mute graphical morphology many lexicalized structures receive when used autonomously. For example, there is no *a priori* reason to say that the base *atom_N* realizes the autonomous word *atome_N*; rather, the latter is built from the former, through addition of further functional features such as *gender* or *number*. As we can see, “autonomous” is a relative notion: the distinction between *atom_N* and *électr_N* is one of degree of phonological similarity to existing nouns, rather than one of nature. Now, should a word °*électre_N* ‘electre’ or °*électricie_N* ‘electricity’ become attested in the future, it would likely be perceived as derived from *électr-*, rather than abruptly becoming the reference lexical entry to which *électr-* should necessarily be regarded as a realization. Thus, lexeme-based lexicalist views fail to capture the autonomy of bases. By contrast, the principles of the DM framework, by construing bases as structures rather than as stems of lexemes, predict the irrelevancy of lexicalization. In sum, the way we analyze bound bases follows straightforwardly from the theoretical assumptions on the nature of atomic units.

The subsection will be organized as follows. In § 3.1.2.1, I quickly introduce Aronoff’s (1976) line of argumentation for positing the existence of a truncation phenomenon. In § 3.1.2.2, I present the concurrent view put forward in construction morphology accounts. In § 3.1.2.3, I give further evidence in favor of an inherent semantics of shorter bases, on the basis of French deadjectival (AS)-Ns built on a base shorter than that of their alleged adjectival source.

3.1.2.1 Truncation

So-called *word-based* lexicalism was criticized (cf. e.g. Kiparsky 1982, see § 3.1.2.1) and eventually rebaptized into *lexeme-based lexicalism* (cf. Aronoff 1994: 7). Aronoff (1994) explains that in Aronoff (1976) he used the term “word-based” but actually meant “lexeme-based”. He recognizes that resorting to truncation to derive, e.g. *nominee*_N from *nominate*_V, instead of just admitting that a base may be a non-freely-occurring form, is only his “own confusion of lexemes with free forms”. Aronoff pursues as follows:

“I especially did not mean that a base or stem [...] had to be a complete word or free form, only that the base should be a lexeme and the stem some form of a lexeme. Furthermore, I did not discuss exactly what form of a lexeme could constitute the stem for a word-formation rule. Nonetheless, others naturally misunderstood my claim as being about the forms of stems and pointed out that there are many languages in which the actual form to which a morphological operation applies is often not a free form, which would thus falsify my apparent claim that a stem had to be an otherwise free form (word). [...] The examples I gave [...] were like *nominee*, whose meaning seems to dictate that the base of the derived word is *nominate*, although the actual stem that appears on the surface, *nomin*, is not an occurring free form. Given the distinction between a lexeme and a free form, though, it is entirely possible, within a lexeme-based framework, to accept that *nominee* is derived from the lexeme NOMINATE [...], but from the bound stem *nomin-* of that lexeme rather than from the free form *nominate* via truncation. The mere fact that a stem does not appear on the surface as a free form therefore does not mean that truncation must be invoked.”

This “clarification” by Aronoff actually raises issues as to the very nature of the lexeme-based hypothesis. It is here acknowledged that the derivational base does not need to exist as a freely occurring form, but instead may be bound to a semantically related lexical entry (here *nominate*_V), of which it is a possible realization among others. Thus, what Aronoff’s lexicalism basically tells us, is that a lexeme may realize into different stems, i.e. */nomin-/* is an alternative realization, alongside */nominat-/*, of the lexeme *nominate*_V. The assumption behind this statement is that the lexeme, although being able to realize into bound forms, must itself correspond to a free form: a bound base is always the allomorphic stem of an attested word. Therefore, the possibility that *nomin-* could be the lexeme and *nomin -ate* were derived from the latter, is not considered. But what if a particular bound base cannot be related to any attested free form, as with *aggression*_N (cf. *supra*, chapter 1)? Aronoff’s (1994) model does not predict the occurrence of such cases. It is significant enough that we find in Aronoff (1994) no occurrence of the expression “bound base”, but only “bound form”, “bound stem” or “bound realization”: in such frameworks, the lexeme is necessarily related to a free form, and conversely, a bound form is necessarily an allomorphic stem of a free lexeme. Within such a framework, lexically sourceless nominalizations are at best difficult to account for. The question of lexical autonomy of sources is directly addressed by Aronoff (1976: 28):

“Direct counterevidence to the theory that words are formed from words would be a case in which **there are several words formed from the same stem, but in which the stem never shows up as a word itself**. Of course, if there are only one or two such words, we might reasonably hypothesize that the non-occurring stem has unaccountably dropped out of the language after having done its duty, or that like the case of *aggression*/**aggress* we are dealing with a borrowing from a language which happens to have a similar

morphology. However, when we find many stems which exhibit this peculiar phenomenon, and with the same affixes, we might reasonably hypothesize a regular rule deriving the various forms from the stems, and this would be an impossible rule in our theory.”

In the above quote, Aronoff himself acknowledges that sourcelessness constitutes a problem for lexeme-based lexicalism. He does not exclude the possibility of accidental gaps, but, roughly speaking, he argues that when the gaps become too numerous, accidentality gravitates towards regularity. Of course, in syntactic approaches to word formation, this issue does not arise, since rules apply to structures, whose lexicalization or lack thereof is of no relevance. The series of triplets given by Aronoff is reproduced in (285).

(285)	<i>Xion</i>	<i>Xive/ory</i>	<i>Xor</i>	* <i>X</i>
	incision	incisive	incisor	*incise
	gustation	gustatory		*gustate
	locomotion	locomotive	locomotor	*locomote
	malediction	maledictory		*maledict
	valediction	valedictory		*valedict
	illusion	illusory		*illude
	retribution	retributive/ory		*retribute
	emulsion	emulsive		*emulse
	revulsion	revulsive		*revulse/*revel

Aronoff (1976: 29) then concludes:

“The most obvious conclusion to be made from [285] is that the items *Xion*, *Xive*, *Xory*, and *Xor* **are all formed from the stem *X, which, in these cases, is not an independently occurring word**. However, **the conclusion is contrary to the basic claim of word-based morphology and must be false if the theory is to remain**. Because of the number of cases, it is not terribly convincing to claim that they are all accidental, arising from the loss of the stem as an independently occurring item at some time after the formation of all the derivatives.”

As we can see, the argument relies heavily on the significantly high number of supporting examples, counterexamples being arbitrarily regarded as exceptions, which is not convincing. But more, Aronoff (1976) actually makes a point which, as he himself acknowledges, provides grist for the mill of the opposing camp:

“Furthermore, there is evidence that some of the derivatives, at least, entered the language at a time when the stem was not an independently occurring word. Such a case is not subject to the accidental gap explanation. It would appear, then, that at least some of the words listed above constitute direct counterexamples to our theory.”

The phenomenon he alludes to, which generalizes to what I have called *Preemptive Progenies*, constitutes — along with *Surviving Orphans* — a clear stumbling block for lexicalism (cf. *supra*, § 3.1.1.2). Yet, Aronoff dismisses the implications of that observation to preserve the validity of the adopted theoretical model.

3.1.2.2 The *Direct Relationship Hypothesis*

Aronoff's (1976) position regarding $\{-ion, -ive\}$ pairs is invalidated by data not only from French, as shown by Zwanenburg (1983: 24–28) and Corbin (1987: 198–199), but even from English, as argued in Bochner (1993: 83):

“If *-ive* adjectives are derived from *-ion* nouns by truncating the *-ion* and adding *-ive*, then $\{aggression, aggressive\}$ ceases to be a problematic example. We will have a rule [...] that states the relationship directly, and the nonoccurrence of **aggress* becomes irrelevant. I suggest, however, that Aronoff's proposal merely shifts the problem rather than solving it. [...] In his theory, saying that *-ive* adjectives are derived from *-ion* nouns excludes deriving them from verbs as well. Therefore his proposal predicts that we should not find cases of *-ive* adjectives with corresponding verbs but no corresponding *-ion* nouns. There are, however, a reasonably large number of such adjectives.”

Bochner (1993: 83), who gives the triplets in (286), criticizes Aronoff's solution as unsatisfying:

“Aronoff's proposal would force us to regard the adjectives of [286] as completely arbitrary and unpredictable, since there would be no rule to express a relationship between the adjective and the verb. Yet the intuition is quite clear that *responsive* is related to *respond*, for instance. Thus Aronoff's proposal merely replaces the “missing base” problem with a “missing intermediate” problem.”

(286)	effect	effective	*effection
	defend	defensive	*defension
	respond	responsive	*responcion
	contrast	contrastive	*contracion
	compare	comparative	*comparacion
	talk	talkative	*talkacion
	expend	expensive	*expension
	exceed	excessive	*excession
	elude	elusive	*elusion

As correctly stated by Bochner (1993: 81), only morpheme-based lexicalism predicts derivation from possible but non-existing words such as *aggress_v*. In order to enable the grammar to bypass the missing intermediate, he proposes a rule of *direct relationship* between derivatives¹: “If *-ive* adjectives are derived from *-ion* nouns by truncating the *-ion* and adding *-ive*, then $\{aggression, aggressive\}$ ceases to be a problematic example.” The rule is reproduced in (287).

(287) **Bochner's (1993: 85, ex. 32; 115, ex. 79) rule of *direct relationship***

$$\left[\begin{array}{l} /X-ion/ \\ N \\ \text{ACT of Z-ing} \end{array} \right] \longleftrightarrow \left[\begin{array}{l} /X-ive/ \\ A \\ \text{PRONE to Z-ing} \end{array} \right]$$

¹Note that, just as Bochner criticizes Aronoff's solution essentially substituting a *missing intermediate* problem for the *missing base* problem, intriguingly, he precisely builds his own account on this idea of a missing intermediate.

Along similar lines, Haspelmath & Sims (2010: 49–51) state that $\{-ion_N \swarrow \nwarrow -ive_A\}$ pairs “cause problems for morpheme-based models but are easily described within a word-based model”. According to these authors, “because there are pairs like $\{illusion, illusive\}$, $\{aggression, aggressive\}$ that lack a corresponding verb ($^{\circ}aggress$ and $^{\circ}illude$)”, a direct relationship must be posited between the N and the A: $\{X-ion_N \leftrightarrow X-ive_A\}$. According to Haspelmath & Sims (2010: 50–51) the *direct relationship* account is required to explain the non-existence of the verb:

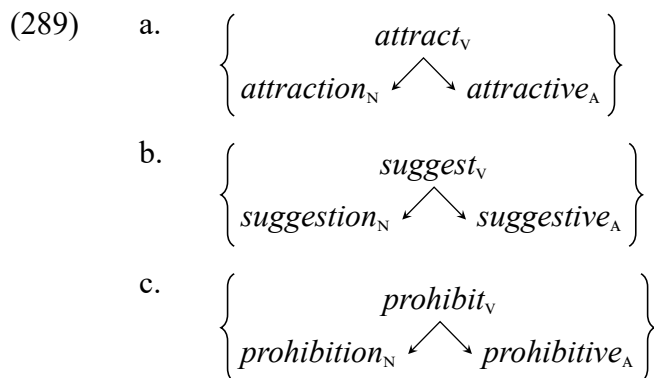
“Since the morpheme-based model usually assumes that complex words are not stored in the lexicon, it must posit that *illusion* and *illusive* are each derived from a Root *illude*. [...] The problem lies in the fact that once *illude* is posited as the Root, the morpheme-based model then faces difficulty explaining why the verb *illude* does not exist. By allowing for a direct relationship between *illusion* and *illusive*, the word-based model avoids this problem.”

Thus, in such views, the relation must be expressed directly, as in Construction Morphology, where *second order schemas* relate derivational relations to one another (cf. Booij 2012: 18–19, ex. 14–15; 2018: 11–12, ex. 9–10, Booij & Audring 2017: 289–290, ex. 22–23; for French, see also Corbin 1988, Roché 2010, 2011, Tribout & Amiot 2018).

(288) **Booij & Audring’s (2017: 290, ex. 23) [-ism / -ist] paradigmatic relationship**

$\langle [x-ism]_{N_i} \leftrightarrow [Disposition / Ideology]_i \rangle \approx \langle [x-ist]_{N_j} \leftrightarrow [Person with Property related to SEM_i]_j \rangle$
 where \approx symbolizes the paradigmatic relationship between two constructional schemas that is formally expressed by means of co-indexation of a semantic variable SEM.

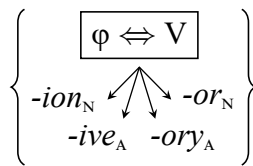
However, as I have argued extensively, non-existence of a listeme does not need any grammatical explanation. The problem with the view presented above is precisely that, by “allowing for a direct relationship” between the two members of a pair, we lose the generalization that all $-ion_N$ and $-ive_A$ words have a meaning retrievable from the corresponding V — provided such a V is attested. This is arguably an *ad-hoc* solution: when the V is attested, as in e.g. $\{attraction_N, attractive_A\}$, $\{suggestion_N, suggestive_A\}$, $\{prohibition_N, prohibitive_A\}$ (all from Haspelmath & Sims 2010: 49, ex. 3.32), it is assumed to be the common ancestor, cf. (289).



When, by contrast, the V is not attested, the account cannot be the same, and in this case a direct relationship is posited. This amounts to arbitrarily decreeing an essential difference between cases that are perfectly identical from a phonological and semantic point of view. Such case-by-

case treatment is obviously not sufficient, as it fails to satisfy the level of explanatory adequacy required. So, in a way, this position, far from solving the problem, carefully avoids addressing it. It seems to me that, for the sake of consistency, only morpheme-based approaches can succeed in accounting for these facts. I will, for my part, posit a common ancestor, independently of whether it exists under a lexicalized form. It must be a structure lexicalizable into a V, and thus, I will assume that it is a V-equivalent Phase. This is represented in (290).

(290) **A lexicalizable common source**



Haspelmath & Sims state that morpheme-based accounts *need* to posit a common verbal ancestor. But in fact, it works the other way. That is, a common ancestor *must* be posited, independently of the framework, but due to an absolute necessity. It is, indeed, absolutely necessary to account for the fact that, from a given common base, similar grammatical properties arise in the various derivatives; and this cannot be done unless lexicalization is acknowledged as a relative process and kept out of the derivation rules. Now coming to lexeme-based approaches, it is appropriate to state that they *need* to posit the lexical existence of sources, which is a serious constraint that is not empirically justified at all: such accounts fail to predict lexical sourcelessness as defined in this work, i.e. the fact that for an $\overline{\text{AS}}$ -N to exhibit grammatical properties, its source need not be lexicalized. Morpheme-based lexicalism, by contrast, predicts that bases need not occur independently: they may be *bound*. Syntactic accounts, for their part, predict that they need not occur at all: only the *Root* needs to correspond to a listed entry; derivation is entirely carried out by the Syntax.

3.1.2.3 The Semantic Dimension of Affixal Variation

The notion of truncation assumes absence of semantic content in supposedly deleted affixes. However, there is significant evidence that affixes analyzed as undergoing truncation are not empty at all, but may contribute functional meaning, and even spell out functional heads. I will give the example of bases selected for by *-ité* suffixation.

Along Roy's (2010) proposal, *-ité_N* spells out the predicative head Pred that introduces the state holder of adjectives. In the present analysis, this predicative head is Asp. Asp selects for a structure where an AS has already been introduced — at least a Holder and a *Mode* of the property introduced by *little a* (cf. *infra*, section 4.3). The [+ PERFECTIVE] flavor of Asp provides temporal extension to its complement, thus licensing $\overline{\text{FOR-X}}$. AspP attracts in its Specifier the State Holder, which is promoted into a grammatical subject. It is clear that *-ité_N* yields a

denotation that oscillates between a state and a quality, which I will account for in section 4.3. It selects for adjectival bases suffixed in *-aire_A*, *-ain_A* and *-ique_A*, cf. (291).

- (291) a. *école_N* ‘school’ → *scolaire_A* ‘school-rel.’ → *scolarité_N* ‘schooling’
 b. *pole_N* ‘pole’ → *polaire_A* ‘polar’ → *polarité_N* ‘polarity’
 c. *monde_N* ‘world’ → *mondain_A* ‘worldly’ → *mondanité_N* ‘worldliness’
 d. *homme_N* ‘man’ → *humain_A* ‘human’ → *humanité_N* ‘humanity’
 e. *atome_N* ‘atome’ → *atomique_A* ‘atomic’ → *atomicité_N* ‘atomicity’
 f. *histoire_N* ‘history’ → *historique_A* ‘historical’ → *historicité_N* ‘historicity’

Strikingly, so-called truncated Ns pass the negation test, which I argue in subsection 4.1.2 *infra* identifies a phasal structure; here in this case, an adjective.

- (292) a. La liberté du serviteur est préservée car le contrat repose sur le consentement au travail et la non-perpétuité de son engagement. (R.W., 2020)
 ‘The freedom of the servant is preserved, for the contract is based on consent to work and the non-perpetuity of his commitment.’
 b. position en faveur de la non-perpétuité des concessions de chemin de fer (R.W., 1972)
 ‘position in favor of the non-perpetuity of railroad concessions’
- (293) Cette naïveté se fonde sur un rejet violent de l’inconscient et de ce que son étude nous a appris sur la non-identité de l’homme à ce qu’il dit et à ce qu’il fait. (*Le Monde*, 2010)
 ‘This naivety is based on a violent rejection of the unconscious and of what its study has taught us about the non-identity of man to what he says and what he does.’

The noun *paternity_N* ‘paternité’, which also takes the negation, is interesting because it highlights possible entailments of affix deletion. In the case of the phrase *la paternité de Pierre* ‘Peter’s paternity’, *paternité_N* refers specifically to Pierre’s biological fatherhood, indicating that he is the father of the contextually identified child. By contrast, in *la paternalité de Pierre à l’endroit de Marie* ‘Peter’s paternality towards Mary’, *paternalité_N* refers to the quality or state of being fatherly. The difference is between being a father and being something related to the idea of being a father. Both cases involve a predicate of entities: in the first case, *patern_N*, in the other case, *patern_N-al_A*-. The former thus embeds an individual-level predicate — roughly ‘ $\lambda x. [\mathbf{father}(x)]$ ’, which cannot be applied event boundaries, cf. (294).

- (294) # Pierre a été le père du bébé pendant deux jours.
 ‘Pierre was the father of the baby for two days.’

As shown in § 4.3.3.3 *infra*, though, there exist solutions in order for such nominals to be applied perfectivity and pass [CF]. One

(295) J'appréhende les résultats des tests ADN : la non-paternité de Pierre constituerait un problème.

'I fear the results of the DNA tests: Pierre's non-paternity would constitute a problem.'

It is also possible to insist on the positive polarity.

(296) J'ai hâte d'avoir les résultats des tests : la paternité effective de Pierre permettrait d'appréhender l'avenir sereinement.

'I am eager to get the results of the tests: Pierre's effective paternity would allow us to look ahead calmly.'

Such phenomena will be discussed in § 4.3.3.3, and accounted for in § 4.3.5.1. Note that it is also possible to use Past Counterfactual, cf. (297).

(297) Pierre a été reconnu comme le père. Et heureusement, car...

'Pierre was recognized as the father. And fortunately, because...'

a. ... s'il n'avait pas été le père, cela aurait sonné le glas de son couple avec Karine.
'... had he not be the father, it would have tolled the death knell for his relationship with Karine.'

b. ... sa non-paternité aurait sonné le glas de son couple avec Karine.
'... his non-paternity would have tolled the death knell for his relationship with Karine'

The fact that such lexically sourceless nominals pass \square_{CF} proves that in the right context, they may denote states instead of qualities. A widespread idea among lexeme-based views is that the so-called "truncated" forms should be regarded as mere phonological variants. However, the notion that they should be viewed as truncated versions of what they would be expected to be is simply proved wrong by the fact that they arguably *lack the expected compositional semantics*, i.e. 'the fact of being *A*', *A* being the alleged source adjective. In other terms, relative to their meaning, they compare to *paternité_N* rather than to *paternalité_N*. For instance, the derivation of *témérité_N* 'recklessness', *identité_N* 'identity', *nécessité_N* 'necessity', *éternité_N* 'eternity' and *perpétuité_N* 'perpetuity' can be discussed. It is a fact that the expected nominalizations [?]*témérarité_N*, [?]*identicité_N*, [?]*nécessarité_N*, [?]*éternalité_N* and [?]*perpétualité_N* are not well attested.¹ Interestingly, the goal of using the longer form seems to yield an output strictly compositional with respect to the suffixed adjectival form, cf. (298a).

¹*Perpétualité_N* is rare (see *TLF*); Plénat (2008: 1617) also mentions a few occurrences of *témérarité_N* and *nécessarité_N*; Goedefroy's dictionary of Old French also features occurrences of ^o*éternalité_N*.

- (298) a. Montrons la ?*nécessarité* de la condition. (WEB, 2004)
 ‘Let’s show the necessity of the condition.’
- b. La technique d’appariement se base sur l’ ?*identité* des noms. (R.W., 2018)
 ‘The matching technique is based on the identity of the names.’
- c. appareil qui devait reproduire la gravitation des planètes et des astres dans l’espace infini, y compris la perpétualité de leur mouvement (P. Luguet, 1909)
 ‘device that was supposed to replicate the gravitation of planets and stars in infinite space, including the perpetuality of their movement’

Thus, the shorter nominalized forms can hardly be argued to be derived from *téméraire*_A ‘reckless’, *identique*_A ‘identical’, *nécessaire*_N ‘necessary’ and *éternel*_N ‘eternal’. Instead, and insofar as shorter variants also pass [CF] (i.e. the Counterfactuality Test), we should assume that the adjective and the noun, here, are built on a common Asp-dominated structure that I will assume embeds an aP, i.e. *témér*_{-A}, *ident*_{-A}, *nécess*_{-A} and *étern*_{-A}, respectively. Similar reasoning would yield e.g. $\{\{certitude_N \swarrow \nwarrow certain_A\} \leftarrow cert_{-A}\}$. Similar observations can be made regarding the use of †*pudicité*_N ‘pudicity’ instead of *pudeur*_N ‘pudor’.

- (299) la pudicité de ce costume se concentre dans une volumineuse cravate (1905)
 ‘the modesty of this outfit is concentrated in a voluminous tie’

The fact that both suffixal structures, i.e. *-Ø-ique*_{-A} vs. *-ic*_A*-ity*_N, yield distinct outputs is shown in contrasts such as in (300).

- (300) L’unicité du peuple contribue à affirmer l’unité du pouvoir.
 (Conseil Constitutionnel, 2022)
 ‘The uniqueness of the people contributes to affirming the unity of power.’

Lacanian terminology introduces the concept of ■*unarité*_N ‘unarity’; see (301).

- (301) a. La calligraphie est poétique, fait signe, référence à l’unicité du trait qui est son essence même (N. Moshnyager, 2016)
 ‘Calligraphy is poetic, signals, refers to the uniqueness of the stroke which is its very essence.’
- b. L’unarité du trait va se substituer à l’unicité de l’objet. (M. Andrès, 1987)
 ‘The unicity of the stroke will substitute for the uniqueness of the object.’

To conclude, so-called truncated bases are not merely shorter variants of their longer counterparts, but lexicalizations of smaller structures. Thus, whenever the short adjective is not attested, the short nominalized form should be regarded as lexically sourceless. The *Direct Relationship* hypothesis, which posits a common conceptual feature in both derivatives, is on the right track but cannot account for the grammatical properties of these nominals.

3.1.3 Internal Modification Beyond Lexicalization

Most tests reviewed in chapter 2 are based on internal modification. Before being able to apply these tests to nominals lacking an autonomously attested lexical source, I will here discuss some issues related to modification of unlexicalized bases. I will first introduce the issue, then criticize the notion of virtual L and advocate in favor of more precise terminology, and finally, I will give examples of how we, when modifying unlexicalized bases, we can overcome the problems identified.

3.1.3.1 Modification of Unlexicalized Bases

Modification of unlexicalized bases needs to be discussed before proceeding to actual testing. Conceptual consistency sometimes blurs grammaticality judgments. For instance it is not clear if we should reject the sentence in (302) because of grammatical or mere conceptual reasons. In such uncertain cases, I will use the *infinity* symbol ∞ , which expresses judgment indeterminacy: since it is unclear whether the sentence should be judged as ungrammatical or conceptually odd, we suspend the judgment until we learn more about the conceptual compatibility of the predicate with the kind of structure we are trying to embed it into.

- (302) ∞ la destruction pendant trois minutes de cette jolie maison
the destruction for three minutes of this pretty house

We could infer from this unfelicitous modification that, since it fails $\overline{\text{FOR-X}}$, this nominal lacks Outer Aspect. — But of course, this is not true: in the right context, no issue arises, cf. (303).

- (303) \checkmark La destruction pendant trois mois de bâtiments menaçant de s’effondrer a assaini la ville.
‘The destruction for three months of buildings threatening to collapse cleaned up the city.’

Now, the reason why we know that *destruction*_N is *supposed* to take $\overline{\text{FOR-X}}$ modification, is that we know the conceptual properties of its verbal source.

- (304) Les ouvriers ont détruit cette maison pendant trois minutes.
‘The workers destroyed this house for three minutes.’

However, if such a lexicalized verbal source does not exist, we cannot do this.

Now consider for instance *manutention*_N, which lacks a related V $^{\circ}$ *manutenir*_V. In (305), we need to know whether this noun fails $\overline{\text{IN-X}}$ for grammatical reasons or is just conceptually incompatible. Analogically from, e.g., $\{ \textit{détenir} \rightarrow \textit{détention} \}$, the source verb of the N in (309) should be $^{\circ}$ *manutenir*_V ‘handle’, but it is factually non-existent.

- (305) °*manutenir*_v ‘handle’
 la **manutention** [∞ en quelques minutes] de cette valise
 ‘the handling [in a few minutes] of this suitcase’

Intuitively, we notice that conceptually similar Ns such as *manipulation*_N ‘manipulation’ reject $\overline{\text{IN-X}}$. However, we can always find contexts, in which such nominals pass $\overline{\text{IN-X}}$, cf. (306). According to what was established in subsection 2.1.3, we can rectify the claim that *manipulation*_N rejects $\overline{\text{IN-X}}$ and say instead that it lacks *inherent* quantization, but can still exhibit *derived* quantization: in the absence of affectedness, the theme can be made incremental by introducing an explicit telos (endpoint) through bounded theme quantification, cf. (306).

- (306) J’ai gagné le concours ! J’ai manipulé quinze valises en seulement cinq minutes !
 ‘I won the contest! I manipulated fifteen suitcases in only five minutes!’

Thus, we expect *manipulation*_N to pass $\overline{\text{IN-X}}$ in cases of Outer Aspect, and we can indeed verify that it is the case, cf. (307a). After which, trying $\overline{\text{IN-X}}$ with the lexically sourceless counterpart *manutention*_N, we find out that it yields a perfectly fine result, cf. (307b).

- (307) a. ✓ la **manipulation** d’une quinzaine de valises en seulement cinq minutes me fit
 gagner mon pari
 ‘the manipulation of fifteen suitcases in only five minutes made me win the
 contest’
 b. ✓ la **manutention** d’une quinzaine de valises en seulement cinq minutes me fit
 gagner mon pari
 ‘the handling of fifteen suitcases in only five minutes made me win the contest’

Now that we have determined that the blocking of $\overline{\text{IN-X}}$ with *manutention*_N is not structural but conceptual, we may give the relevant judgment as in (308), i.e. conceptual oddity rather than ungrammaticality.

- (308) ∞ la manutention de cette valise en quelques minutes
 ‘the handling of this suitcase in a few minutes’

Having said that, we can determine that *manutention*_N, for conceptual reasons, is not meant to work with $\overline{\text{IN-X}}$. It is, however, conceptually compatible with $\overline{\text{FOR-X}}$, cf. (309).

- (309) °*manutenir*_v ‘handle’ vs. ✓*manipuler*_v ‘manipulate’
 a. La **manutention** pendant une durée importante de charges particulièrement
 lourdes peut entraîner un effondrement squelettique.
 ‘The handling for a significant duration of particularly heavy loads can lead to
 skeletal collapse.’

- b. La manipulation pendant une durée importante de charges particulièrement lourdes...
 ‘The handling for a significant duration of particularly heavy loads...’

Thus, the nP headed by *manutention*_N ‘handling’ shows exactly the same event properties as for any other (AS)-N. If we had found out that applying [FOR-X] to *manutention*_N yielded unacceptability, we would have known for sure that we were dealing with a blocking of a grammatical nature.

3.1.3.2 Syntactic Licensing vs. Conceptual Consistency

Internal modification, as introduced in Larson (1998: 162, ex. 42) and formally defined by Gehrke & McNally (2015), has initially required relation to a lexical V or A (an *L*, as a generic notation); cf. (310).

- (310) **Larson (1998: 162, ex. 42)** (emphasis mine)

Barbara saw an occasional *sailor*.

‘Barbara saw a person who occasionally *sailed*.’

The traditional approach to internal modification of nominals generally does not consider the possibility of modifying unlexicalized source structures. There is, therefore, no pre-established method or instruction manual to explain how to do it. When using aspectual modifiers such as [IN-X] and [FOR-X], we need to know whether the denotation of the N we are testing is conceptually compatible with such modifiers: if a modifier is rejected, we have to be sure that it is for structural reasons, not out of conceptual oddity.

Consider for instance the noun *audition*_N. It can have a stative or an agentive reading, whether it means ‘hearing’ or ‘listening’. In a standard context and with a singular theme, *audition*_N ‘listening’ seems to [IN-X]. Yet, the corresponding Agent nominal in (311a) accepts internal modification, which points towards the presence of an internal event.

- (311) °*ouïr*_V ‘listen’ (cf. †*ouïr*_V ‘hear’)

- a. devinette à l’intention de l’*auditeur* occasionnel de musique contemporaine
 (*Le Monde*, 2022)

‘Riddle intended for the occasional auditor of contemporary music.’

- b. (i) ∞ l’*audition* en deux minutes de cette belle mélodie
 ‘the audition in two minutes of this beautiful tune’
 (ii) ∞ J’ai ?*ouï* en deux minutes cette belle mélodie.
 ‘I heard in a few minutes this beautiful tune’

In the agentive sense ‘listen’, some conditions are required for an endpoint to be denoted. Thus, in order to test this variant of *audition*_N, we could, as in (311b.ii), refer to a hypothetical verbal entry. However, there is no point in doing so, insofar as the idiosyncrasy of a non-existing entry is, by definition, unspecified. The conceptual content of the nominal, instead, should be determined by directly observing the nominal itself in various contexts. As seen in (312), *audition*_N passes $\overline{\text{IN-X}}$ in the relevant context: its structure must contain a vP.

- (312) l’audition d’une dizaine de morceaux différents en à peine quelques minutes
 ‘the audition of a dozen different tunes in hardly a few minutes’

Thus, resorting to a virtual entry does not help; rather, what could help would be to proceed analogically to a conceptually similar nominalization, as in (313).

- (313) # l’écoute en deux minutes de cette belle mélodie
 ‘the listening in two minutes of this beautiful tune’

Indeed, assuming for *audition*_N a conceptual meaning similar to that of *écoute*_N, we might be able to conclude that *audition*_N here rejects $\overline{\text{IN-X}}$ for conceptual reasons.

- (314) # l’**audition** en deux minutes de cette belle mélodie
 ‘the audition in two minutes of this beautiful tune’

This analysis is corroborated by the potential for coercion using a variant of the *fast-forward effect* introduced in § 2.1.3.2 *supra*. The fast-forward effect is pragmatically difficult to trigger with musical compositions, which — unlike e.g. surveillance videos — lose their essence when played at altered speeds. Of course we could very well set up a context in which supernatural beings had the ability to listen to accelerated or decelerated music. But as a more general method to handle such cases, I propose to use a *pragmatically unconstrained context*, which exploits (AS)-Ns’ ability, established in section 2.2 *supra*, to denote theoretical event descriptions (*event kinds*); instantiations (or *tokens*) only emerge through Tense. All we have to do is set up a context where the instantiation of the event description in a normal world is presented as impossible. This sort of paradoxical effect enables reference to events that defy pragmatic real-world constraints, such as the impossibility of listening to an hour-long symphony in just a few minutes, cf. (315).

- (315) L’inspecteur a reproché au professeur de musique de passer trop de temps sur l’écoute de la mélodie; ce dernier lui a alors rétorqué que l’audition en quelques minutes d’une symphonie de plus d’une heure était impossible.
 ‘The inspector criticized the music teacher for spending too much time on the listening of the melody; the latter then retorted that the audition in a few minutes of an hour-long symphony was impossible.’

A non-agentive variant of *audition*_N exists (cf. *supra*, subsection 3.1.3). Note, however, that in the non-agentive reading, coercion becomes impossible, cf. (316) *infra*. Thus, some structural cause must be at stake.

- (316) L'inspecteur a fait remarquer au témoin que l'audition d'un bruit [* en quelques minutes] était impossible.
 'The inspector pointed out to the witness that the hearing of a noise [* in a few minutes] was impossible.'

Within the DM framework I adopt in this work, Roots are the lexical entries. They are underspecified for grammatical features, allowing them to insert freely into lexical terminal nodes. Thus, by definition, Roots are compatible with any structure. But not all combinations are interpretable: just like for sentences, the fact that a structure can be computed does not mean that its output will be interpretable. Harley & Noyer (p. 354) distinguish between "sentences which are ungrammatical for structural reasons [...] and sentences which, while grammatical, are deviant only owing to the real-world [...] knowledge". Remember that, following Marantz (1995, 1996, 1997, 2001), idiosyncrasy can never affect the grammar. Harley & Noyer (2000: 353–354), adopting a DM framework, make a clear distinction between what they call *downright grammaticality*, which they signal by an asterisk, and *pragmatic anomaly*, symbolized by a hash. According to the authors, certain configurations are blocked when the encyclopedic properties associated with a Root conflict with the syntactic structure into which it is inserted. If, formally, in a theory that assumes grammatical underspecification of Roots, a given Root may enter any syntactic configuration, it may in fact not insert in just any structure without compromising meaning consistency: the syntactic structure imposes its structural semantics to the overall interpretation, and if Root meaning is not in adequacy with this structural semantics, then conceptual ill-formedness ensues. Such constraint exerted on the meaning of the Root so that it remains consistent with the structural semantics of the syntactic structure it is embedded into, is termed *Structural Coercion* by Harley & Noyer (2000). Borer (2005a: 11), for her part, puts forward the notion of *stretching*:

"In the event of a mismatch, the grammar will always prevail. The interpretation put forth by the conceptual component can and will stretch [...] so as to match the rigid, absolute interpretational constraints circumscribed by the grammar. [...] At times, the oddity may be so extreme that it becomes difficult to distinguish from a straightforward case of ungrammaticality, where by ungrammaticality I would like to refer exclusively to the effect created by the violation of formal computational principles. [...] The most obvious prediction of a system in which listemes, as such, have no grammatical properties is that they will never be able to impose any structural conditions on their distribution, beyond whatever extra-grammatical constraints come from the compatibility between their conceptual value and the interpretation returned by specific grammatical computations."

As pointed out by Borer, the boundary between extreme oddity and plain ungrammaticality is often blurred. She highlights an essential difference between structural meaning and conceptual meaning. Structural meaning is non-negotiable; its computational nature makes it objective

and rigid. Conceptual meaning is flexible, subject to interpretation, and adapts to the syntactic context into which it is inserted: it *stretches*.

To conclude, using tests based on aspectual modification raises an issue with respect to lexically sourceless nominals: when a modifier is rejected, we must know whether it is for conceptual or grammatical reasons. Consequently, what we need to do at this stage is to analogically determine the relevant conceptual properties of the nominal put to the test.

3.1.3.3 Congruent Nominals

The idea here, is that it is always possible to judge a nominal whose verbal or adjectival base is unattested, because the absence of lexicalization does not question grammaticality. In neoconstructionist frameworks, using internal modifiers to test nominals for the presence of an internal eventuality comes independently of any notion of attestedness of the source, since they are targeting a syntactically introduced variable. Even when the source is not lexicalized, it is still possible to have an idea of which aspectual modifiers should be expected to conceptually work. We may use conceptually similar (AS)-Ns *escalade*_N ‘climbing’ and *pillage*_N ‘plundering’ as points of reference, cf. (317) and (318).

- (317) a. L'alpiniste a ?*ascendu* cette haute montagne [✓ en / ✓ pendant] cinq jours.
 ‘The alpinist ascended this tall mountain [in / for] five days.’
 ≡ {L'alpiniste a escaladé cette haute montagne [✓ en / ✓ pendant] cinq jours.}
 ‘The alpinist climbed this tall mountain [in / for] five days.’
- b. l'ascension [✓ en / ✓ pendant] cinq jours de cette haute montagne
 ‘the ascent of this tall mountain [in / for] five days’
 ≡ {l'escalade [✓ en / ✓ pendant] cinq jours de cette haute montagne}
 ‘the climbing [in / for] five days of this tall mountain’
- (318) a. Les ennemis ont ?*saqué* la ville [✓ en / ✓ pendant] deux jours.
 ‘The enemy sacked the fortified city [in / for] two days.’
 ≡ {Les ennemis ont pillé la ville fortifiée [✓ en / ✓ pendant] deux jours.}
 ‘The enemy plundered the fortified city [in / for] two days.’
- b. le sac [✓ en / * pendant] deux jours de la ville fortifiée
 ‘the sack [in / for] two days of the fortified city’
 ≡ {le pillage [✓ en / ✓ pendant] deux jours de la ville fortifiée}
 ‘the plundering [in / for] two days of the fortified city in two days’

Crucially, using conceptually similar or *congruent* nominals, we learn from (317a) and (318a) that both nominals are conceptually compatible with both $\overline{\text{IN-X}}$ and $\overline{\text{FOR-X}}$. Therefore, when testing those nominals, any rejection of $\overline{\text{IN-X}}$ or $\overline{\text{FOR-X}}$ will have structural causes. The test in (317b) shows that *ascension*_N does not present any functional limitations with respect to

accepting both $\overline{\text{IN-X}}$ and $\overline{\text{FOR-X}}$; from (318b), however, we can conclude that the incompatibility of sac_N with $\overline{\text{FOR-X}}$ is due to the lack of the projection that licenses Outer Aspect, namely AspP. In sum, the grammaticality judgment in (318b) is assessed relatively to the use of the congruent nominal *pillage_N* ‘plundering’, which arguably passes $\overline{\text{FOR-X}}$ because it has the required functional projection to do so, namely AspP; *sac_N* ‘sack’, by contrast, seems to lack AspP.

To conclude, although the predicted underlying structures do not always give rise to lexical entries, what matters is that the nominal behaves exactly as nominals whose source is lexicalized. Having conducted this reflection, we are now optimally equipped to conduct an in-depth investigation of nominals based on unlexicalized sources.

3.2 Internal Event Projections

I have argued that bases of $\overline{\text{AS}}$ -Ns do not necessarily relate to an autonomously attested verbal or adjectival entry. Pursuing the demonstration that bases do not need to be lexically attested in order to transmit grammatical properties, I will now apply to so-called lexically sourceless nominals the various tests previously discussed. The crucial claim in section 3.2 is that nominals not related to a lexicalized verbal base pass the tests and thus, the projections that license in $\overline{\text{AS}}$ -Ns various grammatical properties such as AS projection, must be assumed in nominals regardless of whether their source is lexicalized. The structure of Event $\overline{\text{AS}}$ -Ns is distinguished by at least a vP, the presence of which can be tested through various methods, and, for $\overline{\text{AS}}$ -Ns built on a phasal base (cf. *infra*, section 4.2), by Asp. $\overline{\text{IN-X}}$, $\overline{\text{MULT}}$ and $\overline{\text{DIV}}$ are used only to detect v. $\overline{\text{CF}}$ works in all cases, being triggered by either v or Asp. The idea in this section is to take over one by one the various tests introduced in chapter 3 and to use them on lexically sourceless nominals. The organization of the section will be as follows. Subsection 3.2.1 addresses theme-related internal adjectival modification. Subsection 3.2.2 consists in applying tests based on PP modification.

3.2.1 Theme-Related Adjectival Modification

It was established in section 2.1 that while internal adjectival modification that does not necessarily identify the presence of v, it can however be used as a test providing precautions are taken to ensure the internal argument is targeted.

3.2.1.1 Transitives

As was previously argued, whether or not a base is attested as an autonomous stem is irrelevant with respect to AS inheritance. Abundant data from French shows that nominalizations

take aspectual modifiers independently of whether they can be related to an autonomous L. In (319), the possibility of various kinds of aspectual modification makes it clear that *olfaction*_N ‘olfaction’ should be assumed to inherit aspectual properties from a structure that could have lexicalized into *°olfaire*_v ‘olfact’ (cf. e.g. {*satisfaire*_v ‘satisfy’ → *satisfaction*_N ‘satisfaction’}) — which, however, does not exist.

(319) *°olfaire*_v ‘olfact’

- a. J’eus recours à l’olfaction fréquente de hepar sulfur. (1838)
 ‘I resorted to the frequent olfaction of sulphur hepar.’
- b. Le sujet se montre insensible à l’olfaction soudaine d’un flacon d’ammoniaque.
 (P.-C. Jagot, 1968)
 ‘The subject shows himself insensitive to the sudden olfaction of a bottle of ammonia.’
- c. La sécrétion salivaire décroît au cours de l’olfaction prolongée d’un cheeseburger.
 (R.W., 2011)
 ‘The salivary secretion decreases in the course of the prolonged olfaction of a cheeseburger.’

The precautions are the same as with any nominal we have tested so far. When using MULT, for instance, we have to ensure that the modification scopes over the hypothetical theme. This is the case in (320), where the process applies repeatedly to the same object.

(320) *°déjeter*_v ‘discharge’

- La diarrhée provoquait la constante déjection d’une mucosité catarrhale. (1844)
 ‘The diarrhea was causing the constant discharge of catarrhal mucus.’

As was argued in section 2.1, it is ok to use indefinite quantification in complements of hypothetically transitive nominals, cf. (326b)–(322).

(321) *°adduire*_v ‘adduct’

- a. machines permettant l’adduction régulière de grandes quantités d’eau (WEB)
 ‘machines allowing the regular adduction of great quantities of water’
- b. ... l’acheminement régulier de grandes quantités d’eau
 ‘the regular conveyance of great quantities of water’

(322) *°parturir*_v ‘give birth’

- a. la parturition régulière de jumeaux des deux sexes (R.W., 1967)
 ‘the regular parturition of twins of both sexes’
- b. l’enfantement régulier de jumeaux des deux sexes
 ‘the regular giving birth to twins of both sexes’

As seen in § 2.1.1.2, generic complements can trigger a non-internal reading, cf. (323).

- (323) °*préder*_v ‘prey upon’
 la prédation répétée des bactéries par les détritivores (R.W.)
 ‘the repeated predation of the bacteria by the detritivores’

In such cases, it is thus better to use **GRAD** as in (324), which was introduced in § 2.1.3.3 (see *infra*, § 3.2.2.3).

- (324) °*préder*_v ‘predate’
- a. femme qui observe la prédation progressive des espaces publics par le rouleau-compresseur du capital (WEB, 2023)
 ‘woman observing the gradual predation of public spaces by the steamroller of capital’
 - b. texte sur la stratégie hégémonique de Google, sa volonté de prédation progressive de tous les pans de l’économie (WEB, 2018)
 ‘text on Google’s hegemonic strategy, its intention of gradually preying on all sectors of the economy’

However, it is also possible, in order to determine the syntactic status of the *de*-P complement, to use the **DIV** test as introduced in § 2.1.2.1 *supra*.

- (325) Cette contrainte est majorée lors de l’arrivée de groupes par la manutention successive de nombreuses valises en un temps limité. (WEB)
 ‘This constraint is majored during the arrival of groups by the successive handling of many suitcases in a limited time.’

Finally, such conclusion can be verified using **CF**.

(326) **Transitive (AS)-Ns Without a Lexicalized Source**

- a. L’olfaction prolongée de ce cheeseburger te rendrait malade.
 ‘Prolonged smelling of this cheeseburger would make you sick.’
- b. L’adduction de cette eau causerait des inondations inattendues dans la région.
 ‘The conveyance of this water would cause unexpected flooding in the area.’
- c. La parturition de ces chatons mettrait le vétérinaire dans une situation inattendue.
 ‘The birth of these kittens would put the veterinarian in an unexpected situation.’
- d. La prédation de cette espèce par l’homme entraînerait son extinction rapide.
 ‘The predation of this species by humans would lead to its rapid extinction.’

In sum, lexically sourceless nominals that have been tested pass theme-related internal modification and therefore, must contain the exact same projections that license transitivity in any (AS)-N: namely, vP and VoiceP. Now, let us proceed with unaccusative (AS)-Ns.

3.2.1.2 Unaccusatives

With intransitives, precautions are required, as we need to be sure that the complement corresponds to an internal argument.

(327) °*défaire*_v ‘defect’

- a. épouvan^{té} de la défection répétée de ses troupes (C. Merivale, 1865)
horried by the defection repeated of his troup
- b. tolérer la défection réitérée de profiteurs égoïstes (S. Atran, 2009)
tolerate the defection reiterated of profiteers selfish

So, here again, **GRAD** tends to be a more reliable test, cf. (328).

- (328) a. La défection progressive de l'écurie Batthyany n'a pas arrangé ses affaires.
(*Le Monde*, 1973)
‘The progressive defection of the Batthyany stable did not help his affairs.’
- b. Telle est la conception finale dans laquelle Napoléon s'est ancré ; rien ne l'en décrochera, ni [...], ni la défection graduelle de la France. (H. Taine, 1887)
‘Such is the final conception to which Napoleon has anchored himself; nothing will unhook him from it, not [...], nor the gradual defection of France.’

The unaccusative variant of *éruption*_N ‘eruption’ (cf. *infra*, § 4.3.2.3) is compatible with the internal modifier *simultané*_A ‘simultaneous’ (which is a test, as argued in subsection 2.1.2 *supra*) and preposed spatial modifiers, as seen in (329) (see also (330) in subsection 3.2.2 *infra*). It is, therefore, a lexically sourceless (AS)-N.

- (329) a. l' éruption simultanée de mouvements de protestation dans diverses
the eruption simultaneous of movements of protestation in various
localités du pays (U.N., 2015)
localities of the country
- b. l' éruption dans diverses localités du pays de mouvements de
the eruption in various localities of the country of movements of
protestation d'une rare violence
protestation of rare violence

Thus, the **DIV** test, which I have introduced in subsection 2.1.2, is another way to test achievements, cf. (330) and (331).

- (330) a. l' éruption simultanée de deux liquides (R.W., 1968)
 the eruption simultaneous of two liquids
- b. l' éruption simultanée de plusieurs dents (R.W., 1851)
 the eruption simultaneous of several teeth
- (331) °_(se) *conflagrer*_v 'conflagrate'
- a. étincelle de liberté populaire se développant dans la conflagration simultanée
 de treize colonies anglaises (G.-H. Rocques de Montgaillard, 1820)
 'spark of popular freedom developing in the simultaneous conflagration of
 thirteen English colonies'
- b. cercle de feu formé par la conflagration simultanée d'une longue file de
 bâtiments (Le Courrier du Canada, 1865)
 'circle of fire formed by the simultaneous conflagration of a long row of
 buildings'

The examples in (332) seem to point towards an (AS)-N reading. Yet, as we have established, [MULT] and [DIV] are not in and of themselves reliable tests when intransitives are involved, since we could be dealing with a non-argumental subject. However, the [GRAD] test will later confirm that *incursion*_N is indeed an (AS)-N.

- (332) °*incurrer*_v 'incur'
- a. L'avancée des troupes alliées, durant la Seconde Guerre mondiale, est largement
 ralentie par la fréquente incursion des avions allemands sur les avant-postes
 britanniques. (WEB)
 'The advance of the Allied troops during World War II is significantly slowed
 down by the frequent incursion of German airplanes on British outposts.'
- b. De nouvelles religieuses furent amenées en Palestine, chassées de l'Italie par
 l'incursion successive des Goths, des Vandales, des Suèves et par le sac de
 Rome sous Alaric. (1880)
 'New nuns were brought to Palestine, driven from Italy by the successive
 incursion of the Goths, Vandals, Suevi, and by the sack of Rome under Alaric.'

Note that it is methodologically relevant to correlate the tests to what I shall call *congruent*, i.e. conceptually comparable, phrases. Thus, for example, *collusion*_N 'collusion' behaves exactly as their counterparts *entente*_N 'mutual understanding', related to *s'entendre*_N 'understand one another'. The nominals in 333 may be regarded as nominalizing some structures that could lexicalize into virtual Vs, namely 'colluder_v 'collude'.

- (333) °*colluder*_v 'collude'

- a. parler d'islamisme pour désigner la **collusion** progressive et partielle de différents totalitarismes épars relève de la simplification abusive (WEB)
'To speak of Islamism to describe the progressive and partial collusion of various scattered totalitarianisms amounts to an excessive simplification.'
- b. critique visant la **collusion** progressive du monde de l'information et de la politique (O. Mongin, 1993)
'a critique targeting the progressive collusion of the world of information and politics'

Some nominals exhibiting anticausative semantics are conceptually reluctant to modification by $\overline{\text{IN-X}}$. In such cases, indicators of temporal extension can be used. For instance, such adjectives can show that *station*_N 'station', under its eventive sense 'stopping', accepts aspectual internal modification, cf. (334).

(334) °*ster*_v 'stop'

- a. lors de la station momentanée du mouvement diurne de la Terre sur son axe (L. Chaubard, 1833)
'at the time of the momentary stopping of the Earth's diurnal movement on its axis'
- b. Aucun cri de basse-cour ne saluait la brève station du char devant l'enceinte de Bonny Gate Farm. (A. Lapierre, 2015)
'no farmyard cry saluted the brief stopping of the tank outside the enclosure of Bonny Gate Farm'
- c. Malakian lui avait parlé de la brève station de Manzoni dans l'immeuble de l'avenue du Roule. (A. Leroy, 1973)
'Malakian had spoken to him of Manzoni's brief stopping in the building on Avenue du Roule.'
- d. La courte station du Président de la République à la gare de cette ville a donné lieu à un incident. (*Le Figaro*, 1895)
'The short stopping of the President of the Republic at the train station of that city gave rise to an incident.'

All discusses nominals can also be tested through $\overline{\text{CF}}$, cf. (335).

- (335) a. La conflagration de ce bâtiment déclencherait l'intervention des pompiers.
'The conflagration of this building would trigger the intervention of the firefighters.'
- b. La collusion de ces deux entités minerait l'équité du marché.
'The collusion of these two entities would undermine market fairness.'
- c. La station soudaine du soleil constituerait un miracle.
'The sudden stoppage of the sun would constitute a miracle.'

And finally, the $\boxed{\text{CF}}$ test proves efficient for testing nominals lacking temporal extension. See (336).

- (336) °*collider*_v 'collide' La collision de ces deux astres provoquerait un cataclysme.
'The collision of these two celestial bodies would cause a cataclysm.'

To conclude, adjectival modification is not made any more or less felicitous by lexical attestedness of the source or lack thereof. The possibility to take modifiers that induce event multiplication or division works in exactly the same whether or not the base is autonomously attested. Such facts prove the presence of an event variable inside the structure of the nominals considered. Now, I will address $\{-a/e\}nce$ nominals, arguing them to be built on a telic adjectival base.

3.2.2 Theme-Related PP Modification

Some $\boxed{\text{AS}}$ -Ns not related to an attested V exhibit the same unaccusative properties as $\boxed{\text{AS}}$ -Ns that do have a connection to an attested V. This is particularly notable in the case of accomplishments, which can be tested using $\boxed{\text{IN-X}}$, and achievements, which are primarily identified through their occurrence with aspectual modifiers. § 3.2.2.1 will provide evidence suggesting that nominalizations can exhibit telic properties independently of whether a related verbal entry can be found. § 3.2.2.1 will introduce a novel telic modifier for French, namely (*au fur et*) *à mesure de / que* 'in the course of, as'. § 3.2.2.5 will focus on the highly productive $\{-a/e\}nce$ nominalizations, with an emphasis on those those which cannot be traced back to a lexical verb or adjective. I will contend that they are derived from a deverbal adjective, irrespective of whether the adjective or its verbal source are attested.

3.2.2.1 Identifying v through $\boxed{\text{IN-X}}$

A number of nominalizations whose verbal base is not attested as an autonomous word pass telicity tests. As usual, we implicitly use conceptually similar nominals as a point of reference.

- (337) °*avenir*_v 'advene' vs. ✓*naître*_v 'be born'

- a. Cette tradition a rendu possible l' avènement en quelques mois,
this tradition has made possible the advent in a few months,
au milieu du XIX^e siècle, d' un État suisse très composite
in the middle of the XIXth century, of a state Swiss very composite
mais fortement noué. (D. de Rougemont, 1965)
but strongly close-knit
- b. Cette tradition a rendu possible la naissance en quelques mois...
this tradition has made possible the birth in a few months

The same lexically sourceless nominals that pass **MULT** or **DIV** also take **IN-X**. Some of them behave as if they were derived from verbs of occurrence or emergence.

(338) °*occurrer*_v ‘occur’¹ vs. √*survenir*_v ‘occur’

- a. Des témoins confirment l' occurrence en quelques mois d' une
some witnesses confirm the occurrence in a few months of a
dizaine d' avalanches sur ce site.
dozen of avalanches on this site
- b. Des témoins confirment la survenue en quelques mois...
some witnesses confirm the happening in a few months...

(339) °*roter*_v ‘rotate’

- a. La rotation de la terre autour du soleil en 365 jours sans que
the rotation of the Earth around the Sun in 365 days without that
rien ne vienne perturber sa trajectoire me subjuguera toujours.
anything come.SUBJ disturb its trajectory me will subjugate always
(V.K.)
- b. Les propulseurs cycloïdaux sont caractérisés par la rotation (simultanée)
the populsors cycloidal are characterized by the rotation simultaneous
de plusieurs pales autour d' un axe vertical. (WEB)
of several blades around an axis vertical

The same observation can be made for transitives. Thus, the nominal in (340) was previously used with **MULT**, also passes **IN-X**.

(340) °*adduire*_v ‘adduct’

- √ l'adduction en peu de temps de ces grandes quantités d'eau
‘the adduction in a short time of these large quantities of water’

¹The detail of the formation of *-ance/-ence* nominals will be addressed in § 3.2.2.5.

And finally, we can verify the results using the $\overline{\text{CF}}$ test, cf. (341).

- (341) a. La rotation inopinée de cette pièce métallique provoquerait une défaillance mécanique.
 ‘The unexpected rotation of this metal part would cause a mechanical failure.’
 b. L’adduction de ce gaz dans le système entraînerait une augmentation de la pression.
 ‘The adduction of this gas into the system would lead to an increase in pressure.’

3.2.2.2 Transitivity Alternation

Lexically sourceless $\overline{\text{AS}}$ -Ns may exhibit transitivity alternation. This is the case with those that refer to an event of burning, cf. (342).

- (342) †*comburer*_v ‘combust’
 a. la combustion spontanée d’un corps en quelques minutes
 ‘the spontaneous combustion of a body in a few minutes’
 b. la combustion du carbone par l’oxygène en quelques minutes
 ‘the combustion of the carbone by the oxygen in a few minutes’

The unaccusative variant parallels the pronominal form, i.e. *se* †*comburer*_v, cf. (343).

- (343) a. pierres qui *se comburent trop vite* (1839)
 ‘stones that combust too fast’
 b. *L’âme captive se combure.* (G. Kahn, 1898)
 ‘The captive soul combusts.’

- (344) ✓*transférer*_v ‘transfer’ (By suppletion; see § 3.1.1.3 *supra*.)
 a. la translation de cette relique par Hélène dans la basilique (WEB)
 ‘the translation of this relic by Hélène to the basilica’
 b. une fille qui provoquait la translation spontanée d’objets (1906)
 ‘a girl who used to cause the spontaneous translation of objects’

The alternation does not necessarily involve causation: in (345) for example, the theme is not affected.

- (345) †*ascendre*_v ‘ascend’
 a. l’ascension en quelques minutes de ce ballon vers un point élevé du ciel
 ‘the ascent in a few minutes of this balloon to a high point in the sky’
 b. l’ascension en cinq jours de cette haute montagne par l’alpiniste
 ‘the ascent in five days of this high mountain by the alpinist’

Finally, worth mentioning is *occlusion*_N ‘occlusion’, which alternates even though *occlure*_V remains quite rare and unknown to non-specialists. I personally judged the following examples as perfectly grammatical although I had no idea that a related V existed.

(346) *occlure*_V ‘occlude’ (Only used rarely and in a technical medical context.)

- a. La thrombose est l’occlusion d’une artère par un caillot.
‘Thrombosis is the occlusion of an artery by a clot.’
- b. L’occlusion spontanée de l’œil plusieurs fois par minutes est normale.
‘The spontaneous occlusion of the eye several times a minute is normal.’

Interestingly, alternating \textcircled{D} -Ns may sometimes feature different allosemy whether the base is used transitively or unaccusatively (an issue discussed in subsection 4.3.1 *infra*). For example, *solution*_N may, although quite rarely, be used as an \textcircled{AS} -N in either the sense of ‘resolution’ (cf. 347a–b, here working with the \textcircled{DIV} test) or ‘dissolution’ (cf. 347c, found with the telic internal modifier *complete*_A ‘complete’).

- (347) a. (i) conclusions résultant de la solution simultanée de trois
conclusions resulting from the solution simultaneous of three
équations (R.W., 1995)
equations
- (ii) ordinateur conçu pour la solution simultanée de plusieurs
computer conceived for the solution simultaneous of several
problèmes (Le Monde, 1970)
problems
- b. (i) méthode qui se réduit à la solution successive de trois
method which reduces to the solution successive of three
équations (R.W., 2020)
equations
- (ii) Nous continuons jusque, par la solution successive de tels
we keep up until, by the solution successive of such
sous-problèmes, nous atteignons notre objectif général. (1991)
subproblems, we reach our objective general
- c. On ajoute l’ eau seulement après solution complète de l’ iode dans
one adds the water only after solution complete of the iodine in
l’ alcool. (1886)
the alcohol

Using those Ns the other way around is impossible, as seen in (348).

- (348) a. * la solution spontanée du problème au bout de quelques semaines
 ‘the spontaneous solution of the problem after a few weeks’
 b. * la solution de l’iode dans l’alcool par le chimiste
 ‘the solution of the iodine in the alcohol by the chemist’

The noun *partition*_N ‘partition’ (cf. *supra*, § 3.1.1.1) exhibits causative alternation, exactly as *partage*_N ‘sharing’, cf. (349). Thus, while in (349a), the sense of the nominal, which refers to a ‘method’, is clearly transitive, in (349b), by contrast, it refers to an unintended consequence and thus, is interpreted as unaccusative. Finally in (349c), both readings are possible.

- (349) †*partir*_V ‘divide’
- a. La partition de l’espace selon différents critères et différentes échelles est une méthode classique. (R.W., 1994)
 ‘The partition of space according to different criteria and different scales is a classical method.’
- b. Ce fantastique effort, mené à marche forcée, finit par soulever un dysfonctionnement: la partition progressive de l’agglomération de part et d’autre de la voie rapide. (WEB)
 ‘This fantastic effort, conducted at forced march, ended up revealing a dysfunction: the progressive partition of the agglomeration on both sides of the expressway.’
- c. Les Maliens n’en peuvent plus de la partition progressive de leur pays alors que l’alternative russe a porté ses fruits en Centre Afrique. (WEB)
 ‘The Malians can no longer bear the progressive partition of their country while the Russian alternative has borne fruit in Central Africa.’

Likewise, in (350) below, for *sédation*_N ‘sedation’, we find in (350a.i,ii) the idea of a spontaneous process, which corresponds to an anticausative structure, whereas the sense in (350b.i, ii) is clearly agentive or causative.

- (350) ∅*sédater*_V ‘sedate’
- a. (i) Nous notons lors de la phase de créativité une sédation progressive du déplacement. (R.W., 2009)
 ‘We observe a progressive sedation of movement during the creativity phase.’
 (ii) L’évacuation du pus totale et immédiate a été aussitôt suivie de la sédation progressive de la dyspnée et du retour de l’appétit. (1905)
 ‘The complete and immediate evacuation of pus was directly followed by the progressive sedation of dyspnea and the return of appetite.’

- b. (i) Cette forme de contention correspond à la sédation du patient par la prescription de psychotropes. (R.W., 2015)
 ‘This form of restraint corresponds to the sedation of the patient by the prescription of psychotropic drugs.’
- (ii) L’idée de la sédation du symptôme par la persuasion n’a aucune portée thérapeutique. (G. Wajeman, 1982)
 ‘The idea of sedating the symptom through persuasion has no therapeutic purpose.’

Some (AS)-Ns without overt suffixation may inherit transitivity alternation, cf. (351) and (352).

(351) le non-arrêt des machines serait dangereux
 ‘the non-(shutdown/stopping) of the machines would be dangerous’

(352) le non-réveil de ce patient serait dangereux
 ‘the non-(waking/awakening) of this patient would be dangerous’

In sum, transitivity alternation occurs in the presence of a full verbal structure. As the discussion progresses, more evidence will be presented for the phasal character of such bases.

3.2.2.3 Identifying v through [GRAD]

Now, let us proceed to detecting v through graduality, by applying the [GRAD] test. This test is useful for testing (AS)-Ns built on unaccusative bases, especially where the nominalization does not relate to any autonomously attested verbal entry; see (353).

(353) °émulger_v ‘emulge’ vs. √disperser_v ‘disperse’

- a. Le salage de la nuit favorisera l’émulsion progressive de la neige à mesure que les véhicules circuleront. (WEB)
 ‘The overnight salting will favor the progressive emulsion of the snow as vehicles circulate.’
- b. Le salage de la nuit favorisera la dispersion progressive de la neige à mesure que les véhicules circuleront.
 ‘The overnight salting will favor the progressive dispersion of the snow as vehicles circulate.’

As quickly mentioned in § 2.1.1.1 *supra*, while modification by *graduel/progressif* (cf. *supra*, § 2.1.1.1) can be a good clue, the internal reading needs to be checked by calling upon the [GRAD] test. Many nominalizations intuitively built on an unaccusative predicate can be difficult to test, considering the rarity of genuine examples featuring PP aspectual modification. By contrast, *progressif*_A ‘progressive’ has a very high occurrence rate., cf. (354) and (355).

- (354) °*attrire*_v ‘attrite’ Les services financiers de la Poste doivent faire face à l’**attrition** progressive de leur fonds de commerce. (Sénat, 2004)
 ‘The financial services of the Post must face the progressive attrition of their business.’
- (355) °*abduire*_v ‘abduct’
 Ce dispositif permet l’écartement progressif des valves et par conséquent une abduction progressive des hanches. (R.W., 2011)
 ‘This device allows for the progressive separation of the valves and consequently a gradual abduction of the hips.’

Thus, we can spot such examples as a preliminary basis, and subsequently test them with GRAD. This is the method used in (356)–(357). The adjective *progressive*_A ‘progressif’ is optional.

- (356) °*subduire*_v ‘subduct’
- a. Elle constitue l’exemple type de chaîne de montagnes non-collisionnelle, formée le long d’une marge active par la **subduction (progressive)** de plusieurs plaques sous la plaque sud-américaine (**au fur et à mesure de l’évolution tectonique**). (R.W., 2008)
 ‘It constitutes the prime example of a non-collisional mountain belt, as it was formed along an active margin by the (gradual) subduction of several plates under the South American Plate (as the tectonic evolution progressed).’
- b. Le point triple entraîne la subduction progressive de la dorsale du Chili sous le continent sud-américain (**au fur et à mesure de l’évolution tectonique**). (WEB)
 ‘The triple junction triggers the progressive subduction of the Chile Ridge under the South American continent (as tectonic evolution proceeds).’

- (357) °*réceder*_v ‘recess’
 L’émergence du capitalisme a eu pour conséquence le déclin des routes de la soie et la **récession** du commerce oriental **à mesure de l’essor des échanges transatlantiques**. (V.K.)
 ‘The emergence of capitalism resulted in the decline of the Silk Roads and the progressive recession of Eastern trade as transatlantic exchanges expanded.’

The following attested example already features GRAD, cf. (358) and (361b).

- (358) °*déperdre*_v ‘lose’
 la **déperdition** progressive de l’audition *à mesure qu’on avance en âge* (WEB, 2016)
 ‘the progressive loss of hearing as one ages’

Besides, other event modifiers may be found, cf. (359).

(359) °*gester*_v ‘grow’

la gestation progressive d’une création commune sous la conduite d’un maître d’œuvre
(WEB)

‘the progressive gestation of a common creation under the leadership of a project director’

We now turn to theme-related spatial modification.

3.2.2.4 Spatial Modification

Nominals can also be identified as (AS)-Ns by means of a theme-related directional modifier. See for instance (360) and (361).

- (360) a. la **subduction** sous la plaque sud-américaine de plusieurs plaques adjacentes
the subduction under the South American plate of several adjacent plates
- b. la **subduction** sous le continent sud-américain de la dorsale du Chili
the subduction under the South American continent of the Chile Ridge

(361) °*repter*_v ‘crawl’

a. Il montre la reptation graduelle des Jésuites en Suisse. (1846)
‘He shows the gradual reptation of the Jesuits in Switzerland.’

b. en raison de la reptation progressive des objets vers l’aval au fur et à mesure du piétinement (R.W., 2002)
‘due to the progressive reptation of the objects downstream as treading goes on’

The [GRAD] test can be used to confirm such cases, cf. (362). Note that, as specified in § 2.1.3.3 *supra*, (*au fur et*) *à mesure de / que* ‘in the gradual course of’, ‘as’ may remain implicit.

(362) °*incurrer*_v ‘incur’

a. l’incursion progressive des réseaux informatiques dans le monde des automatismes industriels [✓ à mesure...] (R.W., 2009)
‘the progressive incursion of computer networks into the world of industrial automation’

b. l’incursion progressive des organisations sociales dans l’État [✓ à mesure...] (R.W., 2002)
‘the progressive incursion of social organizations into the State’

Nouns in *-trus-ion_N* exhibit Quantization in spite of *-truder_V* verbs being unattested, cf. (363)...

- (363) *°intruder_V* ‘intrude’
 l’intrusion graduelle dans les administrations pénitentiaires occidentales de préoccupations de type gestionnaire (R.W., 1999)
 ‘the gradual intrusion into Western penal administrations of managerial concerns’

... and they also pass **GRAD**, cf. (364)–(366).

- (364) l’intrusion graduelle et lente du fantastique dans une réalité d’abord parfaitement banale et quotidienne (C.-E. Magny, 1945)
 ‘the gradual and slow intrusion of the fantastical into a reality initially perfectly mundane and everyday’

- (365) *°protruder_V* ‘protrude’¹
 a. Se produit alors une protrusion graduelle du contenu de l’anneau fibreux discal. (WEB)
 ‘A gradual protrusion of the contents of the fibrous disc ring then occurs.’
 b. La protrusion progressive de la tête de la prothèse dans le bassin (R.W., 2011)
 ‘the progressive protrusion of the prosthesis head into the basin’

- (366) *°extruder_V* ‘extrude’
 a. Le retour à la normale du volume cellulaire s’effectue par l’extrusion progressive du NaCl et des osmolytes synthétisées ou par leur dégradation intracellulaire. (R.W., 2009)
 ‘The return to normal cellular volume occurs through the progressive extrusion of NaCl and synthesized osmolytes or through their intracellular degradation.’
 b. Les cohésines se fixeraient sur l’ADN et induiraient la formation de grandes boucles par l’extrusion progressive de la chromatine à travers l’anneau. (R.W., 2019)
 ‘The cohesins would bind to the DNA and induce the formation of large loops through the progressive extrusion of chromatin through the ring.’

Sometimes, we can find examples strengthened by the presence of an event modifier. For instance, the bolded modifiers in (367a,b) may constitute independent evidence for identification of *incursion_N* as an **(AS)**-N.

- (367) a. [✓ l'incursion / *le voyage] en terre étrangère et **au mépris du droit des soldats** permet une observation plus précise (WEB, 2017)
 'The [incursion / voyage] into foreign land and in disregard of the law by the soldiers allows for more precise observation.'
- b. la République, gravement menacée par [✓ l'incursion / *le voyage] en terre congolaise des troupes rwandaises **en complicité avec le pouvoir** en place (La Nouvelle Afrique)
 'The Republic, seriously threatened by the incursion into Congolese land by Rwandan troops in complicity with the ruling power.'

The same goes for the modifier in (368), which confirms the status of *attrition*_N 'attrition' as an (AS)-N.

- (368) °*attrire*_v 'attrite'
 années marquées par une **attrition** progressive des ventes physiques **au profit des ventes numériques**, puis du téléchargement *au profit des plateformes de vente en flux* (R.W., 2021)
 'years marked by a progressive attrition of physical sales in favor of digital sales, then from downloading in favor of streaming platforms'

Interestingly, *avènement*_N 'advent' even takes a preposed spatial modifier.

- (369) °*avenir*_v 'advene'
 a. L'avènement au pouvoir en 1878 du Gouvernement Frère-Orban allait lui donner l'occasion d'acquérir une influence considérable dans son parti. (R. Demoulin, 1938)
 'The advent to power in 1878 of the Frère-Orban Government was going to give him the opportunity to acquire considerable influence in his party.'
- b. Le mouvement des *sans-terre* reconnaît les avancées de la réforme agraire depuis l'avènement au pouvoir en janvier 1995 du président Cardoso. (Le Monde, 1997)
 'The Landless Workers' Movement recognizes the advances of the agrarian reform since the advent to power in January 1995 of President Cardoso.'
- c. L'avènement au pouvoir en mai dernier de Ma Ying-jeou (président en faveur d'un rapprochement avec la Chine continentale) a changé la perception des investisseurs vis-à-vis de l'île. (La Tribune, 2009)
 'The advent to power last May of Ma Ying-jeou has changed investors' perception of the island.'

Finally, the correlation between spatial modification and the presence of an internal event is confirmed by the CF test, cf. (370).

- (370)
- a. L'éruption sur mon visage de ces boutons disgracieux me remplirait de honte.
'The eruption on my face of these unsightly pimples would fill me with shame.'
 - b. La reptation dans les zones urbaines de ces serpents venimeux menacerait la population.
'The reptation in urban areas of these venomous snakes would threaten the population.'
 - c. L'incursion sur notre territoire de ces farouches ennemis provoquerait un conflit majeur.
'The incursion onto our territory of these fierce enemies would cause a major conflict.'
 - d. L'intrusion au sein du parti de ces idées subversives porterait atteinte à votre pouvoir.
'The intrusion within the party of these subversive ideas would undermine your power.'
 - e. L'attrition des ventes inquiéterait les investisseurs.
'The attrition of sales would worry investors.'
 - f. L'avènement au pouvoir de cet homme dangereux provoquerait une instabilité globale.
'The rise to power of this dangerous man would provoke global instability.'

To conclude, the GRAD test identifies a vP projection in AS-Ns, being sensitive to incrementality and thus, to theme-related Quantization. Let us now discuss preposed spatial modification. Now that we have highlighted clues that many nominalizations that lack a lexically attested verb embed a vP projection, let us turn to deadjectivals in *-ence*.

3.2.2.5 *-{a/e}nce* Nominals: Telic Adjectival Bases

The French language contains many nominalizations in *-{a/e}nce*, which pass the telicity tests (see Dal & Namer 2010, Knittel 2016). The nominal in (371) has a sufficiently clear anticausative denotation for MULT to be considered a reliable test for unaccusativity.

- (371) Des témoins confirment l'occurrence régulière de ce phénomène. (v.k.)
'Witnesses confirm the regular occurrence of this phenomenon.'

(372) °*subsider*_v ‘subside’

- a. La subsidence progressive des marges favorise la constitution de dépôts de sel. (R.W., 1987)

‘The progressive subsidence of the margins favors the formation of salt deposits.’

- b. La subsidence progressive des marges **au fur et à mesure de la sédimentation** favorise la constitution de dépôts de sel.

‘The progressive subsidence of the margins as sedimentation occurs favors the formation of salt deposits.’

Here again, we observe that the underlying categorized structures are not necessarily lexicalized. I will argue that such nominals derive from a deverbal adjective in *-ent*. Evidence for internal aspect inside *-esc_v-ent_A* As shall be given in § 3.2.2.5. Unattestedness of the source cannot be used as an argument against the deadjectival status, since it could be objected that they could derive from a virtual A after all, i.e. a possible but unattested adjective (cf. *supra*, § 1.2.1.3) — or more likely, *from the underlying structure itself*. As I have been arguing all along, the derivation does not operate on the lexemes, but on the very structures that make the creation of lexemes possible: the independent existence of those lexemes is only optional and this question does not impact the grammatical properties of the derived structures.

(373) °*résilier*_v ‘resist’ la résilience progressive de la ville de Détroit (R.W., 2020)
‘the progressive resilience of the city of Detroit’

(374) °*dissider*_v ‘dissent’

une action sur Dakar, où l’autorité de Vichy serait ébranlée déjà par la dissidence progressive des territoires de l’intérieur, aurait eu, selon toute apparence, les plus grandes chances de succès. (P. M. de la Gorce, 2008)

‘An action on Dakar, where the authority of Vichy would already have been shaken by the gradual dissidence of the inland territories, would have had, in all likelihood, the greatest chances of success.’

Further testing may involve other types of event modifiers, cf. (375).

(375) °*résurger*_v ‘resurge’

étape de transition vers la résurgence progressive du mouvement anarchiste révolutionnaire **en dépit de certains revers douloureux** (WEB, 2001)

‘a transition stage towards the progressive resurgence of the revolutionary anarchist movement despite some painful setbacks’

A parallel can be established between the unattested bases and the existing verbs, suggesting that these nouns could indeed contain a verb in structural form. This hypothetical verb could exist by virtue of the structure's viability, but for extragrammatical reasons, it might happen not to exist. In many cases though, an *-{a/e}nt* Verbal Adjective exists. One of such Ns is *rémanence*_N 'persistence', which passes GRAD, cf. (376).

(376) °*rémaner*_v 'remain' (✓*rémanent*_A 'remanent')

Cette méthode doit prendre en compte des facteurs primordiaux comme la brièveté du cycle biologique, la rémanence progressive des produits au fil des applications successives. (R.W., 1983)

'This method must consider crucial factors such as the shortness of the biological cycle and the progressive persistence of products over the course of successive applications.'

(377) °*résurger*_v 'resurge' (✓*résurgent*_A 'resurgent') vs. ✓*réapparaître*_v 'reappear'

a. la résurgence en quelques mois de cette grave épidémie
'the resurgence in a few months of this severe epidemic'

b. la réapparition en quelques mois de cette grave épidémie
'the reappearance in a few months of this severe epidemic'

Their source adjectives pass the GRAD test, thus highlighting telicity of their denotation: they are compatible with graduality modifiers.

(378) épidémie graduellement résurgente (V.K.)
'gradually resurgent epidemic'

It seems like this ability is closely related to their present participle morphology, cf. (379).

(379) a. quantité graduellement croissante de marchandises (*Le Monde*, 1980)
quantity gradually increasing.ADJ of goods

b. lumière progressivement mourante dans les ténèbres
light progressively dying in the darkness.ADJ

(J. Darriulat, 2013)

Yet, contrary to participles, telic adjectives fail IN-X. The contrast in (380) is clearcut.

(380) a. ✓ lumière mourant en quelques secondes
'light dying in a few seconds'

b. * lumière mourante en quelques secondes
'dying light in a few seconds'

This blocking is not related to the adjectival nature of the matrix structure: as we will see in as seen in § 4.1.4.2, possibility adjectives pass $\overline{[N-X]}$. I propose that, unlike the suffix of Present Participles, which spells out T, the suffix of verbal adjectives spells out an $\text{Asp}_{[-\text{PERFECTIVE}]}$ head; by contrast, when the adjective gets nominalized, it is the nominalizer itself that spells out Asp (cf. *infra*, subsection 4.3.4) and thus, the [+ PERFECTIVE] feature can be expressed. Now, consider in (381) the similarity of telic properties between the adjective and the nominal.

(381) °*décader*_v ‘decline’

- a. (i) Cette culture graduellement décadente survit quelque temps après la chute de l’Empire romain. (A.-G. Hamman, 1977)
 ‘This gradually declining culture survived for some time after the fall of the Roman Empire.’
- (ii) Plusieurs décennies d’un régime progressivement décadent et une interminable transition ont cassé le ressort de la population. (WEB, 2008)
 ‘Several decades of a progressively declining regime and an endless transition have broken the spirit of the population.’
- b. On s’accorde à signaler la décadence progressive de l’élevage du mouton en Russie. (D. de Prat, 1914)
 ‘There is agreement on the progressive decline of sheep farming in Russia.’

I take it as evidence for $-\{a/e\}nce$ nominals being derived from an aP structure that itself embeds a vP. And here again, all the nominals discussed can be verified to pass $\overline{[CF]}$, cf. (382) (forged).

- (382) a. La résurgence de cette épidémie mobiliserait des ressources considérables.
 ‘The resurgence of this epidemic would mobilize considerable resources.’
- b. La subsidence de ces terrains entraînerait des complications.
 ‘The subsidence of these lands would lead to complications for construction.’
- c. La dissidence de ces communautés provoquerait des tensions politiques.
 ‘The dissidence of these communities would cause political tensions.’
- d. La décadence de l’élevage dans cette région affecterait l’économie locale.
 ‘The decadence of farming in this region would affect the local economy.’
- e. La rémanence de ces champs magnétiques surprendrait même les scientifiques.
 ‘The remanence of these magnetic fields would surprise even the scientists.’
- f. La récurrence de ces événements défierait toute explication logique.
 ‘The recurrence of these events would defy any logical explanation.’
- g. L’occurrence de ce phénomène alerterait la communauté scientifique.
 ‘The occurrence of this phenomenon would alert the scientific community.’

Among *-ent* deverbal adjectives, the *-esc_v-ent_A* type exhibits overt telic morphology in the form of the inchoative affix *-{e/i}-sc-*. I suggest that *-esc-* spells out the little *v* head, whose denotation we have assumed is ‘become’. For instance, *évanescence_N* ‘evanescence’, *incandescence_N* ‘incandescence’ and *recrudescence_N* ‘recrudescence’, which denote a gradual process, inherit an unaccusative predicate from a source adjective based on an inchoative verb that is, in French, unlexicalized, cf. (383)–(392a).

(383) °*évanescer_v* ‘evanesce’

- a. La patinoire ressort maintenant la nuit avec des teintes monochromes uniformes ou des effets d’arc-en-ciel progressivement évanescents. (WEB, 2017)
‘The rink now stands out at night with uniform monochrome shades or gradually fading rainbow effects.’
- b. l’évanescence progressive de l’instruction civique dans les programmes de l’éducation nationale (Sénat)
‘the gradual fading of civic education in the national education curriculum’

(384) °*incandescer_v* ‘incandesce’

- a. Il n’y avait pas 9 000 mais près de 10 000 personnes sur les étagères progressivement incandescentes du temple quinziste lot-et-garonnais. (*La Dépêche*, 2017)
‘There were not 9,000 but nearly 10,000 people on the gradually glowing shelves of the Lot-et-Garonne rugby union temple.’
- b. C’était l’incandescence progressive de la poudre enflammée qui leur indiquait le cours des heures. (É. Fraissinet, 1857)
‘It was the progressive incandescence of the ignited powder that indicated the course of the hours to them.’

(385) °*recrudescer_v* ‘recrudesce’ L’apport de documents aux statuts variés, le recouplement des sources comptables et narratives permet d’éviter l’illusion, bien connue, d’une **recrudescence** des phénomènes observés **à mesure que l’on se rapproche du temps présent**, simplement **en raison des progrès de l’enregistrement au fil des siècles**. (R.W., 2009)

‘The incorporation of documents with varied statuses, and the cross-referencing of accounting and narrative sources, allows us to avoid the well-known illusion of a recrudescence of observed phenomena as we get closer to the present time, merely due to the advancements in record-keeping over the centuries.’

The noun *dégénérescence_N* ‘degeneration’ could be derived from *dégénérescent_A* ‘degenerative’ itself built on *dégénérer*. It passes [GRAD], thus inheriting telic properties from *dégénérescent_A*, cf. (392b).

- (386) maladie caractérisée par une dégénérescence progressive des ganglions de la base du cerveau (Encyclopædia Universalis)
 ‘disease characterized by progressive degeneration of the basal ganglia of the brain’

Nouns such as *tumescence*_N or *turgescence*_N, which denote the idea of swelling, are not associated with any known base.

- (387) °*turgescer*_v ‘turgidify’
 Les manifestations se caractérisent par une coloration rose claire des mamelons, un allongement et une turgescence progressive des tétines. (R.W., 2009)
 ‘The symptoms are characterized by a clear pink coloring of the nipples, a lengthening, and a progressive turgescence of the teats.’
- (388) a. notre putrescence progressive (WEB, 2023)
 ‘our progressive putrescence’
- b. L’abandon du verger conduit à la sénescence progressive des fruitiers (WEB, 2021)
 ‘The abandonment of the orchard leads to the progressive senescence of fruit trees.’
- c. quart de siècle marqué par les effets de la déliquescence graduelle de l’infrastructure sociale (U.N.)
 ‘quarter of a century marked by the effects of the gradual deliquescence of social infrastructure’
- d. Toutes ces évolutions illustrent la déliquescence progressive des anciennes formes de régulation sociale (Encyclopaedia Universalis)
 ‘All these developments illustrate the progressive deliquescence of old forms of social regulation.’

Adjectives take graduality modifiers independently of whether their verbal base is lexically attested, cf. (389).

- (389) a. argument peu à peu putrescent (WEB, 2015)
 ‘gradually putrescent argument’
- b. pédoncule progressivement pubescent (R.W., 2022)
 ‘progressively pubescent peduncle’
- c. chapeau de champignon lentement déliquescent (WEB, 2020)
 ‘slowly deliquescent mushroom cap’

Finally *réminiscence*_N ‘reminiscence’ is related to *réminiscent*_A ‘reminiscent’.¹

¹The base underlying *concupiscence*_N ‘concupiscence’ and *concupiscent*_A ‘concupiscent’, for its part, does not seem to exhibit any telic properties.

- (390) °*réminiscer*_v ‘remind’ (*réminiscent*_A ‘reminiscent’)
- a. La dialectique subjective est le processus mental du métaphysicien, c’est-à-dire la réminiscence graduelle des idées. (R.W., 1951)
 ‘The subjective dialectic is the metaphysician’s mental process, that is, the gradual reminiscence of the ideas.’
- b. La réminiscence progressive et parcellaire des souvenirs sert de ressort à l’intrigue. (WEB, 2014)
 ‘The progressive and piecemeal reminiscence of memories serves as a springboard for the plot.’

Let us finally apply $\boxed{\text{CF}}$, cf. (391).

- (391) **Deadjectival** $\overline{\text{AS}}$ -Ns
- a. L’évanescence progressive de ces lumières dans le ciel laisserait les spectateurs en émoi.
 ‘The progressive evanescence of these lights in the sky would leave the spectators stirred.’
- b. L’incandescence soudaine de la roche sous l’effet de la chaleur surprendrait les géologues.
 ‘The sudden incandescence of the rock under the effect of heat would surprise geologists.’
- c. La sénescence accélérée de ces arbres signalerait un déséquilibre écologique.
 ‘The accelerated senescence of these trees would signal an ecological imbalance.’
- d. L’iridescence graduelle de ces plumes sous l’effet de l’intensification la lumière révélerait des couleurs insoupçonnées.
 ‘The gradual iridescence of these feathers under the effect of intensifying light would reveal unsuspected colors.’
- e. L’obsolescence rapide de ces appareils soulèverait des critiques.
 ‘The rapid obsolescence of these devices would raise criticisms.’

The question is whether $\boxed{\text{CF}}$ is passed because of the presence of *v*, or just because of the Asp head, which I assume is present in all deadjectival $\overline{\text{AS}}$ -Ns. I argue in § 4.3.3.3 *infra* that nominals built on non-quantized adjectives pass $\boxed{\text{CF}}$ through perfectivity, which is confirmed by the fact that the presence of a temporal localizer improves acceptability. But crucially, no such localization is required with *-escence* nominals, cf. (392).

- (392) a. La recrudescence des activités sismiques [✓](lors de la période estivale) intrigueraient les autorités.
 ‘The resurgence of seismic activities during the summer period would puzzle the authorities.’
- b. La dégénérescence de ces cellules [✓](plus tôt que prévu) inquiéterait l’équipe médicale.
 ‘The degeneration of these cells earlier than expected would worry the medical team.’
- c. La florescence de ces plantes [✓](la nuit prochaine) surprendrait les botanistes.
 ‘The florescence of these plants the following night would surprise the botanists.’

The deverbal character of the source adjective of *-{a/e}nce* Nominals will be further supported by the Manner interpretation of their result counterpart (cf. § 4.3.5.3, ex. (827)).

3.3 *-eur* (AS)-Ns as Denoting External Arguments

The existence of *-eur* (AS)-Ns without a lexical source constitute one more argument in favor of (AS)-Bases, in parallel with Event-denoting (AS)-Ns. I will argue that the properties of an Agent nominal (e.g. *détracteur*_N ‘detractor’ and *contempteur*_N ‘contemner’) are identical to those of the related Event nominal (e.g. *détraction*_N ‘detraction’ and *contemption*_N ‘contempt’), which confirms that the base is structurally identical in both types. See (401).

Internal eventivity is perhaps even more salient with Agent nominals, because they uncontroversially refer to entities and yet, they are compatible with modifiers of events. French has two semantically identical *-eur* suffixes. One of them attaches to native (i.e. not borrowed from Latin) bases and feminizes in *-euse*; the other one selects for Third-Stem morphology (as defined in subsection 4.3.1 *infra*) and feminizes in *-rice*. Those nominals accept event-related modification independently of whether or not they relate to a synchronically occurring lexical verb. As is well known, in many cases, a given base, spelled out through Third-Stem morphology and not necessarily lexicalized autonomously, derives both an Event nominal and an Agent nominal, cf. (393).

- (393)
$$\left\{ \begin{array}{c} \text{°avier}_V \\ \text{‘aviate’} \\ \swarrow \quad \searrow \\ \text{aviation}_N \quad \text{aviateur}_N \\ \text{‘aviation’} \quad \text{‘aviator’} \end{array} \right\}$$

Here in (394) are examples of such pairs, built on unlexicalized bases and intuitively projecting a theme, cf. (394) and (395).

- (394) a. *audition/auditeur* d'un bruit (cf. †*ouïr*_v 'hear')
 'hearing / hearer of a noise'
- b. *prédation/prédateur* d'un insecte (cf. °*préder*_v 'predate')
 'predation / predator of an insect'
- c. *délation/délateur* d'un complice (cf. †*déférer*_v 'report')
 'denunciation / denouncer of an accomplice'
- d. *contemption/contempteur* d'un rival (cf. †*contemner*_v 'contemn')
 'contempt / contemner of a rival'
- e. *rédemption/rédempteur* (cf. °*rédimier*_v 'redeem')
 'redemption / redeemer'
- (395) Pour ce délateur du totalitarisme qu'est Jean-François Revel, l'utopie contiendrait déjà en germe la doctrine des régimes totalitaires. (R.W., 2007)
 'For Jean-François Revel, this denouncer of totalitarianism, utopia would already contain in embryo the doctrine of totalitarian regimes.'

I will take it as a clue that in fact, the structure of both types of (AS)-Ns is almost exactly the same. I will argue that the base itself, for its part, is the same. I will apply the various tests previously used for event (AS)-Ns, with the exception of [CF], which we have seen works on the basis of reference to event kinds. Subsection 3.3.1 first applies adjectival modification, then subsection 3.3.2 proceeds to PP modification.

3.3.1 Adjectival modification

Adjectival modification works extremely well with Agent nominals. § 3.3.1.1 is concerned with [MULT] and [DIV], then § 3.3.1.2 explores volitional modification.

3.3.1.1 Iteration and Succession Modifiers

Now equipped with tests based on internal modification, we can try, as in (396), to apply internal modification in order to test *auteur*_N 'author' for event properties similar to those of undoubtedly deverbal agentive (AS)-Ns, we can easily prove that it is not (AS)-N. With *auteur*_N and as opposed to what is observed for *rédacteur*_N 'writer', internal iterative modification (see Rappaport Hovav & Levin 1992, van Hout & Roeper 1998) is not available, cf. (396).

- (396) a. J'ai rencontré [✓ le rédacteur / # l'auteur] régulier de cette rubrique.
'I met the assiduous and regular [writer / author] of this column.'
- b. J'ai rencontré [✓ le rédacteur / * l'auteur] successif de ces différents articles.
'I met the successive [writer / author] of those various papers.'
- c. ce fréquent / constant [✓ rédacteur / * auteur] d'articles
'this fréquent / constant [writer / author] of papers'

There is, thus, no point in assuming a hypothetical [?]*auter*_v, since the semantic blocking of internal event modification excludes the possibility of there being a verb inside *auteur*_N. We can thus now judge [?]*auter*_v as *impossible*, i.e. as lexicalizing an ungrammatical structure, which we may note **auter*_v. Should this opposition hold in English between *author*_N and e.g. *writer*_N, which I believe to be the case, then [?]*auth*_v would be no more justified than its French counterpart. Thus, the assessment regarding Chomsky's (1970) example *the author of the book* may be confirmed, i.e. [?]*auth*_v is not a possible word: application of Grimshaw's tests (cf. *supra*, § 1.1.2.4) entails straightforward elimination of [?]*auth*_v as lexicalizing a valid verb: the judgment is **auth*_v rather than *'auth*_v. By contrast, when lexically sourceless nominals pass well-known tests, it proves that the underlying structure is grammatical. For example, *auteur*_N 'author' does exhibit event properties when it means 'accomplishing an action'. See the contrasts in (397) and (398), where we see that in this later reading only, *auteur*_N passes MULT and DIV.

- (397) a. # cet auteur régulier de best-sellers
'this regular author of best-sellers'
- b. Discours classique de l'auteur régulier de violences conjugales, a constaté la substitut du procureur. (Le Progrès, 2013)
'Classic discourse of the regular author of domestic violence, observed the deputy prosecutor.'
- (398) a. ce constant auteur [* de romans / ✓ d'infractions]
'this constant author of [books / infractions]'
- b. (i) * Il n'y a rien d'étonnant à ce que l'auteur successif de deux livres aussi différents soit difficile à cerner. (v.k.)
'There is nothing surprising about the successive author of two such different books being hard to pin down.'
- (ii) ✓ Il n'y a pas d'abus de droit à ce que l'auteur successif de deux infractions aussi différentes encoure une peine double de celle qu'il risquerait en commettant seulement la seconde. (Sénat, 1980)
'There is no abuse of law in the successive author of two such different infractions incurring a double sentence than they would risk by committing only the second one.'

We must conclude that *auteur_N*, in the sense of conducting an action, contains in its internal structure a verbal layer; but in the sense of the writer of a book, *author_N* must be assumed to have a structure similar to that of *père_N* ‘father’, i.e. to be a relational noun. These conclusions are consistent with Roy & Soare’s (2013: 133–137) analysis.

As already mentioned in § 1.3.3.2, internal modifiers are only compatible with non-clipped forms (e.g. *examination_N*, but not *exam_N*). This is also true for *-eur* nominals. For instance, *professeur_N* exists in two versions, one of which — the (non-AS) variant — can be clipped as *prof_N*. Crucially, event modification is only successful with the non-clipped form; see (399).

- (399) a. Ce *constant prof*(esueur) de menaces* commence à m’agacer. (v.k.)
 ‘This constant professor of threats is starting to annoy me.’
- b. Le *prof*(esueur) successif de toutes ces menaces* doit être quelqu’un de vraiment dérangé! (v.k.)
 ‘The successive utterer of all these threats must be someone truly disturbed!’

Besides, while the (AS)-variant may feminize somehow productively according to my judgment, the (non-AS) variant cannot, cf. (400a).

- (400) a. Cette [\checkmark *professeuse*] de menaces commence à m’agacer. (v.k.)
 this professor.FEM of threats is starting to me annoy
- b. Cette [\ast *professeuse*] d’anglais commence à m’agacer.
 ‘This English female teacher is starting to annoy me.’

Similar to what we observe with the event counterparts, nominals accept internal modification regardless of whether their base is independently lexicalized or not, cf. (401)–(402).

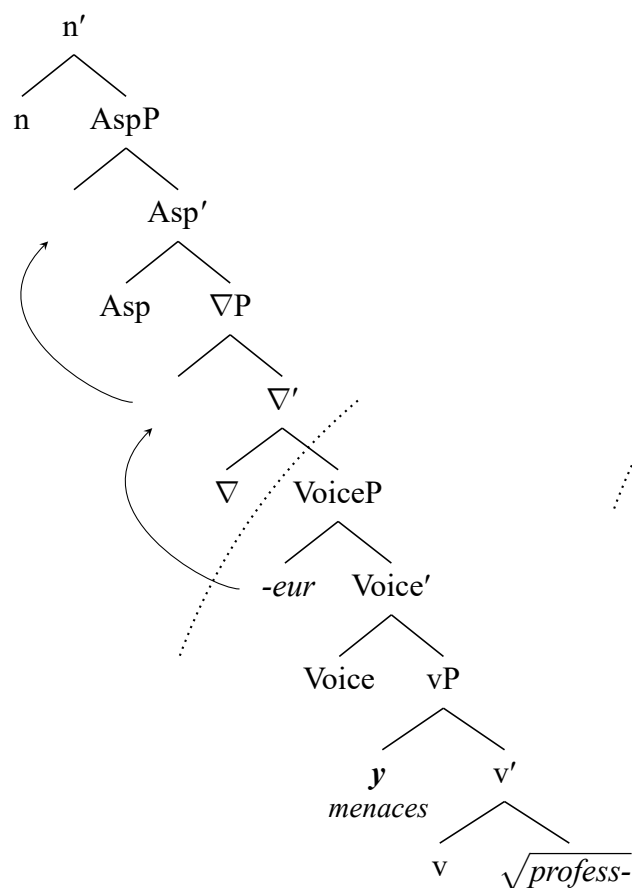
- (401) °*détraire_v* ‘detract’ and °*détirer_v* ‘detract’ (cf. *infra*, § 4.3.1.4)
- a. Une fois pourtant, le *détracteur habituel* du glorieux état-major de l’armée d’Italie s’est montré moins avare de louange et de justice pour ce vieux guerrier.
 (P.-M. Laurent de l’Arèche, 1857)
 ‘Yet once, the habitual detractor of the glorious general staff of the army of Italy showed himself less stingy with praise and justice for this old warrior.’
- b. raisons expliquant la *détraction fréquente* des administrateurs pour leur manque de rationalité (R.W., 1984)
 ‘reasons explaining the frequent detraction of the administrators for their lack of rationality’

- (402) †*contemner*_v ‘contemn’
selon ce *contempteur régulier* de ce mode de désignation des candidats
(*Le Point*, 2016)
‘According to this regular contemner of this mode of candidate designation.’
- (403) L’autre, le sans-grade, le sans-presse autre que confidentielle, l’exécuteur public des prix dits littéraires du putanat médiatico-germanopratin, le *contempteur inlassable* de la merde qui ose se dire littérature, celui-là est ni plus ni moins que lâché en rase campagne kosovare.
(Juan Asensio, 2019)
‘The other, the rankless, the one with no press other than confidential, the public execrator of so-called literary prizes from the media-whoring Saint-Germain-des-Prés establishment, the tireless contemner of the shit that dares call itself literature, that one is none other than abandoned in the open fields of Kosovo.’

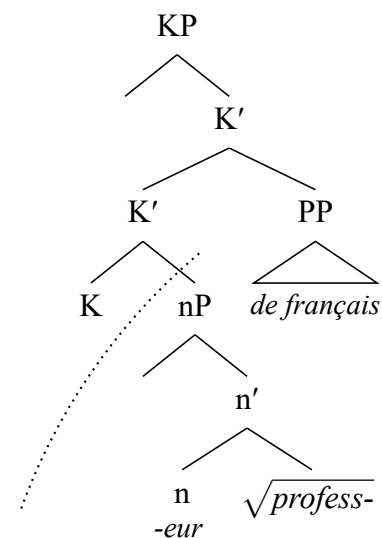
The respective structures of the (AS)- and (non-AS) *-eur* nominals are given in (404a, b).

(404) **AspP-Selecting vs. Root-Selecting *little n***

a. *professeur de menaces*
‘utterer of threats’



b. *prof(esseur) de français*
‘French teacher’



The structure in (404a) is that of the $\overline{\text{AS}}$ -N version of *professeur*_N. It is built on an event predicate that introduces an internal argument in [Spec, vP]. The suffix *-eur* realizes the external argument introduced in [Spec, VoiceP] and promoted to a subject of AspP. The Asp head accounts for phenomena related to episodic vs. dispositional interpretations, following Roy & Soare (2013, 2014); besides, as argued in § 3.3.2.1 *infra*, $\overline{\text{FOR-X}}$ is accepted — be it marginally. The ∇ P projection will be introduced and discussed in detail in chapter 4. Its presence must be assumed because, as shown in § 4.1.3.4 *infra*, *-eur* nominals pass the $\overline{\text{XPX}}$ test, which qualifies them as *phase-based* $\overline{\text{AS}}$ -Ns: they not only embed a v/Voice event, but a *full-fledged verb*.¹ In (404b), there is no internal event; the KP projection introduces kind-level event description and corresponding modification.

As a subsidiary remark, some *-aire* nominals such as *bénéficiaire*_N ‘beneficiary’ or *récipiendaire*_N ‘recipient’, whose nominalizing suffix — building on Roy & Soare’s (2012: 19–22) analysis of *-ant* nominals — appears to denote various types of subjects rather than external arguments, pass $\overline{\text{DIV}}$ and $\overline{\text{MULT}}$, cf. (405) and (406).

(405) Le récipiendaire successif de tous ces prix littéraires doit être un érudit.
‘The successive recipient of all these literary awards must be a scholar.’

(406) Ce constant bénéficiaire d’aides sociales m’écœure.
‘That constant welfare recipient disgusts me.’

To conclude, Agent nominals may work as $\overline{\text{AS}}$ -Ns regardless of source lexicalization, which identifies a syntactically built verb inside their structure.

3.3.1.2 Volitional Modification

As seen in subsection 1.3.1, Grimshaw (1990) suggests that volitional modifiers can be used to disambiguate nominals, by forcing an agent reading. Roy & Soare (2012: 18–19; 2020: 330) have shown that this is also a test for Agent $\overline{\text{AS}}$ -Ns, not only in English but also in French, cf. (408). Note that, by contrast, modifiers such as *involontaire*_N ‘involuntary’, *inintentionnel*_N ‘unintentional’ and *accidentel*_A ‘accidental’ do not constitute a test, for they are compatible with $\overline{\text{non-AS}}$ -Ns such as *victime*_N, cf. 407.

(407) La victime bien involontaire de ce criminel s’en alla porter plainte. (v.k.)
‘The quite involuntary victim of this criminal went to file a complaint.’

(408) a. ✓ l’*agresseur délibéré* de la vieille dame (ad. fr. Roy & Soare 2012: 19, ex. 43a)
‘the deliberate aggressor of the old lady’
b. * le bourreau délibéré de cette jeune fille (v.k.)
‘the deliberate executioner of this young girl’

Such modifiers are compatible with *-eur* Agent (AS)-Ns regardless of whether or not the source is lexicalized, cf. (409).

- (409) °*générateur*_v ‘beget’
- a. ✓ le ***générateur intentionnel*** de cet enfant
‘the intentional genitor of this child’
 - b. * le père intentionnel de cet enfant
‘the intentional father of this child’

Roy & Soare use a set of modifiers that we could call *of good will*. One of them, *fervent*_A ‘fervent’, is particularly convenient because, contrary to e.g. *obstiné*_A ‘obstinate’, *zélé*_A ‘zealous’ or *dévoué*_A ‘devoted’, it can never modify Agent nominals intersectively (see *supra*, section 2.1). Adjectives such as *compulsif*_A ‘compulsive’, *frénétique*_A ‘frenetic’ and *effréné*_A ‘relentless’ typically modify actions, never human referents. See (410).

- (410) a. (i) ce *fervent défenseur* de notre cause
‘this fervent defender of our cause’
(ii) # Ce défenseur de notre cause est fervent.
‘This defender of our cause is fervent.’
- b. (i) ce ***destructeur compulsif*** de mes jouets
‘this compulsive destroyer of my toys’
(ii) # Ce destructeur de mes jouets est compulsif.
‘This destroyer of my toys is compulsive.’

Unsurprisingly, this works regardless of source lexicalization, cf. (411)–(415).

- (411) Il convenait, tant pour l’ex-ambassadrice auprès des pingouins que pour le ***contempteur compulsif*** de la médecine libérale, de penser à l’avenir.
(Boulevard Voltaire, 2020)
‘It was appropriate, both for the former ambassador to the penguins and for the compulsive critic of liberal medicine, to think about the future.’
- (412) Dans l’un de mes derniers éditoriaux, j’avisais aimablement un ***détracteur compulsif*** de la pellicule de reconsidérer ses jugements hâtifs.
(Brochure of the La Ciotat Festival, 2017)
‘In one of my latest editorials, I was kindly advising a compulsive detractor of film to reconsider his hasty judgments.’
- (413) a. ce *fervent contempteur* des temps présents (R.W., 2006)
‘this fervent contemner of the present times’
b. ce *fervent détracteur* de ces installations (Marianne, 2023)
‘this fervent detractor of these facilities’

- (414) a. Depuis le début de l'année, cet *ardent contempteur* du régime disait être victime du harcèlement des autorités chinoises. (France 24, 2011)
 'Since the beginning of the year, this ardent contemner of the regime claimed to be a victim of harassment by Chinese authorities.'
- b. cet ardent détracteur du capitalisme (WEB, 2017)
 'this ardent detractor of capitalism'
- (415) °*secter*_v 'follow'
- a. Spinoza, Kant, Fichte, autant d'étapes qui rythment la production jacobienne dans le procès que cet *ardent sectateur* de la non-philosophie tente à la philosophie moderne
 'Spinoza, Kant, Fichte, so many stages that punctuate Jacobi's production in the trial that this ardent follower of non-philosophy brings against modern philosophy.'
- b. Quant à la petite fille, que les dieux avaient donnée à cet *ardent sectateur* de leur culte, fut-elle la fameuse Olympias ? (R.W., 1985)
 'As for the little girl, whom the gods had given to this ardent follower of their worship, was she the famous Olympias?'
- c. Le parc est déconseillé à tout *sectateur compulsif* de la Nupes. (WEB, 2023)
 'The park is not recommended for any compulsive follower of the Nupes.'

A limitation of *compulsif*_A is that it can also be licensed by an adjectival predication, see 416.

- (416) ce bavard compulsif
 'this compulsive talker'

A caveat with *fervent*_A is that it also works with nominals that do not independently exhibit grammatical properties, cf. (417).

- (417) ce fervent adepte de l'art abstrait
 'this fervent devotee of abstract art'

Another restriction is that the generic reading must not be triggered. For this reason *habituel*_A 'usual' and *systématique*_A 'systematic' should be avoided (cf. *supra*, § 2.1.1.3). For instance, 418 is entirely inconclusive.

- (418) †*fossoyer*_v 'dig'
 Le *fossoyeur habituel* de l'espoir normand a fait les annonces que nous savons. (WEB, 2013)
 'The habitual gravedigger of Norman hope made the announcements we are aware of.'

More reliable adjectival modification is by *frénétique*_A and *effréné*_A, both of which are unambiguously event-oriented, exhibiting a sort of frequentative reading, cf. (419).

- (419) ce *contempteur effréné* de la modernité (WEB, 2021)
 ‘this relentless contemner of modernity’

Like other such modifiers, they cannot occur predicatively, cf. (420).

- (420) a. (i) ce *buveur frénétique* de Coca zéro sucre (Sud-Ouest, 2014)
 ‘this frenetic drinker of sugar-free Coke’
 (ii) # Ce buveur de Coca est frénétique.
 ‘This drinker of Coke is frenetic.’
 b. (i) ce *buveur effréné* de lait de chamelle (Le Temps, 2011)
 ‘this relentless drinker of camel milk’
 (ii) # Ce buveur de lait est effréné.
 ‘This drinker of milk is relentless.’

But, contrary to *fervent*_A and *ardent*_A, they reject (non-AS)-Ns, cf. (421).

- (421) # ce fan [effréné / frénétique] de la modernité
 ‘this [relentless / frenetic] fan of modernity’

The argument is not necessarily overtly realized, but it can be realized — as demonstrated in subsection 4.3.4 *infra* — as an arbitrary pronoun, cf. (422) and (423).

- (422) a. ce [✓ *géniteur* / **père*] compulsif (V.K.)
 ‘this compulsive [genitor / father]’
 b. ce [✓ *destructeur* / **vandale*] effréné (V.K.)
 ‘this relentless [destroyer / vandal]’

- (423) Cela en dit aussi long sur le manque d’étoffe gouvernementale de ce délateur effréné.
 (WEB, 2020)
 ‘This says as much about the lack of governmental substance of this relentless delator.’

For *auteur*_N ‘author’, the same contrast can be observed as in § 3.3.1.1 *supra*, cf. (424).

- (424) a. cet auteur compulsif de propos antisémites (WEB, 2023)
 ‘this compulsive author of antisemitic remarks’
 b. * cet auteur compulsif de romans (V.K.)
 ‘this compulsive author of novels’

Note that I am not excluding the possibility that the (AS)-N variant of *auteur*_N could be used with its *auctorial* sense. Such uses are in fact marginally attested, cf. (425).

- (425) a. « Ce n'est pas péjoratif d'être populaire », disait en 1996 cet **auteur compulsif de calendriers déshabillés**. (*Sud-Ouest*, 2014)
 “‘It is not pejorative to be popular”, said in 1996 this compulsive author of nude calendars.’
- b. Directeur administratif le jour, le Corrèzien se transforme en **auteur compulsif** la nuit. (*Sud-Ouest*, 2023)
 ‘Administrative director by day, the man from Corrèze transforms into a compulsive author at night.’

Finally, the *-eur* suffix does not have to realize an Agent. For instance, the non-agentive variant of *auditeur*_N takes an internal argument just as the agentive variant, cf. (426).

- (426) Je voyais ce grincement de porte comme la manifestation d'un problème chez l'**auditeur** de ce bruit. (*WEB*, 2022)
 ‘I saw this door creaking as the manifestation of a problem with the hearer of this noise.’

Crucially, this non-agentive variant still accepts event modification, cf. (427).

- (427) L'**auditeur** *inconscient* de ce bruit subliminal fut influencé malgré lui. (v.k.)
 ‘The unconscious listener to this subliminal noise was influenced despite himself.’

Thus, so-called Agent (AS)-Ns do not necessarily denote an Agent, but rather, any external argument, provided the latter can raise to [Spec, AspP].

To conclude, volitional modification yields exactly the same results as MULT. In their internal reading, such modifiers are sensitive to the presence of a Grammatical Subject. Following Roy & Soare (2012, 2013) and as already argued in § 3.3.1.1, the suffix of *-eur* Nominals realizes the external argument of a noun-internal event predicates, and a theme is projected, but only optionally realized. The fact that not all bases of such nominals are telic, show that we must assume them to involve Outer Aspect. I therefore assume that the external argument raises to a subject position which I assume is [Spec, AspP], and *-eur* spells-out this raising argument. In the next chapter, we will see that a subject is only available with phasal bases. Therefore, this conclusion would rule out Agent nominals not built on a phasal verbal base. It will seem to be fulfilled. For instance, the base of *meurtre*_N, which will be argued in the next chapter to be smaller than a phase, does not produce a proper Agent (AS)-N, cf. (428).

- (428) a. Le **meurtre** de César [✓ en à peine quelques secondes] bouleversa l'ordre établi.
 ‘The murder of Caesar in hardly a few seconds shook the established order.’
- b. Le meurtrier de César [* en à peine quelques secondes]...
 ‘the murderer of Caesar in hardly a few seconds...’

The blocking seems admittedly related to the suffix. We find the following contrast, cf. (429).

- (429) ce [✓ tueur / *meurtrier] de jeunes filles
 ‘this [killer / murderer] of young girls’

However, I claim that it is not a coincidence that we do not find **meurtreur*. If *-eur*, as I will argue in section 4.3, realizes the subject introduced in [Spec, AspP], and if Asp exclusively selects for phasal bases, then we can predict that if *meurtr-* is indeed a non-phasal base, it can never be selected for by *-eur*. The derivation that could build **meurtreur* is predicted to crash, because *meurtr-* lacks the phase head that I will assume in all Asp-compatible (AS)-Ns, namely the ∇ head. This can be seen because as we will see, *meurtre_N* rejects all sorts of adverbials, which includes IMPs. But for now, let us see what happens with PP modification.

3.3.2 PP Modification

3.3.2.1 Aspectual Modification by **IN-X** and **FOR-X**

According to Roy & Soare (2013: 138, ex. 37), the type mismatch between agent Ns and aspectual modifiers trigger semantic incompatibility, cf. (430).

- (430) (Judgments Roy & Soare’s.)
- a. le dompteur des chiens [* pendant des années]
 ‘the tamer of the dogs for years’
 - b. le vendeur du chien [* en cinq minutes]
 ‘the seller of the dog in five minutes’

However, I claim that this incompatibility is not an absolute one. I judge the nominal in (430a) as grammatical; its oddity may be accentuated due to various factors, among which the lack of context may play a part — but the exact reasons are not relevant. (430b) is inconclusive, since “in *x* time” does not really measure out the event, but a delay before the event occurs; see the contrast in (431).

- (431) a. {J’ai construit la maison en cinq mois.}
 ‘I built the house in five months.’
 ≠ {J’ai construit la maison au bout de cinq mois.}
 ‘I built the house after five months.’
- b. {J’ai vendu le chien en cinq minutes.}
 ‘I sold the dog in five minutes.’
 = {J’ai vendu le chien au bout de cinq minutes.}
 ‘I sold the dog after five minutes.’

Consider, for instance, the sentences in (432).

- (432) a. Le rédacteur [? en une soirée] de cet article exceptionnel doit être un génie.
 ‘The writer in one evening of this exceptional paper must be a genius.’
- b. Le constructeur [? en quelques mois] de cette incroyable maison doit être un artisan expérimenté.
 ‘The builder in a few months of this amazing house must be a skilled craftsman.’

Although judged odd by some native speakers, application of $\boxed{\text{IN-X}}$ is nevertheless perfectly understandable. I myself judge it not only perfectly grammatical, but also somehow refined. Following Roy & Soare (2013), the oddness comes from the fact that the internal event is deeply nested inside a referential shell, i.e. a $F_{\text{REF}}P$ projection, by virtue of which such $\boxed{\text{AS}}$ -Ns denote an entity token.¹

Modification by $\boxed{\text{FOR-X}}$ is also odd, but not plainly ungrammatical, cf. (433).

- (433) Le dompteur [? pendant plusieurs années] de ces fauves exceptionnels doit avoir essuyé des sueurs froides.
 ‘The tamer for several years of these exceptional wild beasts must have experienced cold sweats.’

Such data support Roy & Soare’s (2011, 2012, 2013, 2014) claim that *-eur* nominals exhibit an $\boxed{\text{AS}}$ - vs. $\boxed{\text{non-AS}}$ ambiguity similar to that of event nominals. Furthermore, the fact that entity-denoting nominals such as *-eur* nominals are, be it marginally, compatible with event modifiers constitutes strong evidence of the structural reality of the notion of internal eventuality.

Due to not having disambiguation tests at his disposal at the time, Chomsky (1970: 196–197) argues that in *owner of the house*, we cannot know whether the complement is an argument of own_V . However, now that we have tests at our disposal, we can easily see whether owner_N projects an AS. I leave to native speakers to judge the properties of the English noun, but as for French, possesseur_N passes both $\boxed{\text{DIV}}$ (cf. *supra*, subsection 2.1.2) and $\boxed{\text{IN-X}}$, which highlights the presence of an internal verb.

3.3.2.2 Spatiotemporal Modification

Internal Spatial Modification works with Agent nominals. A canonical example is given in (434), as quoted in Roy & Soare (2013) and attributed to F. Kerleroux.

¹To my personal appreciation, though, accessing this event comes as a form of refinement. In sum, I would judge it as literary. While *pêcheurs sous la glace* ‘fishers under the ice’ (cf. *infra*, § 3.3.2.2) sounds rather odd as well, I suggest that acceptability is more straightforward in the case of *manner/degree* adverbials of the $\boxed{\text{XPX}}$ type (cf. *infra*, § 4.1.3.4). Not only the semantic type, but also the level of nesting might come into play. In any case, the judgments vary across speakers and probably require further empirical investigation.

- (434) les **pêcheurs** sous la glace (F. Kerleroux, 2007)
 the fishers under the ice
 ‘under-ice fishers’

As seen in § 3.3.1.2 *supra*, the internal argument must here be assumed to be realized as a pronoun receiving arbitrary reference. Another example is given in (435), where the target location is clearly inherited.¹

- (435) En 1734, l’**introduceur** en France du style picaresque espagnol inventa l’un des premiers romans de piraterie. (WEB)
 ‘In 1734, the introducer in France of the Spanish picaresque style invented one of the first pirate novels.’

Even with unlexicalized sources, such as in *successeur*_N ‘successor’ and *prédécesseur*_N ‘predecessor’, the internal reading of spatial modifiers seem to identify an internal verb, cf. (436). The verb *succéder*_V ‘succeed’ does not take a direct object; the form ^o*prédéceder*_V does not exist, but ^v*préceder*_V ‘precede’ does. Since the prefix *de-* disappears, that can be regarded as a case of borderline sourcelessness, as defined in subsection 3.1.1 *supra*.

- (436) a. ^o*succéder* (*quelqu’un*)_V ‘succeed someone’
- (i) L’épisode a, quoi qu’il en soit, mis à mal la volonté de dédiablement initiée par la candidate malheureuse à la présidentielle, stratégie que son successeur à la tête du parti a indiqué vouloir poursuivre. (Le Point, 2022)
 ‘The episode has, in any case, undermined the will for de-demonization initiated by the unsuccessful presidential candidate, a strategy that her successor at the head of the party has indicated a desire to continue.’
- (ii) Mugabe reconnaît la légitimité de son successeur à la tête du Zimbabwe. (Mediapart, 2018)
 ‘Mugabe acknowledges the grammaticalimacy of his successor at the head of Zimbabwe.’
- b. ^o*prédéceder*_V ‘precede’
- (i) L’argumentaire d’Emmanuel Macron a pris des allures d’attaques en règle de son prédécesseur à l’Élysée. (Le Journal du Dimanche, 2017)
 ‘Emmanuel Macron’s argumentation has taken on the appearance of systematic attacks against his predecessor at the Élysée.’

¹But see Di Sciullo & Fong (2005: 250–251) for possible restrictions to such constructions.

- (ii) Son prédécesseur au poste, Gérard Collomb, décédé samedi 25 novembre et inhumé ce mercredi, aura passé 503 jours loin de Lyon.
(*Libération*, 2023)

‘His predecessor in the position, Gérard Collomb, who passed away on Saturday, November 25th and was buried this Wednesday, will have spent 503 days away from Lyon.’

The $\boxed{\text{I-TEMP}}$ test works independently of whether the base is lexicalized, cf. (437).

- (437) °*hausser*_v ‘increase’

Notons à cet égard la hausse en 2010 de l'épargne nationale brute de 6,3%.
(*WEB*, 2012)

‘Let us note in this regard the increase in 2010 of gross national savings by 6.3%.’

And finally, Agent nominals also pass $\boxed{\text{I-TEMP}}$. Indeed, as argued in § 4.3.2.1 for Event Nominals, the possibility of a temporal internal modifier on the immediate right of nominals constitutes a proof that they embed an internal event. In (438)–(440), the nominals *fondateur*_N ‘founder’, *vainqueur*_N ‘winner’ and *géniteur*_N ‘progenitor’ can receive temporal modification applying directly to a *founding* event, a *winning* event, or a *begetting* event, respectively. The verbal source of *géniteur*_N is not autonomously lexicalized, but, as we are now accustomed, it does not prevent such properties to arise.

- (438) *fondateur*_N ‘founder’ (cf. *fonder*_v ‘found’)

- a. La musique traditionnelle a été sauvegardée par des collectages mais surtout par le travail important du fondateur en 1853 du Comité Flamand de France.
(*WEB*, 2014)

‘Traditional music has been preserved through collections but especially through the significant work of the founder in 1853 of the Flemish Committee of France.’

- b. Le génie du fondateur en 1934 de l'École de Ballet Américain nous fait redécouvrir l'extraordinaire modernité pour l'époque de figures novatrices.
(*WEB*, 2018)

‘The genius of the founder in 1934 of the American Ballet School makes us rediscover the extraordinary modernity for the time of innovative figures.’

- c. Plusieurs des anciens dirigeants, dont le fondateur en 1991 de l'entreprise PIP Jean- Claude Mas, ont été entendus à plusieurs reprises par les enquêteurs.
(*Radio France*, 2011)

‘Several of the former leaders, including the founder in 1991 of the PIP company Jean-Claude Mas, have been heard several times by investigators.’

- (439) Le vainqueur en 2016 du tournoi juniors de Roland-Garros a été sèchement battu.
(*Le Télégramme*, 2017)
‘The winner in 2016 of the Roland-Garros junior tournament was harshly beaten.’
- (440) Le choix du patronyme n’est pas innocent, le géniteur en 2014 de cette troupe grecque étant un guitariste du nom d’Odysseas Karapolitis. (WEB, 2018)
‘The choice of the surname is not coincidental, as the founder in 2014 of this Greek troupe was a guitarist named Odysseas Karapolitis.’

In sum, *-eur* Nominals with or without a lexically attested source pass all the tests relevant to identification of vP, VoiceP and AspP. The fact that they refer to entities and yet are compatible with event modifiers constitutes compelling evidence of the presence inside their structure of an internal eventuality that modifiers may target. They can therefore be analyzed as (AS)-Ns.

Conclusion

Let us sum up this chapter. Section 3.1 discussed the definition of *absence of an independently attested base*, which can prove challenging to establish: bases of (AS)-Ns are often phonologically different from the possibly related lexicalized verbs. Determining at which point a given lexical verb can be regarded as the source of an (AS)-N requires clarification of a number of assumptions. This problem disappears from the moment we analyze (AS)-Ns as being built on structures rather than stems of lexemes. Moreover, aspectual modification of a non-lexicalized base raises issues in distinguishing between conceptual compatibility and structural blocking. To overcome this problem, I suggest that conceptually analogous lexicalized bases could serve as a point of reference. Section 3.2 was devoted to identifying event projections. We were able to verify that lexically sourceless nominals behave exactly in the same way as regular nominalizations, thereby identifying little *v* and *asp* within their structure. Section 3.3 confirmed these conclusions through testing *-eur* nominals, whose grammatical properties also qualify them as (AS)-Ns. In summary, whether or not the base exists as an attested idiom does not impact grammatical properties. In the next chapter, we will refine these results by demonstrating that there are two types of event (AS)-Ns: those built on a structure that can be lexicalized into a verb or adjective, and those built on a non-phasal base.

To conclude, there are (AS)-Ns without a lexically attested base. Such (AS)-Ns are built on structures that need not be lexicalized in order to serve as a base for derivation. Thus, the sources of (AS)-Ns cannot be of a lexical nature; instead, they must be syntactic constructs. The Idiosyncrasy Argument can now be reversed: the very same kind of data that Newmeyer uses against neoconstructionist views actually constitutes strong evidence in support of such theories. The fact that, because of idiosyncratic factors, some nominalizations or meanings are

not attested, or some sources are not lexicalized, has nothing to do with systematicity; it does not change anything to it. Rather, systematicity or lack thereof must be determined based on patterns and their predictive power. This predictive power is to be assessed with respect to wherever the notion of predictability makes sense, i.e. not relatively to language use, but at the level of generation.

Chapter 4

Two Places to Build $\boxed{\text{AS}}$ -Ns

The aim of this chapter is to demonstrate that there exist two types of $\boxed{\text{AS}}$ -Ns. $\boxed{\text{AS}}$ -Ns of the first type are built on a base which, I argue, lexicalizes a *spelled-out* and *interpretable* structure, lexicalizable into an L: an *L-Phase*. I call them *Phase-Based* $\boxed{\text{AS}}$ -Ns (Φ -Ns). $\boxed{\text{AS}}$ -Ns of the second type are argued to have a vP and an optional VoiceP, but no phase head: the nominalizer merges directly with v/Voice. The two types of $\boxed{\text{AS}}$ -Ns morphologically differ with respect to the structure of their respective bases: Φ -Ns (e.g. *bombardement_N* ‘bombing’) are built on a *Phasal Base*, Ψ -Ns (e.g. *attaque_N* ‘attack’) on a *Bare Base*. Phasal Bases have already undergone spellout; they are phonologically identifiable and semantically interpretable, which makes them ready for lexicalization. Bare Bases, by contrast, are structures that have not yet been spelled out when they merge with the nominalizer: as such, they do not receive a phonological representation nor a semantic interpretation of their own, because they are not shipped off to the interfaces until K — which I assume is the nominal phase head (cf. *infra*, §§ 4.3.2.1 and 4.3.3.2) — merges. Φ -Ns, for their part, are really $\boxed{\text{AS}}$ -Ns as standardly construed in the literature. Crucially for identifying the phase head, they inherit from their base ability to take *manner / degree* modification, and more specifically *Modulation Particles* such as *non-* or *quasi-*. Also, they take modifiers on Outer Aspect. Thus, not only do Φ -Ns project AS, but they exhibit a number of abilities arguably inherited from a full categorial phase, which I call an L-Phase. Ψ -Ns, for their part, qualify as $\boxed{\text{AS}}$ -Ns since they exhibit Theme-related Quantization as defined in § 2.1.3.2 *supra*, but lack the advanced abilities of Φ -Ns.

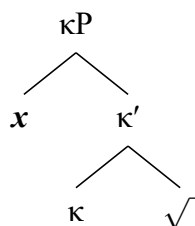
The salient points of the demonstration regarding the structure of $\boxed{\text{AS}}$ -Ns will be as follows. Both Φ -Ns and Ψ -Ns are built on a AS-projecting *syntactic* structure, i.e. a set of functional

projections dominating a *Root*. The phasal source of $\textcircled{\Phi}$ -Ns denotes a *Modulated* predicate of entities or events, which means that the predicate can take modification related to a syntactically encoded scale. By contrast, the non-phasal source of $\textcircled{\Psi}$ -N denotes a *Bare* predicate of entities or events. Modulation is introduced by a functional head named ∇ , along with a variable named δ , which specifies a range of values on the scale and which I call the *Mode*. ∇ is a *phase* head. The first-phase ∇ selects for an argument-introducing projection (i.e. aP, vP or VoiceP) that denotes either a property of entities or a property of events, and sends it for spellout and interpretation at the respective interfaces. The ∇ P projection is selected for by Asp, which encodes the conditions of holding of the Modulated Predication within a given time span. The Subject is introduced in [Spec, ∇ P]. The promoted argument raises to this position; since $\textcircled{\Psi}$ -Ns lack a ∇ P projection, internal argument raising is blocked.

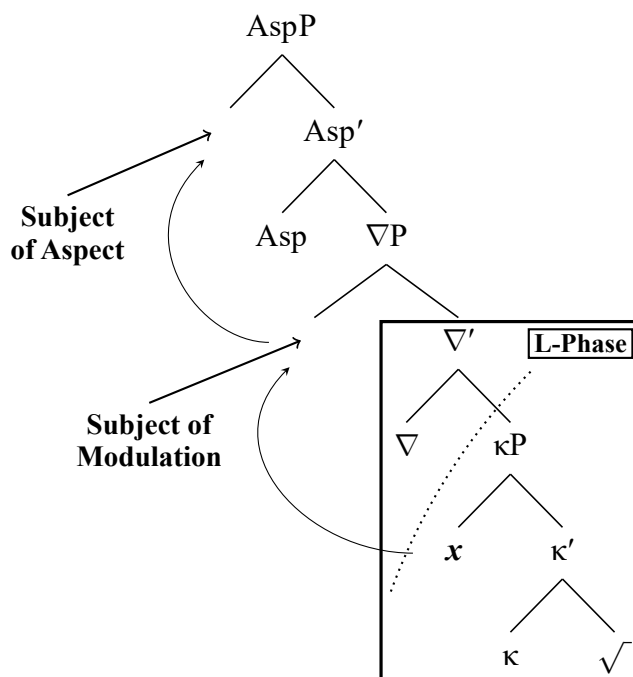
The two types of bases are represented in (441), where, in the spirit of a unified approach between Event and State (AS)-Ns, κ symbolizes a generic categorizer standing for either a or v. (AS)-Ns are built by embedding either base into an nP projection.

(441) **Bare vs. Phasal (AS)-Bases**

a. **Bare Base**



b. **Phasal Base**



The chapter is organized as follows. Section 4.1 introduces ∇ -related abilities of $\textcircled{\Phi}$ -Ns and the Modulation operation, argued to occur at phase boundary. Section 4.2 reviews the grammatical properties of $\textcircled{\Psi}$ -Ns, arguing that they lack all ∇ -related abilities. Section 4.3 makes a proposal in terms of the structural typology of derived nominals as induced by the *Nabla* hypothesis.

4.1 Modulated Predicates

This section aims to demonstrate that most $\overline{\text{AS}}$ -Ns, referred to here as $\textcircled{\Phi}$ -Ns, exhibit advanced properties typically found in Vs and As as autonomously lexicalized. A particularly notable property relates to the internal reading of a number of N-preposed particles. I indeed argue that such particles can modify a variable introduced by an internal adjectival or verbal predicate, and which is usually spelled out as an adverb (see 442).

- (442) a. (i) non violent ‘non-violent’
 (ii) non-violence ‘non-violence’
 b. (i) quasi disponible ‘quasi-available’
 (ii) quasi-disponibilité ‘quasi-availability’

I will refer to the particles in (442a.ii, b.ii) as *Internal Modulation Particles* (henceforth IMPs). I propose that the licensing of IMPs requires an additional projection above the minimal v/Voice structure assumed for $\overline{\text{AS}}$ -Ns that reject IMPs. I also propose that the head of this additional projection is responsible for the syntactic encoding of a *scale of values* onto which predicates can map their various conceptual dimensions. I call this operation the *Modulation* and I name this head ∇ , with the *nabla* symbol conventionally standing for *variation on a scale*. I symbolize as δ the Modulation variable introduced by ∇ and modified by IMPs. The presence or absence of ∇ P explains all observed differences between $\textcircled{\Phi}$ -Ns and other $\overline{\text{AS}}$ -Ns.

The introduction of the ∇ P projection is motivated by the following observation. The same type, i.e. $\textcircled{\Phi}$ -Ns, that accept IMPs — as well as other such *manner/degree* adverbials — also allow modification on Outer Aspect. Other $\overline{\text{AS}}$ -Ns, which I call $\textcircled{\Psi}$ -Ns, equally lack all of those properties. The natural conclusion is that there has to be some IMP-licensing projection that the Asp head selects for, which is present inside the structure of $\textcircled{\Phi}$ -Ns and absent from $\textcircled{\Psi}$ -Ns. The role of this projection should be to turn the lower predicate of entities or events into a Modulated version of themselves.

A crucial point is that Modulation adverbs, left-adjoin to the predicate they modify (e.g. *non disponible*), which leads me to think that they are always introduced at the edge of a phase. If ∇ is a phase head, its specifier is a reserved position: the raising argument must be able to escape the phase through this specific location. But particles can still be inserted as left adjuncts. If the complement of ∇ constitutes a spellout domain. Therefore, I hypothesize that its head is actually a *phase head*. In Chomsky (2000) and Marantz’s (2013) sense, a phase head sends its complement for spellout and interpretation at the interfaces. The first-phase head resolves the polysemy of the Root, which hereby becomes interpretable; subsequent phase heads fix the meaning of the structure they dominate. Lexicalizable verbs and adjectives, whether autonomously employed or embedded inside a larger structure, are phasal.

(Φ)-Ns will be shown to possess aspectual properties inherited from the structure whose lexicalization could yield a corresponding possible L. Therefore, as I will argue, they are built on *exactly* the same internal structure as (Φ)-Ns that can be related to an autonomously attested lexicalized V or A. By contrast, (Ψ)-Ns equally lack the totality of those properties. I will argue that only (Φ)-Ns, but not (Ψ)-Ns, embed an L-Phase. More precisely, (Φ)-Ns will be argued to involve, on top of v/Voice, at least one additional projection, mandatory for phase completion, its head temporarily noted X. In (Φ)-Ns, the underlying source structure corresponds to a *phasal base*. Phasal Bases, are bases which have undergone spellout and thus, may autonomously lexicalize — although, as was shown in chapter 3 *supra*, whether they do or not has no impact on the grammar. In this view, neither a nor v are phase heads: all they do is turn the Root into a predicate of entities or events, respectively. In this respect, a and v are not categorizers in the traditional sense, i.e. the output they yield lacks part of the functional material required to produce a structure lexicalizable into an A or V. Thus, the distinction is between plain aPs and vPs, which denote *bare* predicates, and functionally enriched aPs and vPs, which I will argue denote *scalar* properties. Only the latter can be lexicalized autonomously, because they contain a first-phase head.

(443) **Strong Categorical Properties of (Φ)-Ns**

a. **Internal Reading of Modulation Particles**

(Φ)-Ns license internal reading of *Modulation Particles* (e.g. *non-*, *quasi-*, *semi-*).

b. **Preposed *manner / degree* Adverbials**

(Φ)-Ns take *manner / degree* adverbials in *pre-argument* position, such as *l'un après l'autre* 'one after the other' ([XPX] test).

c. **Modification on Outer Aspect**

(AS)-Ns take modifiers related to Outer Aspect, such as the preposed [FOR-X].

d. **Verb-Level Passivization**

Transitive (Φ)-Ns exhibit properties that only verb-level, noun-internal passivization can account for.

e. **Eventuality vs. Mode Alternation**

A single phonological (Φ)-N may exist both in an *eventuality* reading and a *manner / degree* reading, which corresponds to a grammatical alternation.

The data I will provide support the generalization in (444), in line with Borer's (2003: 47–51) WLR criterion (cf. *supra*, § 1.1.1.3).¹

¹Importantly, Borer's original claim is about (AS)-Ns in general while mine only holds for phase-derived (AS)-Ns. We shall keep in mind that, in her model, the possibility of Bare (AS)-Bases is simply not predicted.

(444) For an $\overline{\text{AS}}$ -N to exhibit strong categorial properties, it must be built on an L-Phase.

So, what I will do in this section is first, introduce Modulation Particles, discuss some of their relevant properties. Afterwards, I will wonder what it means in terms of structural consequences. We will see that not all event $\overline{\text{AS}}$ -Ns take IMPs, and try to figure out why this should be so. The outline is as follows. Subsection 4.1.1 introduces IMPs. Subsection 4.1.2 proposes that IMPs are syntactically licensed at the edge of a phase, by the introduction of a Modulation variable called the *Mode*. Subsection 4.1.3 discusses Mode modifiers. Subsection 4.1.4 introduces Argument Raising.

4.1.1 Internal Modulation Particles

I here introduce a new criterion, which, I will argue, identifies a key additional projection in $\overline{\Phi}$ -N compared to $\overline{\Psi}$ -Ns. This is the ability to take the bound negation morpheme *non-* or other such particles like *quasi-* and *semi-*, under an internal reading. The Preposed Negation is one of several particles that I will call *scalar*. The availability of internal reading of *Modulation Particles* is the most salient property of $\overline{\Phi}$ -Ns — $\overline{\text{AS}}$ -Ns built on a Phasal Base —: only phases take particles, which will lead me to establish that the head of the particle-licensing projection, called ∇ (*nabla*), is the *phase* head. The availability of an event-related internal reading of particles is the hallmark of the presence inside the nominal structure of a full-fledged verbal or adjectival projection, i.e. an L-Phase as we have called it. I will show that the licensing of IMPs on the left of nominals is inherited from an internal adjectival or verbal structure. I will first discuss scalar properties of identifiable bases and their transmission to derived nominals, and then discuss the licensing of Negative Polarity Items.

The possibility for French lexical units to accept preposed scalar adverbs is a functional property of predicates as construed in the traditional sense (cf. Marchand 1960: 129–130). As is known, the Preposed Negation can modify the internal eventuality of $\overline{\text{AS}}$ -Ns, i.e. be used under an *internal* reading (cf. *supra*, § 2.1.1.1). This is true in English, as shown in e.g. Kaiser (1978), Cresswell (1979), Zucchi (1993) and Asher (1993), cf. (486); and this is also true for French, as initially noted by Milner (1982a: 124) (see also Dugas 2016, 2018). I will call it the Internal Preposed Negation (henceforth IPN). Bottari (1992), as mentioned in Alexiadou (2001: 84–85), claims that Italian unergatives do not take the negation, and concludes that what licenses the negation is the presence of an internal argument. However, clearly, in French at least, the negation is grammatical even in the absence of an internal argument: as illustrated, $\overline{\text{AS}}$ -Ns built on an unergative predicate may take the negation, cf. (445).

(445) L'accord de M. X ressortait de la non-protestation de celui-ci à la réception des relevés mensuels. (*Legifrance*, 2007)

‘Mr X’s agreement followed from the non-protestation of the latter as he received the monthly statements.’

In sum, the IPN is licensed independently of AS: assuming the combinatorics of *v* and Voice to rule transitivity variation, we may not take either head to license the IPN. § 4.1.1.1 provides an overview of the internal reading of the Preposed Negation. § 4.1.1.2 delves deeper into its semantic properties, particularly as compared to negative prefixes. Finally, § 4.1.1.3 introduces the Modulation variable.

4.1.1.1 The Reading of Prenominal Particles

French features a small set of adverbial particles commonly found modifying nouns. The focus will be on three particles, namely *non-*, *quasi-* and *semi-*. As shown by Dugas (2016, 2018), about any N can, although poorly felicitously, take *non-*.

- (446) ? ce non-arbre
‘this non-tree’

I will refer to the type illustrated in (446) as the *pseudo* reading. However, this research is mostly concerned with the *internal* reading of such particles, illustrated in (447) and whose availability is argued to constitute a major identifying property of (Ⓢ)-Ns.

- (447) la non-destruction de la ville
‘the non-destruction of the city’

I call it the *pseudo* reading because *pseudo* is exclusively used in this way, i.e. metalinguistically. Such uses allow the speaker to use a word while simultaneously distancing themselves from it and criticizing its application. Thus, *non-book* or *pseudo-book* express skepticism regarding the qualification of this object as a book. See for instance (448).

- (448) Ma voisine a planté un *pseudo-arbre* qui ne ressemble à rien.
‘My neighbor planted a pseudo-tree that looks like nothing.’

We also find this reading with *semi-*; see (449).

- (449) a. une semi-preuve
‘a semi-proof’
b. un semi-coma
‘a semi-coma’

Other adverbs are found, especially in certain idioms; cf. (450).

- (450) une presqu’île
an almost island
‘a peninsula’

All external uses are similar, inasmuch as they impose conditions on the appropriate applicability of the term they modify. In the *pseudo* reading, the particle modifies the predicative relation between the noun and the article. See for instance the particle *ex-*.

- (451) a. l'ex-maire de Saint-Brevin (Le Point, 2023)
 'the ex-mayor of Saint-Brevin'
 b. le pseudo-maire de Noisy-le-Sec (Le Télégramme, 2011)
 'the pseudo-mayor of Noisy-le-Sec'

This kind of modification is well attested both in adjectival and PP forms; see 452.

- (452) a. *l'actuel maire* 'the current mayor'
 le futur maire 'the future mayor'
 l'hypothétique maire 'the hypothetical mayor'
 le prétendu maire 'the so-called mayor'
 le soi-disant maire 'the self-proclaimed mayor'
 le maire temporaire 'the temporary mayor'
 le maire provisoire 'the interim mayor'
 b. *le maire par défaut* 'the mayor by default'
 le maire par intérim 'the mayor by interim'
 le maire par procuration 'the mayor by proxy'
 le maire par délégation 'the mayor by delegation'

See also the title of Molière's play, *Le Médecin malgré lui* 'The Doctor in Spite of Himself'.

Interestingly to determine the position of these particles, they may scope over the adverbials mentioned in (452); cf. (453).

- (453) a. le pseudo-futur acquéreur s'enfuit avec la moto (Ouest France, 2019)
 'the pseudo-future buyer runs away with the motorcycle'
 b. Le pseudo-président par intérim (Afrique Asie, 2019)
 'The pseudo-acting president'

Because they clearly modify the nominal description, I will propose that pseudo-style adverbs operate at kind-level, inserting in the Specifier of a dedicated projection that I shall call KP (see *infra*, §§ 4.3.2.1 and 4.3.3.2).

Now consider the sentence in (454), adapted from Dugas (2018).

- (454) Une non-qualification serait un cataclysme pour l'équipe de France.
 'A non-qualification would be a disaster for the French team.'

Dugas (2018) states that the nominal negation can denote the “absence of an entity” and that this is what we have in (454). However, if it were the case, why shouldn’t we have the sentence in (455)?

- (455) * Un non-concert serait un désastre pour ce groupe.
 ‘A non-concert would be a disaster for this band.’

The absolute impossibility of (455) shows that the nominal negation cannot refer to the absence of an entity. The pseudo reading is the only reading available with (non-AS)-Ns, cf. (456).

- (456) a. Ce non-problème sera vite oublié.
 ‘This non-problem will be soon forgotten.’
 ⇒ ‘this thing that does not constitute a problem’
- b. Ce non-héro se prend pour Hercule.
 ‘This non-hero thinks he’s Hercules.’
 ⇒ ‘this individual who does not qualify as a hero’

The same can be said of *quasi-* and *semi-*, cf. (457).

- (457) a. Ce n’est qu’un semi-problème, il sera vite résolu.
 ‘It’s only a semi-problem, it will be quickly solved.’
- b. Cela commence à devenir un quasi-problème.
 ‘This is starting to become a quasi-problem.’

In any case, *non-N*, N being a (non-AS)-N, represents a marginal construction that cannot be convoked at will but is partly subject to lexicalization, cf. (458).

- (458) Les voitures se garent facilement, contrairement aux [*non-voitures].
 ‘Cars park easily, unlike non-cars.’

The internal reading is easily recognized when there is no distancing of the speaker with respect to the appropriate or inappropriate character of the noun used.

- (459) a. J’ai été témoin de la quasi-destruction de la ville; il ne reste plus que quelques bâtiments.
 ‘I witnessed the quasi-destruction of the city; only a few buildings remain.’
- b. J’ai été témoin de la semi-destruction de la ville; tout le quartier ouest a été rasé.
 ‘I witnessed the partial destruction of the city; the entire western district has been leveled.’

The internal reading of *quasi-* and *semi-* is exclusively available with telic predicates. Thus in (460a), which may be glossed as in (460b), only the *pseudo*-reading is available.

- (460) a. le quasi-acharnement de ces enfants à l'égard de Paul
 the quasi-tormenting by those kids towards Paul
 b. ils se sont pour ainsi dire acharnés sur Paul
 'they, so to speak, tormented Paul'

Here again, in the continuity of the conclusions drawn in chapter 3, we observe that the IPN can be used whether there is an attested verbal base or not; cf. (461).

- (461) a. †*comburer*_v 'combust'
 La non-exploitation du gisement et la **non-combustion** de son or noir éviteront à la planète l'émission de 500 millions de tonnes de CO₂. (*Libération*, 2008)
 'The non-exploitation of the deposit and the non-combustion of its black gold will spare the planet the emission of 500 million tons of CO₂.'
 b. °*crémer*_v 'cremate'
 Tous pensèrent alors que ce temps défavorable avait pour cause la **non-crémation** de l'enfant. (1922)
 'All then thought that this unpropitious time had been caused by the non-cremation of the child.'

To sum up, the data support the hypothesis of a prenominal slot for hosting adverbial particles, and more specifically the negative particle *non-*. Now let us try to discover relevant information about this negation.

4.1.1.2 Adverbial vs. Prefixal Negation

In order for the IPN to help us determine the structure of ⊕-Ns, we need to know a little more about its semantic properties and the nature of the structures it modifies. Bernardin de Saint-Pierre (1820: 163) was among the first authors to notice that negative prefixes convey to the word a stronger negative meaning than the Preposed Negation: *infidèle*_A 'unfaithful' says *more* than *non-fidèle*_A 'non-faithful', *impiété*_N 'impiety' more than *non-piété*_N 'non-piety', *incrédulité*_N 'incredulity' more than *non-crédulité*_A 'non-credulity'. Building on Allen (1978), I suggest that, while idiosyncratic properties of *-un-* style so-called *negative* prefixation support low attaching of the latter, the highly systematic behaviour, in turn, of *non-*, makes it a grammatical morpheme dedicated to the spellout of true, wide-scoping, sentence-like negative polarity. A syntactic argument in favor of that hypothesis is that *non-* licenses negative polarity quantifiers in the arguments of the negated predicate.

As established by Zimmer (1964: 33–34), while *un-* words are associated with evaluative considerations, *non-* denotes neutral contradiction:

“In our terms, *non-* generally expresses contradictory opposition, while *in-* and *un-* often express contrary opposition. The fact that most derivatives in *non-* are not compared and are not modified by *very*, etc., also supports the interpretation of *non-* as a contradictory negative.

There is a considerable number of cases where the *un-* derivative of a given base seems to imply the absence of a desirable or expected quality, while the *non-* derivative of the same base does not have this implication (*unremunerative* vs. *nonremunerative*). And often the contrast between *x* and *non-x* lies as it were along a different dimension from that between *x* and *un-x* (or *in-x*). Thus the contrast *Christian* vs. *non-Christian* appears to be primarily one between ‘related to, pertaining to, characteristic of certain religious doctrines’ and ‘not related to, etc., these doctrines,’ while that between *Christian* and *unchristian* rather involves a **scale of conformity or opposition to certain norms**. Comparable contrasts are quite frequent (cf. *non-American* vs. *un-American*, *non-grammatical* vs. *ungrammatical*). We might say in general that in such cases *non-* selects the descriptive aspect of the stem for negation, while *un-* selects the evaluative one.”

According to him, the pairs in (462) “illustrate the difference between contradictory negatives, as expressed by *non-X*, and contrary negatives, as expressed by *un-X*”. He states that “in the *un-* forms, the negative prefix has become more closely bound in some way with the root word, so that a more specialized meaning has emerged”. Seen (462), reproduced from Zimmer.

- (462)
- | | | |
|-------------------------|-----|-----------------------|
| <i>non-christian</i> | vs. | <i>unchristian</i> |
| <i>non-human</i> | vs. | <i>unhuman</i> |
| <i>non-grammatical</i> | vs. | <i>ungrammatical</i> |
| <i>non-musical</i> | vs. | <i>unmusical</i> |
| <i>non-wearable</i> | vs. | <i>unwearable</i> |
| <i>non-dying</i> | vs. | <i>undyng</i> |
| <i>non-necessary</i> | vs. | <i>unnecessary</i> |
| <i>non-godly</i> | vs. | <i>ungodly</i> |
| <i>non-professional</i> | vs. | <i>unprofessional</i> |

Following Zimmer (pp. 32–35), Allen (1978: 51–73) shows that “*non-* systematically forms contradictory negatives”, cf. (463).

- (463) *un-* vs. *non-* (adapted from Allen 1978: 54):

- | | | |
|----|-------|-------------------------------------|
| a. | (i) | ✓ an untiring effort |
| | (ii) | # a non-tiring effort |
| | (iii) | ✓ a non-tiring task |
| b. | (i) | ✓ unwearable clothes |
| | (ii) | # non-wearable clothes |
| | (iii) | ✓ a non-wearable chemical substance |
| c. | (i) | ✓ an unhuman treatment |
| | (ii) | # a non-human treatment |
| | (iii) | ✓ non-human characteristics |

- d. (i) ✓ an undying melody
- (ii) # a non-dying melody
- (iii) ✓ a non-dying organism

It is crucial that the *non-* negation is an absolute negation, because it shows — along with the licensing of Negative Polarity Items, cf. § 4.1.2.2 *infra* — that it has a different status from that of negative prefixes. As has been noted in the literature, in the various data both from English and French a clear contrast emerges between prefixal negation, compatible with degree modification as in e.g. *very unprofessional*, and *non-A*, which cannot be modified by degree adverbs such as *very*. Thus, Allen (1978: 68–73) states that *non-* “exhausts the possibilities along a given dimension”: it is as if *non-* was already denoting a maximally low degree and thus, adjoining *very* to such a drastically negated adjective turns out ungrammatical. I will take it to mean that on the one hand, negative prefixes denote relative lowness, without further specification, and on the other hand, on a scale of values, *non-* corresponds to the absolute origin (cf. *infra*, § 4.1.3.1):

“Contrary oppositions, as expressed by *un-*, may be labelled “positive”, “more than a simple negative”, “implying an opposite thing or quality”, or the like. For instance, the word *unkind* in the sentence *he is unkind to animals* means more than *not kind*; it expresses something close to the positive notion *cruel*. Contradictory oppositions on the other hand are “simple” or “logical” negatives, and in this respect, as Zimmer points out, a pair of contradictory terms exhaust the possibilities along a given dimension. For example, one can be either “American” or “non-American”; there is no intermediary position. From this it follows that *non-* forms cannot be compared nor can they be modified by *very*.”

Thus, contrary forms may be compared, and may be modified by *very*, cf. (464).

- (464) a. * Marty is more non-American than Jim.
 b. * He is very non-American.

By contrast, prefixed forms express contrary oppositions: they do not exhaust the possibilities along a given dimension, cf. (465).

- (465) a. (i) a non-opening door (a door which never opens)
 (ii) an unopening door (a door which is not opening at the present moment)
- b. (i) a non-fluctuating signal (a signal which never fluctuates)
 (ii) an unfluctuating signal (a signal which for the moment is not fluctuating)
- c. (i) a non-dying plant (a plant which never dies)
 (ii) an undying plant (a normal plant which despite adverse conditions, is not dying)

The difference between contrary and contradictory opposition is synthesized in (466).

(466) **Contrary vs. Contradictory Opposition**

Contrary Opposition ⇒ Evaluative	Contradictory Opposition ⇒ Neutral
Implies a scale of conformity.	Purely logical.
Does not exhaust possible values.	Exhausts possible values.
Can be modified by <i>very, more</i> , etc.	Cannot be modified by <i>very, more</i> , etc.

As pointed out by Allen (p. 68), *non-*, unlike embedded negative prefixes, scopes over the whole word (cf. *infra*, § 4.1.2.2). While negative prefixes are compatible with *manner / degree* adverbials, IMPs are not, cf. (467).

- (467) a. [*grandement] non utile ‘[highly] non-useful’
 b. [*grandement] non aimable ‘[highly] non-loveable’
 c. [*grandement] non réceptif ‘[highly] non-receptive’
 d. [*grandement] non croyant ‘[highly] non-believing’

This incompatibility between *manner / degree* modifiers and Modulation particles unsurprisingly recurs in the corresponding nominalizations, cf. (468) (see *infra*, § 4.3.5.1).

- (468) a. ✓ la grande impopularité de ses chansons
 ‘the great unpopularity of his songs’
 b. (i) # la grande non-popularité de ses chansons
 the great non-popularity of his songs
 (ii) # la grande quasi-popularité de ses chansons
 the great near-popularity of his songs

As noted by Roy (2010), not all predicative As denote a gradable property, cf. (469).

- (469) a. ✓ une injure non publique
 ‘a non-public insult’
 b. # une injure très publique
 ‘a very public insult’

However, as shown by e.g. Paradis (2001), in the right context, predicative adjectives can always become gradable. Thus, while the blocking of gradability with non-predicative As, as in (470), is structural, I show in (471) that the blocking of gradability in some predicative As is only a conceptual one, which may appear as context-sensitive.

- (470) cavité [*très / *non] nasale
 ‘[very / non-] nasal cavity’

- (471) a. (i) une voyelle plus ou moins nasale
 ‘a more or less nasal vowel’
 (ii) [ɔ̃] est la plus nasale des quatre voyelles (WEB)
 ‘[ɔ̃] is the most nasal of the four vowels’
 b. (i) la nasalité plus ou moins prononcée de cette voyelle
 ‘the more or less pronounced nasality of this vowel’
 (ii) La nasalité de cette voyelle est fort accentuée.
 ‘The nasality of this vowel is most accented.’

Gradability makes various particles work, cf. (472).

- (472) a. une voyelle [✓ très] nasale → la [✓ grande] nasalité de cette voyelle
 ‘a very nasal vowel’ ‘the high nasality of this vowel’
 b. (i) une voyelle [✓ non] nasale → la [✓ non-] nasalité de cette voyelle
 ‘a non-nasal vowel’ ‘the non-nasality of this vowel’
 (ii) une voyelle [✓ quasi] nasale → la [✓ quasi-] nasalité de cette voyelle
 ‘a non-nasal vowel’ ‘the non-nasality of this vowel’
 (iii) une voyelle [✓ semi] nasale → la [✓ semi-] nasalité de cette voyelle
 ‘a non-nasal vowel’ ‘the non-nasality of this vowel’

Besides, relational adjectives, which I assume are structurally unable to be used predicatively, reject Modulation Particles, cf. (473).

- (473) Nous explorons la partie [* non] supérieure de l’île.
 ‘We are exploring the [✓ non-] upper part of the island.’

Therefore, I argue that the head of predicative adjectives is also licenses gradability in general, and IMPs specifically; namely ∇. This ability is inherited in *-ment* Adverbs, cf. (474).

- (474) a. *A-ment*
 (i) facilement ‘easily’ → non facilement ‘non-easily’
 (ii) aimablement ‘kindly’ → non aimablement ‘non-kindly’
 b. Deadjectival Ns
 (i) la facilité de l’exercice → la non-facilité de l’exercice
 ‘the easiness of the exercise’ ‘the non-easiness of the exercise’
 (ii) l’amabilité du client → la non-amabilité du client
 ‘the kindness of the customer’ ‘the non-kindness of the customer’

Only predicative adjectives derive *-ment* adverbs, which supports Alexeyenko's (2015: 93–100) hypothesis that the source adjective intersectively modifies the manner-denoting head, spelled out by *-ment*. As an expected consequence, all such adverbs take the negation, cf. (475).

- (475) a. (i) un homme non méchant
a man non- mean
(ii) Il t' a parlé non- méchamment.
He to you has spoken non- meanly.
- b. (i) un exercice non difficile
an exercise non- difficult
(ii) Je l' ai résolu non difficilement.
I it have solved non- difficultly.

The same applies to other particles.

- (476) a. L'étude que nous avons menée a révélé qu'en réalité presque toutes avaient consciemment ou semi-consciemment désiré cette grossesse. (*Le Monde*, 1971)
'The study we conducted revealed that in reality, almost all had consciously or semi-consciously desired this pregnancy.'
- b. J'ai perdu 25 minutes à répondre semi-agressivement à un post pour le moins discourtois. (WEB, 2020)
'I lost 25 minutes responding semi-aggressively to a rather discourteous post.'
- c. Ils ont semi-explicitement dit qu'ils étaient là pour faire des contrôles. (WEB, 2019)
'They semi-explicitly said they were there to conduct checks.'

To conclude, the IPN we can find before French As is an autonomous grammatical morpheme that takes wide scope over the adjectival or verbal phase and denotes absolute contradiction. IPN licensing is likely inherited from the ability of the internal predicate to take a particle on its left. I will now argue that IPNs modify the *Mode* variable of the source.

4.1.1.3 The Scale of Predicative Adjectives

Adjectives have a *Mode* variable that Modulation particles target for modification. Rotstein & Winter (2014) argue that the objects in the domain of a gradable property are ordered according to a well-defined *scale* associated with this property. Kennedy & McNally (2005) and Husband (2012) discuss what they call the *Scale Structure* of the adjective. A distinction is made between

closed-scale and open-scale adjectives (or *total vs. partial* in Rotstein & Winter 2014).¹ As shown by Kennedy & McNally (2005: 359), closed-Scale As yield mutually exclusive contraries. See (477) (following convention, the double turnstile will henceforth symbolize entailment).

- (477) a. *The door is not open (closed)*. \models *The door is closed (open)*.
 b. *The table is not wet (dry)*. \models *The table is dry (wet)*.
 c. *The baby is not awake (asleep)*. \models *The baby is asleep (awake)*.

Adverbs such as *nearly* or *half* are only compatible with the closed-scale reading. This is illustrated in (478).

- (478) **Closed- vs. Open-Scale Adjectives**
 a. ✓ [nearly / half] open / wet / awake / full / ready
 b. # [nearly / half] nice / tall / expensive

As pointed out by Kennedy & McNally (2005: 371), overt *Degree* modification implies non-absolute value. As seen in (479), many adjectives are ambivalent regarding to which type of scale they can be associated with. I therefore do not consider the scale type as a lexical property of adjectives taken individually, but rather, as a contextually inferred conceptual effect.

- (479) **Ambivalent Scalarity of Adjectives**
 a. [✓ très / ✓ quasi] rouge
 ‘[very / nearly] red’
 b. [✓ très / ✓ quasi] facile
 ‘[very / nearly] easy’
 c. [✓ très / ✓ quasi] ostensible
 ‘[very / nearly] ostensible’

To establish a link between the negation *non-* and other particles, we may intuitively assume that the predicate is supposed to hold true to a certain degree, relative to an expected standard. Thus, in line with Allen’s (1978) observations discussed in § 4.1.1.2 *supra*, I suggest that the IPN spell out a *null modulation value*: “exhausting the possibilities along a given dimension”, it ranges over the set of all the values that do not match the standard, whether this standard corresponds to the upper or the lower end of the scale (see Kennedy & McNally 2005: 360).² As seen in (486d), each Modulation particle spells out an approximate range of values. Crucially

¹Kennedy & McNally make a distinction between *absolute* and *relative* closed-scale As. For the former, the default value is fixed, whereas for the latter, it is contextually determined. I leave those refinements aside, since what matters here is the closed-scale reading involving a polarized standard value; how this value is determined is irrelevant to the current discussion.

²See Kennedy & McNally (2005: 358–359) for a detailed proposal that shares similarities with this one, but is more narrowly applied to specific types of adjectives.

and as shown in subsection 4.1.1, (AS)-Ns may inherit Modulation Particles from an embedded gradable property, which we may call a Modulated property. That observation constitutes a strong argument in favor of a syntactic view of the formation of nominalizations. Thus, we find in *TLF* such examples as *presque unanimité* ‘near-unanimity’, *presque-totalité* ‘near-totality’, *presque nudité* ‘near-nudity’; with deverbals, we can build nominals such as *la presque destruction de la ville* ‘the near-destruction of the city’. I argue that adjectives contain in their structure a variable which licenses IMPs on their left: this is the Modulation variable; I call it δ . This variable is not available for bases that are not lexicalizable, i.e. non-phases. One special value for δ is 0, which implies that the predicate is instantiated to a null degree; this value is spelled out by the Preposed Negation *non-*. Other such particles are *semi* or *quasi*. When no particle is spelled out, it means the position is underspecified: this is the standard value (evidence is given in § 4.1.2.3).

To conclude, there is a position on the left of Adjectives, where Modulation particles can be inserted. Such particles spell out a value that modifies the predicate along a given conceptual dimension. The variable that receives this value is symbolized as the δ variable.

4.1.2 Modulation Licensing at Phase Boundary

Now that IMPs have been introduced, I will argue that they are syntactically licensed by a dedicated functional projection. § 4.1.2.1 addresses the methodology to adopt so as to ensure an internal reading of prenominal particles. § 4.1.2.2 discusses the licensing of Negative Polarity Items in relation to the c-command domain of Modulation Particles. § 4.1.2.3 provides evidence of the assignment of a default value to δ when no overt particle is spelled out.

4.1.2.1 Inducing Internal Reading of Particles

We have seen how the *pseudo* reading applies to any nominal whatever its structure, but poorly felicitously. I will argue that the internal reading of particles is only available for (AS)-Ns that we can analyze in terms of a phasal base and a special suffix (for deadjectivals, *-ité*, *-esse*, *-eur* and *-ise*; for deverbals, what Borer (2013) calls *ATK*, i.e. ‘-ation and kin’) which may be *-ion*, *-ment*, *-age*, \emptyset or a past participle inflexion (*-ée*, *-ie*, *-ue* and *-te*), but excludes marginally found suffixes such as *-aille*. I claim that nouns which pass **MODUL** include a component which is normally part of the structure that an L lexicalizes. (AS)-Ns that lack Modulation will be shown to reject any type of *manner / degree* modification (see the contrast [*✓ cette élimination / *ce meurtre*] de César *d’une façon particulièrement violente*, cf. § 4.1.3.3 *infra*). Thus, this component licenses the ability of a predicate to take Modulation Particles as well as *manner / degree* adverbial modification.

One way to secure the internal reading of particles is to compare with the corresponding sentential structure, cf. (480).

- (480) a. Un maintien du statu quo entraînerait d'ici 2040 un *quasi-triplement* de la quantité de déchets plastiques dans les écosystèmes aquatiques. *(Le Monde diplomatique, 2023)*
 'Maintaining the status quo would lead to a quasi-tripling of the amount of plastic waste in aquatic ecosystems by 2040.'
- b. Des experts estiment que les rejets de plastique dans l'environnement pourraient *quasi tripler* d'ici à 2040. *(Le Monde, 2020)*
 'Some experts estimate that plastic emissions into the environment could almost triple by 2040.'

A more systematic approach, however, is to induce an event reading using one of the tests reviewed in chapter 2. For instance, Modulation Particles such as *quasi-* are compatible with $\overline{\text{IN-X}}$. Combining both tests ensures internal reading of the particle, cf. (481).

- (481) Difficile pour lui de comprendre les raisons qui expliqueraient le quasi-triplement en quatre ans de la facture de 2017 *(La Marseillaise, 2022)*
 'Difficult for him to understand the reasons that would explain the near-tripling in four years of the 2017 bill.'

Another possible coercion method is by means of $\overline{\text{CF}}$ — a combination that I will henceforth call the $\overline{\text{MODUL}}$ test. Using $\overline{\text{CF}}$ coerces nominalizations modified by such particles into an event reading. $\overline{\text{MODUL}}$ is meant for testing Ns already identified as $\overline{\text{AS}}$ -Ns, more specifically to determine whether a given $\overline{\text{AS}}$ -N is a $\overline{\Phi}$ -N (success at the test) or a $\overline{\Psi}$ -N (failure at the test). Example are given in (482)–(483).

- (482) La non-destruction de la ville nous ferait passer pour indulgents. (v.k.)
 'The non-destruction of the city would make us appear indulgent.'
- (483) Le quasi-triplement de la quantité de déchets émis aurait un impact catastrophique sur l'environnement. (v.k.)
 'The quasi-tripling of the amount of waste emitted would have a catastrophic impact on the environment.'

In order to test whether a base is structurally categorized in the phasal sense, my proposal is to determine whether it passes $\overline{\text{MODUL}}$. Since $\overline{\Psi}$ -Ns, we will later show, fail $\overline{\text{MODUL}}$, then this test must reveal extra complexity above the event or state projection. Thus, using this method, we may be able to directly identify unlexicalized L-Phases inside nominals, cf. (484) and (485).

- (484) La non-audition de cette mélodie serait regrettable.
 'The non-audition of this melody would be a shame.'
- (485) la non-intelligence de ces mécanismes vous ferait échouer à l'oral du concours
 'The non-understanding of these mechanisms by the people.'

The test, I contend, is sensitive to the ability of the internal eventuality to take a range of scalar values on the syntactically encoded scale introduced in subsection 4.1.1, the *Modulation Scale* — or, more simply, the Scale. The Scale is a normative grid to which various conceptual dimensions of predicates can be mapped to for measurement specification: this mapping is called the *Modulation*. Examples of MODUL application are given in (486).

- (486)
- a. *-ion*
 - (i) La non-destruction de la ville serait un soulagement.
'The non-destruction of the city would come as a relief.'
 - (ii) La non-invasion du pays par les troupes russes nous aurait rassurés.
'The non-invasion of the country by Russian troops would have reassured us.'
 - (iii) La non-possession d'une voiture rendrait la vie difficile.
'The non-possession of a car would make life difficult.'
 - b. *-ment*
 - (i) Le non-enlèvement des marchandises nous aurait fait perdre du temps.
'The non-removal of the goods would have made us lose time.'
 - (ii) Le non-ralliement de ces pays à notre cause nous nuirait.
'The non-taking side of those countries with our cause would harm us.'
 - c. *-ance*
 - (i) La non-appartenance à un quelconque groupe constituerait pour vous un désavantage.
'The non-belonging to any group would constitute a disadvantage for you.'
 - (ii) La non-connaissance de ce chapitre peut te faire rater l'examen.
'The non-knowledge of this chapter can make you fail the exam.'
 - d. Nouns having the form of feminine past participles
 - (i) La non-découverte de ce vaccin aurait causé des problèmes.
'The non-discovery of this vaccine would have caused problems.'
 - (ii) La non-arrivée de Pierre à bon port nous aurait inquiétés.
'The non-arrival of Pierre at the destination would have worried us.'
 - (iii) La non-prise de ces médicaments te ferait courir un risque.
'The non-taking of these medicines would make you take a risk.'

- e. Zero-derived nouns
- (i) Le non-arrêt des machines entraînerait un dysfonctionnement général.
'The non-stoppage of the machines would lead to a general malfunction.'
- (ii) Le non-réveil du patient par l'infirmière aurait mécontenté le médecin.
'The non-awaking of the patient by the nurse would have displeased the doctor.'
- (iii) Le non-port du casque te ferait courir un risque.
'The non-wearing of a helmet would put you at risk.'
- (iv) La non-maîtrise de cette technique ferait échouer le sauveteur.
'The non-mastering of this technic would make the rescuer fail.'

Many $\textcircled{\Phi}$ -Ns are apparently unsuffixed: $-\emptyset$ is, in French, a *-ion* allomorph. See (487).

(487) **French Zero-Derived $\textcircled{\Phi}$ -Ns**

- | | |
|--|--|
| • <i>abandon</i> _N 'abandonment', | • <i>jet</i> _N 'throwing', |
| • <i>accueil</i> _N 'welcoming', | • <i>port</i> _N 'wearing' or 'carrying', |
| • <i>amorce</i> _N 'initiation', | • <i>prêt</i> _N 'lending', |
| • <i>annonce</i> _N 'announcement', | • <i>recueil</i> _N 'collection', |
| • <i>arrêt</i> _N 'stopping', | • <i>rejet</i> _N 'rejection', |
| • <i>asphyxie</i> _N 'asphyxiation', | • <i>renvoi</i> _N 'resending' or 'dismissal', |
| • <i>calcul</i> _N 'calculation', | • <i>rapport</i> _N 'retrieving' (hunting), |
| • <i>collecte</i> _N 'gathering', | • <i>report</i> _N 'carrying over', |
| • <i>copie</i> _N 'copying', | • <i>respect</i> _N 'respecting', |
| • <i>cumul</i> _N 'cumulation', | • <i>réveil</i> _N 'awakening', |
| • <i>découpe</i> _N 'cutting up', | • <i>transport</i> _N 'transportation', |
| • <i>écoute</i> _N 'listening', | • <i>vol</i> _N 'stealing', |
| • <i>envoi</i> _N 'sending'. | • <i>vote</i> _N 'voting'. |

For instance, the nominals in (488) pass $\textcircled{\text{IN-X}}$.

- (488) a. Le vol des bijoux par les malfaiteurs en à peine quelques secondes traumatisa le vieil homme.
'The stealing of the jewelry by the lawbreakers in hardly a few seconds traumatized the old man.'
- b. Nous fûmes soulagés de l'arrêt en quelques minutes de cette machine dangereuse.
'We were relieved by the stopping in a few minutes of this dangerous machine.'
- c. La maîtrise en quelques minutes de ce grave incendie permit de sauver des vies.
'The containment in a few minutes of this serious fire allowed to save lives.'

A number of overtly unsuffixed (AS)-Ns accept the negation, cf. (489)–(495). I will assume that they are regular (Φ)-Ns with phonologically null ∇ / *little n* morphology.

- (489) Le non-vol des bijoux serait une erreur.
‘The non-stealing of the jewelry would be a mistake.’
- (490) le non-renvoi de ce document
‘the non-resending of this document’
- (491) la non-copie du cours
‘the non-copying of the lesson’
- (492) a. Le non-port du casque par un motard constitue une infraction.
‘The non-wearing of a helmet by a biker constitutes an infraction.’
b. Le non-report des élections municipales serait une erreur.
‘The non-postponing of the local elections would be a mistake.’
- (493) Nous demandons le non-gel de ses avoirs.
‘We ask for the non-freezing of his assets.’
- (494) a. Les avocats ont prouvé le non-jet de cette pierre par l’accusé.
‘The lawyers have proved the non-throwing of this stone by the defendant.’
b. Le non-rejet dans l’air de gaz toxique permettra la survie de l’homme.
‘The non-releasing of toxic gas to the air shall allow human survival.’
- (495) a. ce qui expliquait le jet du navire à une telle hauteur dans ces roches
(V. Hugo, 1866)
‘which explained the throwing of the ship so high among those rocks’
b. ce qui expliquait la projection du navire à une telle hauteur dans ces roches
‘which explained the throwing of the ship so high among those rocks’

The N *sacrifice*_N ‘sacrifice’ also passes [IN-X] and [MODUL]. The second element historically relates to *faire*_v ‘do’.

- (496) a. le non-sacrifice d’Iphigénie aurait changé le cours des événements (v.k.)
‘The non-sacrifice of Iphigenia would have changed the course of events.’
b. Ils sont plus exigeants, plus contestataires, davantage réfractaires à l’autorité hiérarchique, et pourtant disposés à s’investir dans leur travail... mais sous conditions, à commencer par le non-sacrifice de la vie privée (WEB, 2009)
‘They are more demanding, more rebellious, more resistant to hierarchical authority, and yet willing to invest in their work... but under conditions, starting with the non-sacrifice of private life.’

Finally, *essor*_N ‘rise’ passes MODUL, which allows us to predict that it contains a phasal verbal structure. As a matter of fact, this is borne out, since we do find a verb †(*s*)*essorer*_v ‘rise’.

(497) †(*s*)*essorer*_v ‘rise’

- a. On a là une bonne explication du *non-essor* démographique de la province.
(R.W., 1994)
‘This is a good explanation for the lack of demographic growth in the province.’
- b. C’est sans doute une des raisons du *non-essor* d’un OS 100% libre. (WEB)
‘It is undoubtedly one of the reasons for the lack of growth of a 100% free OS.’
- c. comprendre les raisons du *non-essor* de la cité guingampaise sous l’ancien régime (WEB)
‘understanding the reasons for the lack of growth of the Guingamp city during the Ancien Régime’
- d. Les décideurs auront une grande responsabilité dans le *non-essor* du vélo urbain en France. (WEB)
‘Decision-makers will bear great responsibility for the lack of development of urban cycling in France.’

To conclude, the MODUL test allows identification of the ∇ P projection inside nominals, thus qualifying them as $\textcircled{\Phi}$ -Ns.

4.1.2.2 The Scope of Modulation Particles

Pursuing the investigation on the structure of $\textcircled{\Phi}$ -Ns, I will now rely on a property that will help us determine where IMPs are inserted into the structure: NPI licensing and interpretation of universal quantifiers, in relation to the relative scope between the negation and universal quantification. Indeed, the IPN has scope over universal quantification of the internal argument, thus yielding a “not all” reading, cf. (498).

- (498) a. La non-destruction de tous les bâtiments serait préférable.
‘The non-destruction of all the buildings would be preferable.’
- b. (498a) \models *not all buildings would be destroyed.*

In order to avoid this effect, an NPI replaces the quantifier. This is illustrated in (499a). The same phenomenon occurs in AS-Ns, as illustrated in (499b).

- (499) a. (i) Ils n'ont **pas** détruit *tous les bâtiments*
 'They did not destroy all the buildings.'
 (ii) Ils n'ont **pas** détruit *le moindre bâtiment*
 'They did not destroy any building.'
 b. la **non**-destruction de *quelque bâtiment que ce soit*
 'The **non**-destruction of any building **whatsoever**.'

If an NPI is licensed inside a complement, it is because the negation has scope over the universal quantifier of this complement and thus, the complement is within the c-command domain of the insertion node of the negation particle.¹ Unlike embedded prefixes, which locally modify an adjectival structure, Modulation Particles are Adverbs that take scope over a whole aP or vP. Crucially, for a predicate to accept such particles, it must be *Modulated*, i.e. modifiable along a grammatical *Scale*. Thus in (500), *fan_A* 'fond' denotes a property of entities that takes an argument; then, the negation negates this property and the argument raises to become the subject of the negated predicate (see the structure in § 4.3.3.2 *infra*, ex. 713).

- (500) non fan de quelque chanteur que ce soit
 'not fond of any singer whatsoever'

In any case, we know for sure that the particle is located on the immediate left of the lexicalizable adjectival structure, i.e. at the edge of the L-Phase. Now if I decide to create, e.g. *'fanitude_N* 'fondness' as in (501), then the possibility of left-adjunction of a particle will tell me something of the internal structure of *'fanitude_N*, i.e. that it contains the very same adjective as in (500). But more importantly, NPI licensing tells me that the particle is unlikely to have moved during the process. That is, if the particle in (500) is located just outside the boundary of the spellout domain of *fan_A*, it must still be located at the edge of this same phase in the output of the nominalization operation.

- (501) la non-*'fanitude* à l'égard de quelque chanteur que ce soit
 'the non-fondness for any singer whatsoever'

Therefore, the IPN, and, I will assume, all IMPs, must be generated high enough to take scope over the predicate and its arguments. This is why, as a safeguard for determining the identity of the phase head, we must take it for granted that the phase head *cannot be assumed to be located higher than where the negation and, likely, other particles are base-generated*, i.e. in the present account, not higher than [Spec, ∇ P], cf. (502).

(502) **Phase Head Locality Constraint**

The phase head cannot be located higher than where Modulation Particles adjoin.

¹Many thanks to Víctor Acedo-Matellán for pointing out to me this decisive fact.

For French, we can use the NPI *quelque... que ce soit*; cf. Muller (2007a, 2007b); see also Muller (1991) for sentential examples, cf. (503).¹

- (503) Il n'y aura pas de procès de qui que ce soit. (Muller 1991: 94)
'There will be no trial of anyone whatsoever.'

Affixal negation, for its part, does not license NPIs, which leads me to infer that it merges before any complement.² As illustrated in (504a.i), affixal negation is not positioned high enough to affect the universal quantification, and thus, we can safely conclude that the complement *tous les équipages* 'all the crews' is outside the c-command domain of the insertion node of the prefix *in-*. Conversely, the adverbial negation *non-* modifies the quantifier, yielding in (504a.ii) a 'not all' reading, and triggering in (504b) the raising of the universal operator, which results in NPI occurrence.

- (504) a. (i) J'étais insoucieux de tous les équipages. (A. Rimbaud, 1871)
'I was unconcerned about all the crews.'
(ii) J'étais non soucieux de tous les équipages
'I was non-concerned about all the crews.'
b. musiciens non soucieux d'une quelconque réussite commerciale (WEB, 2011)
'musicians non-concerned with any commercial success'

The IPN may take scope over all kinds of subjects, cf. (505).

- (505) la non-sincérité de quelque homme politique que ce soit
'The non-sincerity of any politician whatsoever.'

The IPN can therefore be used to identify raising internal arguments of internal *-ble* possibility adjectives (see *infra*, § 4.1.4.2), cf. (506).

- (506) a. ✓ la non-disponibilité de quelque place que ce soit
'the non-availability of any place'
b. * l'indisponibilité de quelque place que ce soit
'the unavailability of any place'

¹The indefinite quantifier *quelconque*_Q, a free-choice item whose possibility of occurrence is favored by a negative context, is much less felicitous with a negative prefix than with the IPN, cf. (724); in any case, a true NPI such as *quelque...que* should be preferred.

²Numerous *-eux* As take such a complement: *amoureux*_A 'in love', *curieux*_A 'curious', *envieux*_A 'envious', *dédaigneux*_A 'disdainful', *désireux*_A 'desirous', *oublieux*_A 'forgetful', *respectueux*_A 'respectful', *soupçonneux*_A 'suspicious' and *suspicieux*_A 'suspicious'; see (i).

- (i) non amoureux de quelque fille que ce soit
'not enamoured of any girl whatsoever'

The same is true for many other As, like those in *-if*_A '-ive' and *-eur*_A '-er': *non indicatif/significatif/représentatif/constitutif/révélateur/évocateur/annonciateur*, etc. *de quelque problème que ce soit* 'not indicative/significant/representative/revealing/evocative/indicative, etc. of any problem whatsoever'.

NPIs are also licensed in *by_p*-Ps, cf. (507).

- (507) un effet larsen qui rendait le discours [\checkmark non audible / *inaudible] par quelque personne que ce soit
 ‘a larsen effect that made the speech [non-audible / inadmissible] by anyone’

This property is inherited in the corresponding nominalization; see (508).

- (508) a. (i) \checkmark la **non-intelligibilité** de cette leçon par quelque élève que ce soit
 ‘the non-intelligibility of this lesson by any student whatsoever’
 (ii) * l’**inintelligibilité** de cette leçon par quelque élève que ce soit
 ‘the unintelligibility of this lesson by any student whatsoever’
 b. (i) \checkmark la **non-audibilité** de ce discours par quelque personne que ce soit
 ‘the non-audibility of this speech by any person whatsoever’
 (ii) * l’**inaudibilité** de ce discours par quelque personne que ce soit
 ‘the inaudibility of this speech by any person whatsoever’
 c. (i) \checkmark la **non-solubilité** de ce problème par quelque spécialiste que ce soit
 ‘the non-solubility of this problem by any specialist whatsoever’
 (ii) * l’**insolubilité** de ce problème par quelque spécialiste que ce soit
 ‘the insolubility of this problem by any specialist whatsoever’

Finally, note that all kinds of (Φ)-Ns are compatible with NPIs, cf. (509)–(511).

- (509) Nous avons voulu redonner une dimension humaine à une situation totalement inhumaine, tout en garantissant la sécurité, la non-communication de quelque charge virale que ce soit.
 (*Agence France Presse*, 2020)
 ‘We wanted to restore a human dimension to an utterly inhumane situation, while ensuring safety and the non-transmission of any viral load whatsoever.’
- (510) Le Premier Amendement à la Constitution des États-Unis garantit la liberté de conscience et le non-établissement de quelque Église que ce soit.
 (G. Haarscher, 2003)
 ‘The First Amendment to the United States Constitution guarantees freedom of conscience and the non-establishment of any church whatsoever.’
- (511) affirmer le principe de la non-existence ou de la non-instauraton de quelque tutelle que ce soit
 (*Sénat*, 1982)
 ‘to assert the principle of non-existence or non-establishment of any guardianship whatsoever’

I will now give evidence supporting the hypothesis of a *null Modulator*, which I introduced in § 4.1.1.3.

4.1.2.3 The Null Modulator: Evidence from *ou non* ‘or not’

Some have argued that the IPN necessarily triggers a fact reading, cf. Zucchi (1993) and Asher (1993, 2000) (see also Van de Velde 2015: 83). It is true that in most cases, the correlation between IPN and fact reading holds, cf. (512).

- (512) Faut-il être éduqué au pire possible afin d’être heureux de sa non-survenue ?
 (F. Chobeaux, 2019)
 ‘Must one be educated to the worst possible in order to be happy with its non-occurrence?’

Negated Stative (AS)-Ns can only have a fact reading, cf. (513).

- (513) a. Le premier juge a déduit de ce courrier la connaissance par la commune de la situation juridique des parcelles litigieuses (Legifrance) [connaîtreV]
 ‘The first judge inferred from that mail the knowledge by the town (= that the town knew) of the legal status of the contentious parcels.’
 b. Le juge a déduit la non-connaissance par la commune de la situation juridique des parcelles litigieuses.
 ‘The judge inferred the “non-knowledge by the town” (= that the town didn’t know) of the legal status of the contentious parcels.’

However, negated event nominals need not receive a propositional interpretation. Fábregas & Gonzáles Rodríguez (2020) have shown that the IPN is also found in the context of an *inhibited eventuality* reading (see also Ros García 2023), which is a way to refer to an event that was anticipated but did not occur. For instance, (514) illustrates how the boundary between events and facts can be blurry, and the interpretation can depend on context and the perspective of the observer.

- (514) a. Le député a lui-même été témoin de la non-intervention des policiers présents sur les plages du lac de la Haute-Sûre, alors que bon nombre de personnes contrevenaient à ces règles.
 (Paperjam, 2020)
 ‘The deputy himself witnessed the non-intervention of the police officers present on the beaches of Lake Haute-Sûre, even though many people were violating the rules.’
 b. La cérémonie de l’Aïd commémore le non-sacrifice de son fils par Abraham.
 (R.W., 2008)
 ‘The Aïd ceremony commemorates the non-sacrifice of his son by Abraham.’

The following nominals in (515) clearly denote an event.

- (515) a. Nous assistâmes avec incrédulité à la non-ratification en direct du traité sur lequel reposaient tant d’espoirs.
 (V.K.)

‘We watched with disbelief the live non-ratification of the treaty on which so many hopes rested.’

- b. Les filles arboraient évidemment un très large sourire après avoir reçu leur médaille, alors que sur leurs joues coulaient des grosses larmes. En effet, venant du bord du bassin, elles venaient d’encourager leurs camarades de club et d’*assister à la non-qualification* du huit minime garçons qui ratait pour quelques centièmes de seconde les championnats de France !
(*Sud-Ouest*, 2010)

‘The girls obviously sported a very wide smile after receiving their medals, while big tears ran down their cheeks. Indeed, coming from the edge of the pool, they had just cheered on their club mates and attended the *non-qualification* of the boys’ junior eight, who missed the French championships by just a few hundredths of a second!’

Contrary to facts, inhibited eventualities can be pluralized, cf. (516).

- (516) a. Dans cette pièce de Plaute, l’abrègement iambique est de règle; les quelques non-abrègements ont tous une portée stylistique. (v.k.)
‘In this play by Plautus, iambic shortening is the rule; the few non-shortenings all bear stylistic significance.’
- b. La réforme des listes électorales vise à lutter contre les non-inscriptions.
(*L’Indépendant*, 2019)
‘The electoral roll reform aims to combat non-registrations.’
- c. Le stage est généralement validé; les non-validations sont assez rares.
‘The internship is generally approved; non-approvals are quite rare.’

Those reservations notwithstanding, there is evidence that in the absence of an IMP, the δ variable is still assigned a value — that is, a *default* value. Examples as in (517) show that there can be a correlation between the negation and the propositional interpretation.

- (517) s’interroger sur *la nécessité ou non* d’annuler la dette des pays africains
‘questioning the necessity or not of canceling the debt of African countries’

This *ou non* is primarily found with non-finite forms, cf. (518).

- (518) a. La décision de *signer ou non cet accord* vous revient de plein droit.
‘The decision to sign **or not** this agreement is entirely up to you.’
- b. notification mentionnant l’intention de l’administration des douanes *de détruire ou non* les marchandises
(Légifrance, 2014)
‘Notification mentioning the intention of the customs administration *to destroy or not* the goods.’

It appears that the truth value induced by the propositional interpretation of a $\textcircled{\Phi}$ -N may in French be referred to as in *que_c* ‘that’-clauses in the subjunctive mood, which are akin to English *whether_c* free relative clauses. Consider the sentence in (519).

- (519) a. La *destruction* ***ou non*** du navire ciblé dépend de la zone touchée. (WEB, 2015)
 ‘Whether or not the targeted ship is destroyed depends on the area hit.’
 b. Que le navire ciblé soit *détruit* ***ou non*** dépend de la zone touchée.
 ‘Whether or not the targeted ship is destroyed depends on the area hit.’

The nominal in (519a) denotes the actual occurrence of the event, directly embedding the affirmative character of the proposition. The phrase *ou non* then provides the contrasting alternative, referring to the scenario where the event does not occur. The construction has a very high occurrence rate. Attested examples are given in (520).

- (520) a. L’auteur savait pertinemement qu’en vendant la maison, il n’aurait plus accès à sa fresque et perdrait donc toute possibilité d’exercer son droit de reproduction — et ce indépendamment de la *destruction* ***ou non*** de l’œuvre. (WEB, 2023)
 ‘The author was well aware that by selling the house, he would no longer have access to his mural and would therefore lose all possibility of exercising his right to reproduction – regardless of whether or not the work was destroyed.’
 b. Les propriétaires devront s’expliquer devant les forces de l’ordre, avant qu’une décision soit prise sur la *destruction* ***ou non*** des véhicules. (WEB, 2022)
 ‘The owners will have to explain themselves to the law enforcement authorities before a decision is made on whether or not the vehicles are to be destroyed.’
 c. La Hesbah devait aussi décider de la *destruction* ***ou non*** des sanctuaires, des mosquées et des monuments historiques de Tombouctou (WEB, 2018)
 ‘The Hesbah also had to decide whether or not to destroy the sanctuaries, mosques, and historical monuments of Timbuktu.’
 d. Se pose ensuite la question de la *destruction* ***ou non*** de l’objet. (WEB, 2018)
 ‘Then arises the question of whether or not to destroy the object.’

Thus, likewise, *destruction_N* embeds the actual realization of the destruction event and the subsequent *ou non* presents the alternative. This constitutes evidence of positive polarity being encoded in state-denoting $\textcircled{\Phi}$ -Ns. Maintaining the assumption that French $\textcircled{\text{AS}}$ -Ns lack T, I suggest that the denoted positivity actually corresponds to the unspecified value of δ , where all values except 0 are spanned. The selection between interpreting this unspecified value as a standard or as a highlight of non-negativity is contextually induced.

Instead of *ou non*, the alternative may also be expressed through the IPN. Ability to take the negative adverb non- may be a reliable indicator of the presence of an eventuality-denoting vP inside the nP (eventuality in the sense of Bach 1986).

- (521) °*conférer*_v ‘award’
- a. La réussite à l’examen détermine la **collation** (*ou non*) par l’État du grade de bachelier. (Légifrance)
 ‘Passing the exam determines the awarding by the State of the grade of bachelor.’
- b. La réussite à l’examen détermine l’**octroi** (*ou non*) par l’État du grade de bachelier.
 ‘Passing the exam determines the granting by the State of the grade of bachelor.’
- (522) a. La réussite à l’examen détermine l’**octroi** ou le **non-octroi** du grade.
 ‘Passing the exam determines the awarding or non-awarding of the grade.’
- b. La réussite à l’examen détermine si le grade est **octroyé ou non**.
 ‘Passing the exam determines whether the grade is awarded or not.’
- a. La réussite à l’examen détermine la **collation** ou la **non-collation** du grade.
 ‘Passing the exam determines the collation or non-collation of the grade.’

To conclude, evidence points towards an always-present ∇ P-adjunct position with possibly empty phonological realization denoting a default positive value. This constitutes an empirical basis for the *standard of comparison* hypothesized in § 4.1.1.3.

4.1.3 Mode-Related PP Modification

⊕-Ns, contrary to ⊖-Ns, are not solely characterized by their ability to project AS: ⊕-Ns exhibit more advanced properties; ⊖-Ns, while passing the (AS) tests, lack such properties. Because of that, we need to distinguish between (AS)-properties on the one hand, which are common to both types, and what I shall call *categorial* properties on the other hand, which are properties related to *lexical* predicative categories as traditionally construed, i.e. V and A. I insist on the fact that the term *category* is here to be understood in the lexicalist sense: it is not to be conflated with DM’s little categorizers *a* and *v*, which I assume turn the Root into either a property of entities or one of events. However, within the framework adopted in this work, traditional lexical categories are better captured in terms of *phasal structures*. Now, one condition for a structure to be lexicalized, is that it must have been sent for spellout and interpretation at the relevant interfaces, which, adopting Chomsky’s (2000) conclusion, only occurs at specific moments in the course of the derivation, more specifically whenever a *phase head* merges. To summarize, ⊕-Ns exhibit properties which reveal the presence of a full-fledged adjectival or verbal structure, i.e. one whose lexicalization corresponds to the A or V category, respectively: I will call it an *L-Phase* (see 441).

By contrast, ⊖-Ns will be shown to fail those additional tests, and this is due, I will argue, to the fact that they lack an additional head that plays three roles. First, it is the first-

phase head: assuming Marantz's (2013) definition, it sends its complement for spellout a the relevant interfaces, typically *Phonological Form* (PF) and *Lexical Form*; being the closest phase head to the Root, it solves allosemantic polysemy, i.e. contextually determines interpretation of the conceptual content associated with that Root in the Encyclopedia. Second, it licenses Modulation Particles and *manner / degree* modification, which I will argue are two sides of the same coin. Third, its maximal projection is selected for by Asp, which introduces Outer Aspect and the Grammatical Subject that allows for argument raising.

§ 4.1.3.1 argues that the Nabla approach, specifically through the δ variable, provides us with a unifying account to Manner and Degree modification. § 4.1.3.2 Degree Nominals, showing that they may inherit relational *en*-complementation from an internal adjective. Then, § 4.1.3.3 deploys a similar rationale for Event Nominals, arguing them to inherit modification from an internal verb. Finally, § 4.1.3.4 introduces the novel $\overline{\text{XPX}}$ test.

4.1.3.1 A Unified Approach to Manners and Degrees

I will argue that manner and degree modification can be unified. Predicativity is known to be correlated with both manner and degree modification. Non-predicative adjectives systematically reject degree adverbials such as *very* (cf. e.g. Zimmer 1964). They cannot denote gradable properties and, thus, never take degree modifiers, cf. Roy (2010: 132). According to Bally (1944: 96–97, 122), the simple fact for an adjective to take adverbial modification qualifies it as predicative. Geuder (2006) analyzes manners and degrees as manifestations of the same semantic mechanism. The meaning of predicates is decomposed along conceptual dimensions, each involving property values. Manner modifiers restrict the allowed range of values in one dimension of a predicate.

Manners and degrees have often been assumed to be two sides of the same coin. In the Davidsonian tradition, manner adverbials are assumed to modify the event variable. However, alternative accounts, cf. Dik 1975, M. Schäfer 2008, Piñón 2007, Alexeyenko 2015 have proposed that manner-denoting units, including adjectives, should be attributed their own semantic type; a similar special type is often posited for degrees. While settling this issue is outside the scope of this dissertation, I will not endorse what may be referred to as the *ontological hypothesis* for degrees and manners. Instead, I propose a unified treatment where both proceed from a single second-order modification applied to entities or events, respectively. What I term *Modes* are interpreted dynamically when modifying an event predicate and non-dynamically when modifying an entity predicate.

According to Gehrke & Castroviejo (2015: 782–783), predicates are associated with multidimensional concepts, and a clear correlation exists between manner and degree modification. Building on Geuder's (2006) analysis, I take the licensing of *manner / degree* modifiers to be related to the possibility of restriction of the *range of values* of one conceptual dimension of a predicate. I propose that the head of the additional projection, which will

be called ∇ (pronounce *nabla*), syntactically encodes the *grammatically relevant* form of this semantic process, in a manner similar to how event projections encode *grammatical eventualities*, cf. Roy & Soare (2013). I will assume the licensing of Modulation Particles to be directly related to this phenomenon, which I shall call *Modulation*. Modulation is hereby defined as a form of syntactically encoded scalarity by virtue of which a property of entities or events may be modified in terms of restricting its application to a specific range of values within a particular conceptual dimension. For instance, in *very blue* and *nicely blue*, *very*_{ADV} and *nicely*_{ADV} each denote a specific range of values restricting the application of the property $\lambda x.[blue(x)]$ across a scale of intensity or aesthetic appreciation, respectively.

Modulation licenses *manner / degree* adverbials. Building on Kennedy & McNally (1999) and McNally & Kennedy (2013), the ambiguity between manner and degree adverbs does not pertain to coincidental homonymy. I suggest that adverbs realize a special position, and their interpretation as manner or degree depends on the semantic type of the dominated projection. I will account for this correlation through assuming that *manner / degree* modifiers of verbs and adjectives are all licensed by a distinct ∇ head, Modulation Particles thus modifying their respective modulation variables by restricting the range of values they are assigned.

The *Nabla* projection wraps the eventuality into a syntactically encoded *Scale*. *Modulation* transforms an input predicate of entities or events P into a *Modulated Eventuality* P' by introducing a *Modulation* variable δ , the *Mode*. The ∇P projection builds a reference frame $\Sigma(P)$ onto which conceptual dimensions of the target eventuality can be mapped, thereby encoding within the predicate's structure licensing of Modulation modification along those dimensions. $\Sigma(P)$ is defined as the ordered scale along which P' can be modified. The δ variable or *Mode* is a variable that can assume any of the modulation values (henceforth also referred to as *Modulators*) that match a conceptual dimensional array of P .

The type of δ is either $\langle \langle e, t \rangle, \langle e, t \rangle \rangle$ or $\langle \langle v, t \rangle, \langle v, t \rangle \rangle$. Generalizing, δ is of the type $\langle \langle a, t \rangle, \langle a, t \rangle \rangle$ — where a stands for either e or v . Thus, a similar modification operation is performed in both cases, taking a predicate of a given type and yielding one of the same type. Building on Katz's (2008: 238) observation, that many adverbs are interpreted as manner modifiers when they combine with event predicates and as degree modifiers when they combine with state predicates, I suggest that the difference between Manner and Degree might in fact depend on the denotation of the input predicate. This approach aims at capturing the essence of adverbiality as *second-order predication*.

Note that States, as defined in the present work, are Modulated predicates of entities. See Kennedy & McNally (2005: 349):

“Gradable adjectives map their arguments onto abstract representations of measurement, or *degrees*, which are formalized as points or intervals partially ordered along some *dimension*. [...] The set of ordered degrees corresponds to a *scale*.”

A State, therefore, is not constituted as such until the predicate of entities is embedded inside ∇P . This makes two predictions. The first prediction is that all adjectives are phasal. Arguments

of non-quantized properties need to raise as subjects of Modulation since predicates of entities lack an event variable. The second prediction, which ensues from the first one, is that, since all states are phasal, Ψ -Ns must always be built on predicates of events, i.e. quantized vPs.

A unified account of *manner / degree* modification and the negation is desirable as it correctly captures a property common to both types, which is that no gradability is available in the presence of *non-*: if negation is only a particular value for the *manner / degree* argument, then it predicts that the negation particle and *manner / degree* modifiers will be in complementary distribution. Symmetrically, non-negated event nominals may be argued to involve an undefined value, thus denoting a default, according to a conventional norm. That norm has been analyzed in the literature as a *standard of comparison*, which corresponds to the default value associated with the unmodified predicate (cf. Cresswell 1976, von Stechow 1984, Bierwisch 1989, Kennedy 1999, Kennedy & McNally 2005, etc.).

Following the same rationale, other particles will spellout various values for the *manner / degree* variable associated to the predicate; see the table in (486d). The ∇ head, I argue, introduces a variable, which I call the *Mode* and symbolize as δ . The *Mode* is assigned value either silently or through Modulation Particles. One special value for δ is *undefined*, which is by default interpreted as the standard value of comparison (cf. Kennedy & McNally 2005). Another special value is 0; it corresponds to a negation of the predicate (cf. Kennedy & McNally 2005: 358–360) and is realized by the IPN. This analysis predicts that the IPN will exclude any modification of manner or degree, which is exactly what has been observed in the literature (cf. *supra*, § 4.1.1.2). For convenience, the value of δ will sometimes be called the *Modulator*; δ itself is the *Mode* variable and the value it is assigned is called the *modulator*.

4.1.3.2 Internal Degree Modification

Here I show that, at least in French, eventuality-denoting deadjectival and deverbal $\overline{\text{AS}}$ -Ns can inherit *manner / degree* modifiers. This challenges Chomsky (1970: 29) claim, that internal *manner / degree* modification is not inherited in nominalizations:

“Consider next the adjectives that appear with derived nominals, as in *John’s sudden refusal* or *John’s obvious sincerity*. Two sources immediately suggest themselves: one, from relatives (as *John’s aged mother* might be derived from *John’s mother, who is aged*); another, from adverbial constructions such as *John refused suddenly, John is obviously sincere*. The latter assumption, however, would presuppose that derived nominals can be formed from such structures as *John refused in such-and-such a manner, John was sincere to such-and-such an extent*, etc. This is not the case, however. We cannot have **John’s refusal in that manner (in a manner that surprised me)* or **John’s sincerity to that extent*.”

Consider for instance the nominal in (523), where the italicized modifier is transmitted from the source adjective in (523a) to the nominal in (523b).

- (523) a. Être conscient de sa propre mort à un haut degré peut s'avérer compliqué à gérer.
'Being aware of one's own death to a high degree can prove challenging.'
- b. La **conscience** de sa propre mort à *un haut degré* peut s'avérer compliquée à gérer.
'Awareness of one's own death to a high degree can prove challenging.'

Furthermore, deadjectival Nominals may inherit from their base modifiers such as *au point de* 'to the point of' — a novel observation, to my best knowledge. It is true that, at first sight, degree modification seems poorly felicitous. This is illustrated in (524).

- (524) a. La gentillesse de l'infirmière [? au point de rassurer chaque patient] la rend appréciée de tous.
'The nurse's kindness to the point of comforting each patient makes her appreciated by all.'
- b. La richesse de cette famille [? au point de posséder plusieurs châteaux] m'impressionne.
'This family's wealth to the point of owning several castles impresses me.'
- c. La tristesse de mon père [? au point de s'en rendre malade] m'inquiète beaucoup.
'My father's sadness to the point of making himself sick worries me a lot.'

However, appearances are misleading. I argue that the culprit is — again — the definite article. As established in subsection 4.3.2 *infra*, when the definite article is used, it suspends existential closure, thus making the argument raise to [Spec, F_{REF}P] to existentially closing nominal reference. In order to overcome this issue, we may use a demonstrative determiner: its denotation seems to involve an element base-generated in [Spec, F_{REF}P], which triggers existential closure, thus preventing any closing genitive to further adjoin. This assumption is required in order to predict the blocking in (525) (cf. *infra*, § 4.3.2.3).

- (525) * ce chat de ma grand-mère
'this cat of my grandmother'

As can be verified in (526), this method proves successful.

- (526) a. Cette naïveté de votre fils [✓ au point de croire chaque histoire] devrait vous interroger.
'This naivety of your son to the point of believing every story should make you question.'
- b. Cette sévérité du professeur [✓ au point de faire pleurer les élèves] a été critiquée par les parents.

‘This severity of the teacher to the point of making students cry was criticized by the parents.’

- c. Cette curiosité de Pierre [✓ au point de s’immiscer dans tous les débats] énerve ses camarades.

‘This curiosity of Pierre to the point of intruding in every debate annoys his classmates.’

Assuming that predicative adjectives can undergo Mode modification interpreted as degree, we can see how such modification is carried over to the derived $\textcircled{\Phi}$ -N. The need for a special position for degree modifiers have been advocated for at least since Abney (1987) and Grimshaw (1990). Aligning myself within this trend, I propose that ∇ P licenses degree modification in adjectives. Inheritance of degree modification constitutes evidence of the syntactic nature of state-denoting nominalizations — which is exactly how Chomsky (1970) considers it, since he uses its alleged impossibility as an argument against the transformational analysis.

4.1.3.3 Internal Manner Modification

I will argue that $\textcircled{\text{AS}}$ -Ns cannot accept adverbials unless they are built on a phasal structure: the internal structure of $\textcircled{\Psi}$ -Ns lacks the functional apparatus for encoding scales and thus, they reject *manner / degree* adverbials. $\textcircled{\Psi}$ -Ns, as I shall call them, do not seem to be functionally compatible with manner modification. This account aligns with Fu, Roeper & Borer’s (2001) claim that modification by adverbs identifies the presence of an internal V, which, using the terminology established in this research, corresponds to an L-Phase — that is, a structure *lexicalizable into an L*. French possesses manner PP adverbials introduced by the *de_p* — I assume, is not a conceptually charged P but an *Ablative case marker*, licensed by ∇ , cf. (527).

- (527) Son **absorption d’une seule traite** de tous les comprimés en même temps me fit pâlir.
‘His absorption in one gulp of all the pills at the same time made me turn pale.’

Not all $\textcircled{\text{AS}}$ -Ns, conceptual issues aside, can structurally have a manner-denoting counterpart, and those that can never have a manner counterpart actually also lack the possibility to take manner PP adverbials (cf. *infra*, § 4.3.5.2): $\textcircled{\Psi}$ -Ns reject manner modification, cf. (528).

- (528) son [*sac / ✓ pillage] d’une seule traite de toutes les cités côtières
‘his [sack / plundering] in one go of all the coastal cities’

We observe, as expected if they both modify the same variable, that Modulation particles and *manner / degree* adverbials stand in complementary distribution. Thus, we expect *manner / degree* adverbials to be barred in the presence of an IMP. This can be verified in (529).

- (529) a. ✓ Cette acceptation du traité d’une manière assez soudaine nous laissa perplexes.
‘This acceptance of the treaty in a rather sudden manner left us perplexed.’

- b. ✓ Cette soudaine quasi-acceptation du traité nous laissa perplexes.
‘This sudden non-acceptance of the treaty left us perplexed.’
- c. * Cette quasi-acceptation du traité d’une manière assez soudaine
‘This non-acceptance of the treaty in a rather sudden manner.’

As can be seen, the corresponding adjectives, for their part, do work. Thus, while functionally, adjectival modifiers can cohabit with particles, manner adverbials cannot — which is not surprising, considering such adjectival modifiers also work with (Ψ)-Ns, which lack the possibility to take the adverbial forms.

- (530)
- a. le vol de ce portefeuille avec beaucoup d’adresse
‘the theft of this wallet with great skill’
 - b. la réussite avec brio de cet examen difficile
‘the successful completion of this difficult exam with flair’

Fu, Roeper & Borer (2001) and Alexeyenko (2015) have discussed the compatibility of manner PP adverbials with (AS)-Ns, and they analyze them as VP-adjuncts. See (531).

- (531) Manner modification by adverbs in English
(Adapted from Fu, Roeper & Borer 2001 – judgments theirs.)
- a. His transformation into a werewolf so rapidly was unnerving.
 - b. His explanation of the accident thoroughly did not help him.
 - c. The occurrence of the accident suddenly disqualified her.

As seen in (532), in French, adverbials tend to be accepted if the complement of the adverbial head is not limited to a mere adjective. Since my ∇ P lexicalizes into the equivalent of an LP in the traditional terminology — LP standing for either VP or AP, I suggest that adverbs might in fact adjoin at ∇ P: the head of adverbs is a modifier of Modes, i.e. it is of the type $\langle \langle \alpha, t \rangle, \langle \alpha, t \rangle \rangle$ (cf. *supra*, § 4.1.3.1).

- (532) Manner adverbs in French
- a. Sa transformation en loup-garou [✓ plutôt rapidement / ✓ d’une façon plutôt rapide] me surprit quelque peu.
‘His transformation into a werewolf [rather quickly / in a rather quick manner] surprised me a little bit.’
 - b. La survenue de l’accident [✓ assez soudainement / ✓ d’une façon soudaine] l’a disqualifiée.
‘The occurrence of the accident [quite suddenly / in a sudden manner] disqualified her.’

4.1.3.4 The $\boxed{\text{XPX}}$ Test

The novel $\boxed{\text{XPX}}$ test relies on a type of modification that quantifies incrementality itself on an encoded scale. Thus, the test is passed at two conditions. First, the internal event must involve a quantized theme, which I have assumed entails the presence of *v*. Second, it also needs to be Modulated, since ∇ licenses *manner / degree* adverbials. The modifier is always of the form $X_1 P X_1$ (cf. E. Williams 1994), where *X* represents either a nominal phrase or a pronoun. The element on either side of *P* serves as an increment unit, *P* (*par_p* ‘by’, *à_p* ‘to’, *après_p* ‘after’) expliciting the nature of the distribution — successivity of simultaneity, essentially.

Being directly sensitive to theme-related Quantization, the modifier may be inserted before the internal argument, which constitutes an optimal instantiation of the test; see (533).

- (533) a. la destruction pan par pan des services publics de proximité (WEB)
 ‘the destruction piece by piece of public local services’
- b. les époques héroïques de la construction pierre à pierre de l’amphithéâtre
 (M. Samson, 1997)
 ‘the heroic times of the construction stone by stone of the amphitheater’

The elements on either side can be quantified, cf. (534).

- (534) Après, c’était la galopade, la montée deux marches par deux marches du grand escalier. (R. Sebillotte, 1995)
 ‘After that, it was a mad dash, the ascent two steps at a time of the grand staircase.’

As we can see in (535), $\boxed{\text{XPX}}$ does not require source lexicalization.

- (535) L’ascension deux marches par deux marches de cet escalier fut éreintante.
 ‘The ascent two steps at a time of this staircase was exhausting.’

A case where the modifier needs to occur after the argument is when it combines with $\boxed{\text{GRAD}}$. This is illustrated in (536) below, where internal modification by *progressif_A* ‘progressive’ coerces so-called achievement predicates into an incremental interpretation, in a manner similar to how Slow-Motion Camera works (cf. *supra*, § 2.1.3.1).

- (536) a. L’**assassinat** progressif de l’artisanat *secteur par secteur* à mesure de l’expansion du système capitaliste est un fait déplorable (v.k.)
 ‘The progressive assassination of craft industry sector by sector as the capitalist system expands is a deplorable fact.’
- b. L’**audition** progressive de l’ensemble de cette oeuvre *morceau par morceau* à mesure de ma formation d’instrumentiste m’a ravi. (v.k.)

- ‘The progressive listening piece by piece of the entire musical work as I trained as an instrumentalist delighted me.’
- c. La **mort** progressive de la forêt amazonienne *km² après km²*
à mesure du défrichement intensif me révolte (v.k.)
‘The progressive dying of the Amazon forest km² after km² as the process of intensive clearing increases revolts me.’
- d. Les parents assistèrent à la **sortie** progressive du bébé *centimètre par centimètre*
à mesure de l’évolution du travail (v.k.)
‘The parents attended the progressive exit of the baby centimeter by centimeter as the labor progressed.’

Like all *manner/degree* adverbials, [XPX] modifiers stand in complementary distribution with Modulation particles, cf. (537).

- (537) a. la destruction pan par pan des services publics
‘The destruction piece by piece of public services.’
- b. la non-destruction des services publics
‘The non-destruction of public services.’
- c. * la non-destruction pan par pan des services publics
‘the non-destruction piece by piece of public services’

The [XPX] test has a specific variant which, just like [DIV], reacts to theme distributivity over time: X is occupied by a pronoun referring back to subparts of the divisible theme, and agreeing in gender with the latter. A possible instantiation is by *l’un(e) après l’autre* ‘one after the other’, cf. (538). Whereas [DIV] identifies all event (AS)-Ns, *l’un(e) après l’autre* requires ∇P. Considering the semantic proximity in the two modifiers, this difference tends to confirm that ∇P plays a functional role, i.e. it licenses Mode-related adverbiality.

- (538) La destruction l’une après l’autre de toutes les installations militaires porta le coup de grâce à l’armée ennemie. (v.k.)
‘The destruction one after the other of all military installations dealt the final blow to the enemy army.’

In many cases, the element on either side of the preposition is reduced to a pronominal Q, which, here again, agrees in gender with the internal argument, cf. (539).

- (539) l’**extraction** des hommes *un à un* à bord d’une étroite nacelle
‘the extraction of the men one by one aboard a narrow nacelle’

[XPX] modification may be preposed, cf. (540).

- (540) a. après l’**usure** et la **mort** *un à un* des prolétaires (1915)
‘after the wear and death one by one of the proletarians’

- b. L'*ascension* un à un de ses barreaux me semble un chemin vers les étoiles.
(WEB, 2016)
'The ascent one by one of its bars seems to me like a path to the stars.'
- c. Le concept de ce brevet repose dans l'*ascension* et la *descente* une à une des dix côtes les plus significatives de la vallée.
(WEB, 2010)
'The concept of this patent is based on the ascent and descent one by one of the ten most significant hills of the valley.'

Like *manner/degree* modification in general, $\boxed{\text{XPX}}$ is a reliable test to identify a full verbal phase inside zero-derived nominals, cf. (541). In other terms, this is a syntactic test of deverbality for telic $\textcircled{\text{AS}}$ -Ns.

- (541) a. L'escalade quatre à quatre de la tour délabrée lui a visiblement coûté.
(WEB, 2004)
'The ascent four at a time of the dilapidated tower visibly cost him.'
- b. L'ascenseur n'arrive pas assez vite, il opte pour l'escalade quatre à quatre des marches de l'escalier conduisant au studio.
(A. R. Poirier, 2022)
'The elevator doesn't arrive quickly enough, so he chooses the ascent four at a time of the stairs leading to the studio.'

We even find full adverbs in coordination with $\boxed{\text{XPX}}$ (see Fu, Roeper & Borer 2001).

- (542) Quelqu'un aurait-il des photos montrant le *démontage* point par point et complètement de ce fusil ?
(WEB, 2007)
'Does anyone have pictures showing the dismantling point by point and completely of this rifle?'

It is also worth mentioning that even *-eur* $\textcircled{\text{AS}}$ -Ns pass the $\boxed{\text{XPX}}$ test. This is expected since they are built on Third-Stem morphology, which I will argue spells out ∇ .

- (543) a. Le *bâtisseur* pierre à pierre de ce gigantesque monument a accueilli chaleureusement les visiteurs.
(V.K.)
'The builder stone by stone of this gigantic monument warmly welcomed the visitors.'
- b. Le *géniteur* étape par étape de ce fabuleux projet m'a accordé une interview.
(V.K.)
'The progenitor step by step of this fabulous project granted me an interview.'

Note that this is not so surprising considering such examples as (544).

- (544) un *tireur* à l' arc
a shooter at the bow

The [XPX] test, similar to [MODUL], is not exactly a test for (AS)-Ns: it eliminates nominals that qualify as telic (AS)-Ns, but, I argue, lack Modulation; conversely, if an event (AS)-N passes [XPX], then it is deverbal. More specifically, it identifies the ∇ P projection, which I will argue is absent from the structure of (Ψ)-Ns. Indeed, as we will demonstrate in § 4.2.2.2, (Ψ)-Ns, contrary to (Φ)-Ns, fail [XPX].

4.1.4 Argument Raising

I will here argue that one major characteristic of (Φ)-Ns, as opposed to (Ψ)-Ns, is to provide a landing site for argument raising. This has many consequences, which we will investigate one by one. In § 4.1.4.1, I discuss cases of deverbal nominals without overt arguments, analyzing them as built on the same structure as verbs undergoing impersonal passivization. Afterwards, in § 4.1.4.2, I provide further evidence for passivization inside Phasal Bases, based on some properties of *-ble* possibility adjectives which I will argue qualify as (AS)-As, more specifically (Φ)-As.

4.1.4.1 Impersonal Passivization

I here address a type of event (Φ)-Ns occurring without any overt AS, but which I will argue are Imperfective (AS)-Ns: a genericity operator binds the interval variable introduced by Asp, thus saturating both argumental positions as silent arbitrary pronouns.

Passivization (see e.g. Fiengo 1977: 31–33) has been argued to involve promotion of the internal argument to the salient position of grammatical subject, thus preventing the external argument to realize. The landing site for the promoted argument is assumed to be [Spec, AspP]. This is mainly motivated by a strong contrast between the two types of (AS)-Ns. (Φ)-Ns, which we have seen exhibits properties of Outer Aspect, allow apparent suppression of their AS, which is accounted for once we assume the presence of a landing site for raising arguments: such a site licenses argument promotion, i.e. *passivization*. Since (Ψ)-Ns, by contrast, exhibit obligatory realization of the theme, then we may assume that the landing site for the subject is not available. No such passivization is possible within Bare Bases, showing that when Voice and v are directly selected for by n, without Modulation in-between, argument raising is not possible.

As observed by Grimshaw (1990: 178), the examples in (545) take internal modifiers in spite of the fact that no internal argument is overtly realized. She qualifies (545a) as “not clear to her”, which expresses her embarrassment in the absence of an intransitive variant that could be invoked to account for argument removability.

- (545) a. Only frequent examination by the doctors kept John healthy.
 b. The doctors examined *(John).

Interestingly and as noticed by Moulton (2014) for English, in some nominals both arguments remain silent.

(546) Moulton's (2014) examples

- a. The constant construction next door will bother me.
- b. More frequent demonstration is required.
- c. Frequent change is necessary if you want your organization to stay competitive.

However, the set in (546) is not homogeneous. (546b–c) feature a null D which does not exist in French, so that their analysis would probably differ significantly from that of (546a). I will here argue that (546a) could receive an account in terms of an impersonal passive. Indeed, nominals of the type found in (545a) and (546b, c) pass the $\overline{\text{CF}}$ test. This is illustrated in (547).

- (547) a. (i) Regular inspection by the committee revealed potential issues.
 (ii) Systematic verification by the analyst ensured data accuracy.
 (iii) Constant investigation by the detective uncovered key evidence.
 (iv) Frequent calibration by the technician maintained equipment accuracy.
- b. (i) Regular inspection by the committee would reveal potential issues.
 (ii) Systematic verification by the analyst would ensure data accuracy.
 (iii) Constant investigation by the detective would uncover key evidence.
 (iv) Frequent calibration by the technician would maintain equipment accuracy.

By contrast, the nominal in (546a) fails the $\overline{\text{CF}}$ test (see 548). Thus, it cannot be interpreted as an event in the episodic sense; therefore, it does not denote an event kind. Moulton (2014: 122–124) deduces from (546) that Simple Event Nominals accept modification by *frequent / constant*, cf. (546). But I say otherwise: in any case, it is still an $\overline{\text{AS}}$ -N, which explains his observations. Those observations are accounted for if we assume that an internal argument is indeed projected, but is realized by a silent pronoun that receives contextually determined reference.

(548) # The constant construction next door would bother me.

In French, the same phenomenon occurs. That such nominals are still $\overline{\text{AS}}$ -Ns is evidenced by the fact that they can be internally modified; see (549).

- (549) a. La méchanceté quotidienne me fatigue.
 'The daily nastiness bothers me.'
- b. La réorganisation quotidienne me fatigue.
 'The daily reorganization bothers me.'
- c. La non-communication quotidienne me fatigue.
 'The daily non-communication bothers me.'

All three sentences have in common that their subject is arbitrary; besides, the transitive nominal in (549b) has an arbitrary theme as its internal argument, and it might be the case for the unergative nominal in (549c) as well. Crucially, (Ψ)-Ns, i.e. the non-phase-based nominals introduced in section 4.2 *infra*, never exhibit this behavior at all. Consider for instance the following pair in (550).

- (550) a. ✓ le fréquent bombardement des ennemis sur la ville
 ‘the frequent bombing of the enemies on the city’
 b. # la fréquente attaque des ennemis sur la ville
 ‘the frequent attack of the enemies on the city’

The intransitive variant of *attaque*_N ‘attack’ can never take subject-related adjectival modification, cf. (550). Importantly, although I have argued (cf. § 2.1.1.2), subject-related modification is not a test in and of itself, it is here associated with the agent role associated with the internal verb. This contrast is expected if *attaque*_N is a (Ψ)-N and therefore, only works as an (AS)-N when used transitively, because the event variable in such nominals must be introduced by v. It reveals a crucial difference between *bombardement*_N and *attaque*_N: only the former, but not the latter, exhibits passivization abilities. That is, (Ψ)-Ns must lack an landing site for argument raising.

If *bombardement*_N takes subject-related internal modification, it means that such Ns do not need a quantified internal argument to project an event variable, only, they need pluractionality to existentially quantify the predicate they embed; since they have Outer Aspect, and the *attack* lacks thereof, then maybe this upper internal predicate is provided by Outer Aspect. This crucial contrast will be at the heart of my line of argumentation in chapter 4. For the time being, let’s assume that the type in (550a) possesses a special additional layer that is related to the licensing of PP adverbials and the IPN, and is mandatory for selection by Asp, while the type in (550b) lacks this projection. A forged Latin variant is proposed in (551).

- (551) Ut juxta domum frequenter *aedificetur* mihi molestum erit. (v.k.)
 that next to home frequently it be constructed to me annoying will be

In this analysis, both the internal and external arguments are realized as *pro*_{arb}s. As with all passive constructions, the internal argument raises to a higher subject position, and the external argument lacks a landing site, but can reemerge under the form of a *by*_p-P. This predicts that (Ψ)-Ns will never be able to work without argument realization, as opposed to (Ⓣ)-Ns built on an optionally transitive verb. It seems to be borne out, cf. (552).

- (552) a. [# Le fréquent exode / ✓ La fréquente émigration] m’inquiète.
 ‘The frequent [exodus / emigration] worries me.’
 b. [# La fréquente attaque / ✓ Le fréquent bombardement] nous effraie.
 ‘The frequent [attack / bombing] scares us.’

- c. Le fréquent [# sac / ✓ pillage] m’insupporte.
 ‘The frequent [sack / looting] annoys me.’

I want to argue here that this works without a realized AS precisely because those nominals are passive, unlike Ψ -Ns. The AspP projection is what allows passivization. It introduces the higher level of predication, exactly like in clausal passives. I propose that this is due to the fact that the internal argument moves to a position where it is regarded as the subject of a fully categorized predicate, more specifically to [Spec, AspP]. As argued by Stowell (1982), in (553b), compared to (553a), “the understood tense [...] is completely malleable to the semantics of the governing verb”, indicating that *Tense* is not encoded in nominalizations.

- (553) a. Jenny remembered [PRO to bring the wine].
 b. Jenny remembered bringing the wine.

Impersonal passive is a construction that allows intransitively used verbs to occur without an agent-specifying subject (see Haider 2019).¹ Impersonal passive has been taken by Perlmutter (1978) to advocate in favor of the difference between unaccusative and unergative AS setups. The subject is identified with a silent internal argument with arbitrary reference, cf. (554).

- (554) a. Es wird gearbeitet.
 it is being worked
 ‘work is being done’
 b. Laboratur.

Pieroni (2000) analyzes the Latin construction and gives examples (see 555, on the next page), especially with *disputo*_v ‘argue’ and *pugno*_v ‘fight’ (see also Lambert 1998). If we assume that a generic operator scopes over the silent pronoun that realizes the internal argument of Imperfective $\overline{\text{AS}}$ -Ns then it is expected that Quantization will fail and the Asp head will always bear the feature [– PERFECTIVE]. This explains why such $\overline{\text{AS}}$ -Ns fail $\overline{\text{CF}}$: they cannot denote episodic events. To conclude, one more contrast has been put to light between Φ -Ns and Ψ -Ns. Only Φ -Ns, but not Ψ -Ns, can undergo impersonal passivization. This further confirms that Φ -Ns are characterized by alternations typically found in the verbal domain. Let us now further explore passivization in L-Phases, by discussing possibility adjectives.

¹See Napoli (2019) for a critical overview of the Latin Impersonal Passive.

(555) **Impersonal Passive — Pieroni's (2000) examples** (glosses and translations mine)

- a. (i) Disputatur in consilio a Petreio atque Afranio.
it is argued in council by Petreius and Afranius
(Caes. Civ. 1,67,1)
'Petreius and Afranius are holding a discussion in the council.'
- (ii) Contra autem omnia disputatur a nostris. (Cic. Off. 2,8)
against but all things it is argued by ours
'Everything is being debated by our people.'
- (iii) Quo die est a nobis ea de re, quam tu ex omnibus
on which day it is by us on this matter which you out of all
maxime probas, disputatum. (Cic. Tusc. 5,1)
mostly approve having been argued
'On that day, we discussed the matter which you, above all others,
most approve of.'
- (iv) Ut a doctissimis Graeciae quaesitum et
as by the most learned of Greece having been requested and
disputatum est. (Cic. Leg. 3,13)
having been argued it is
'As it has been inquired and debated by the most learned men of
Greece.'
- b. (i) Pugnatum que ab hostibus ita acriter est ut a viris
having been fought and by enemies so fiercely it is that by men
fortibus in extrema spe salutis iniquo loco pugnari
brave in extreme hope of salvation with inequitable place be fought
debut. (Caes. Gal. 2,33,4)
it had to
'And the enemy fought so fiercely, that brave men ought to fight in a
desperate hope of salvation on disadvantageous ground.'
- (ii) Per idem tempus advorsum Gallos ab ducibus nostris
through same time against Gauls by leaders our
Q. Caepione et Cn. Manlio male pugnatum.
Q. Caepio and Gn. Manlius badly having been fought <it is>
(Sal. Iug. 114,1)
'Around the same time, our leaders Quintus Caepio and Gnaeus
Manlius fought poorly against the Gauls.'
- (iii) Pugnatum est ab utrisque acriter. (Caes. Gal. 4,26,1)
having been fought it is by both sides fiercely
'There was fierce fighting from both sides.'

4.1.4.2 Possibility Adjectives

Another independent empirical motivation for positing structurally syntactic (AS)-bases lies in some remarkable properties that we find in *-ble* As. Several bases are featured both in (Φ)-Ns and in what Oltra-Massuet (2014) calls “high”, i.e. vP-embedding, *-ble* adjectives. Latin As in *-bilis*_A were massively borrowed by Romance languages and English, and figure in virtually every major study on English derived nominals: Chomsky (1970), Jackendoff (1975), Aronoff (1976), Wasow (1977), J. Lyons (1977), E. Williams (1981), Kayne (1984), Scalise (1986), Roeper (1987), S. Anderson (1992), etc. While *-able*_A productively attaches to native, autonomously occurring bases, the scholarly *-ble*_A attaches to neoclassical bases which may end with any of the available thematic vowels, *-a-*, *-i-* or *-u-* (cf. Giegerich 1999: 29–30). It quite clearly appears that there was a segmentation shift and historical *-a_v-ble*_A was reanalyzed as *-able*_A, the thematic vowel being felt as being part of the suffix (the same phenomenon is observed with *-at_v-ion*_N being re-interpreted as *-ation*_N). I will argue that such adjectives may qualify as (AS)-As, because their grammatical properties cannot be accounted for without positing a passivized projected AS. Crucially for the present work, the base of such (AS)-As need *not* be lexicalized.

As initially pointed out by Wasow (1977) (cf. also E. Williams 1981: 93), *-ble* Adjectives that express possibility take as their subject the internal argument of the base verb. Aronoff (1976: 127, ex. 17) notices for *divisible*_A (as opposed to *dividable*_A, where it does not emerge so neatly) the following inheritance of verb-level adverbials, cf. (556).

- (556) a. divisible by three
b. divisible into three parts

In French, the exact same is observed with *sécable*_N ‘divisible’, whose source is not lexicalized.

- (557) °*séquer*_v ‘cut’
Le temps de pause est sécable en plusieurs périodes d’inactivité. (*Legifrance*, 2020)
‘The break time is divisible into several periods of inactivity.’

The structure of low *-ble* adjectives consists of a category-neutral Root directly selected for by a stativizing projection and, on top of it, a modalizing projection. In high *-ble* adjectives, which denote possibility, such as *modifiable*_A, the Root first undergoes verbalization, then the verb is passivized, and finally stativized through Asp.

Adopting a syntactic approach, Oltra-Massuet (2014) establishes that in various languages internal structure of *-ble* adjectives denoting possibility contains a transitive verb. Yet, Oltra-Massuet’s account does not predict that what she calls “high” *-ble* adjectives may lack an autonomously attested related verb: in her account, all (AS)-As without a lexicalized source have a low-merging *-ble*. To identify an internal event, she proposes the tests in (558).

(558) Oltra-Massuet (2014: 109, ex. 187)

- a. **Control into a purpose clause**
* The attack is deplorable (in order) to calm things down.
- b. **Licensing of *by*-phrase**
* The attack is (easily) deplorable by Mary/by the government.
- c. **Licensing of agent-oriented modifiers**
* The attack is easily deplorable.
- d. **Licensing of instrumental phrases**
* The situation is deplorable with a letter.
- e. **Licensing of aspectual/manner adverbials**
* The agreement is deplorable every two years.

She also argues that in Catalan, English, German, and Spanish, “we find examples where there is a PP selected by the verb underlying the adjective”; see (559).

(559) Oltra-Massuet (2014: 48, ex. 45)

- a. Most failures are still attributable to specific circumstances.
- b. Game Theory pretends that human actions are breakable into much smaller “molecules” called games.
- c. Does anyone know if dehydrated meat is bringable to Canada?
- d. The copy is barely distinguishable from the original.

She also mentions data from Catalan, where, like in French, *-ble* (AS)-As pass IN-X and FOR-X.

(560) Oltra-Massuet (2014: 56–57, ex. 65)

- a. (i) un treball modificable en una hora
‘a piece of work modifiable in an hour’
(ii) un llibre traduïble en una setmana
‘a book translatable in a week’
- b. activitats realitzables durant hores
‘activities realizable during hours’

I will show that *-ble* (AS)-As need not be built on an autonomously attested V in order to project AS. S. Anderson (1992: 189) claims that lexically sourceless words must be listed in the lexicon directly. However, this account fails to explain the grammatical similarities found in (AS)-As and (AS)-Ns that share a common base, as is the case for *intelligible_A* and *intelligence_N*. By contrast, positing a common source structure, i.e. an (AS)-Base, succeeds in doing so. For English, the claim that verbal bases of *-ble* possibility adjectives necessarily need to correspond to an attested L is directly challenged by J. Lyons's (1977: 533) analysis:

“Although there are no verbs in English whose stems are *feas-*, *leg-*, *ed-*, *intellig-*, etc., it is arguable that the adjectives whose stems are formed from these bound roots do in fact satisfy the formula $V_{tr} + -able \rightarrow A_z^1$ [...] and some of them at least are semantically regular. For example, ‘edible’ is related semantically to ‘eat’ as ‘justifiable’ is to ‘justify’ or ‘obtainable’ is to ‘obtain’; and it is less specialized in meaning than the morphologically regular ‘eatable’. [...] ‘Legible’ is like ‘edible’, except that its meaning is somewhat more specialized than “can be read”, but specialized in a different way from that of the morphologically regular ‘readable’. [...] ‘Edible’, ‘legible’, and many other lexemes, then, are morphologically and syntactically regular.”

Thus, the adjectives *legible_A* and *edible_A* may, first, have an AS-implicating compositional meaning and, second, they take a *by*-phrase: Oltra-Massuet (2014: 47–64) convincingly argues that a subtype of *-ble* As inherit their syntactic properties from an embedded verbal structure. Roeper (1987) identifies two types, those that take a *by*-P and carry an implicit Agent, and those that do not. Following the later, Oltra-Massuet (2014) makes a distinction between two structurally distinct types of *-ble* As, namely As featuring a high-attaching *-ble*, assumed to embed a (passivized) full verbal structure (Oltra-Massuet: 151), and those with a low-attaching *-ble*, that lack an internal verb (Oltra-Massuet: 151). However, *contra* Roeper (1987), even the scholarly +ble, not necessarily the productive #able, may give rise to (AS)-As. Crucially, as noted in Oltra-Massuet (2014: 31–35), there are in English and Catalan *-ble_A* As that yield a regular grammatical meaning although they do not correspond to any existing verbal base. However, Oltra-Massuet treats them as low *-ble* As. I would like to show that in French, *-ble* As do not need to be related to an autonomously attested base in order to exhibit full verbal properties, namely take a *by*-P and accept [IN-X]. French features many *-ble* As denoting passive possibility. Among those As, some are built on a scholarly base that does not relate to any autonomous lexical verb. A small number of *-ile* As have the same denotation. See (561) (on the next page).

A subset of these *-ble* adjectives constitute a cornerstone, since their denotation cannot be built without positing a mechanism of passivization, which requires not only AS projection, but also, for argument raising, a ∇ P projection. Therefore, although their source is lexicalized, their structure is rich, entailing a high-attaching *-ble*. Some, as in (562) *infra*, can admittedly be regarded as built on allomorphs of existing Vs; however, the same ambiguity applies as previously seen in § 4.3.1.5, i.e. each allomorphic base could be analyzed as constituting a distinct structure (cf. *infra*, subsection 4.3.1).

¹ A_z being “an arbitrarily labelled subclass of adjectives”.

(561) **French modalized As without a lexical source**a. Positive *-ible* Adjectives

*arable*_A ‘arable’ (cf. °*arér*_V ‘cultivate’),
*audible*_A ‘audible’ (cf. †*ouïr*_V ‘hear’),
*combustible*_A ‘combustible’ (cf. †*comburer*_V ‘combust’),
*comestible*_A ‘edible’ (cf. °*comester*_V ‘eat’),
*fongible*_A ‘fungible’ (cf. °*fonger*_V ‘replace’),
*intelligible*_A ‘intelligible’ (cf. ■*intelliger*_V ‘understand’),
*malléable*_A ‘malleable’ (cf. °*malléer*_V ‘shape’),
*miscible*_A ‘miscible’ (cf. °*miscer*_V ‘mix’),
*potable*_A ‘potable’ (cf. °*poter*_V ‘drink’),
*satiable*_A ‘satiable’ (cf. °*satier*_V ‘sate’),
*sécable*_A ‘divisible’ (cf. °*séquer*_V ‘cut’),
*tangible*_A ‘tangible’ (cf. °*tanger*_V ‘touch’),
*vulnérable*_A ‘vulnerable’ (cf. °*vulnérer*_V ‘wound’).

b. Negative *-ible* Adjectives

*inaudible*_A ‘inaudible’ (cf. †*ouïr*_V ‘hear’)
*incombustible*_A ‘incombustible’ (cf. °*comburer*_V ‘combust’),
*incurable*_A ‘incurable’ (cf. °*curer*_V ‘heal’),
*ineffable*_A ‘ineffable’ (cf. °*effe*_V ‘speak’),
*inénarrable*_A ‘indescribable’ (cf. °*énarrer*_V ‘narrate’),
*inéluçtable*_A ‘ineluctable’ (cf. °*éluçter*_V ‘avoid’),
*inexorable*_A ‘inexorable’ (cf. °*exorer*_V ‘sway’),
*inexhaustible*_A ‘inexhaustible’ (cf. °*exhauster*_V ‘exhaust’),
*inintelligible*_A ‘unintelligible’ (cf. ■*intelliger*_V ‘understand’),
*insatiable*_A ‘insatiable’ (cf. °*satier*_V ‘sate’),
*insécable*_A ‘indivisible’ (cf. °*séquer*_V ‘cut’),
*intangible*_A ‘intangible’ (cf. °*tanger*_V ‘touch’),
*invulnérable*_A ‘invulnerable’ (cf. °*vulnérer*_V ‘wound’),
*irréfragable*_A ‘irrefragable’ (cf. °*réfrager*_V ‘refute’).

c. *-ile* Adjectives¹

*ductile*_A ‘ductile’ (cf. °*duire*_V ‘mould’),
*fragile*_A ‘fragile’ (cf. °*freindre*_V ‘break’),
*labile*_A ‘labile’ (cf. °*laper*_V ‘slide’),
*sectile*_A ‘sectile’ (cf. °*séquer*_V ‘cut’).

¹See also Middle French *armes* †*missiles* ‘throwable weapons’, in the absence of °*missier*_V ‘throw’.

- (562) *fissile*_A ‘fissile’ (cf. °*fisser*_V ‘split’), allomorph of *fendre*_V ‘split’
*fusible*_A ‘fusible’ (cf. ■*fuser*_V ‘melt’), allomorph of *fondre*_V ‘melt’

Oltra-Massuet has established that *-ble* As are divided into two types: those that embed a modalized passive verb and those that adjectivize a modalized stativized Root. Alexiadou (2018: 12) has shown that As such as Greek *everethistos*_A ‘irritable’ still involve the projection of an internal argument when they denote a psychological disposition, whence the possibility, previously pointed out by Oltra-Massuet (p. 106), building on Val Álvaro (1981: 196), to paraphrase them with *easy to V*. However, I cannot resort to the *easy to V* test, simply because a lexical V is not always attested. Instead, I propose to use the adverb *facilement*_A ‘easily’. This adverb has the ability to modify the Modality, which can be verified by its ability to be located before the passive auxiliary, a place that typical Manner adverbs cannot occupy. See the contrast in (563).

- (563) a. **Base Position**
- (i) Cette porte peut être déverrouillée **facilement**.
 ‘This door can be unlocked easily.’
 - (ii) Cette porte peut être déverrouillée **manuellement**.
 ‘This door can be unlocked manually.’
- b. **Raising to Modality**
- (i) ✓ Cette porte peut facilement être déverrouillée.
 ‘This door can easily be unlocked.’
 - (ii) * Cette porte peut manuellement être déverrouillée.
 ‘This door can manually be unlocked.’

Let us see for instance the French adjective *irascible*_A ‘irascible’ (cf. °*irascere*_V ‘make irate’). According to Alexiadou’s (2018) analysis of *everethistos*_A ‘irritable’, such As should embed a vP, which (564) supports:

“To the extent that its meaning is ‘becoming angry with ease’, there is an event causing irritation, which can be modified via a PP. This reading must involve a structure [...] lacking Voice but including a v layer introducing the event.”

- (564) °*irascere*_V ‘irritate’
- a. ✓ une personne facilement irascible
 a person easily irascible
 - b. * une personne irascible facilement
 a person irascible easily

Other adjectives without a lexicalized source exhibit the ability to take modality-oriented adverbial modification. See the examples in (565).

- (565) a. Le peuple, ce serait aussi une masse facilement malléable par la démagogie et le populisme. (WEB, 2011)
 ‘The people would also be a mass easily malleable by demagoguery and populism.’
- b. métal facilement ductile (R.W., 2018)
 ‘easily ductile metal’
- c. métal facilement fusible (Word Reference)
 ‘easily fusible metal’
- d. minéral facilement sectile (R.W., 1969)
 ‘easily sectile mineral’

And finally comes the issue of *by_p*-Ps. According to Oltra-Massuet (2014), *by_p*-Ps are only licensed in “High *-bles*”. Now concerning *by_p*-P licensing, Kayne (1984: 140–141) provides the following data for English, cf. (566).

- (566) a. This book is readable by a 10-year-old
 b. Mary is trustable by a ten-year-old
 c. That is not gettable by minors
 d. French lessons are dispensable with by most people
 e. That is deniable by any intelligent person
 f. Paper plates are easily burnable even by children
 g. Mary’s project is mockable by anyone in power

He also observes that the *by_p*-P is inherited in the corresponding nominalization, cf. (567).

- (567) Its readability by a ten-year old is not at issue.

In Classical Latin, the deverbal adjective built with the *-nd-* affix, meaning ‘which must be Ved’, cannot take an *by_p*-P, only a dative, cf. (568).

- (568) intelligendum [✓ mihi / * ab me]
 ‘intelligible [to me / by me]’

However, using *ab_p* ‘by’ is legit from the classical period onward (see Pinkster 2015: 297–298). In French too, the *by_p*-P is grammatical — whether the base is lexicalized or not, cf. (569).

- (569) a. un étiquetage intelligible par tous les consommateurs
 ‘a labeling intelligible by every consumer’
- b. on vérifiera que le signal est audible par tous les occupants
 ‘one shall check that the signal is audible by all occupants’

As noticed by Oltra-Massuet (2014: 60–62), in some cases a *by_p*-P is found with *-ble* As involving a negative prefix. In French as well, examples are found. However, I judge them

as very poorly felicitous, cf. (570a). This blocking strikingly contrasts with what occurs with the Preposed Negation, cf. (570b).

- (570) a. un effet Larsen qui rendait le discours [* inaudible par le public]
 (Ouest France, 2017)
 ‘A Larsen effect that made the speech [inaudible by the audience].’
- b. un effet Larsen qui rendait le discours [✓ non audible par le public]
 ‘a Larsen effect that made the speech non-audible by the audience’

This contrast clearly informs us about the Preposed Negation being located high enough to c-command the external argument, i.e. above VoiceP.

However, the prefixed negation must be introduced high enough to take scope over the modality. In (571a.i, b.i), the theme-related PP localizer is inherited in the corresponding *-ité* (AS)-N (cf. *supra*, § 4.1.2.2); by contrast, locatives of the type of (571a.ii), which take wide scope over the predication, including the subject, are not successfully transmitted to the nominalization, as shown in (571b.ii).

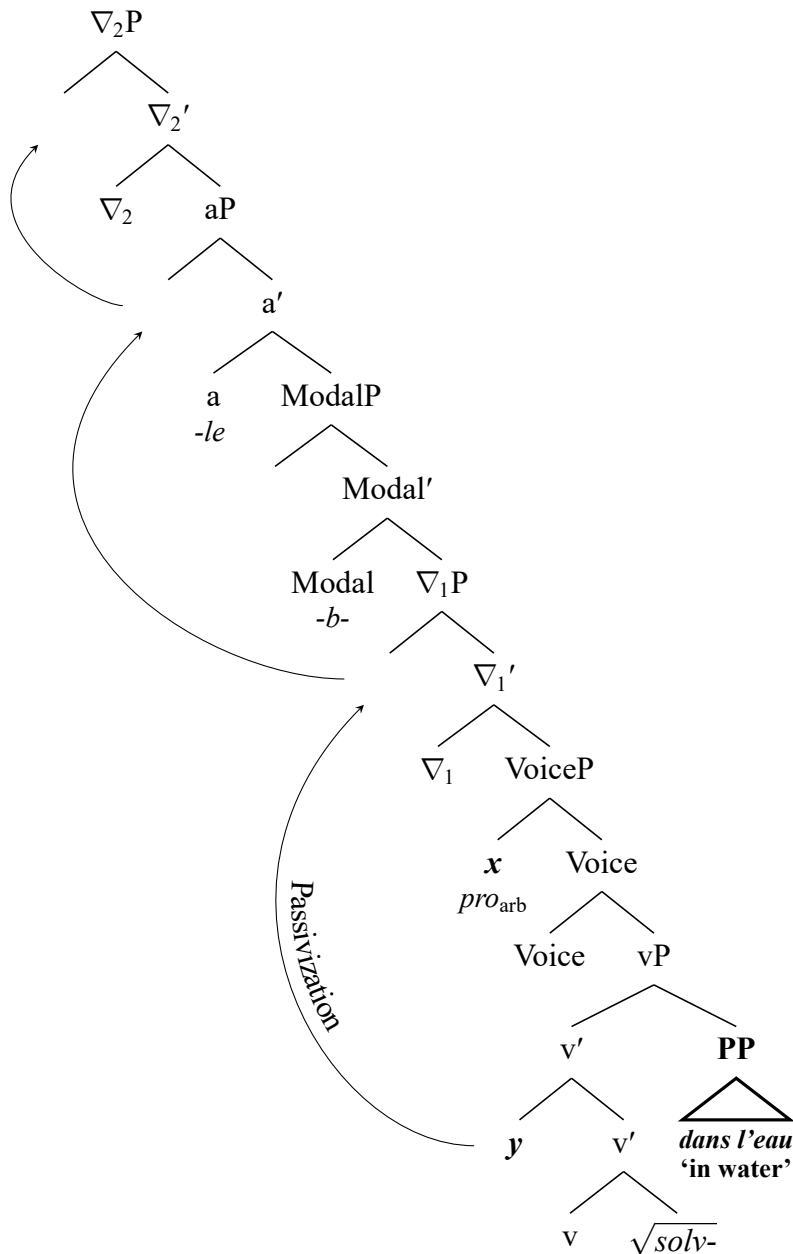
- (571) a. (i) Le sucre de canne est insoluble dans l’alcool.
 ‘Cane sugar is insoluble in alcohol.’
- (ii) Cet exercice est impossible dans l’eau.
 ‘This exercise is impossible in water.’
- b. (i) l’insolubilité (✓ dans l’alcool) du sucre de canne
 ‘the insolubility in alcohol of cane sugar’
- (ii) l’impossibilité (* dans l’eau) de cet exercice
 ‘the impossibility in water of this exercise’

Note that, again, the verbal source does not correspond to a lexicalized V: †*soudre*_v ‘solve’. As it happens, this is also the case for *miscible*_A, which, while not related to any verb ⁰*miscer*_v ‘mix’, exhibits properties similar to *soluble*_A, cf. (572). It suggests that *miscible*_A also embeds a vP, which further illustrates that structural complexity arises independently of listedness.

- (572) a. (i) Le propionate de zinc est miscible et soluble dans l’éthanol. (WEB)
 ‘The zinc propionate is miscible and soluble in ethanol.’
- (ii) la [solubilité / miscibilité] dans l’éthanol du propionate de zinc
 ‘the solubility/miscibility in ethanol of zinc propionate’
- b. (i) La résine rouge est insoluble et immiscible dans l’eau. (1842)
 ‘The red resin is insoluble and immiscible in water.’
- (ii) l’[insolubilité / immiscibilité] dans l’eau de la résine rouge
 ‘the insolubility/immiscibility in water of the red resin’

Leaving negative prefixation aside, we could assume for *soluble dans l'eau* ‘soluble in water’ the structure a in (573) — where the Modality head loosely denotes *ability*.

(573) **soluble dans l'eau**



To conclude, *-ble* (AS)-As provide even more evidence in support of the grammatical nature of sources. If special grammatical properties were listed in lexical entries, then bases without an autonomously attested lexical source should never exhibit such properties. In this context, a lexeme-based lexicalist view would be hard to maintain.

4.1.4.3 Concomitance Gerunds

Argument raising may be identified in Φ -Ns through a type of Gerunds which have been shown by Gettrup (1977) to express a concomitant circumstance (for an overview of French Gerunds, see Rihs 2013, Samardžija 2021; for manner Gerunds specifically, see Kleiber 2011). One way to induce such a reading is to prepose to the Gerund the adverb *tout*_{ADV}. The test thus relies on modification of the form *tout en V-ant* ‘all while V -ing’. Such Gerunds specify an action initiated by the participant corresponding to the external argument of the preceding verb — which entails Control. Forged examples are given in (574)–(576).

- (574) a. L'**expulsion** de ces étrangers *tout en justifiant les mesures par de prétendues raisons économiques* est humainement inacceptable.
 ‘The expulsion of these foreigners while justifying the measures with supposed economic reasons is inhuman.’
- b. La **destruction** de ce bâtiment *tout en minimisant les dangers encourus par les travailleurs* met en danger la vie des employés.
 ‘The destruction of this building while minimizing the risks faced by the workers endangers the employees’ lives.’
- c. La **restriction** des libertés publiques *tout en proclamant la sécurité nationale* suscite des inquiétudes.
 ‘The restriction of public liberties while proclaiming national security raises concerns.’
- d. La **réduction** des coûts *tout en compromettant la qualité* diminue la satisfaction des consommateurs.
 ‘The reduction of costs while compromising quality reduces consumer satisfaction.’
- e. L'**augmentation** des taxes *tout en démantelant les services publics* provoque des protestations.
 ‘The increase of taxes while dismantling public services provokes protests.’
- f. La **prohibition** de certains produits *tout en négligeant les alternatives* favorise les marchés noirs.
 ‘The prohibition of certain products while neglecting alternatives favors black markets.’
- (575) a. Le **développement** de la technologie *tout en ignorant les conséquences sociales* est irresponsable.
 ‘The development of technology while ignoring the social consequences is irresponsible.’

- b. Le **déploiement** de cette stratégie *tout en négligeant l'avis des experts* me paraît peu judicieux.
 ‘The deployment of this strategy while neglecting the experts’ advice seems unwise to me.’
- c. L’**accomplissement** de ces tâches *tout en négligeant les délais* peut entraîner des retards dans le projet. ‘The fulfillment of these tasks while neglecting deadlines can lead to delays in the project.’
- d. Le **placement** de ces produits *tout en minimisant leur visibilité* peut nuire à leurs performances de vente. ‘The placement of these products while minimizing their visibility can harm their sales performance.’
- (576) a. La **réforme** du système éducatif *tout en ignorant la voix des enseignants* mine la qualité de l’éducation.
 ‘The reform of the educational system while ignoring the voices of teachers undermines the quality of education.’
- b. Le **contrôle** des médias *tout en proclamant la liberté d’expression* est contradictoire.
 ‘The control of the media while proclaiming freedom of speech is contradictory.’
- c. La **censure** des œuvres artistiques *tout en prétendant promouvoir la créativité* relève de l’hypocrisie.
 ‘The censorship of artistic works while pretending to promote creativity is hypocritical.’
- d. L’**emploi** de cette méthode *tout en négligeant les normes de sécurité* peut mener au désastre.
 ‘The employment of this method while neglecting safety standards can lead to disaster.’

It could be argued that this is the presence of Voice we are here identifying. However, these Gerunds may also modify structures lacking an external argument, such as unaccusatives or deadjectivals. This seems to indicate that Control is carried out not directly by the external argument, but by the grammatical subject (see Helland 2008, Rihs 2013, Halmøy 2003, Hellqvist 2015). This is further evidence by *agentive coercion of unaccusatives*, as in e.g. (577).

- (577) L’arrivée en retard délibérée de ces élèves *tout en prétendant s’être perdus dans le collège* a exaspéré l’enseignant. (v.k.)
 ‘The deliberate late arrival of these students while pretending to have gotten lost in the school exasperated the teacher.’

Let us now recapitulate the conclusions of this section. Particles found on the left of $\textcircled{\text{AS}}$ -Ns can have an internal reading. I proposed that they are licensed by a head that introduces *Modulation* of the predicate; the ∇ head. Modulation is the ability for the predicate to be modified along a syntactic scale, via a Modulation variable symbolized as δ . Particles adjoin at the edge of an internal verbal or adjectival phase, probably as a left ∇P -adjunct, and must be assumed to raise to the left of the noun in order to account for wide scoping of the negation over the subject with respect to universal quantification (NPI licensing, especially). Internal reading of particles is only found with nominals built on a phasal base: we have called them $\textcircled{\Phi}$ -Ns. $\textcircled{\Phi}$ -Ns also exhibit internal *manner / degree* modification and pass the $\textcircled{\text{XPX}}$ test.

4.2 Unmodulated Predicates

The novel observation I will make is that in French, there are some Event $\textcircled{\text{AS}}$ -Ns which, whether or not related to an autonomously attested base, lack a set of grammatical properties that we normally find in regular $\textcircled{\text{AS}}$ -Ns. I will call them *Bare* $\textcircled{\text{AS}}$ -Ns or $\textcircled{\Psi}$ -Ns (as in Ancient Greek *psilos_A* ‘bare’), because I will argue them to be built on a non-phasal event projection. In such an account, neither *v* nor Voice constitute a phase head, since the phasal character of the base is shown to be optional for AS projection. Instead, an additional projection is required to complete the first phase, namely ∇P . $\textcircled{\Psi}$ -Ns lack a ∇P layer and thus, do not constitute phases. I will show that contrary to Phasal Bases, which denote *Modulated* Predicates, Bare Bases denote *Unmodulated* Predicates.

Crucially for what will come next, I will show that $\textcircled{\Psi}$ -Ns require a theme. For example, while *débandade_N* ‘scattering’, based on a transitive predicate, can function as an $\textcircled{\text{AS}}$ -N, *promenade_N* ‘walk’ and *cavalcade_N* ‘cavalcade’, for their part, cannot. I will argue that $\textcircled{\Psi}$ -Ns are not derived from an L-Phase, but from a smaller structure, which lacks upper layers.

Subsection 4.2.1 discusses grammatical event properties of $\textcircled{\Psi}$ -Ns. Subsection 4.2.2 demonstrates that $\textcircled{\Psi}$ -Ns lack Modulation. Subsection 4.2.3 addresses Greek derivatives and borrowings from English.

4.2.1 Event Properties of $\textcircled{\Psi}$ -Ns

Non-Phasal bases will here be shown to exhibit grammatical event properties, but lack Modulation. That is, they pass $\textcircled{\text{IN-X}}$, $\textcircled{\text{GRAD}}$ and $\textcircled{\text{CF}}$ but fail $\textcircled{\text{MODUL}}$ and $\textcircled{\text{XPX}}$: they reject IMPs and show no sign of an encoded scale. Lacking a grammatical subject, they do not exhibit transitivity alternation nor passivize.

4.2.1.1 Passing $\boxed{\text{IN-X}}$

Two cases must be distinguished. In the first case, the base relates to an attested V but the suffix fails to satisfy the verbal features that an L-Phase requires. For instance, *trouvaille*_N ‘finding’ and *débandade*_N ‘scattering’ exhibit only limited verbal properties, cf. (578).

- (578) a. La découverte des bécasses l’avait amené bientôt à la **trouvaille** dans un petit lac voisin d’écrevisses que personne ne mangeait. (E. et J. de Goncourt, 1894)
 ‘The discovery of the woodcocks had soon led him to the finding in a nearby small lake of crayfish that no one was eating.’
- b. (i) ✓ La **trouvaille** d’une dizaine d’écrevisses en l’espace de deux minutes l’avait ravi.
 ‘The finding of about ten crayfish within two minutes had delighted him.’
- (ii) * La **trouvaille** pendant au moins vingt minutes de magnifiques écrevisses l’encouragea.
 ‘The finding over at least twenty minutes of magnificent crayfish encouraged him.’

But beyond such marginal cases, most Ψ -Ns are zero-derived. In this second case, the base simply does not correspond to a full-fledged verbal structure. Let us take *attaque*_N ‘attack’. That it passes $\boxed{\text{IN-X}}$ is shown in (579).

- (579) a. Nos troupes ont **attaqué** *en un éclair* ce convoi ennemi.
 ‘Our troops attacked this enemy convoy in a flash.’
- b. L’**attaque** [✓ en un éclair] de ce convoi ennemi par nos troupes nous assura la victoire.
 ‘The attack in a flash of this enemy convoy by our troops assured us victory.’

We can here again observe that the base is not selected for by Asp: modification on Outer Aspect is impossible; see the contrast in (580).

- (580) a. Le **bombardement** [✓ pendant plusieurs mois] de cette ville magnifique nous mit les larmes aux yeux.
 ‘The bombing of this beautiful city for several months brought tears to our eyes.’
- b. L’**attaque** [* pendant plusieurs mois] de cette ville magnifique nous mit les larmes aux yeux.
 ‘The attack of this beautiful city for several months brought tears to our eyes.’

Thus, the $\boxed{\text{IN-X}}$ test is passed by nominals that will be argued in subsection 4.2.2 to fail Modulation-related tests such as $\boxed{\text{MODUL}}$ and $\boxed{\text{XPX}}$.

- (581) a. °*saquer*_v ‘sack’
 Le **sac** *en quelques mois* de cette région stratégique par les Huns aboutit à la rupture du traité de paix avec Rome. (v.k.)
 ‘The sack in a few months of this strategic region led to the rupture of the peace treaty with Rome.’
- b. °*rapter*_v ‘abduct’
 Le **rapt** *en quelques jours* *(de plusieurs dizaines d’enfants) par les intégristes (dans le but de les endoctriner) m’a indigné. (v.k.)
 ‘The kidnap in only a few days of dozens of children by the integrists in order to indoctrinate them outraged me.’
- c. °*meurtrer*_v ‘murder’¹
 Le **meurtre** *en quelques secondes* de César par les sénateurs provoqua une guerre civile. (v.k.)
 ‘The murder of Caesar by the senators in a few seconds in order to save the Republic caused a civil war.’

Besides, in a few cases, the event properties seem to originate from the second element of a compound. For instance, *-cide* nominals such as *génocide*_N ‘genocide’ or *homicide*_N ‘homicide’ qualify as (Ψ)-Ns, cf. (582).

- (582) a. Ils étaient tous les trois opposés à la dictature du président Habyarimana, dont l’assassinat le 6 avril 1994 a été suivi par le **génocide** *en trois mois* d’un million de Tutsis et Hutus modérés au Rwanda. (Wordpress)
 ‘All three of them were opposed to President Habyarimana’s dictatorship, whose assassination on 6 April 1994 was followed by the genocide in Rwanda of one million moderate Tutsis and Hutus in three months.’
- b. Le **génocide** par les nazis *(de plusieurs millions de juifs) en seulement quelques années fut une tragédie. (v.k.)
 ‘The genocide of several million Jews by the Nazis in only a few years was a tragedy.’

-tom-ie nominals also exhibit event properties, cf. (583). Like for *-cide* nominals, it is possible that the second element is somehow verbal — historically, it is.

¹Not only does the verb *meurtrir*_v ‘wound’ lack the relevant meaning, but even more importantly, verbs of the second group are built from nouns by means of an *-is-* affix possibly similar to the one found in e.g. *électriser*_v ‘electrize’.

- (583) L'**ovariectomie** en quelques minutes *(de la jument) par le vétérinaire a rassuré ses propriétaires.
 'The oophorectomy in a few minutes of the mare by the veterinarian reassured her owners.'

Note that, in light of these data, and in the same spirit as what was argued about *-ion(n)_N-er_V* verbs, it becomes harder to argue that e.g. *-graphie* (AS)-Ns derive from *-graphier* verbs. Thus, *photographie_N* 'photography', *reprographie_N* 'reprography' and *sérigraphie_N* 'serigraphy', etc. — which exhibit ∇ -related verbal properties — are likely derived from an L-Phase lexicalizable into '*photographer_V*', '*reprographer_V*' and '*sérigrapher_V*', etc. Likewise, how nouns in *-graphe_N* '-grapher' can function as Agent (AS)-Ns all while being phonologically simpler than *-graph-ier_V* verbs is now elucidated: they are, in fact, derived not from *-graphier* verbs, but from the same L-Phase as *-graphie* nominals. And in fact, historically, *photographe_N* is regarded as deriving from *photographie_N* by truncation (see *TLF*).

Finally, a number of (Ψ)-Ns have a non-causative reading, which I analyze in terms of a lack of the VoiceP projection that I have assumed in transitive (AS)-Ns such as *sac_N* 'sack'. For instance, *exode_N* 'exodus' and *nauffrage_N* 'shipwrecking' pass $\overline{\text{IN-X}}$, cf. (584) and (585).

- (584) a. La ville a reçu un ultimatum, ce qui a provoqué l'**exode** en quelques heures de plus de la moitié de ses quelque cent mille habitants. (*Le monde*)
 'The city was issued an ultimatum, which caused over half of its approximately one hundred thousand inhabitants to flee en masse within a few hours.'
- b. Le numéro un albanais s'est déclaré confiant dans la victoire, en dépit des troubles qui ont agité le pays depuis le début de l'année, et de l'**exode** en neuf mois de quelque soixante mille albanais à la recherche d'une vie meilleure. (*Sud-Ouest*)
 'The albanian leader claimed to be confident in victory, despite the unrest that has shaken the country since the beginning of the year, and the exodus in nine months of around sixty thousand albanians seeking a better life.'
- (585) a. Le **nauffrage** en quelques secondes du fileyeur de Loïc Riou avait causé la mort de dix personnes. (*Le Nouvel Obs*, 2001)
 'The shipwrecking in a few seconds of Loïc Riou's fishing vessel had caused the death of ten people.'
- b. l'implication d'un sous-marin dans le **nauffrage** en quelques minutes du chalutier (*France TV Info*, 2009)
 'the involvement of a submarine in the shipwrecking in a few minutes of the trawler'

- c. un processus incontrôlable, le *nauffrage en quelques mois* de la seule puissance censément habilitée à rivaliser avec les états-unis (R.W., 2001)
 ‘an uncontrollable process, the shipwrecking in a few months of the only power supposedly capable of rivaling the united states’

4.2.1.2 Passing [CF] and [POT]

The event properties of (Ψ)-Ns are further demonstrated by the fact that they pass [CF] and [POT] as introduced in section 2.2 *supra*. Nouns such as *sac_N* ‘sack’, *meurtre_N* ‘murder’, *exode_N* ‘exodus’ and *nauffrage_N* ‘shipwreck’ exhibit the ability, shared by all AS-Ns (cf. Beyssade 2013), to be interpreted as theoretical descriptions instead of instantiated occurrences. First, the [CF] test, as previously seen, checks the ability of a given nominalization to be interpreted as the logical antecedent of a V in conditional mood in an out-of-the-blue context. They pass it without any problem, similar to transitive (Ψ)-Ns, cf. (586) and (587).

- (586) a. Le **sac** de la ville et le **meurtre** de ses habitants *auraient* de terribles conséquences.
 ‘The sack of the city and the murder of its inhabitants would have terrible consequences.’
- b. L’**exode** de ces populations et le **nauffrage** de leur navire *constitueraient* une tragédie humaine.
 ‘The exodus of these populations and the shipwreck of their vessel would constitute a human tragedy.’
- (587) a. L’**homicide** de ce journaliste entraînerait des représailles.
 ‘The murder of this journalist would lead to reprisals.’
- b. L’**ovariectomie** de cette jument assurerait sa guérison.
 ‘The ovariectomy of this mare would ensure her recovery.’

Second, as expected, such nominals pass [POT], i.e. they may also combine with *if*-style or *in-case-of*-style modal antecedents, cf. (588) and (589).

- (588) a. Le vieil homme avait prédit le **meurtre** de César par les conjurés *si jamais il se rendait au Sénat* et le **sac** de la ville *en cas de guerre civile*.
 ‘The old man had predicted the murder of Caesar by the conspirators should he ever go to the Senate and the sack of the city in case of a civil war.’
- b. Le sage avait annoncé l’**exode** de ces populations *si une famine devait survenir* et le **nauffrage** de leur navire *en cas de forte tempête*.
 ‘The sage had foretold the exodus of these populations should a famine occur and the shipwreck of their vessel in case of a severe storm.’

- (589) a. L'analyste avait prédit le **génocide** de cette ethnie *si jamais ce dictateur arrivait au pouvoir*. (V.K.)
 'The analyst had predicted the genocide of this ethnic group if this dictator ever came to power.'
- b. Le vétérinaire préconisait l'**ovariectomie** de cette jument *si des complications devaient advenir*. (V.K.)
 'The veterinarian recommended the ovariectomy of this mare if complications were to arise.'

They may also be modified by temporal clauses.

- (590) Les délégués réagissent en votant le **début** immédiat de la grève générale *sitôt que l'état d'urgence serait proclamé*. (*Le Monde*, 1981)
 'The delegates respond by voting for the immediate start of the general strike as soon as the state of emergency would be declared.'

By contrast, (non-AS)-Ns cannot provide an antecedent to such clauses, cf. (591).

- (591) a. Les spécialistes avaient annoncé [**le/√un*] séisme en cas d'explosion nucléaire.
 'Experts had predicted [the/an] earthquake in the event of a nuclear explosion.'
- b. Les spécialistes avaient annoncé [*√la/√une*] destruction de la ville en cas d'explosion nucléaire.
 'Experts had predicted [the/a] destruction of the city in the event of a nuclear explosion.'

To conclude, (Ψ)-Ns are able to occur in counterfactual uses, which proves that their internal structure contains a vP.

4.2.2 Absence of Modulation

4.2.2.1 Failing of [MODUL]

As shown in (592), (Ψ)-Ns fail [MODUL].

- (592) a. regretter le [**non-*]exode de ce peuple persécuté
 'to regret the non-exodus of this persecuted people'
- b. se réjouir du [**non-*]naufrage de ce navire
 'to rejoice in the non-sinking of this ship'

- c. négocier le [* non-meurtre / * non-homicide] de quelqu'un
 'to negotiate the non-murder / non-homicide of someone'

Let us take two nouns, *débandade*_N 'scattering' and *faillite*_N 'bankruptcy'. They clearly pass event tests such as [CF] or [GRAD].

- (593) a. La débandade de la politique du franc fort aurait accéléré la crise et ses conséquences sociales. (F. Mitterrand, 1993)
 'The scattering of the strong franc policy would have accelerated the crisis and its social consequences.'
- b. cessation d'activité emblématique de la faillite progressive du modèle économique et bancaire dominant (Sud Ouest, 2012)
 'cessation of activity emblematic of the progressive bankruptcy of the dominant economic and banking model'

Yet, they fail [MODUL], cf. (594).

- (594) a. La [* non-]débandade des Français aurait pu apaiser les craintes économiques. (v.k.)
 'The non-scattering of the French could have alleviated economic fears.'
- b. La [* non-]faillite de ce modèle économique aurait été préférable (v.k.)
 'The non-bankruptcy of this economic model would have been preferable.'

Likewise, consider *trouvaille*_N 'finding', which also seems to exhibit (AS) properties and passes [CF], cf. (595) and (596)...

- (595) a. un article rédigé à propos de la trouvaille de cette espèce en Andalousie en 1942 et de la confirmation de son existence dans cette province, en 1943, par G. Ceballos (R.W., 1946)
 'an article written about the finding of this species in Andalusia in 1942 and the confirmation of its existence in this province, in 1943, by G. Ceballos'
- b. *En général, on doit plutôt décevoir nos clients qui croient être détenteurs d'une œuvre exceptionnelle*, expose le commissaire-priseur de la maison de ventes Philocale, encore ému par la trouvaille de cette pépite de l'histoire de l'art. (Le Parisien, 2023)
 'Generally, we tend to disappoint our clients who believe they possess an exceptional work, says the auctioneer from the Philocale auction house, still moved by the finding of this gem in the history of art.'
- (596) La trouvaille de cette pépite me ravirait.
 'The finding of this gem would delight me.'

... but rejects the IPN, cf. (597).

- (597) a. La [*non-trouvaille / ✓ non-découverte] des causes de ce phénomène montre les limites de la recherche.
‘The [*finding / ✓ discovery] of the causes of this phenomenon shows the limits of the search.’
- b. un article rédigé à propos de la [*non-trouvaille / ✓ non-découverte] de cette espèce en Andalousie en 1942, qui remet en question les rapports antérieurs de sa présence.
‘an article written about the [*finding / ✓ discovery] of this species in Andalusia in 1942, which questions earlier reports of its presence’
- c. La [*non-trouvaille / ✓ non-découverte] de cette pépite de l’histoire de l’art fut un coup dur pour le commissaire-priseur.
‘the [*finding / ✓ discovery] of this gem in the history of art was a hard blow to the auctioneer’

4.2.2.2 Failing of $\boxed{\text{XPX}}$ and Rejection of Gerunds

Kennedy & Levin (2008) propose a scale-based account of telicity. However, Ψ -Ns, while compatible with telic modifiers, lack a syntactically encoded scale. This can be seen through the fact that, contrary to Φ -Ns, they fail the $\boxed{\text{XPX}}$ test, cf. (598) and (599).

- (598) a. [* L’éloge / ✓ La glorification] **l’un après l’autre** de tous ces empereurs me mit mal à l’aise. (v.k.)
‘The [praise / glorification] one after the other of all these emperors made me uncomfortable.’
- b. [* Le rapt / ✓ L’enlèvement] **l’une après l’autre** de toutes ces jeunes filles assura aux Romains une descendance. (v.k.)
‘the [kidnap / abduction] one after the other of all these young girls ensured the Romans a lineage’
- c. [Le *Le sac / ✓ pillage] **l’une après l’autre** des différentes villes de la côte permettrait au général de triompher. (v.k.)
‘The [sack / pillage] one by one of the different coastal cities would allow the general to triumph.’
- (599) a. Durant cette bataille, l’empereur supervisa en personne [* le meurtre / ✓ l’occision] **heure par heure** de tous les ennemis du royaume. (v.k.)

‘During this battle, the emperor personally oversaw [murder / killing] hour by hour of all the kingdom’s enemies.’

- b. Sur ces vidéos de surveillance, nous pouvons suivre en temps réel le [* sac / ✓ pillage] **vitrine par vitrine** de toutes les salles du musée. (v.k.)
 ‘On these surveillance videos, we can follow in real time the [sack / pillage] showcase by showcase of all the museum’s rooms.’
- c. On nous montre aux actualités [* l’attaque / ✓ le bombardement] zone après zone de la métropole envahie. (v.k.)
 ‘We are shown on the news the [attack / bombing] zone by zone of the invaded metropolis.’

The noun *torture*_N ‘torture’ departs from its historical formation: it lacks strong categorial properties typical of (Φ)-Ns, and I argue that this is because it is no longer perceived as having a structure *tort*_v-*ure*_N.

- (600) a. La révolution contre Bachar al-Assad a débuté en Syrie après l’arrestation, l’emprisonnement et la torture de plus d’une dizaine d’enfants [✓ en l’espace de quelques mois]. (Le Monde, 2013)
 ‘The revolution against Bashar al-Assad began in Syria after the arrest, imprisonment, and torture of more than a dozen children within a few months.’
- b. La torture de ce prisonnier [✓ vous vaudrait une sanction très sévère]. (v.k.)
 ‘The torture of this prisoner [would earn you a very severe punishment].’
- c. J’ai assisté à la torture [* l’une après l’autre] de ces pauvres victimes. (v.k.)
 ‘I witnessed the torture [one after the other] of these poor victims.’

If this is on the right track, we may predict that (Ψ)-Ns — which lack a landing site for raising arguments — will not be able to take Gerunds (see *supra*, § 4.1.4.3). This seems to be the case, as seen in (601).

- (601) [l’attaque / le sac] des villes côtières [? tout en essayant de prendre l’intérieur des terres] constitue une bonne stratégie (v.k.)
 ‘The attack / sacking of coastal cities while trying to take the inland constitutes a good strategy’

To conclude, departing from current accounts, especially Davidsonian approaches, the data provided suggest that *manner / degree* modification should not be conflated with the presence of an eventuality variable. One more projection — specifically ∇P, which introduces Modulation — must be posited to provide a consistent account of the set of discriminating properties that shapes the (Φ)-N vs. (Ψ)-N distinction.

4.2.2.3 Failing of [FOR-X]

A striking observation regarding (Ψ)-Ns is that they are considerably degraded when being applied [FOR-X]. I argue that this is due to their structure lacking a ∇P layer. See the contrasts in (602) and (603).

- (602) a. Le sac [? pendant vingt-quatre heures] de la ville de Sarlat...
 ‘The sack for twenty-four hours of the city of Sarlat...’
 b. Le pillage [✓ pendant vingt-quatre heures] de la ville de Sarlat...
 ‘The plundering for twenty-four hours of the city of Sarlat...’
 ... conduirait à sa destruction totale.
 ‘... would lead to its total destruction.’
- (603) a. L’éloge [? pendant deux heures] de cet homme à la moralité douteuse...
 ‘The unceasing praise of this man of dubious morality...’
 b. La glorification [✓ pendant deux heures] de cet homme à la moralité
 douteuse... (v.k.)
 ‘The unceasing praise of this man of dubious morality...’
 ... me mettrait fort mal à l’aise.
 ‘... would make me very uncomfortable.’

To conclude, although (Ψ)-Ns exhibit v/Voice-related properties, they apparently lack Outer Aspect. Now, I will show that they also lack Modulation.

4.2.3 Non-Latinate Verbal Structures

I will here show that it is possible to find (Φ)-Ns and (Ψ)-Ns built from borrowed roots. I will first discuss Greek neoclassical compounds, then English borrowings.

4.2.3.1 Verbal Properties of Greek -sis Nouns

I will here show that nominals in *-ase_N* ‘-asis’, *-èse_N* ‘-esis’, *-ose_N* ‘-osis’, *-yse_N* ‘-ysis’, *-epse_N* ‘-epsis’, *-ipse_N* ‘-ipsis’ and *-ypse_N* ‘-ypsis’ exhibit strong categorial properties typical of (Φ)-Ns. The noun *lyse_N* ‘dissolution’ was borrowed from Ancient Greek *lú-s-i-s_N* ‘dissolution’, a deverbal from *lú-ein_v* ‘dissolve’. This noun and its compounds exhibit transitivity alternation and all pass [CF]. The noun *exérèse_N* comes from *ex-aíre-s-i-s* ‘removal’, derived from *ex-airé-ein* ‘to remove’. The eventive *-ér-è-se* is also found in *aphérèse_N* ‘apheresis’ and *synérèse_N* ‘syneresis’. All pass [CF] and [IN-X], cf. (604) and (605).

- (604) a. °*exérer*_v ‘remove’
l’**exérèse** de la tumeur *permettrait* une guérison rapide (v.K.)
‘The removal of the tumor would allow rapid healing.’
- b. °*protéolyser*_v ‘lyse’
la **protéolyse** de la fibrine par la plasmine *permettrait* d’éviter l’infarctus (v.K.)
‘The proteolysis of fibrin by plasmin would prevent infarction.’
- c. °*synthèser*_v ‘synthesize’
la **synthèse** par le pancréas de cette hormone essentielle *ferait* chuter la glycémie (v.K.)
‘The synthesis by the pancreas of this essential hormone would lower blood sugar levels.’
- (605) a. L’**exérèse en quelques minutes** de l’angiome par le dermatologue se déroula à la perfection. (v.K.)
‘The removal in a few minutes of the angioma by the dermatologist went perfectly.’
- b. L’**exégèse en quelques mois** d’un grand nombre de psaumes par le théologien fut une entreprise ardue. (v.K.)
‘The exegesis in a few months of a great number of psalms by the theologian was an arduous undertaking.’
- c. La **synthèse en quelques heures** de l’insuline par le pancréas en l’espace de quelques heures est une opération cruciale. (v.K.)
‘The synthesis in a few hours of insulin by the pancreas is a crucial process.’

They pass **GRAD** and **DIV**, cf. (606).

- (606) a. l’**hémostase** progressive de l’hémorragie *à mesure de la coagulation* (v.K.)
‘the progressive hemostasis of the hemorrhage as coagulation occurs’
- b. une **stase simultanée** du sang et de l’énergie (R.W., 2013)
‘A simultaneous stasis of blood and energy.’

But more, those nominals pass **MODUL**, thus qualifying them as (Φ)-Ns. Indeed, all nominals in (604) can be modulated, cf. (607).

- (607) a. La **non-exérèse** de cette tumeur vous serait fatale. (v.K.)
‘The non-removal of this tumor would be fatal to you.’
- b. °(*s*)*apoptoser*_v ‘undergo apoptosis’
Le cancer résulte de la **non-apoptose** de certaines cellules. (v.K.)
‘Cancer results from the non-apoptosis of certain cells.’

Among these words, one of the most widespread is *genèse*_N ‘genesis’, which, as seen in (608), (609) and (610), passes not only [GRAD], [CF] and [IN-X], but also [XPX].

- (608) J’ai été témoin de la genèse étape par étape de ce projet à mesure de l’intégration des idées de chacun. (v.k.)
 ‘I witnessed the step-by-step genesis of this project as each person’s ideas.’

It also passes [CF]...

- (609) La genèse rapide de ce projet nous permettrait de le réaliser avant la fin de l’année.
 ‘The rapid genesis of this project would allow us to complete it before the end of the year.’

... and [IN-X], cf. (610).

- (610) La genèse en quelques mois de ce projet complexe a nécessité une coordination étroite. (v.k.)
 ‘The genesis in a few months of this complex project required close coordination.’

Although its use with the prenominal negation is uncommon, we do find some sporadic instances where the meaning is either ‘the fact of not being born’, as in (611a), or ‘ex nihilo arising’, as in (611b).

- (611) a. la non-genèse de l’État (J. Morsel, 1996)
 ‘the non-genesis of the State’
 b. la non-genèse du poème (Y. Leclerc, 1989)
 ‘the non-genesis of the poem’

The noun *éclipse*_N ‘eclipse’ sometimes refers to the gradual decline, fading, or loss of prominence of something. In this sense, it passes [GRAD], cf. (612) and (613).

- (612) a. Dans de nombreuses démocraties dites libérales, la formalisation juridique de normes favorables à l’investisseur et aux industries oligopolistiques a accompagné l’éclipse progressive des libertés politiques, illustrant la tension entre capitalisme et démocratie. (v.k.)
 ‘In many so-called liberal democracies, the legal formalization of norms favorable to investors and oligopolistic industries has accompanied the gradual eclipse of political freedoms, illustrating the tension between capitalism and democracy.’
 b. L’éclipse progressive des libertés politiques à mesure de la formalisation juridique de normes favorables à l’investisseur et aux industries oligopolistiques illustre la tension entre capitalisme et démocratie. (v.k.)

‘The gradual eclipse of political freedoms as the legal formalization of norms favorable to investors and oligopolistic industries progresses illustrates the tension between capitalism and democracy.’

- (613) L'**éclipse** progressive du rôle tutélaire de l'Église sur la famille **à mesure de l'essor du libéralisme économique** laisse la famille de plus en plus seule face aux nouvelles dynamiques sociales. (R.W., 2006)

‘The progressive eclipse of the Church’s tutelary role over the family as economic liberalism rises leaves the family increasingly isolated in the face of new social dynamics.’

Besides, *éclipse*_N also occasionally takes a *by*_P-P, cf. (614).

- (614) a. Plusieurs éruptions survenues de manière successive au début du XIIe siècle ont provoqué un phénomène d’obscurcissement de la Lune **lors de son éclipse par la Terre en 1110**. (Campus, 2020)

‘Several eruptions occurring successively at the beginning of the 12th century caused a phenomenon of the Moon darkening during its eclipse by the Earth in 1110.’

- b. Marie Bonaparte sera l’ambassadeur le plus connu de la psychanalyse, d’abord dans son impulsion à faire traduire l’œuvre de Freud puis en tant que psychanalyste elle-même, **jusqu’à son éclipse par l’arrivée de la nouvelle génération de psychiatres et psychologues**. (WEB, 2022)

‘Marie Bonaparte will be the most well-known ambassador of psychoanalysis, first through her drive to translate Freud’s work and then as a psychoanalyst herself, until her eclipse by the arrival of the new generation of psychiatrists and psychologists.’

- c. Le Panthéon est une merveille architecturale étonnante, **malgré son éclipse par d’autres structures emblématiques mondiales**. (WEB)

‘The Pantheon is an astonishing architectural marvel, despite its eclipse by other iconic structures worldwide.’

It may also be found among other (AS)-Ns, cf. (615).

- (615) Il retracera l’histoire de la navigation intérieure avant la création du canal du Midi, pour élaborer sur la place et le rôle de celui-ci dans cette histoire, son **avènement** dans la France du XVII^e siècle sous le règne de Louis XIV, son **éclipse** par les réseaux très nombreux du nord de la France, sa **renaissance** via la navigation touristique et son **inscription** au Patrimoine mondial de l’Humanité de l’Unesco. (WEB, 2019)

‘It will trace the history of inland navigation before the creation of the Canal du Midi, to elaborate on the place and role of the latter in this history, its advent in 17th

century France under the reign of Louis XIV, its eclipse by the numerous networks in northern France, its revival through tourist navigation, and its inscription on the UNESCO World Heritage list.’

Let us also briefly discuss the case of *métamorphose*_N ‘metamorphosis’. It could derive from *métamorphoser*_V ‘metamorphose’, but the pattern regarding *-ose* nominals in general would point towards the other way, i.e. the verb deriving from the noun. Borer (2013: 57, fn. 9) notices its event properties in English. See my own examples in (616).

- (616) a. To prepare for her **metamorphosis** into Gertie Nevels, she lived with two separate Appalachian families. (New York Times, 1984)
- b. Drawn by her bewitching eyes, men begin falling in love with her even before she takes her new name, Sayuri, symbolizing her **metamorphosis** into a professional geisha. (New York Times, 1997)
- c. Her **metamorphosis** into a Dionysian goddess meant... (New York Times, 2019)

She states that “the status of *metamorphosis* as an underived noun is itself in question, as a great many native speakers of English accept *metamorphose* as a verb”. However, the existence of *metamorphose*_V — borrowed from French — does not entail that it be the source of *metamorphosis*_N. Consider for instance Fr. *nécrose*_N ‘necrosis’, which passes [IN-X], [GRAD] and [CF], as shown in (617).

- (617) a. En cas de contact avec le jet, une **nécrose en quelques heures** des tissus surviendra. (WEB, 2022)
‘In case of contact with the jet, necrosis of the tissues will occur within a few hours.’
- b. La **nécrose** progressive des os du pied *à mesure de l’évolution de la maladie* met en péril la carrière du jeune tennisman. (V.K.)
‘The progressive necrosis of the foot bones as the disease advances jeopardizes the young tennis player’s career.’
- c. Ce patient doit être pris en charge en urgence absolue: la **nécrose** de son pancréas lui *serait* fatale. (V.K.)
‘This patient must receive immediate emergency care: necrosis of his pancreas would be fatal.’

Similarly, the noun *nécrose*_N is highly unlikely to be derived from *nécroser*_V ‘necrotize’: just like Eng. *necrotize*_V, *nécroser*_V means ‘undergo necrosis’ and thus, this is clearly a denominal from *nécrose*_N. See (618).

- (618) a. ✓ {*nécrose*_N → *nécroser*_V}
b. * {*nécroser*_N → *nécrose*_V}

Also worth mentioning is *apothéose*_N ‘apotheosis’, which, similar to *métamorphose*_N but also *ascension*_N ‘ascension’ — the later being semantically very close, exhibits transitivity alternation — an indication, remember, of the presence of a full verbal phase (see *supra*, § 3.2.2.2). In many occurrences, the process denoted by *apothéose*_N is construed as spontaneous; see (619).

- (619) Quant à leur union avec Dieu et leur **apothéose**, ils l’ajournent. (1879)
 ‘As for their union with God and their apotheosis, they postpone it.’

A transitive reading should be assumed when the nominal is interpreted as an action, as in (620).

- (620) a. L’empereur ordonna l’**apothéose** d’une jeune Vierge. (1835)
 ‘The emperor ordered the apotheosis of a young Virgin.’
 b. Octave autorisa l’**apothéose** de César. (1865)
 ‘Octavian authorized the apotheosis of Caesar.’

As expected from any (AS)-N, it passes [GRAD]...

- (621) Dans ce poème mystique, on assiste à l’**apothéose graduelle** de l’esprit. (R.W., 2021)
 ‘In this mystical poem, we witness the gradual apotheosis of the spirit.’

... but, as only (Φ)-Ns can do, it also passes [MODUL], cf. (622).

- (622) La **non-apothéose** de César aurait choqué le peuple. (V.K.)
 ‘The non-apotheosis of Caesar would have shocked the people.’

Let us finally mention *-cyt-ose*_N nominals, which also involve causativity (see 623).

- (623) a. °*phagocyter*_V ‘phagocytize’
 la **phagocytose** des corps résiduels par les cellules de Sertoli (R.W., 2014)
 ‘Phagocytosis of residual bodies by Sertoli cells.’
 b. °*endocyter*_V ‘endocytize’
 le processus d’**endocytose** massive des protéines par le tissu adipeux (WEB)
 ‘The process of massive endocytosis of proteins by adipose tissue.’

The Greek noun *kútos*_N ‘shell’ was not eventive in Greek. The eventive meaning was built within the French grammar, which seems to illustrate the fact that the syntax of the target language is eventually in command of the structure. Now, I will develop this exact point based on borrowings from English.

4.2.3.2 Borrowings: *hold-up*_N, *crash*_N and *coming-out*_N

In French, a number of borrowed nominals have (AS) properties. The following borrowed nominals pass all the tests for eventivity: *crash*_N and *coming-out*_N. They pass [IN-X], [CF],

[GRAD], and [I-TEMP] (i.e. they take preposed temporal modification as defined and analyzed in subsection 4.3.2 *infra*), thus qualifying them as (Ψ)-Ns. First, they pass [IN-X], cf. (624).

- (624) a. Le **coming-out** *en une fraction de seconde* de mon meilleur ami me surprit. (v.k.)
 ‘The coming out in a fraction of a second of my best friend surprised me.’
 b. Le **crash** *en une fraction de seconde* de cet hélicoptère effraya les habitants. (v.k.)
 ‘The crash in a fraction of a second of this helicopter frightened the inhabitants.’

Second, they pass [CF], cf. (625).

- (625) a. Le **coming-out** de ton grand-père me surprendrait beaucoup. (v.k.)
 ‘The coming out of your grandfather would surprise me a lot.’
 b. Le **crash** de cet avion causerait un énorme choc. (v.k.)
 ‘The crash of this plane would cause a huge shock.’

Moreover, they pass [I-TEMP], i.e. accept temporal modification directly after the head noun (see *infra*, § 4.3.2.1), cf. (626).

- (626) a. film sur le **crash** *en 1944* d’un avion allié au-dessus de Nistos (WEB, 2019)
 ‘Film about the crash in 1944 of an allied plane over Nistos.’
 b. dans l’enquête sur le **crash** *en 2009* du vol AF447 d’Air France (WEB)
 ‘In the investigation of the 2009 crash of Air France flight AF447.’

Finally, they pass [GRAD], cf. (627).

- (627) a. le **crash** progressif de l’économie [✓ à mesure de l’aggravation de la crise]
 inquiéta les citoyens (v.k.)
 ‘The progressive crash of the economy [as the crisis worsened] worried the citizens.’
 b. Dans son ouvrage illustré, l’auteur racontait le **coming-out** progressif d’un adolescent gay [✓ à mesure de sa prise de conscience]. (Têtu, 2021)
 ‘In his illustrated book, the author recounted the progressive coming-out of a gay teenager [as he became aware].’

Now, let us discuss *hold-up_N* ‘hijacking’, which also passes these tests. Here in (628), even the WLR, i.e. the weaker version of Borer’s claim, is challenged: within French and understood as ‘hijack’, *hold-up_N* does not have “a history of having been a verb”.

- (628) Tout cela, c’est pour occulter le **hold-up** permanent du pays par les puissants ! (J.-L. Mélenchon, 2012)
 ‘All of that is to occult the permanent hijacking of the country by the powerful!’

The English word *hold-up*_N is essentially attested as an (AS)-N in the sense of ‘retention’, cf. (629) — a meaning that French did not retain.

- (629) a. put an end to Nancy Pelosi’s politically motivated **hold-up** of the impeachment articles (The Washington Times, 2019)
- b. in view of the constant **hold-up** of the large volume of traffic (UK parliament, 1960)
- c. They shared concerns about the **hold-up** of the money at a time when Lebanon is facing massive civil unrest. (Senator Chris Murphy, 2019)

According to *TLF*, the English term *hold-up*_N is attested as early as 1837, denoting a stop or the obstruction of a vehicle’s progress — following the common meanings ‘to retain’ and ‘to prevent’ from the verb *hold*_V. By 1878, the term had evolved to refer specifically to an *armed robbery*. It takes a theme and an agent, as seen in (630).

- (630) a. the hold-up of two messengers of a national bank in Greenpoint by thieves (New York Times, 1921)
- b. the hold-up of two diamond dealers at Fifth Avenue and Forty-eighth Street on Jan. 11, 1926 (New York Times, 1927)
- c. He describes the Dalton’s ill-fated simultaneous hold-up of two banks. (Oscar Osburn Winther, 1956)

The loanword, dated to 1925 according to Rey *et al.* (2016), was apparently borrowed *along with the AS projected in the original language*, cf. (631).

- (631) Onze amis se réunissent pour monter le fantastique **hold-up** simultané de cinq casinos de Las Vegas. (Larousse.fr)
- ‘Eleven friends gather to set up the fantastic simultaneous hold-up of five Las Vegas casinos.’

According to Borer (2003), Hebrew *transformacia*_N does not project AS, a fact that she correlates with its being a borrowed word. However, in light of the cases just discussed, it seems that this principle does not always hold. Nonetheless, it does not mean, I believe, that those words were borrowed along with their properties, as if these properties were merely idiosyncratic — which I have demonstrated is not the case. Instead, it seems to indicate that the grammar of French has been able to abstract the Roots from them and reinsert them into its own structures, analogically reflecting their original grammatical properties.

Now elaborating on the differences between (Φ)-Ns and (Ψ)-Ns, reviewed throughout the section, the following conclusions emerge. The source of (Φ)-Ns — unlike that of (Ψ)-Ns — is an *L-Phase*: a phasal structure, in principle lexicalizable. The phase head, named ∇, introduces Modulation of the internal predicate. It licenses the internal reading of Modulation Particles,

manner/degree adverbial modification, and event vs. mode ambiguity. A hypothesis is that ∇ can, in some cases, be overtly spelled out, possibly by means of Third-Stem morphology. Furthermore, not all nominalizers select for AspP or ∇ P. Only the suffixes that bear the relevant Modulation feature can attract the Modulation value to be spelled out at [Spec, KP]. Those relevant exponents correspond to the set of V-selecting nominalizers that Borer (2013) calls *ATKS*. In French, one of them is phonologically null. The other sort of nominalizers, spelled out as e.g. *-Ø*, *-ade* or *-aille*, directly selects for v/Voice, thus nominalizing a *Bare Base*, i.e. a structure smaller than an L-Phase. Since the nominalizer of Ψ -Ns does not select for phases, the event meaning is not compositional: it cannot be inferred from the meanings of its parts, as no phonologically identifiable base stands out.

4.3 The Structure of $\overline{\text{AS}}$ -Ns

The aim of this section is to determine all the structures of the different types of $\overline{\text{AS}}$ -Ns, based on the information collected throughout this research. First, I will provide evidence of what I have until now rather assumed, i.e. that the structures that denote Modulated eventualities are phasal. This is the point of departure whence to infer the overall building principle of Φ -Ns. The second step is to refine our knowledge of the structure of Φ -Ns and Ψ -Ns by observing the scope of spatiotemporal modification in $\overline{\text{AS}}$ -Ns but also in $\overline{\text{non-AS}}$ -Ns, all while keeping in mind what we have established in section 2.2, namely that $\overline{\text{AS}}$ -Ns denote event kinds. Comparisons will be the key in order to understand what type of modifier needs a vP, what what needs a ∇ , and what type does not need anything. I will then propose representations for Ψ -Ns and for Event and Agent Φ -Ns. As a last step, I will make a proposal for a unified account of Manner and Quality nominals, arguing them to be Φ -Ns expressing the δ variable itself.

In accordance with this outline, the section is organized as follows. Subsection 4.3.1 questions the lexicalist view of so-called *bound* bases and makes the claim that bases of Φ -Ns, whether lexicalized or not, are *phases*, i.e. structures that correspond to a locality domain for contextual allomorphy (cf. Marantz 2007, 2013). I shall argue that Φ -Ns (i.e. $\overline{\text{AS}}$ -Ns with stronger verbal properties) are built on an *allomorphic structure*: the base is a special kind of syntactic output, one having both a fixed *phonological representation* and a fixed *primary meaning* (cf. *supra*, section 1.2): a *phase*. Modulated Predicates are inherently compatible with temporal extension, which manifests through ∇ P being selected for by Asp. LNs, for their part, lack a syntactically encoded scalar structure and thus, lack an AspP projection. Subsection 4.3.2 investigates spatiotemporal modification of $\overline{\text{AS}}$ -Ns and $\overline{\text{non-AS}}$ -Ns, in order to collect clues for our understanding of their internal structure. Subsection 4.3.3 gives a clearer view of the properties of non-quantized nominals. I will especially demonstrate that the internal structure of Unergative $\overline{\text{AS}}$ -Ns requires Outer Aspect. Subsection 4.3.4 addresses the respective

structures of Agent and Event (Φ)-Ns. subsection 4.3.5 makes the proposal that Quality and Manner Nominals are *Mode*-denoting (Φ)-Ns.

4.3.1 Bound Bases as Phasal Structures

In this section I will elaborate on the nature of (Φ)-Ns (i.e. (AS)-Ns which exhibit stronger verbal properties as shown in subsection 4.1.1 *supra*). The notion of *bound bases* relies on the assumption that bases should be related to autonomously existing Ls, but the present research precisely argues against this view. For lexicalist approaches, the lexeme is an abstract entry to which relates a set of occurring forms, i.e. a word abstracted from any kind of inflectional variation. However, the idea that bases should, whenever possible, be related to an autonomously existing lexeme, is misleading. Specifically, the definition of bound bases as *stems of lexemes* is problematic. The stem, as conceived in lexicalist literature, is the practical and phonologically manifest counterpart of the lexeme, which is a theoretical entry abstracted from and subsuming the set of all possible stems in actual use. The stem, thus, is one particular realization of a lexeme; in the sense of J. Lyons (1977: 513, fn. 2; 521–522), it is “the form to which inflexional [...] affixes are added”.¹

§ 4.3.1.1 introduces bound bases of (AS)-Ns. § 4.3.1.2 discusses Marantz’s (2001, 2007) *Two-Places* hypothesis. § 4.3.1.3 addresses so-called *suppletive* bases, arguing them to possess their own independent meaning. § 4.3.1.4 provides data hinting at Third-Stem morphology spelling out the phase head. § 4.3.1.5 further confirms the previous idea by showing that compositional meaning also emerges from unlexicalized phasal bases.

4.3.1.1 Bound Bases

Most (AS)-Ns have a source which, although not necessarily attested as an autonomous stem, exists in the language as a morpheme of some sort; e.g. such words as *auditif_A* ‘auditory’, *audible_A* ‘audible’, *auditoire_N* ‘audience’, or *audience_N* ‘hearing’ could not denote what they denote without deriving from a common verbal structure *aud(-it)_V* ‘listen’. That is, we can *isolate a phonologically identifiable and semantically interpretable* core element that is a base for compositional building of the denotation of the structure. In morpheme-based lexicalist approaches, such elements have a status similar to that of autonomous words, and rightfully so: they correspond to phonological spellouts of logical forms. Acknowledging Chomsky (2000) and Marantz (2013) and approach, this sort of autonomy is the hallmark of a *phase*.

French borrowed a substantial number of scholar Latin and Greek bases, which have been called neoclassical by Bauer (2003), cf. also Amiot & Dal (2007) and Villoing (2012). Thus,

¹For a critical discussion of the use of this term in lexicalist morphology, cf. Embick & Halle (2005); for its utilization within level-ordering theories, see Kiparsky (2021).

in a French dictionary such as the *TLF*, we find: *électrique*_A ‘electric’, *électron*_N ‘electron’, *électrocuter*_V ‘electrocute’, *électrifier*_V ‘electrify’ and *électrifier*_V ‘electrify’; but no nominal entry exists for *électr*_N ‘electr’. Bound bases, or, more precisely, bases which never occur in the shape of a self-sufficient word, constitute an issue for any morphological theory. They have a phonological representation as well as a meaning and, as has often been argued on the absence of selectional restrictions, everything happens as if they had category; but they are not part of a dictionary of words. Indeed, many French Ns are built on bases that lack a relationship to an autonomously attested stem. We owe Zwanenburg (1983: 80–107), as part of a thorough morphophonological classification work leading to a questioning of the word-based approach, a comprehensive and well organized catalog of French nominalizations whose base does not correspond to a lexically attested verbal correlate (see also Di-Lillo 1983). In (632), I mention examples among Zwanenburg’s, for which an (AS)-N reading is available.

- (632)
- | | |
|--|--|
| • <i>abnégation</i> _N ‘abnegation’, | • <i>médication</i> _N ‘medication’, |
| • <i>collation</i> _N ‘collation’, | • <i>oblation</i> _N ‘oblation’, |
| • <i>conflagration</i> _N ‘conflagration’, | • <i>ostentation</i> _N ‘ostentation’, |
| • <i>crémation</i> _N ‘cremation’, | • <i>péjoration</i> _N ‘pejoration’, |
| • <i>déperdition</i> _N ‘wastage’, | • <i>reptation</i> _N ‘reptation’, |
| • <i>déprédation</i> _N ‘depredation’, | • <i>rotation</i> _N ‘rotation’, |
| • <i>gestation</i> _N ‘gestation’, | • <i>tradition</i> _N ‘tradition’. |

(633) illustrates this point for a few of these nominals.

- (633)
- a. °*ostenter*_V ‘display’
 Il y avait au mur les éternels chromos évoquant les délices de la table par l’**ostentation** des gibiers rares et des fruits de Chanaan. (L. Bloy, 1897)
 ‘On the wall were the timeless chromos evoking the delights of the table through the ostentation of rare types of game and of fruits of Canaan.’
- b. °*trader*_V ‘transmit’
 La cession s’opère par la **tradition** du titre. (J. Jaurès, 1901)
 ‘The transfer is effected through the transmission of the title.’
- c. °*abnier*_V ‘abnegate’
 Je n’y vois que la déification de la matière et l’**abnégation** systématique de la pensée. (1844)
 ‘I see nothing but the deification of matter and the systematic abnegation of thought.’

I argue that the meaning of deverbal nominals is compositionally inherited, not from the verb as a lexeme, but from the underlying structure that may lexicalize as a verb. In order to illustrate this point, let me suggest the following example in (634).

- (634) {*rétorsion*_N ‘retorsion’, *rétorquer*_V ‘retort’}
- a. *rétorsion*_N ‘retorsion’
Riposte individuelle à un acte jugé agressif. (TLF)
 ‘An individual countermeasure to an act deemed aggressive.’
- b. *rétorquer*_V ‘retort’
Répondre sous forme de riposte. (TLF)
 ‘To respond in the form of a counterattack.’

The Idiosyncrasy Argument would assert that since the meaning of *rétorsion*_N ‘retorsion’ implies a response, possibly in the form of an action, while *rétorquer*_V ‘retort’ primarily refers to a verbal answer, it should prove that we are not dealing with a syntactic transformation from a verb into a noun. Although the observation is accurate, the theoretical claim purported to follow is incorrect. To address the example in (634), given that *rétorsion*_N takes the IPN, cf. (635), we can posit some verbal source structure *ré-tort*_V ‘respond to an attack in an undetermined form’. The noun *rétorsion*_N derives from this structure and inherits this meaning.

- (635) Le professionnel doit pouvoir s’appuyer sur un lien de confiance avec son groupe d’appartenance; il lui faut l’assurance de la **non-prédation**, de la **non-rétorsion**. (R.W., 2013)
- ‘The professional must be able to rely on a trust relationship with their group of belonging; they need the assurance of non-predation, of non-retorsion.’

As indicated in subsection 1.2.3 *supra*, I assume late insertion of conceptual content. In the light of contextual allosemy, I will argue that every (Φ)-N inherits its meaning directly from its actual phonological base, not from a related autonomously attested L. The meaning of the base of (Φ)-Ns is definitively locked by a head which takes the vP / aP-embedding projection as its complement and sends it for interpretation at the Logical Form interface. From this point, access is blocked to the other meanings of the root.

All *-ion* nominals, without exception, are built on the “Third Stem”, i.e. the theme of the latin supine. Productive building from native bases is achieved adding the *-ation* suffix, which is arguably a reanalysis of the combination of the affix *-at-* — which is the main allomorph of the Third Stem — with the suffix *-ion*. I will argue in favor of a non-allomorphic status of the so-called *Third Stem*. I contend that Third-Stem morphology is *not* a phonological variant of the base verb; rather, it spells out typically verbal functional material — which in lexicalized verbs is carried out by Tense-related allomorphy. One entailment of this claim is that Third-Stem verbs (e.g. *tracter*_V ‘tow’) can *never* constitute sources for the corresponding nominals (e.g. *traction*_V ‘traction’).

In DM, the notion of *stem* hardly makes sense because phonological material is added after computation. Bases are lexicalizable syntactic structures; I have called them *L-Phases*, because

their lexicalizations correspond to the traditional categories. They transmit their derivatives a hierarchically organized bundle of functional information, in a way that is not related to whether or how some autonomous version of them is attested. As a consequence, allomorphy, as construed in the lexicalist sense, is semantically determinant, as each distinct allomorph lexicalizes a unique structure with its own semantic properties. A set of typical example was given in § 3.1.2.3, where I showed that removing a phonological unit — as in e.g. *paternité_N* ‘paternity’ — may actually remove a whole projection. In most cases, French allomorphic bases correspond to scholarly bases inherited from the supine stem, which Aronoff calls the *Third Stem*. It is essential to precise that *allomorphic* is to be understood in the wide, interfacial sense, i.e. having in mind the two sides of the coin. The structure exerts some constraint onto the *Root*. According to the definition given in § 1.2.3.1 *supra*, the *Root* is merely an *index* that associates a *range of phonological realizations* with a *range of conceptual meanings*. What happens at the *Phase* is twofold. On one side, the Logical Form selects for the bit of meaning that best fits for polysemy resolution; on the other side, the Phonological Form selects for a possible exponent that matches the requirements.

An implication of this statement is that bases must be acknowledged as essentially self-sufficient spelled-out structures, not as stems of lexemes. More specifically, allomorphs of a single verbal base should not be construed as representational variants of a related verbal or adjectival lexeme: this conception, I claim, is erroneous. Rather, the allomorphic bases are distinct structures with distinct meanings, and they give rise to their own respective nominalizations. As I will show, there is no systematic one-to-one correspondence between phonological variation and semantic variation: a single allosemantic variant can be expressed through different phonological variants, and one same exponent may be polysemic. However, the crucial point is the following. I claim that (636) is the only way the phenomena that will be exposed on this section can be accounted for.

(636) **Ⓢ-Ns involve polysemy resolution prior to the nominalization process.**

DM is well equipped to properly account for the fact that different allomorphs can have different meanings. In DM, bases, contrary to Roots or Root complexes, are categorized. It follows that their meaning has already been fixed by the categorizer through root polysemy resolution. As such, bases are the minimal interpretable units, cf. Acquaviva (2009). A direct implication is that derivations on bases always trigger compositionality regardless of the existence of that base as an existing L. As was specified in § 4.3.1.2, polysemy resolution is a very specific interfacial mechanism which is not to be confused with idiosyncratic information associated with lexicalized structures, cf. Marantz (2013).

Marantz (2013: 105):

“[Marantz (2001)] is confusing if not simply wrong in conflating the notion of “idiom” with the notion of “special meaning” or “meaning choice” associated with polysemy. For the issue of root (and likely functional morpheme) polysemy, the relevant locality domain for “fixing” meaning appears to be the phase,

while for idioms, the domain is clearly larger. [...] Idioms, then, involve a type of meaning that is built on top of polysemy resolution.”

4.3.1.2 The *Two-Places* Hypothesis

As is well known, in the history of Romance languages and French in particular, many Latin bases have been borrowed so as to enrich the lexicon with terms of scholarly origin (cf. Marchand 1951). Following Bauer’s (2003: 13) terminology, qualified as *obligatorily bound*, here more simply *bound*, are elements “which cannot be word-forms by themselves”; it is therefore a synonym for *non-autonomous*. From a lexicalist perspective, the bound base may be regarded as an allomorphic base of a freely occurring word: *traduct*-_v in *traduction*_N and *traducteur*_N is related to *traduire*_v; *correct*- in *correction*_N and *corecteur*_N to *corriger*_v. But sometimes, this so-called allomorph is not even phonologically related. There are also historical suppletives: *traction*_N ‘traction’ and *tracteur*_N ‘tractor’, synchronically related to *tirer*_v ‘pull’, diachronically relate to *traire*_v ‘milk’; *résurrection*_N ‘resurrection’, synchronically related to *ressusciter*_v ‘resurrect’, diachronically relates to *ressurgir*_v ‘resurge’. Therefore, determining the exact threshold at which a verbal base should be considered as the source of a nominal presents a challenge: bases such as *tract*-_v and *résurrect*-_v could be regarded as verbs in their own right, rather than as stems of *tirer*_v and *ressusciter*_v. Indeed, *adduct*-_v, which is the source of *adduction*_N ‘adduction’ and *adducteur*_N ‘adductor’ cannot be regarded as the allomorphic form of a verb *adduire*_v ‘adduct’, since this such a lexical verb does not exist. Level-ordering approaches, introduced by D. Siegel (1974) and Allen (1978), assume, simplifying, two levels of affixation: level-I affixation is associated with Chomsky & Halle’s (1968) “+”-boundary, which is the edge of a unit that does not correspond to a freely occurring word, and level-II affixation, associated with “#”-boundary, which corresponds to where an affix attaches to an existing lexeme (cf. D. Siegel 1974: 102, Selkirk 1982: 89–106) (see also Kiparsky 1982). However, “#” affixation actually does not necessarily attach to a lexicalized base, see e.g. {*avènement*_N ‘avent’ ← °*avenir*_v ‘advene’}. Moreover — and crucially, the notion that “+” affixation should necessarily yield a non-compositional meaning is misleading, having induced the misconception that bound bases are necessarily category-neutral roots (see e.g. Selkirk 1982: 77–78).

Marantz (2001, 2007) introduces a phase-based version of DM. An early version of the *two-places-to-build-words* hypothesis is found in Marantz (2001: 6):

“One place to build words is in the domain of a Root, attaching a morpheme to the Root before attaching a functional head that determines the syntactic category of the word (N, V, Adj). A second place to build words is outside the domain of functional head that determines syntactic category – the little v’s, n’s, and a’s.”

The misconception is reflected in Arad’s (2005: 242) formulation (emphasis mine):

“The crucial distinction holds between creating words from roots [...] and creating words from *existing words*, that is, from roots that are already merged with some word-creating head.”

I will not make mine that version of the *two-places* hypothesis, which wrongly assumes a dichotomy between word formation from roots and word formation from existing words. As argued throughout this dissertation, the syntax does not see whether a word exists or not, i.e. whether a structure happens to be lexicalized in some specific real-world conditions. The real opposition, I claim, is not between building from a Root and building from a word, but between building on top of a first phase and building the first phase itself. I will, thus, fully embrace Marantz's (2007: 6) upgrade, where he states that "meaning contribution of a Root is never independently realized [...], since the objects of interpretation are the phases, not the roots". In this version, the first-phase head resolves Root polysemy instead of building on any previously available fixed meaning and consequently, the output of the first phase is by essence non-compositional. In sum, following Marantz (2007, 2013) (see also Anagnostopoulou & Samioti 2013), the opposition is really between derivation *within the domain of the first-phase head* and *outside* that domain.

Thus, uninterpretable bases of nominals do not necessarily lexicalize bare roots but may be "categorized", in the sense of having merged with either a or v. Bases that are phonologically identifiable and semantically interpretable, for their part, lexicalize a full-fledged verbal or adjectival phase, i.e. , I will show, more than a mere aP or vP, but a richer structure capable of licensing grammatical properties typically associated with Vs and As as lexically construed. This point is crucial and will be supported by the fact that while many French (AS)-Ns (i.e., (Φ)-Ns) are built on a phasal base, others (i.e. (Ψ)-Ns) are built on a non-phasal, albeit categorized base. Naturally, Root polysemy resolution is distinct from the kind of idiosyncrasy I have argued to pertain to Beard's derivate polysemy (cf. *supra*, § 1.2.2.4): the former precedes the first phase, the latter is built on top of subsequent phases. This is why Marantz (2013: 105–106) is careful to underline that Root allosemy on the one hand, and idiosyncrastic meanings on the other, are not to be confused:

"Clearly complex words can acquire special meanings and uses; like phrases, complex words can be idiomatic in the sense of conveying meanings not computable from the meanings of their parts. [...] For the issue of Root (and likely functional morpheme) polysemy, the relevant locality domain for "fixing" meaning appears to be the phase, while for idioms, the domain is clearly larger. [...] Idioms, then, involve a type of meaning that is built on top of polysemy resolution."

To conclude, "+" affixation is used to derive either a non-phasal structure, or a phasal one. In the former case, Root polysemy resolution is triggered and thus, we obtain a non-compositional meaning; in the latter case, a compositional meaning arises, because the structure takes as its input an already interpreted structure. Following Marantz (2007, 2013), the two places to build words are below and above the first *phase head*. Merging of the Root with a the relevant head marks the closing of the first phase: the structure is sent for semantic interpretation to the relevant component (*Logical Form* in Halle & Marantz 1993), which operation *resolves Root allosemy*, i.e. settles Root meaning once and for all. At this point, the meaning range of the Root is no longer accessible by further derivational operations. Thus, the Root is not interpretable before it merges with the first phase head. The newly built phasal structure can

now constitute a base and contribute to the compositional meaning of a derivative regardless of whether that categorized phrase ends up existing as an autonomous stem. Building on Marantz's (2013) theoretical assumptions regarding phasal derivation, the claim that the meaning of a Root is fixed in combination with a phase head should be understood as the claim that polysemy is resolved in the *complement domain* of the first phase head: the phase head sends its complement for interpretation. AS-projecting structures, whether phasal or non-phasal, may thus transmit their AS to derivatives, i.e. upper structures — and nominalizations in particular.

4.3.1.3 Allomorphy and Semantic Mismatch

Building on the discussion in § 3.1.1.1 *supra*, *-ion(n)_N-er_V* verbs do not constitute potential sources for *-ion* (AS)-Ns. Now consider the pair {*impression_N* 'printing', *impressionner_V* 'impress'}, as in (637) below.

- (637) Je fus impressionné de l'impression de ce billet en à peine une seconde. (v.k.)
 'I was impressed by the printing of this ticket in barely one second.'

The *Semantic Matching Condition* makes it impossible to consider *impressionner_V* as the source of *impression_N*, cf. (638a). The natural source for *impression_N* is *imprimer_V* 'print', cf. (638b).

- (638) a. * {*impression_N* 'printing' ← *impressionner_V* 'impress'}
 b. ✓ {*impressionner_V* ← *impression_N* ← *imprimer_V*}

Similar pairs are found in (639).

- (639) a. {*répression_N* 'repression' ← *réprimer_V* 'repress'}
 b. {*compression_N* 'compression' ← *comprimer_V* 'compress'}
 c. {*suppression_N* 'suppression' ← *supprimer_V* 'suppress'}
 d. {*dépression_N* 'depression' ← *déprimer_V* 'depress'}

The French counterpart of English *impress_V* does not exist: °*impresser*. Yet, my claim is that even if *impress_V* did exist, it could still not be argued to be the source of *impression_N*. Thus, while *oppresser_V* 'oppress' and *oppression_N* 'oppression' are semantically and phonologically related to each other, the meaning of a nominal headed by *oppression_N* is never compositional from the meaning of *oppresser_V*, cf. (640); rather, it clearly derives from *opprimer_V*, cf. (641).

- (640) a. Le silence oppresse nos douleurs muettes. (A. Jubelin, 1952)
 'The silence oppresses our mute pains.'
 b. # l'oppression de nos douleurs par le silence
 'the oppression of our pains by the silence'

- (641) a. Le principe du droit individuel ne peut que profiter aux plus forts : favorisant l'anarchie sociale, il prépare l'oppression du peuple par la bourgeoisie.
(J. F. Jacouty, 2003)
'The principle of individual rights can only benefit the strongest: by favoring social anarchy, it prepares for the oppression of the people by the bourgeoisie.'
- b. Ce peuple est [# opprimé / ✓ opprimé] par la bourgeoisie.
'This people is oppressed by the bourgeoisie.'

Now turning to {*compresser_v*, *compression_N*}, *compresser_v* would need, in order to qualify as a proper source verb, to denote at least the meaning range covered by *compression_N*. However, this is not the case. As the examples in (642a, b) show, the matching is between *compression_N* and *comprimer_v*. In (642a), nowhere could *comprimer_v* be replaced by *compresser_v*.

- (642) a. (i) Julien gardait un silence convulsif et s'efforçait de comprimer les émotions qui l'agitaient.
(J. Veillat, 1878)
'Julien maintained a convulsive silence and strove to restrain the emotions that stirred him.'
- (ii) Les rigueurs des autorités russes et les mesures pour comprimer les sentiments patriotiques semblent obtenir un effet contraire à celui que le gouvernement désire.
(*Journal du Lot*, 1861)
'The severity of the Russian authorities and measures to restrain patriotic feelings seem to have the opposite effect to what the government desires.'
- b. (i) Le grand artiste exerce d'autant plus d'empire sur ses élèves, qu'il justifie sa méthode par ses oeuvres ; comme s'il était plus possible de former un artiste par la compression de ses sentiments, que de rendre un homme libre en lui mettant des fers.
(1863)
'The great artist exercises all the more empire over his students, as he justifies his method by his works; as if it were more possible to form an artist by the compression of his feelings, than to make a man free by putting him in chains.'
- (ii) L'homme vit une conscience aiguisée, nerveuse, même tendue, qui est le résultat de la compression de ses émotions vis-à-vis de ses pensées.
(B. de Montréal, 1985)
'Man experiences a sharpened, nervous, even tense consciousness, which is the result of the compression of his emotions vis-à-vis his thoughts.'

Thus, the derivational schemas to be assumed are as in (643).

- (643) a. (i) $\left\{ \begin{array}{l} opprimer_V \\ oppresser_V \swarrow \searrow oppression_N \\ oppresseur_N \end{array} \right\}$
- (ii) $\left\{ \begin{array}{l} comprimer_V \\ compresseur_V \swarrow \searrow compression_N \\ compresseur_N \end{array} \right\}$
- b. $\left\{ \begin{array}{l} 'primer_V \\ presser_V \swarrow \searrow pression_N \\ presseur_N \end{array} \right\}$

As we can see in (644), *abrasion_N* passes DIV.

- (644) °*abrader_V* ‘abrade’ (°*abraser_V* ‘abrade’)

Ceci est dû certainement à l’abrasion simultanée de l’oxyde interne et de l’alliage du fait de la morphologie de la couche externe. (R.W., 2018)

‘This is certainly due to the simultaneous abrasion of the internal oxide and the alloy due to the morphology of the outer layer.’

Besides, the GRAD test confirms that *abrasion_N* is an (AS)-N, cf. (645).

- (645) a. Le dentifrice participe à l’abrasion progressive de l’émail des dents. (WEB, 2023)
‘The toothpaste contributes to the progressive abrasion of tooth enamel.’
- b. L’abrasion progressive de la gomme diminue la profondeur des rainures. (WEB)
‘The progressive abrasion of the rubber decreases the depth of the grooves.’

Finally, let us go back to *vision_N* ‘vision’. As argued in § 3.1.1.1 *supra*, the semantic matching condition points towards the *-ion(n)_N-ner_V* V not being the source, but the derivative. If the source of *vision_N* ‘vision’ were *visionner_V* ‘vision’, we would expect *visionner une image statique* to make sense, but it does not, as seen in (646b).

- (646) a. La vision successive de deux images statiques produit la perception d’un mouvement. (R.W., 2022)
‘The successive vision of two static images produces the perception of movement.’
- b. (i) [✓ voir / # visionner] une image statique
‘[see / vision] a static picture’
- (ii) [✓ la vue / # le visionnage] d’une image statique
‘the [sight / visioning] of a movie’

Furthermore, other types of objects work with *vision*_N but not with *visionner*_V, as (647) illustrates.

- (647) a. Le futur Buddha eut, par la **vision** successive d'un malade, d'un vieillard, d'un cadavre et d'un ascète, la révélation de la maladie, de la vieillesse, de la mort, et du salut. (R.W., 1998)
 'The future Buddha had, through the successive vision of a sick person, an old man, a corpse, and an ascetic, the revelation of sickness, old age, death, and salvation.'
- b. # visionner un malade, un vieillard, un cadavre, un ascète
 'vision a sick person, an old man, a corpse, an ascetic'

Now, judging by (648) below, that *vision*_N could derive from *voir*_V 'see' is a plausible hypothesis.

- (648) ✓ voir un malade, un vieillard, un cadavre, un ascète
 'see a sick person, an old man, a corpse, an ascetic'

The conjunction of aspectual modifiers in (649)–(646) seems to indicate an event reading. Notably, DIV is reliable because the modifier is theme-related.

- (649) On peut substituer à la vision confuse d'un ensemble la vision successive de chaque détail. Cela ne remplace point la vision claire et soudaine du tout, mais cela peut y acheminer. (L. Dauriac, 1899)
 'One can substitute the confused vision of an ensemble with the successive vision of every detail. This does not replace the clear and sudden vision of the whole, but it can lead to it.'

Admittedly, one straightforward nominalization of *voir*_V 'see' is *vue*_N 'sight', which has the form of the feminine past participle of *voir*_V and directly inherits its meaning range. Yet, similar to what we observe with e.g. {*réviser*_V 'revise' $\swarrow \searrow$ *révision*_N 'revision'}, {*viser*_V 'aim' $\swarrow \searrow$ *vision*_N 'vision'} seemingly involves prior polysemy resolution, and therefore, a phasal common source. In sum, *vision*_N 'vision' cannot be assumed to derive from *viser*_V 'aim' any more than *abrasion*_N 'abrasion' can be assumed to derive from *abraser*_V 'abrade'. In the system of French morphology, nominals built on the supine stem derive from a base verb built on the *infectum* stem. It means that bases built on this so-called third stem are necessarily verbal: nouns built on such a base are deverbal nouns, but also, verbs built on one are deverbal verbs modeled after the latin formation of the *intensive* variant of the base verb. The same is true for e.g. {{*fusion*_N $\swarrow \searrow$ *fuser*_V} ← *fondre*_V}. I will now narrow the argument on this point by submitting highly conclusive data.

4.3.1.4 Third-Stem Morphology as Phase-Head Spellout

My claim in the following demonstration will be that, generalizing what has just been shown for *pression*_N, *vision*_N or *fusion*_N, verbs built on the Third Stem are not sources for (AS)-Ns — that is, unless an additional productive *-at-* affix is appended to the base. Moreover, the aim of this discussion is to make a proposal as to the structural implications of this fact with respect to derived nominals. As previously argued, the two members of pairs such as {*pression*_N, *presser*_V} or {*vision*_N, *viser*_V} share a common ancestor. Consider, for instance, the family of *tirer*_V ‘draw’ and *-trag*^h_V-*t*_V-*ion*_N nominals. Fr. *traction*_N, although generally related to *tracter*_V ‘tow’, is, through a form of suppletion, synchronically construed as a nominalization of *tirer*_V ‘pull’, in the same way as *attraction*_N ‘attraction’ and *attentif*_A ‘attractive’ relate to *attirer*_V ‘attract’, cf. (650).

- (650) a. La **traction** simultanée des deux leviers freine le véhicule.
 ‘The simultaneous pulling of the two levers brakes the vehicle.’
- b. La **traction** simultanée des deux molaires provoque un stress. (R.W.)
 ‘The simultaneous pulling of the two molars triggers a stress.’
- c. La **traction** successive de deux manettes ne joue pas sur la dureté.
 (Le Monde, 1992)
 ‘The successive pulling of two handles does not affect the hardness.’

However, it can never convey other meanings of *tirer*_V ‘draw’, cf. (651):

- (651) Chaque tour commence par [# la traction / ✓ le tirage] aléatoire d’une carte.
 ‘Every turn starts with the random drawing of a card.’

The older verb *traire*_V ‘tirer’ is a native formation from Lat. *trahere*. While in compounds such as *distraindre*_V ‘distract’, *soustraire*_V ‘subtract’ and *abstraire*_V ‘abstract’, the V has been maintained, in others such as †*attirer*_V ‘attract’ and †*retirer*_V ‘remove’, however, it was replaced by two different counterparts, *tract*_V and *tir*_V, the latter being favored in verbs: {*attirer*_V ‘attract’, *attraction*_N ‘attraction’}, {*retirer*_V ‘remove’, *retrait*_N ‘removal’}. Yet, the expected sources are not necessarily lexicalized. The N *détraction*_N ‘detraction’, for its part, along with its agentive counterpart *détracteur*_N ‘detractor’, lacks a widely attested second-phase verb ■*détracter*_V ‘detract’, of which we nevertheless find solid examples.

- (652) Les contempteurs du chanteur auront d’ailleurs ici moins matière pour le détracter.
 (Liberation, 2016)
 ‘The contemners of the singer will also have less material here to detract him.’

Importantly, the fact that not all users of *détracteur*_N are aware of the existence of *détracter*_V does not hinder internal modification, cf. (653). Speakers, however, tend to understand the meaning of *détracter*_V on the basis of their knowledge of *détracteur*_N. As a side remark, this is also how *détracter*_V was historically built (see *TLF*); it is, so to speak, an old back-formation

that has never caught up to its nominal agentive counterpart in terms of actual use — and not in any way the source of the latter. Thus, all happens as if *détracter*_v had never ceased to be available as a possible output of the exact same structure that makes *détracteur*_N the lexicalized form of a grammatically valid structure.

(653) °*détraire*_v ‘detract’ (cf. ∘*détracter*_v)

- a. Le rapporteur regrette la détraction systématique de la bibliographie.
(R.W., 2003)
‘The reviewer regrets the systematic denigration of the bibliography.’
- b. Le mépris de Stendhal pour Grenoble est seulement une rancune d’enfant.
Grenoble en a longtemps voulu à son **détracteur** occasionnel. (1913)
‘Stendhal’s contempt for Grenoble is merely a childhood grudge. Grenoble has long been resentful of its occasional detractor.’

In sum, while, from a paradigmatic view, *détirer*_v or *détraire*_v would be the expected source from a lexicalist perspective, both are absent from the lexicon. Yet, should this source exist, that would change nothing to the fact that ∘*détracter*_v is on the same level as *détracteur*_N and *détraction*_N ‘detraction’; this is represented in (654).

(654) $\left\{ \begin{array}{c} ?détraire_v \\ \begin{array}{c} \text{détracter}_v \ \updownarrow \ \text{détracteur}_N \\ \text{détraction}_N \end{array} \end{array} \right\}$

However, the following pairs are not so clear: {*contracter*_v ‘contract’, *contraction*_N ‘contraction’}, {*rétracter*_v ‘retract’, *rétraction*_N ‘retraction’} (see 655).

(655) Cette démythification est donc en même temps une palinodie — la **rétraction** des opinions précédentes et la **détraction** systématique d’un genre littéraire. (R.W., 1992)
‘This demythification is thus at the same time a palinode — the retraction of previous opinions and the systematic detracting of a literary genre.’

I here propose that Third-Stem allomorphy, here *tract*_v spells out a phase. Evidence is given by a clear semantic contrast between *-trag*^h_v-*t*_v-*ion*_N nominals, which, I argue, lexicalize the nominalization of a verbal first phase, and *-trag*^h_v-*t*_v-*at*_v-*ion*_N nominals, built on the verb that lexicalizes the first phase, i.e. on a second verbal phase. Strikingly, *rétractation*_N ‘retraction’(of a client) and †*contraction*_N ‘contraction’ (of a loan) can only access the agentive interpretations of (*se*) *rétracter*_v ‘retract’ and (*se*) *contracter*_v ‘contract’, never the unaccusative ones. Now, this is fully predicted if *retract*_v and *contract*_v lexicalize first phases, and *rétract-at*_v and *contract-at*_v second phases. If *-at* closes the second phase, then its function is to fix the meaning of the higher verb, taking the lower verb *retract*_v or *contract*_v — whose meaning is already sealed off — as its input. Note that crucially, the converse does not hold:

*rétraction*_N and *contraction*_N, for their part, are widely attested in the sense of *rétractation*_N and *contractation*_N. This is illustrated in (656).

- (656) a. (i) la [✓ *rétraction* / # *rétractation*] du diaphragme
 ‘the [retraction / retractation] of diaphragm’
 (ii) la [✓ *contraction* / # *contractation*] du diaphragme
 ‘the [contraction / contractation] of diaphragm’
 b. (i) la [✓ *rétraction* / ✓ *rétractation*] du client
 ‘the [retraction / retractation] of the client’
 (ii) la [✓ *contraction* / ✓ *contractation*] du prêt
 ‘the [contraction / contractation] of the loan’

As we can see, (*se*) *rétracter*_V can, in one of its possible senses, mean ‘to withdraw’ (from an agreement, a purchase, etc.), and crucially, *rétractation*_N inherits this agentive meaning exclusively: it does not have access to the other allosemes of $\sqrt{\text{retract-}}$, i.e. those that are selected in an unaccusative context. The same is true for *contractation*_N, which only inherits the specialized meaning ‘contract’ (a loan, a policy, etc.). To the exact opposite, the nominalizations *contraction*_N and *rétraction*_N have access to the whole allosemantic range. Nothing surprising, here. That the denotations of *rétraction*_N and *contraction*_N have at their disposal the whole array of meanings available at the Root, is fully predicted if, nominalizing first phases, they have no problem finding their way to the Root.

Now, if those two pairs are derived from the structures that used to lexicalize into $\dagger\text{retraire}_V$ and $\dagger\text{contraire}_V$, then we expect that each of those archaic verbs should be attested with both of the meanings mentioned above.¹ This is borne out (data from *DMF*). Thus, that *rétraction* and *contraction* may access a greater meaning range than their *-at_V-ion_N* counterparts is predicted if they are built, not on second-phase verbal structures, i.e. *re-trag^h-t_V-at_V-* and *con-trag^h-t_V-at_V-*, but on first-phase verbal structures, namely *re-trag^h-t_V-* and *con-trag^h-t_V-*: being built on a first phase, they retain the whole meaning range of their respective Roots. The derivation patterns are therefore assumed to be as in (657).

- (657) a. (i) $\{\{ \text{rétracter}_V \swarrow \searrow \text{rétraction}_N \} \leftarrow \dagger\text{retraire}_V \}$
 (ii) $\{\{ \text{contracter}_V \swarrow \searrow \text{contraction}_N \} \leftarrow \dagger\text{contraire}_V \}$
 b. (i) $\{ \text{rétractation}_N \leftarrow \text{rétracter}_V \}$
 (ii) $\{ \text{contractation}_N \leftarrow \text{contracter}_V \}$
 c. (i) $* \{ \text{rétraction}_N \leftarrow \text{rétracter}_V \}$
 (ii) $* \{ \text{contraction}_N \leftarrow \text{contracter}_V \}$

¹Their Latin counterparts *retrahere* and *contrahere* are built on maybe $\sqrt[2]{\text{re-trag}^h-}$ and $\sqrt[2]{\text{con-trag}^h-}$, respectively (see de Vaan 2008).

What emerges is the existence of allosemantic networks within each of which a particular idiosyncratic specialization is expressed. Different bases convey distinct nuances.

- (658) a. un métier [✓ attractif / # attirant]
 ‘an [attractive / attracting] job’
 b. un garçon [# attractif / ✓ attirant]
 ‘an [attractive / attracting] boy’

*attrayant*_A ‘appealing’, the verbal adjective of *attirer*_V, conveys a nuance of something which provides some pleasure, which is also shared by *attrait*_A ‘attractiveness’, while *attractif*_A ‘attractive’ does not contain that idea. *attirant*_N ‘attracting’ mostly retains the idea of *emotional interest* ‘arouse the desire of someone’, and so does *attraction*_N ‘attraction’. But crucially, exactly as we are going to see for *envahissement*_N ‘invading’, its *primary meaning*, as defined in section 1.2, is apparently strictly compositional from *attirer*_V ‘attract’, whose range of possible interpretations it faithfully retains:

- (659) a. l’attrance d’un aimant (*TLF*)
 ‘the attractancy of a magnet’
 b. Le mal a mille et une facettes, et exerce une certaine attrance.
 (*Le Parisien*, 2019)
 ‘Evil has a thousand and one faces, and exerts a certain attraction.’

This ambiguity in the interpretation, allowed by this inheritance of the meaning range of the base verb, was intended by the creator of this word, Charles Baudelaire, cf. (660).

- (660) Ces actions n’ ont d’ attrait que parce qu’ elles sont mauvaises,
 those actions have attractiveness only because they are bad
 dangereuses; elles possèdent l’ attrance du gouffre. (C. Baudelaire, 1857)
 dangerous they possess the attractancy of the chasm

Similarly, if *attirement*_N ‘attracting’ is essentially found under the affective sense as in (661), it nonetheless allows ambiguity between a literal and a figurative interpretations, implying inheritance from a neutral primary meaning awaiting further interpretation; see (662).

- (661) légaliser les attirements de nos deux cœurs (S. Mallarmé, 1863)
 legalize the attractings of our two hearts
- (662) Je me suis surpris à avoir presque peur de l’attirement que produit le tournoiement
 des grandes machines, l’action enveloppante de l’engrenage: cela a quelque chose de
 la fascination du vide. (E. & J. de Goncourt, 1873)
 ‘I surprised myself being almost afraid of the attraction produced by the of the big
 machines, by the wrapping action of the gearing: it has something of the fascination
 for the void.’

In (663a.i, b.i), the context favors the notion of charm and pleasure, while in (663a.ii, b.ii), the idea of financial interest dominates.

- (663) a. (i) Cette région vallonnée [✓ présente un certain attrait pour / ?# exerce une certaine attraction sur] les touristes.
 ‘This hilled region [presents a certain attractiveness for / exercises a certain attraction over] the tourists.’
- (ii) Cette région économiquement dynamique [✓ exerce une certaine attraction sur / ?# présente un certain attrait pour] les investisseurs.
 ‘This economically dynamic region [exercises a certain attraction over / presents a certain attractiveness for] the investors.’
- b. (i) une région [✓ attrayante / ?# attractive] de par ses reliefs
 ‘an [appealing / attractive] region thanks to its landforms’
- (ii) une région [✓ attractive / ?# attrayante] de par son dynamisme économique
 ‘an [attractive / appealing] region thanks to its economical dynamism’

Note that, although this is not a listed meaning, *attraction*_N is sporadically used by speakers to nominalize the agentive sense of *attirer*_V, thus proving the former noun to be synchronically derived from the later verb.

- (664) a. Les véritables causes de l’antisémitisme sont donc l’usure, qui est souvent tragique, et le vampirisme, l’attraction vers soi-même de tout ce qui peut être pris. (R. Dommergue, 2012)
 ‘The real causes of antisemitism are therefore usury, which is often tragic, and vampirism, the attraction to oneself of all that can be taken.’
- b. le clivage comme instrument de mobilisation politique n’interdit pas de rechercher parallèlement ce qu’on a pu appeler l’ouverture et qui se manifeste d’ordinaire par l’attraction à soi de quelques personnalités d’opposition. (R.W., 2021)
 ‘The divide as a tool of political mobilization does not prevent seeking in parallel what has been called openness, which usually manifests as the attraction to oneself of a few opposition personalities.’

The conclusion I draw from those observations is that there is not one verb that means ‘attract’, but two: *attirer*_V, which, like *attraction*_N and *attractif*_A, is open to interpretation, but whose verbal adjective and *-ance* nominalization have developed idiosyncratic specialization; and †*attirer*_V, the meaning of whose derivatives is associated to the notion of *seduction*. If we regard bases as stems of lexemes, we have to redundantly list conceptual nuances for each of the derivatives associated to a single allomorph, i.e. for *attrait*_N and *attrayant*_A. If, by contrast, such

variants are acknowledged as meaningful structures in their own right, the various derivatives can be assumed to share a common part of meaning, which is less costly in terms of explanatory adequacy. The notion of lexical sourcelessness can therefore apply to such derivatives.

From these data, I conclude that Third-Stem morphology may either resolve Root polysemy, or fix the meaning of a second phase. In other terms, in the present account, it spells out the ∇ head. More evidence is given by *assassinat_N* ‘assassination’. Contrary to Eng. *assassination_N*, Fr. *assassinat_N* is directly nominalized by Third-Stem morphology, without an additional suffix. Crucially, Third-Stem morphology is enough to allow it to take IMPs and pass [XPX], showing its internal structure to encode a scale, cf. (665).

- (665) a. (i) Pendant qu’il était en prison, il a même adressé une lettre à l’épouse de Martin Dummon pour négocier le *non-assassinat* de son mari.
(I. Gottot, 2021)
‘While in prison, he even sent a letter to Martin Dummon’s wife to negotiate the non-assassination of her husband.’
- (ii) Les dirigeants sionistes regrettent le non-assassinat d’Ahmadinejad et menacent le Liban
(WEB, 2010)
‘Zionist leaders regret the non-assassination of Ahmadinejad and threaten Lebanon.’
- (iii) Constatant que le non-assassinat de Kennedy n’a pas rendu les USA meilleurs, Jake retourne en 1960 et ce faisant efface tout ce qu’il a fait.
(WEB, 2016)
‘Realizing that the non-assassination of Kennedy has not made the USA better, Jake returns to 1960 and in doing so erases everything he has done.’
- b. L’assassinat progressif de l’artisanat région par région est un fait déplorable.
‘The progressive assassination of craft industry region by region is a deplorable fact.’

If indeed, Third-Stem morphology spells out ∇ , we expect *assassinat_N* to be a \textcircled{D} -N — which is apparently borne out. Note that, as argued in § 4.1.2.1 *supra*, in numerous status-denoting Ns such as *consulat_N* ‘consulate’ and *épiscopat_N* ‘episcopate’, or in deadjectivals such as *anonymat_N* ‘anonymity’, the *-at* suffix plays exactly the expected role of turning an entity predicate into something that oscillates between a Quality and a State readings. One head, one abstract morpheme: this all fits together. Third-Stem morphology spells out the Phase Head, which turns a Bare Base into an L-Phase, or an L-Phase into a bigger L-Phase. Thus, one ∇ is required for each and every L-Phase that enters the derivation.

I will now provide further evidence of the phasal structure of Modulated internal predicates.

4.3.1.5 Compositional Meaning from Unlexicalized Phases

Contrary to the common understanding, composition arises independently of whether a base is lexicalized or not. Consider the pair {*invasion*_N ‘invasion’ $\swarrow \searrow$ *invasif*_A ‘invasive’}, built on the Third-Stem morphology of *envahir*_V ‘invade’. The two members of the pair share as a common meaning the idea of a high-scale event, which is not necessarily induced by *envahir*_V. Indeed, while the noun *invasion*_N receives idiosyncratic information with the idea of a historical, possibly violent event, *envahissement*_N ‘invading process’ and *envahissant*_A ‘invading’, regularly built from *envahir*_V, for their part lack this connotation; see (666).

- (666) a. ✓ l’ **envahissement** du village par les brocantiers
the invading of the village by the flea marketers
- b. # l’ **invasion** du village par les brocantiers
the invading of the village by the flea marketers

Thus, we note in (667) a sharp contrast between (667b), which represents the faithful transformation of (667a), and (667c), which adds the idea of an *aggression*.

- (667) a. Je n’apprécie pas le fait que mes parents envahissent mon espace vital.
‘I don’t like the fact that my parents invade my vital space.’
- b. Je n’apprécie pas l’ envahissement de mon espace vital par mes
I like not the invading of my space vital by my
parents.
parents
- c. Je n’apprécie pas l’ invasion de mon espace vital par mes parents.
I like not the invasion of my space vital by my parents

The nominalization in (668b) is clearly related to the fact that the event mentioned may be regarded as a major event. By contrast, reports regarding more ordinary invading actions almost systematically involve *envahissement*_N. Thus, the pair in (668) illustrates the contrast between, one the one hand, a process which is neutrally referred to, and could be an anecdotal event, and on the other hand, a historical event (which may be regarded as a threat to national security, with some people possibly badly injured).

- (668) a. l’ envahissement du Capitole par des partisans de Trump
the invading of the Capitol by supporters of Trump
(Libération, 2021)
- b. l’invasion du Capitole par des partisans de Trump *(Oise Hebdo, 2021)*
‘the invasion of the Capitol by trump supporters’

As shown in (669), *envahissement*_N always has a meaning that is strictly compositional from *envahir*_V, i.e. merely denotes an *invading process*, without additional nuance.

- (669) a. un lent envahissement de l' être entier (É. Zola, 1873)
 'a slow invading of the entire being'
- b. l'envahissement du gras de la joue par l'implantation des premiers poils des favoris (M. Proust, 1913)
 'the invading of the cheek fat by the implantation of the first sideburn hairs'
- c. l'envahissement de la ruelle de rochers par la tempête (V. Hugo, 1866)
 'the invading of the path of rocks by the seastorm'
- d. révoltée d'un pareil envahissement de sa route (É. Zola, 1880)
 'outraged by such an invading of her way'
- e. l'envahissement des champs de juridiction provinciaux par le gouvernement fédéral (D. Monière, 1983)
 'the invading of the provincial jurisdictional fields by the federal government'
- f. à la suite de l'envahissement du terrain par des supporters (*Le Monde*, 1992)
 'following the invading of the field by supporters'

For instance, during all protests having occurred in 2023 in France, *envahissement*_N was, according to web sources, used exclusively, cf. (670).

- (670) l'envahissement de la gare par quelques manifestants (*Midi Libre*, 2023)
 'the invading of the train station by a few demonstrators'

Interestingly, (671) highlights selectional restrictions which distinguish the two bases along the same vein, this time when using the corresponding adjectives.

- (671) a. une espèce [✓ invasive / # envahissante]
 'an [invasive / invading] species'
- b. un ami [# invasif / ✓ envahissant]
 'an [invasive / invading] friend'

{*invasion*_N $\swarrow \searrow$ *invasif*_A} is arguably derived from the base *in-vas*_V 'go into' the same way {*évasion*_N $\swarrow \searrow$ *évasif*_A}, related to (*s*)*évader*_V 'escape' derive from *e(x)-vas*_V 'go outside'. If we take \sqrt{vad} - 'go' to be the common ancestor of the bases of which *in-vas*_V and *e-vas*_V are the respective allomorphs, and since the latter lacks the "high scale event" meaning that we observe in the former, then it is clear that Root allosemy is resolved after compounding. As suggested for *de-destroy*_V in Marantz (2001) (see also Borer 2013: 382–383), it is difficult to extract from the meanings of the various compounds any common semantic content. The entire verbal base *in-vad*_V, for its part, seems to be associated with content which is not found in the

native variation *en-vah -is-v*. What this shows is that French scholarly (AS)-bases need not be construed as allomorphic stems of attested lexemes, but may possess their own idiosyncratic content. In lexicalist views, that would require positing a distinct lexical entry. But in a phase-based DM approach, that is straightforwardly predicted if the locality domain for resolving contextual allomorphy coincides with the domain for contextual allomorphy, in line with Marantz's (2013) conclusions. Thus, Fr. *invasion_N* is not directly related to *envahir_v*, but to a base which has developed its own idiosyncratic content, and whose *virtual* autonomous form is *invader_v*. Therefore, although *invasion_N* is not exactly lexically sourceless according to the definition given in chapter 1 *supra*, it is clear that its structural source is the base *invad-_v*, of which *invas-* is the *supine* (*third-stem* in Aronoff's terms) allomorph. Such cases illustrate the fact that whether being related to a freely occurring base such as *envahiss-_v* or to an obligatorily bound base such as *invad-_v* has no impact on (AS) abilities.

In lexeme-based lexicalism, bound stems are not allowed to constitute lexical entries. Assuming, along a lexeme-based approach, that there must be an autonomous categorized lexeme to which both allomorphs relate leads to the wrong results: it cannot predict that *invas-_v*, which does not correspond to an attested V, can have its own idiosyncratic meaning, distinct from *envahir_v*. Thus, lexeme-based lexicalism could not account for the fact that some bound bases exhibit their own (AS) properties and can pass them along to a nominalization or a *-ble* A. Only some version of morpheme-based lexicalism can predict that there can be two verbs, one of which exists only as a bound base. DM, for its part, allows us to go one step further by claiming those verbs to spellout different structures based on the same atomic listed unit, i.e. the Root (cf. *supra*, § 1.2.3.1). Now that we have given evidence in favour of the phasal character of ∇P , let us go a little higher in the structure and discuss the presence of Asp.

4.3.2 Structural Entailments of Spatiotemporal Modification

In this subsection, we focus on spatial and temporal localizers, which, under certain conditions, may identify an internal event projection (see Maienborn 2013). This criterion is discussed separately from the other tests due to its crucial implications for structural analysis. Specifically, the observation of spatiotemporal modifiers sheds light on adjunction sites and, correlatively, on the mechanisms of argument raising in relation to existential closure. Their positioning relative to various types of complements, including arguments, can provide insight through examining scope relations. Spatial modification is often considered unreliable for testing (AS)-Ns because it is thought to be compatible with (non-AS)-Ns. However, I argue that it can provide valuable structural information that further confirms the presence of a full phasal projection inside (D)-Ns. Temporal modification can even serve as a test when located directly on the right of the nominal. We can build on the fact, clearly established by, e.g. Carlson (2003), that arguments and adjuncts of a verb derive a subset of the eventuality denoted by the verb. Formulating it using Gehrke's (2007, 2019) terminology, they specify a *subkind of the event*, cf. § 2.2.1.3 *supra*.

4.3.2.1 Preposed Temporal Modification

The core issue is that (non-AS)-Ns that denote conceptual events (Grimshaw's 1990 *Simple Event Nominals*) can accommodate temporal modification. But contrary to (non-AS)-Ns, (AS)-Ns can take temporal modifiers directly, because they denote event kinds; note that, as we shall establish in § 4.3.2.5, this is not only true of (Φ)-Ns, but also of (Ψ)-Ns. In other terms, all and only (AS)-Ns may take a preposed temporal modifier, which I argue identifies the presence of vP, cf. (677): this is the [I-TEMP] test. I assume that this contrast can only be explained in terms of an *ontological* opposition, namely between *predicates of events* and *predicates of entities*, respectively. I will show that the crucial property of temporal modifiers in the realm of nominals is that they cannot be used restrictively, i.e. they cannot trigger existential closure over the entity described. This is evident from (672).

- (672) * Je ne te parle pas du séisme en 2010, mais de celui en 2012.
'I'm not talking about the earthquake in 2010, but the one in 2012.'

Spatial modifiers, for their part, are acceptable as determinatives, cf. (673).

- (673) ✓ Je ne te parle pas du concert au Bataclan, mais de celui à l'Olympia.
'I'm not talking about the concert at the Bataclan, but the one at the Olympia.'

Thus, as expected, only after either a possessor or a spatial localizer has merged may the output receive temporal localization, cf. (674).

- (674) a. (i) Le concert *(au bataclan) l'autre jour fut un grand moment.
'The concert at the bataclan the other day was a great time.'
(ii) Le concert *(de Metallica) l'autre jour fut un grand moment.
'The concert of Metallica the other day was a great time.'
- b. (i) La promenade *(à Paris) l'autre jour fut fort agréable.
'The walk in Paris the other day was very pleasant.'
(ii) La promenade *(de Pierre) l'autre jour lui a fait du bien.
'Pierre's walk the other day did him good.'

Consequently, date adjuncts can never modify entity kinds, but only entity *tokens*. These results are confirmed in (675).

- (675) le séisme *(en Haïti) le 12 janvier 2010
'the earthquake (in Haiti) on 12 January 2010'

While, as just demonstrated, direct temporal modification of (non-AS)-Ns is impossible, this limitation strikingly does not apply to (AS)-Ns: temporal modifiers may be located immediately after an (AS)-N (cf. *supra*, § 2.2.2.3), as illustrated in (676). Direct temporal modification can therefore be used as a test to distinguish (AS)-Ns.

- (676) l' apparition en 1858 de la Vierge Marie à Lourdes
 the apparition in 1858 of the Virgin Mary in Lourdes

To understand why temporal localization is barred with a (non-AS)-N that has not been priorly spatially localized (or, alternatively, has not received a closing genitive, cf. *infra*), a crucial distinction must be made between the *intensional* domain of the *description* of an entity — defined as the domain extending below existential closure, and the *extensional* domain of the reference to an entity, beginning at existential closure. I assume Ns to denote generic properties and to be devoid of referential force. They become instantiated through the intervention of a closing modifier. The fact that temporal localizers cannot directly modify entities is accounted for if they can only attach either to an event kind, or to an entity token, but never in-between, i.e. never to an entity kind. They can only enter the event description, but not the nominal description; they adjoin either to the vP, or to whatever projection is existentially closed but still dominated by D (i.e. $F_{REF}P$, as I shall call it). In the first case, they subspecify an event kind to yield an event subkind; in the second case, they localize an entity token. Consequently, when an (AS)-N takes a date adjunct, inasmuch as the exact same type of modification arises with (non-AS)-Ns, we can safely assume that it is the entity variable that gets bound. At this point, we need to clarify that, as argued in section 2.2 *supra*, not even referents of (AS)-Ns can be temporally localized as event tokens. (AS)-Ns intrinsically denote event kinds. Locating the event in time is the role of *Tense*. The absence of Tense in (AS)-Ns was demonstrated in section 2.2: the event variable of (AS)-Ns can be bound to some duration variable through Asp merge, but never anchored to a specific time of the utterance world. Thus, in 676 *supra*, the modifier *en 1858* does not localize an instantiated event, as this would only be possible through Tense. Rather, the dating must necessarily adjoin at the event-kind level to yield an event subkind (see *supra*, § 2.2.2.3). A similar example is given in (677).

- (677) a. tout en digérant progressivement le rachat en 2015 de l'enseigne Quick
 (*L'Est Républicain*, 2018)
 'while gradually digesting the acquisition in 2015 of the Quick brand'
- b. depuis le rachat en 2008 de Renault par Claas (WEB, 2018)
 'since the acquisition in 2008 of Renault by Claas'

In contrast, *concert_N* can only be further specified to the extent that an entity kind can be further specified. Temporal information that refers to sets, such as *every afternoon*, can contribute to building non-finite (i.e. kind-denoting) entities: this is the case in e.g. *concerts in the afternoon are incredible*. But only an *existing* entity can receive *absolute* temporal localization, i.e. dating. You can hardly say *concerts in 2023 are incredible*, and this is because trying to localize entity kinds at a single point in time will ineluctably result in sortal semantic mismatch: only tokens can be localized in time.

The contrasts that have just been identified lead us to distinguish between two levels of temporal modification: entity-level and event-level. I will now argue that the same is true for spatial modification.

4.3.2.2 Modification of (non-AS)-Ns

As seen *supra*, spatiotemporal localization does not especially apply to events, but also works with entities. Besides, direct spatial modification does not constitute a test for distinguishing between (AS)-Ns and (non-AS)-Ns. However, it is possible to test nominalizations on the basis of possible inheritance of spatial modifiers intimately connected with the verbal predicate, cf. (678).

- (678) a. (i) *placer le verre en cristal sur la table*
 ‘to place the crystal glass on the table’
 (ii) *le placement du verre en cristal sur la table*
 ‘the placement of the crystal glass on the table’
- b. (i) *placer sur la table le verre en cristal*
 ‘to place on the table the crystal glass’
 (ii) *le placement sur la table du verre en cristal*
 ‘the placement on the table of the crystal glass’

Yet, as noticed by Grimshaw (1990) for English, (non-AS)-Ns may take modifiers related to their specific meaning. This generalization is true for French as well, cf. (679).

- (679) a. *le voyage en Russie de ma mère*
 the trip to Russia of my mother
- b. *le voyage de ma mère en Russie*
 the trip of my mother to Russia

As observed in (679a), the ability to receive spatial modification immediately to the right of the noun is not a criterion for distinguishing (AS)-Ns. Besides, as explained in § 4.3.2.1 *supra*, entity tokens can be located in time. Now, consider the following pair in (680).

- (680) a. *le voyage en Russie de ma mère le mois dernier*
 the trip to Russia of my mother the month last
- b. *le voyage de ma mère en Russie le mois dernier*
 the trip of my mother to Russia the month last

The (non-AS)-N status of *voyage_N* ‘trip’ can be easily established by its failure to pass [CF], allowing us to conclude that it lacks an internal event variable. Therefore, the structures of the nominals in (680) involve no event-kind level: all modifiers are entity modifiers.

- (681) Le voyage en France du président congolais [# permettrait des échanges intéressants].
 ‘The Congolese president’s trip to France [would allow for interesting exchanges].’

We observe within (680) a contrast between, on the one hand, the restrictive modifier *en Russie* ‘in Russia’, which refines the nominal description, and, on the other hand, the *non*-restrictive modifier *le mois dernier* ‘last month’, which, by definition, merely *adds* information after existential closure. When (non-AS)-Ns such as *voyage_N* take a closing genitive, the spatial modifier can be positioned before it. Such preposed modifiers are part of the *description* of the referent: they are *kind* modifiers; more precisely, *entity* kind modifiers. However, when the spatial modifier occurs after date, it localizes an existentially quantified token: the nominal in (682) can only refer to a journey occurring within Russia. The reason for this is that *in Russia* does not contribute to the building of the entity kind; instead, it applies to a specific entity token, thereby localizing it in space.

- (682) le voyage en montagne de ma mère le mois dernier en Russie
 the trip in mountain of my mother the month last in Russia
 ‘my mother’s mountain trip last month in Russia’

Thus, spatial Modification of nominals such as *voyage_N* may either localize an entity token or subspecify an entity kind. In (683), the spatial modifier attaches *above* existential closure in (683a.i, b.i), but below existential closure in (683a.ii, b.ii). As shown in (683a.iii, b.iii), temporal modification cannot attach below existential closure.

- (683) a. (i) la promenade de Pierre (l’autre jour) (à Paris)
 ‘the walk of Peter the other day in Paris’
 (ii) la promenade à Paris (de Pierre) (l’autre jour)
 ‘the walk in Paris (of Peter) (the other day)’
 (iii) la promenade [* l’autre jour] (de Pierre) (à Paris)
 ‘the walk the other day (of Peter) (in Paris)’
 b. (i) le concert de Metallica (jeudi dernier) (au Bataclan)
 ‘the concert of Metallica last Thursday at the Bataclan’
 (ii) le concert au Bataclan (de Metallica) (jeudi dernier)
 ‘the concert at the Bataclan of Metallica last Thursday’
 (iii) le concert [* jeudi dernier] (de Metallica) (au Bataclan)
 ‘the concert last thursday of Metallica at the Bataclan’

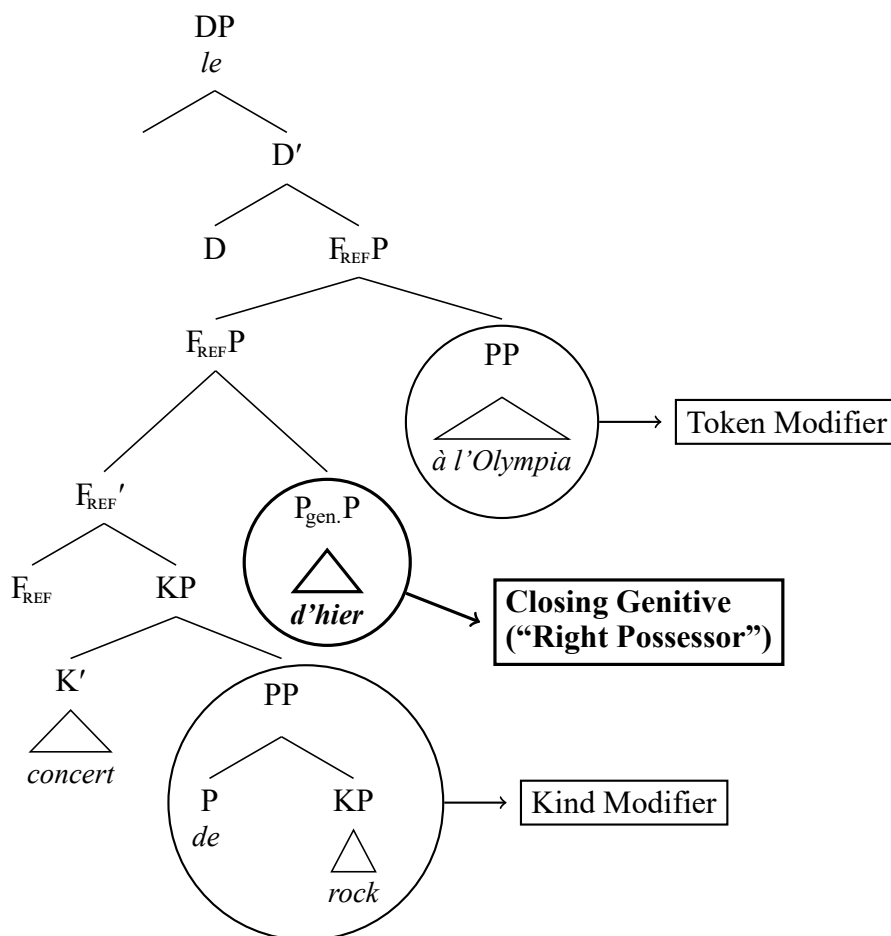
In order to represent the two levels, I assume before closure a KP projection, which roughly corresponds to Zamparelli’s (2013) *Kind Determiner Phrase*. Since KP directly dominates nP, I will suppose that K is responsible for sending nP for spellout and thus, is a phase head. Additionally, since token modifiers are still under the scope of D, I also posit a functional

projection checking for existential closure — transforming a kind into a token or leaving it as a kind if the closure does not occur — whose head I call F_{REF} . I locate the Romance-type *of_P-P possessor* in the (right) Specifier (cf. *infra*, § 4.3.2.3) of $F_{REF}P$: I assume that [Spec, $F_{REF}P$] checks for existential quantification of the phrase it hosts and subsequently applies it to the $F_{REF}P$ node. To illustrate entity-level modification, let us analyse the simple example in (684).

- (684) le concert de rock d’hier à l’Olympia
 the concert of rock of yesterday at the Olympia
 ‘yesterday’s rock concert at the Olympia’

The event description contains a kind-level complement *de rock*; existential closure is triggered by the genitive *d’hier* ‘yesterday’s’, with the bolded spatial modifier adjoining above that point, i.e. at token level. See the structure in (685).

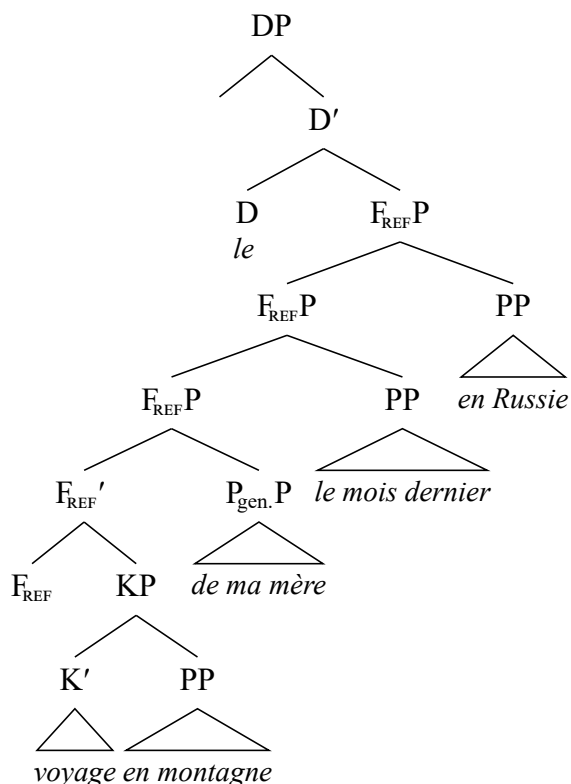
- (685) **le concert de rock d’hier à l’Olympia**
 ‘yesterday’s rock concert at the Olympia’



We now turn to the analysis of (682), which we are now better equipped to perform. The representation is given in (686).

(686) **Kind-level vs. Token-level Entity Modification**

le voyage en montagne de ma mère le mois dernier en Russie
 ‘my mother’s mountain trip last month in Russia’



I assume that *de_p*, when introducing genitives, functions as a case marker (see *supra*, § 2.2.2.4); I conventionally mark this functional preposition as a $P_{\text{gen.}}$.¹ Existential closure, as suggested for (684) *supra*, is achieved through a $F_{\text{REF}}P$ projection whose Specifier — here located on the right — hosts an existentially quantified phrase, whereto arguments and kind modifiers may raise to check for Genitive case. Modifiers that take narrow scope over the noun — such as *en montagne* — attach *below* existential closure — as they take part in the nominal description, thus modifying an *entity kind*. Global localizers, for their part, attach *above* it, thereby modifying an *entity token*.

¹As established by Milner (1982a, 1982b, 1982c) and Kupferman (2004), there are two distinct words *de*, one as a preposition in the strong sense and the other as a purely functional case marker, devoid of conceptual content.

4.3.2.3 Spatiotemporal Modification of (Φ)-Ns

It is sometimes possible to identify an internal verb through observing specific properties of spatial modification. Based on evidence provided in section 2.2 *supra*, I assume that nominals as in (687) inherently denote event kinds, thus qualifying them as (AS)-Ns — whereas (non-AS)-Ns as in (680) denote entity kinds, which qualifies them as (non-AS)-Ns.

- (687) a. le déraillement du train Paris-Tourcoing en 1947 à Arras
 ‘the derailment of the train Paris-Tourcoing in 1947 in Arras’
 b. le déraillement à Arras du train Paris-Tourcoing en 1947
 ‘the derailment in Arras of the train Paris-Tourcoing in 1947’

Judging by the meaning of the nominal in (687b), internal spatial modification of (Φ)-Ns seems to modify the entire L-Phase. For this reason, I will assume that they do not adjoin at v' , but at ∇' . This correctly predicts that spatial modification of (Φ)-Ns, similar to *manner / degree* adverbials, require assignation of the *default Modulator* (see *supra*, § 4.1.2.3) to δ and thus, are incompatible with overt IMPs (cf. *supra*, § 4.1.3.3). See (688) and (689).

- (688) le [*non-] déraillement à Arras du train Paris-Tourcoing
 the non- derailment in Arras of the Paris-Tourcoing train
- (689) [la / l'] [*non-] arrestation à Varennes de Louis XVI
 the non- arrest in Varennes of Louis XVI

The representations in (691a, b), on the next page, illustrate the ensuing structures for the nominals in (687a) and (687b). I here assume *dérailer*_v ‘derail’ to be unaccusative, since it passes [IN-X] and [GRAD], which, as we have seen, are robust tests to detect telicity. I propose that the two possible positions for the spatial localizer are $F_{REF}P$ -*adjunct* and ∇P -*adjunct*. In (691a), the spatial modifier *à Arras* attaches outside the domain of existential closure, i.e. above KP in the present account; in (691b), it attaches inside this domain, as it is part of the nominal description. Although the detail of the execution goes beyond the scope of this work, a possible solution to account for argument realization might involve rightward movement since, following Giorgi & Longobardi (1991) and Borer (1993), I assume for Romance nominals, as previously mentioned, a right-attached Specifier (see also Ghomeshi 1997 for Persian; for right specifiers in general, see e.g. Di Sciullo & Fong (2005)). And finally, we can also determine that modifiers of Outer Aspect have scope over Modulation, not the other way around, as seen in (690).

- (690) La non-consommation pendant trois mois de ces champignons toxiques te permettra de guérir.
 ‘The non-consumption for three months of those toxic mushrooms will allow you to heal.’

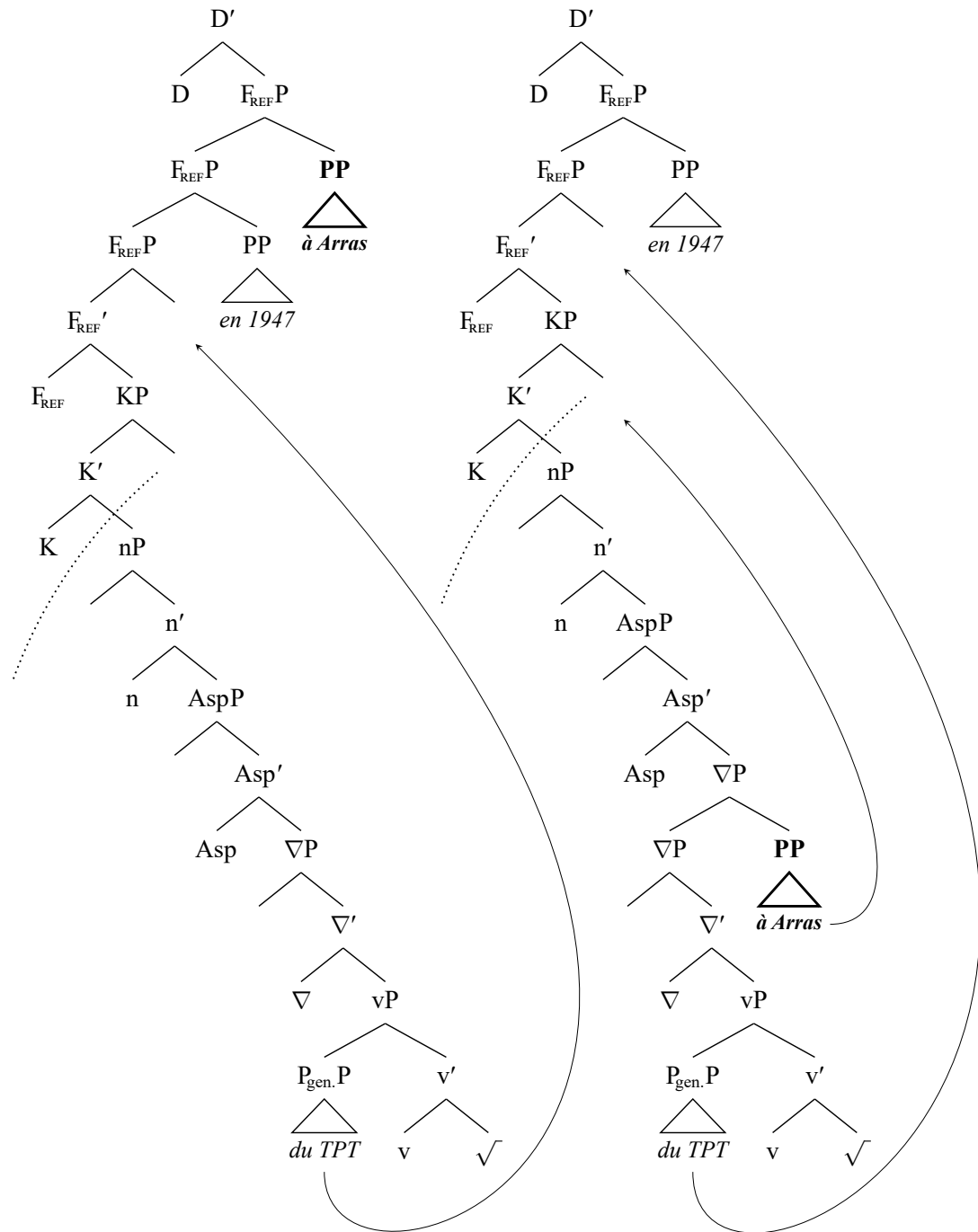
(691) **Entity vs. Event Modification**

a. **Entity-Token Modification**

le déraillement du TPT
 en 1947 à Arras
 ‘the derailment of the PTT
 in 1947 in Arras’

b. **Event-Kind Modification**

le déraillement à Arras
 du TPT en 1947
 ‘the derailment in Arras
 of the PTT in 1947’



The internal argument and internal adjuncts must raise to check for nominal features associated with the K head. The argument is then required to raise again to [Spec, F_{REF}P] to check for existential closure. Failure to do so blocks further raising of the internal adjuncts, which crashes the structure. This assumption is necessary to account for the apparent requirement for overt argument realization in (AS)-Ns. Evidence for optional realization is provided by the occurrence of (AS)-Ns with a demonstrative D, where arguments need not be phonologically realized any more than in the verbal domain. This is illustrated in (692).

- (692) a. Mon ami, qui habitait pourtant loin, fut là très rapidement. Cette arrivée en quelques minutes me surprit.
 ‘My friend, who lived far away, was there very quickly. this arrival in a few minutes surprised me.’
- b. L’élève maîtrisait déjà la notion du jour. Cette assimilation en quelques minutes époustoufla le professeur.
 ‘The student had already mastered the concept of the day. This assimilation in a few minutes astounded the teacher.’

As we can see, when existential closure over the entity token is independently provided — here through the demonstrative D, the argument can remain unexpressed, as it would in the corresponding verbal phrase. As seen in (693), argument realization becomes optional in the presence of a demonstrative D. Thus, when the definite article is used, the need for existential closure to express actual occurrences makes the argumental complement seemingly mandatory. I assume that the specifier of F_{REF}P is saturated by the localizing component of the demonstrative, thus blocking any closing genitive, cf. (693).

- (693) * ce chat de ma voisine
 ‘this cat of my neighbor’

This is also true with Quantifiers, cf. (694).

- (694) * un chat de ma voisine
 ‘a cat of my neighbor’

Therefore, another expectation is that arguments will also be optional when nominals are introduced by an indefinite. This is borne out, cf. (695).

- (695) a. Si le planning devait être lourdement modifié, une réorganisation ^(du service) en quelques heures par le personnel administratif afin d’éviter tout imprévu s’imposerait. (v.k.)
 ‘If the schedule had to be heavily modified, a reorganization of the service in a few hours by the administrative staff to avoid any mishap would be necessary.’

- b. Une invasion \checkmark (du pays) en seulement deux jours par les forces alliées afin de renverser le régime requerrait des moyens extraordinaires. (v.k.)
 ‘An invasion of the country in only two days by the allied forces to overthrow the regime would require extraordinary resources.’

A second prediction is that if a generic context already provides closure, optionality will be observed as well. [Spec, F_{REF}P] can then be hypothesized to be saturated by an arbitrary pronoun. This is, here again, borne out, as seen in (696).

- (696) L’invasion en seulement deux jours par des troupes d’élite requiert des moyens militaires exceptionnels. (v.k.)
 ‘The invasion in only two days by elite troops requires exceptional military resources.’

The hypothesis of an already saturated [Spec, F_{REF}P] is further confirmed by the following. Conceptual events, we have seen, may not directly receive temporal localization, but first need to be existentially quantified. If the present discussion is on the right track, one should expect that occurrence of temporal modifiers directly on the right of such nouns will be grammatical if an indefinite or a demonstrative is used instead of the definite article. This is also fulfilled; cf. (697).

- (697) a. [Ce / Un] séisme [\checkmark en 2010] à Haïti a fait des centaines de blessés.
 ‘[This / An] earthquake in 2010 in Haiti injured hundreds.’
 b. [Cette / Une] promenade [\checkmark l’autre jour] à Paris a ravi mes grands-parents.
 ‘[This / A] walk the other day in Paris delighted my grandparents.’
 c. [Ce / Un] concert [\checkmark jeu dernier] au Bataclan m’a laissé un souvenir impérissable.
 ‘[This / A] concert last Thursday at the Bataclan left me an unforgettable memory.’

To conclude, the ambiguity in nominals does not reduce to the issue of (AS)-Ns vs. (non-AS)-Ns. There is also an ambiguity inherent to (AS)-Ns: they can be modified as entities, or as eventualities. If (AS)-Ns, as demonstrated in section 2.2 *supra*, inherently denote event kinds, they become embedded into a token-creating shell — the F_{REF}P projection —, which refers to something localized in space and time. This shell allows for external spatiotemporal modification such as *à Arras* in (691a), or *en 1947* in (691a, b). This possibility represents a syntactic explanation of Larson’s (1998) idea, introduced in § 2.1.1.1 *supra*, that we should assume for some nominals two levels of reference. Let us now address some issues related to determining the reading of spatial modifiers in relation with pragmatic considerations.

4.3.2.4 The Pleonastic Effect

As previously seen, entity-level spatial modification may occur either before or after existential closure. Therefore, we need to find a way to distinguish between, on the one hand, entity modification as featured in (679) and, on the other hand, event modification as observed in (687b). If event modification can be identified, then we have an unergative (AS)-N; otherwise, it could be a (non-AS)-N.

I suggest resorting to what I shall call the *Pleonastic Effect*. The idea is to rely on a key characteristic of non-restricting modifiers, which I will express borrowing Umbach's (2006: 152) terms:

“Non-restrictive modifications are commonly said to provide information which is irrelevant to the denotation or reference of the modified phrase. It expresses a property of the referent or denotation which is supposed to be evident in the context in which the sentence is uttered, thus providing information which is intuitively backgrounded.”

I would like to suggest that it is possible to reveal the status of *internal modifier* (i.e. attaching as an adjunct of the internal verbal projection) in cases where the localization of the eventuality is self-evident and thus, can only be expressed through non-restrictive modification. The corollary is that, if we are dealing with a vP-adjunct, then failure of the modifier to add new information will contradict its restrictive purpose and lead to pragmatic discrepancy. No such pragmatic blocking may occur with (non-AS)-Ns such as *voyage_N* ‘trip’, since they embed no eventuality. The type of redundancy I will show pertains to physical properties of the referent of the hypothetically argumental complement under investigation. Consider (698).

(698) \mathcal{D} érupter_v ‘erupt’

- a. (i) l’ éruption de l’ Eyjafjöll en 2010 en Islande
the eruption of the Eyjafjöll in 2010 in Iceland
- (ii) l’ [# éruption en Islande] de l’ Eyjafjöll en 2010
the eruption in Iceland of the Eyjafjöll in 2010
- b. (i) L’ Eyjafjöll entra en éruption; cela se produisit en 2010 en Islande.
the Eyjafjöll erupted it occurred in 2010 in Iceland
- (ii) L’ Eyjafjöll [# entra en éruption en Islande]; cela se produisit en
the Eyjafjöll erupted in Iceland it occurred in
2010.
2010

While the event predicated of some mobile entity can in principle occur everywhere, immobile objects such as landforms or buildings cannot serve as referents for the subject of an event localized elsewhere than their fixed location; a consequence is that the event by which they are affected will implicitly be located at the place where they stand. Even when this place is not

known, the fact that it corresponds to a fixed position pragmatically prevents any vP-internal modification. See the redundancy in the interpretation of (698a.ii) as opposed to that of (699a.ii), which parallels what is observed for the verbal domain in (698b.ii) and (699b.ii).

- (699) a. (i) l'apparition de la Vierge Marie en 1858 à Lourdes
 'the apparition of the Virgin Mary in 1858 in Lourdes'
 (ii) l'apparition à Lourdes de la Vierge Marie en 1858
 'the apparition in Lourdes of the Virgin Mary in 1858'
- b. (i) La Vierge Marie apparut; cela se produisit en 1858 à Lourdes.
 the Virgin Mary appeared it occurred in 1858 in Lourdes
 (ii) La Vierge Marie apparut à Lourdes; cela se produisit en 1858.
 the Virgin Mary appeared in Lourdes; it occurred in 1858

Arguably, *éruption*_N 'eruption' as understood in *éruption volcanique* 'volcanic eruption' embeds an unergative verb (*contra* Keyser & Roeper 1984: 397). If the lava itself *erupts* in the non-agentive sense, i.e. it *spurts*, a volcano that *erupts* does not *spurt* in the anticausative sense, but literally *spurts lava*: it *initiates* the spurting, rather than *undergoing* it. The act of *erupting* is here comparable to the act of *coughing*, which is a paradigm of the unergative setup. We have seen in § 2.1.3.2 how compatibility with the subject-related $\overline{[N-X]}$ only is the hallmark of unergative nominalizations. The contrast in (700) shows that this is the case for *éruption*_N 'eruption'. The latter rejects the theme-related $\overline{[N-X]}$, thus indicating that it does not exhibit theme-related Quantization. In (700b), $\overline{[N-X]}$ highlights the initiation of the eruptive process for each volcano, and the interval measured out spans over that plurality of events. In other terms, *éruption*_N — construed in the geological sense — lacks theme-related Quantization.

- (700) a. L'éruption de ce volcan [# en quelques secondes] fit frémir la population.
 'The eruption of this volcano [in a few seconds] made the population shudder.'
- b. L'éruption successive de deux volcans en l'espace de deux heures ensevelit la ville de Rabaul sous des mètres de cendres. (*Courrier International*, 2009)
 'The successive eruption of two volcanoes within the space of two hours buried the city of Rabaul under meters of ashes.'

In order to further support the possible existence of an agentive version of *érupter*_v 'erupt', we can look at examples of a back-formed unergative \mathcal{P} *érupter*. In (701a), the verb takes scope under an inchoative operator *se mettre à* 'to start to', instead of the inchoative *entrer en* 'go into'. In both (701a, b), the human subject somehow controls their own change of state, and this agentive nuance would not be correctly denoted through the unaccusative counterpart.

- (701) a. C'était un vrai volcan. Quand elle se mettait à érupter, la seule chose à faire, c'était de se mettre aux abris et attendre que ça se tasse. (O. Maulin, 2011)
 'She was a real volcano. When she started to erupt, the only thing to do was to take shelter and wait for it to die down.'
- b. Ah, ne vous avais-je prédit que par votre seule présence vous portiez à l'incandescence un volcan qui se croyait au plein de l'hiver et qu'on ne tarderait pas à le voir érupter ? (J.-D. Baltassat, 2013)
 'Ah, had I not predicted that with your mere presence you would bring a volcano to incandescence that believed itself to be in the dead of winter, and that we would soon see it erupt?'

In order to identify a verbal or adjectival projection inside relevant nominals, I suggest taking advantage of a redundancy effect that can only occur in the case of modifying an internal eventuality. More specifically, any spatial localization of an eventuality whose subject referent can pragmatically not move, will be judged as odd, because self-evident. In (698a.ii), the localizer *en Islande* is redundant: due to the volcano's inherent location in Iceland, its erupting cannot take place anywhere else than in this fixed location, cf. (698b.ii). Such odd redundancy confirms the intuitive understanding that *en Islande* takes narrow scope over an internal verb instead of modifying the entire nominal shell, thus further substantiating the presence of an internal verb within the nominalization. I term this phenomenon the *Pleonastic Effect*, cf. (702).

(702) **Pleonastic Effect**

In a nominalization, if the spatial indication denoted by a PP is perceived as self-evident due to pragmatic localization constraints inherent to the nature of the referent of an adjacent *of*-P complement, then:

- this PP modifies an internal eventuality;
- the aforementioned complement realizes the subject of the modified eventuality.

Conversely, the sentences in (698a.i) and (699a.i) remain acceptable despite the presence of the spatial localizer, since the latter does not induce any redundancy: being non-restrictive, it only provides additional information, cf. (698b.i). Therefore, it is clear that the localizers in (703) are not subject to the *pleonastic effect* and consequently, they must necessarily be inserted outside the intensional domain, i.e. above KP. In this case, the localizer does not tell anything about the possible presence of a vP in the lower structure. Besides, as seen in (703), such modifiers escape the scope of the closing node, i.e. [Spec, F_{REF}P] in the present account.

- (703) * l' éruption en 2010 en Islande de l' Eyjafjöll
 the eruption in 2010 in Iceland of the Eyjafjöll

In summary, the *Pleonastic Effect* can help identify spatial modification subspecifying unergative internal events.

4.3.2.5 Spatiotemporal Modification of (Ψ)-Ns

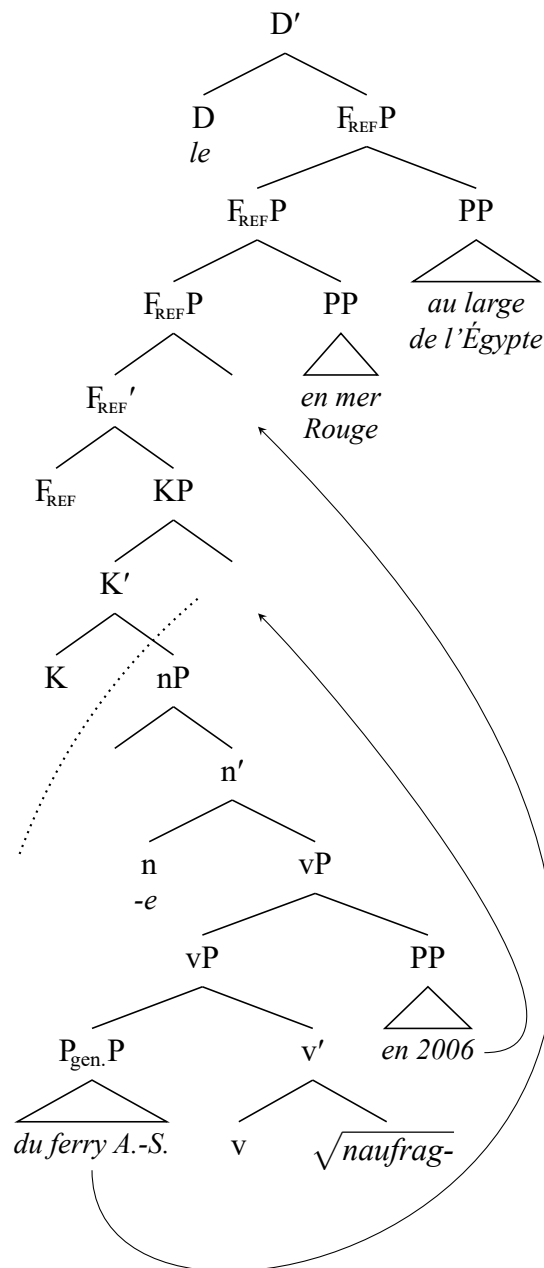
In the light of the discussion above, a new property of (Ψ)-Ns emerges. They pass the I-TEMP test: temporal modification may adjoin at vP, cf. (704)–(708).

- (704) a. Un homme de 48 ans sera jugé demain à Briey pour le **rapt** *en avril dernier* de la petite Bérényss. (La Dépêche, 2016)
 ‘A 48-year-old man will be tried tomorrow in Briey for the kidnapping last April of little Bérényss.’
- b. Une ancienne agente de la CIA, condamnée par la justice italienne pour le **rapt** *en 2003* à Milan d’un imam égyptien, est rentrée aujourd’hui au Portugal. (Le Figaro, 2015)
 ‘A former CIA agent, convicted by the Italian judiciary for the kidnapping in 2003 of an Egyptian imam in Milan, returned to Portugal today.’
- (705) Cela n’empêche ni le **sac** *en 189* de la capitale par les Romains, ni le pillage et la capture d’une grande partie de la population épirote. (WEB)
 ‘This prevents neither the sack in 189 of the capital by the Romans, nor the plundering and capture of a large part of the Epirote population.’
- (706) Jonathan Fleming avait été condamné pour le **meurtre** *le 15 août 1989*, dans le quartier de Brooklyn à New York, d’un trafiquant de drogue rival. (Le Figaro, 2014)
 ‘Jonathan Fleming had been convicted for the murder on 15 August 1989, in the Brooklyn neighborhood in New York, of a rival drug dealer.’
- (707) a. Cette monnaie commémore l’**exode** *en 1974* des chypriotes grecs suite à l’invasion du nord de Chypre par les troupes turques. (WEB)
 ‘This coin commemorates the exodus in 1974 of Greek Cypriots following the invasion of northern Cyprus by Turkish troops.’
- b. Le film met en scène l’**exode** *en 2002* de ces Burkinabè de Côte d’Ivoire. (RFI, 2017)
 ‘The film depicts the exodus in 2002 of these Burkinabè from Ivory Coast.’
- (708) a. Des centaines de migrants pourraient avoir disparu dans le **nauffrage** *hier* d’un bateau au sud de la Crète. (Agence France-Presse, 2016)
 ‘Hundreds of migrants may have disappeared in the shipwrecking yesterday of a boat south of Crete.’
- b. après le **nauffrage** *en 2006* du ferry *Al-Salam 98* en mer Rouge au large de l’Égypte (Sud-Ouest, 2021)
 ‘after the shipwrecking in 2006 of the ferry *Al-Salam 98* in the Red Sea off the coast of Egypt’

I propose for (708b) the representation in (709).

(709) **Event-Kind Modification of (Ψ)-Ns**

le *nauffrage* en 2006 du ferry A.-S. en mer Rouge au large de l'Égypte



Finally, (Ψ)-Ns also exhibit internal spatial localization, cf. (710).

(710) Le *meurtre en plein cours* d'Agnès Lassalle à Saint-Jean-de-Luz par un de ses élèves a provoqué un choc dans l'opinion publique. (Closer, 2023)

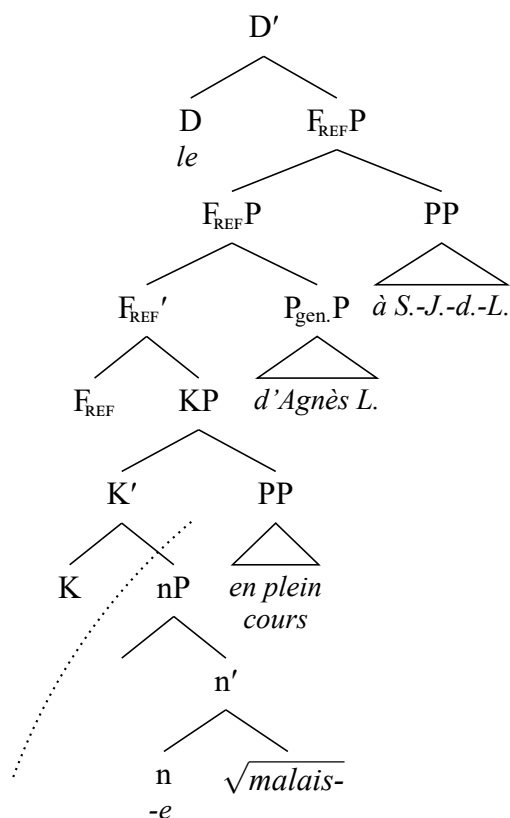
'The murder of Agnès Lassalle in the middle of class in Saint-Jean-de-Luz by one of her students shocked the public opinion.'

However, spatial modification of (Ψ) -Ns does not seem to differ from that of (non-AS) -Ns. For instance, *malaise*_N, as illustrated in (711b), fails (CF) and thus, it must be a (non-AS) -N. Therefore, the spatial modifier in (710) must not be any different from that in (711a), i.e. it adjoins at F_{REF}' .

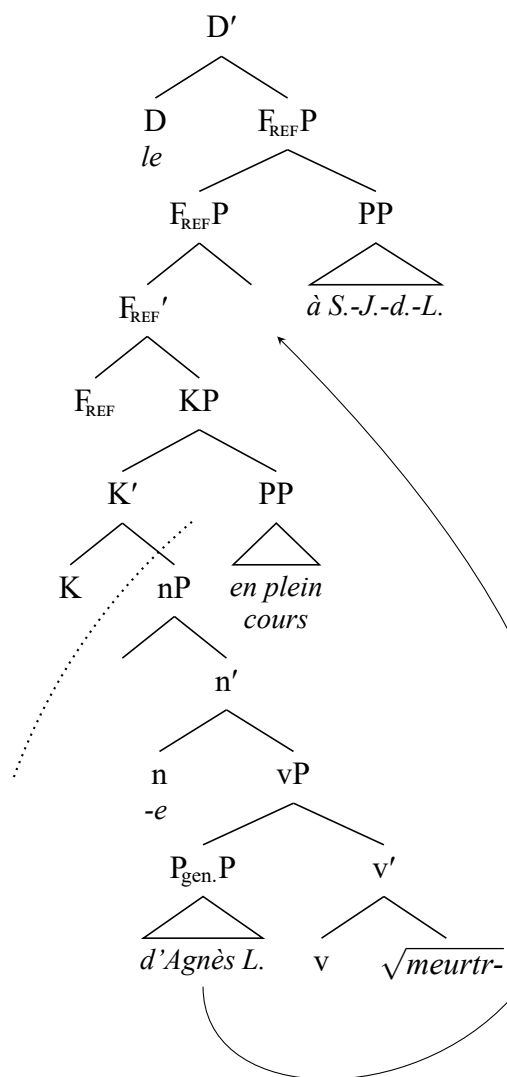
- (711) a. le **malaise** *en plein cours* d'Agnès Lassalle à Saint-Jean-de-Luz
'the faint in the middle of Agnès Lassalle's class in Saint-Jean-de-Luz'
b. Le **malaise** de mon père [# m'inquiéterait beaucoup].
'The faint of my father [would worry me a lot].'

I will therefore assume for (711a) and (710) the respective representations given in (712).

- (712) a. le **malaise** *en plein cours*
d'Agnès L. à Saint-Jean-de-Luz



- b. le **meurtre** *en plein cours*
d'Agnès L. à Saint-Jean-de-Luz



4.3.3 The Phasality Requirement

The Counterfactuality Test introduced in section 2.2 constitutes independent evidence for the presence of an event variable inside lexically sourceless nominals. The reason why nominals built on non-quantized predicates pass $\overline{\text{CF}}$ is, as previously argued, because they have Asp in their internal structure, which gives a second chance, so to speak, at introducing an event variable: in the absence of an internal argument, Asp is mandatory to build an (AS)-N. In sum, deadjectival and unergative predicates require Outer Aspect. This constraint entails that in order to be able to project AS, such nominals must be built on a phase: as I will argue, Asp requires a phasal structure. For example, I will argue that *chahut*_N ‘ruckus’ and *travail*_N ‘work’, seemingly related to the unergative verbs *chahuter*_V ‘make a ruckus’ and *travailler*_V ‘work’, are actually not (AS)-Ns and consequently, they cannot be assumed to be deverbal at all — only because there is no such thing as an unergative (Ψ)-N. While transitive and unaccusative (AS)-Ns may lack a full internal verb, unergative and stative (AS)-Ns may not.

After briefly introducing my assumptions regarding Outer Aspect, I will discuss deadjectival nominals, then turn to unergative nominals. § 4.3.3.1 provides a brief overview of the reasons why Asp should be assumed in the structure of (Φ)-Ns, above ∇P. § 4.3.3.2 demonstrates that nouns built on unlexicalized adjectives pass $\overline{\text{MODUL}}$ and makes a proposal as to the structure of predicative adjectives. § 4.3.3.3 outlines the structure of deadjectival ASNs based on the previous conclusions. § 4.3.3.4 discusses the structure of unergative (AS)-Ns. Final § 4.3.3.5 addresses stative transitive (AS)-Ns.

4.3.3.1 Motivations for Outer Aspect

In our attempt to understand the structure of adjectives and, subsequently, the structure of deadjectival (Φ)-Ns, we need to clarify the reasons why AspP should be assumed on top of ∇P. Considering that all predicative As, pragmatic discrepancies set aside, are gradable and take Scale Modulation through Modulation Particles (cf. *supra*, § 4.1.3.1), whatever component licenses the latter must be regarded as mandatory in any predicative adjective. Therefore, I suggest that in the absence of T (cf. subsection 4.1.4 *supra*, ex. 553), Asp, which corresponds to Outer Aspect, can be regarded as the head which introduces *temporal extension of predicate holding* in both verbal and adjectival domains. I will assume the boolean [\pm PERFECTIVE] to encode the presence vs. absence of a duration condition for the predication: the predication may either hold eternally (imperfectivity), or only within a well-defined timespan (perfectivity). Thus in such a view, Aspect specifies definiteness or indefiniteness of a specified interval *t*, which corresponds to the timespan within which the predicative relation holds. However, we need to account for the following fact: since (AS)-Ns not built on a phase, i.e. lacking ∇P, are defective with respect to Aspect, then we must infer that Asp never selects for aP, vP or VoiceP, but exclusively for ∇P.

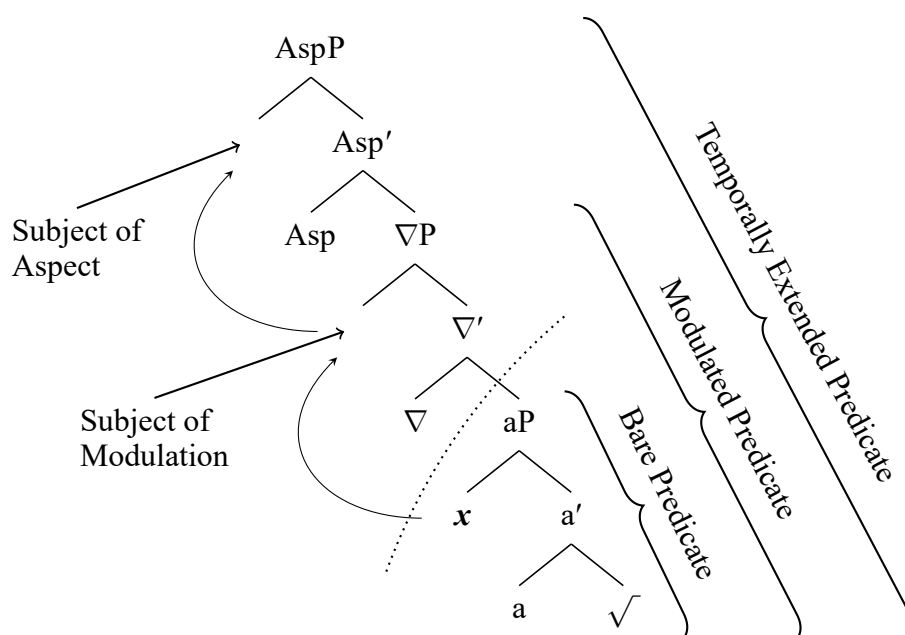
Klein (1994: 187) suggests that adverbials such as $\overline{\text{FOR-X}}$ do not measure the duration of Events, but the time interval that a given situation occupies. He calls this time interval the *duration of the time of the situation*. I call it *Temporal Extension of the Eventuality* in the sense of e.g. Arche's (2014) expression "the duration of the whole interval the eventuality is asserted to extend to", and I symbolize this interval duration by the variable t . Aspect encodes how an event unfolds within time, regardless of its position with respect to the speech event. So, it manipulates an event's structure before temporal binding by Tense. Aspect determines whether the event is viewed as a whole (perfective) or whether it's ongoing (imperfective), without committing to a specific location in time. In sum, the aspect's role is about the internal constituency of the event, while Tense relates to its external anchoring. The interval variable may thus receive either a *specific* or *generic* value, which gives rise to a $[\pm \text{PERFECTIVE}]$ feature. Existential quantification over t denotes the existence of a specific instance of the variable, thus yielding an episodic interpretation; the generic operator, by contrast, abstracts over instances (see Lekakou 2005: 111–114 for a demonstration that Outer Aspect, in the form of imperfective morphology, encodes genericity in French).

Since all and only modulated predicates pass $\overline{\text{FOR-X}}$, Asp must be assumed to exclusively select for ∇P and measure the timespan that binds the modulated predicate to the subject of Modulation (for insight regarding the link between scale complexity and durativity, see Beavers 2008). The assumption that Asp selects for ∇P and cannot be present in the structure in the absence of the latter, makes three predictions. First, it predicts a strong constraint on $\overline{\text{AS}}$ -Ns built on non-quantized predicates: namely, that they require a full phase. Since they lack Quantization, they need Outer Aspect so that an event variable can be introduced. And indeed, we have previously noticed that Ns that could be expected to embed an Unergative predicate, behave exactly as $\overline{\text{non-AS}}$ -Ns if they are not built on a phasal base. Second, it accounts for the well-known opposition between event and non-event *-er* $\overline{\text{AS}}$ -Ns, which has been assumed in the literature to relate to Asp: in dispositional Agentive $\overline{\text{AS}}$ -Ns, t is bound by the generic operator that entails habituality and therefore, cannot be assigned a specific value. Consequently, it predicts that all such nominals will always be built on a phasal base; and the same holds for Imperfective $\overline{\text{AS}}$ -Ns, which were analyzed in § 4.1.4.1. Again, this is empirically borne out, since we can observe that no agent-denoting $\overline{\text{AS}}$ -N is of the $\overline{\Psi}$ -N type: *king_N* and *boss_N* do not show any grammatically relevant special properties. Third, it predicts that Quality and Manner $\overline{\text{AS}}$ -Ns (cf. *infra*, § 4.3.5.2), argued to denote δ (cf. *infra*, §§ 1.1.2.4 and 2.1.1.1) — and therefore, to require a phasal base — will always have a $\overline{\text{FOR-X}}$ -friendly event $\overline{\text{AS}}$ -N counterpart. We now turn to the structure of adjectives.

4.3.3.2 Adjectival Structures Beyond Lexicalization

Having established that Asp applies to Modulated Predicates exclusively, then we can safely conclude that Asp must select for ∇ P. Considering all the elements that were brought to attention, three levels of predication must be posited. My representation of the predicative adjective will be as in (713).

(713) The Revisited Structure of Predicative Adjectives



When adjectives are nominalized through appropriate suffixation, Modulation modification of this internal adjective surfaces as a prenominal particle. It should be assumed that the nominalizer possesses a modulation feature which, through Spec-Head Agreement, attracts to $F_{REF}P$ the Modulation value introduced by ∇ , allowing it to be modified by a particle in [Spec, KP]. Evidence in favour of this hypothesis comes from nominalizations in *-isme_N*, such as *héroïsme*. They seem to be built on a noun that indicates some sort of status: I call them *status-denoting* nominals. They oscillate between a State and a Quality, as expected if the nominal becomes promoted into an adjectival phase. In (714a), we see *non-* modifying a noun along a *pseudo* reading (as defined in § 4.1.1.1): *non-héros* negates Pierre's designation as a hero. By contrast, (714b) does not mean that the use of *heroïsme_N* 'heroism' is inappropriate, but nominalizes the negated property *non-hero*. In other words, the negation takes narrow scope over *hero* and the nominalizer takes wide scope over the negated predicate.

¹Even so-called *relational* adjectives must functionally be able to work as predicates. They denote properties that must apply to some object and, in this respect, they project an open position. This eliminates the need for a PredP layer and fully justifies the introduction of the argument as early as in [Spec, aP]. I therefore follow McNally & Boleda (2004) in their analysis of relational adjectives as kind-modifying intersectives.

- (714) a. Pierre, ce *non-héros*
 Pierre this non-hero
 b. le *non-héroïsme* de Pierre
 the non-heroism of Pierre

What it means is that in (714b), even though the particle is located in [Spec, KP], it is presumably licensed just above the internal predication. Thus, the projection whose head introduces the Scale will be argued to also introduce a variable dedicated to this measurement, namely the *Mode* variable. The **MODUL** test specifically identifies this projection, located on top of aP or v/Voice. I follow Roy's (2010, 2013) assumption that adjectives denote properties and their predicative uses involve a dominating subject-introducing layer. I will for my part assume that the argument is base-generated in [Spec, aP] and then raises to [Spec, AspP] where it can check for some predicative feature. In this view, AspP denotes an aspectualized predication whose subject is introduced in [Spec, AspP], in roughly the same way as TP represents a tensed predication whose subject is introduced in [Spec, TP] (see *supra*, section 3.3) for details. While T introduces a tense variable, Asp introduces an interval variable. For instance, in one reading, (715) does not mean to negate the qualification of *heroism* to the attitude described, but refers to an attitude which consists in not being a hero.

- (715) le non-héroïsme de cet homme me scandalise
 'the non-heroism of this man scandalizes me'

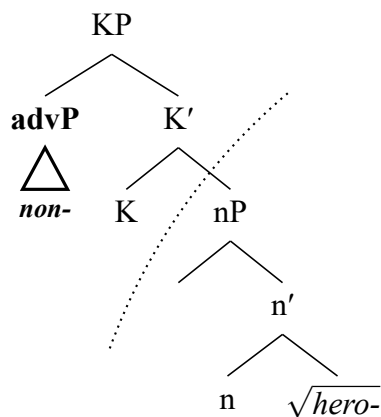
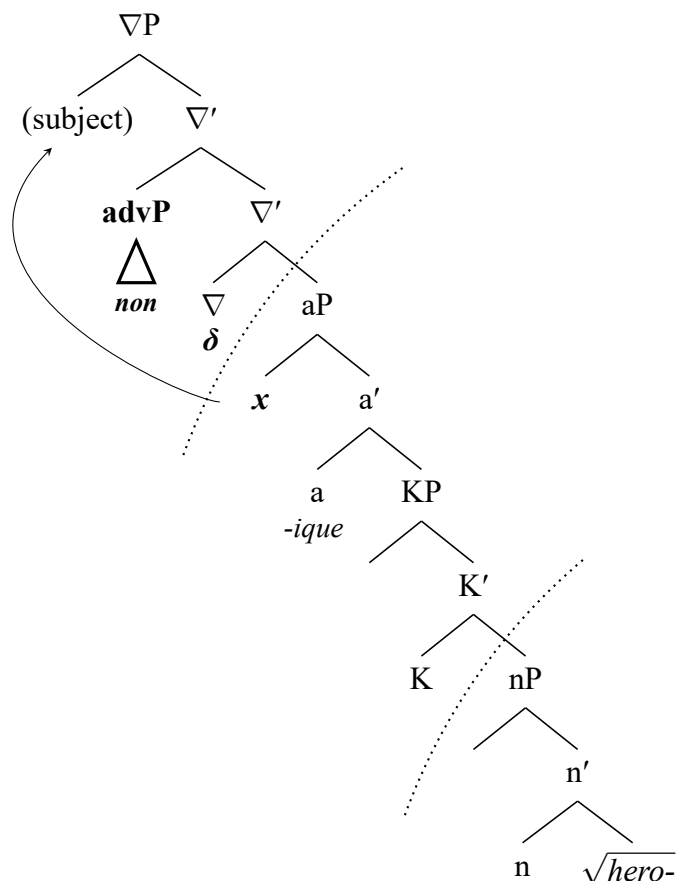
As a matter of fact, *the non-N* can only receive the pseudo, i.e. metalinguistic reading 'that which fails to be an *x*'; see (716), as opposed to (717).

- (716) Cet enfant, qui n'est pas le sien, représente l'incarnation de la trahison la plus intime et la plus dévastatrice que ce **non-père** ait jamais connue dans sa vie. (WEB, 2023)
 'This child, who is not his, represents the embodiment of the most intimate and devastating betrayal that this non-father has ever experienced in his life.'

- (717) * Le non-père de Jean Roland s'appelle Gérôme.
 'The non-father of Jean Roland is called Gérôme.'

Since ∇ introduces the variable to which Modulation Particles of adjectives assign a value, then we can hypothesize that the nominal shell lacks a ∇ P projection. As a consequence, unless the particle spells out the raising Modulator of an internal predicate, the pseudo reading is t"riggered. Indeed, if *heros_N* lacks a Modulation value, *héroïque_A* does not. That is, the suffix *-ique* turns *heros_N* into something that denotes a modulated property. Importantly, the Preposed Negation is licensed by the fact that the property takes an argument, which I assume is introduced in [Spec, aP], then raises to [Spec, ∇ P]. In sum, the modulated property soon becomes a modulated predicate. External Modulation Particles, which contribute to the nominal description, are directly introduced to the left of nP, i.e. at [Spec, KP]. This dominating position is indeed the

ideal spot if we are to account for the ability of these particles to take wide scope over the nominal description (see *supra*, § 4.1.1.1). Modulation Particles of verbs and adjectives are introduced as left ∇ P-adjuncts. I therefore propose to add to representation of the structure of predicative adjectives the ∇ P projection required to account for their *manner/degree* special properties. Some Event (AS)-Ns, which I have called (Ψ)-Ns, will be shown to fail the tests for strong categorial properties (cf. *supra*, subsection 4.1.4); and consequently, v/Voice cannot be held responsible for licensing those properties. To be clear, since not all event (AS)-Ns show the properties that we expect from the presence of Modulation, then Modulation cannot be an inherent property of the internal event: it must be built on top of it. This is where ∇ P comes into play. See the structures in (718).

(718) **Insertion of Pre-L Negation**a. **Prenominal Particle**
non-héros ‘non-hero’b. **Preadjectival Adverb**
non héroïque ‘non-heroic’

4.3.3.3 Deadjectival (AS)-Ns

In the absence of a vP, the event variable must be assumed to be introduced by Asp. A consequence is that all state-denoting (AS)-Ns will be built on a phase. For instance, a noun like *grâce_N* ‘grace’ will not be able to denote a state because *little a* must always be dominated by a phase head. That deadjectival nominalizations can be (AS)-Ns has been established for English and French by Borer (2003), Alexiadou (2011) and Roy (2010). This is especially true of the suffix *-té_N* ‘-ty’. For instance in (719), the state modifier *au regard du droit pénal* ‘with respect to criminal law’ is inherited from an internal adjective, cf. (719).

- (719) Ce magistrat va se pencher sur la *légalité au regard du droit pénal* de la gestion globale de cette manifestation. (20 minutes, 2022)
 ‘This magistrate will examine the legality with respect to criminal law of the overall management of this protest.’

The [FOR-X] test is also passed, cf. (720).

- (720) La sincérité pendant seulement trois jours de ce garçon fourbe, avant qu’il ne se mette à me mentir, me donna de lui piètre opinion.
 ‘The sincerity for only three days of this deceitful boy, before he began to lie to me, gave me a poor opinion of him.’

Nominals built on bounded states pass the [CF] test, which shows that the test is sensitive to Outer Aspect, introduced by Asp, cf. (721).

- (721) a. La disponibilité de cet article me réjouirait.
 ‘The availability of this article would please me.’
 b. L’honnêteté de tous les salariés à l’égard de cet incident nous éviterait des ennuis.
 ‘The honesty of all employees regarding this incident would save us from trouble.’

While imperfective states can constitute modal subordination when embedded inside a TP projection, they do not seem to pass [CF] when nominalized; see (722).

- (722) # La disponibilité de mon père me réjouirait ; hélas, cette qualité lui fait défaut.
 ‘The availability of my father would please me; alas, he lacks that quality.’

As convincingly shown by Iatridou (2000: 250), individual-level states are interpreted in conditionals as unreal, i.e. non-potential counterfactuals; this is because the property, being non-transitory, cannot be construed as emerging, and the notion of *occurrence* does not make sense, cf. (723).

- (723) If I were tall, I would be able to reach the ceiling.

In formal French, the subjunctive mood is aspectually marked according to whether it denotes a potentiality or an impossible reality. In the latter case, imperfective morphology is expected, cf. (724). That makes the correlation apparent, thus further supporting Iatridou's observation.

- (724) a. Que mon père soit disponible à mon anniversaire me
 that my father be.SUBJ.IMPFT available at my birthday me
 réjouirait.
 would please
 (... J'ai bon espoir. 'I have good hope.')
- b. Que mon père fût quelqu'un de disponible me réjouirait.
 that my father be.SUBJ.PRES someone of available me would please
 (... Hélas, il ne l'est pas. 'Alas, he is not so.')

In previous sections were mentioned many simple nominals which internal modifiers cannot successfully eliminate, cf. (725).

- (725) La [fréquente / constante] mauvaise humeur de mon père m'a exténué.
 'The frequent/constant bad mood of my father exhausted me.'

I regard them as relational Ns, not (AS)-Ns — Ns which denote a transitory property but lack an internal structure. Under certain circumstances, the modifiers used for [FOR-X], [MULT] and even [DIV] (cf. *supra*, § 2.1.2.3) accept such Ns. Of course, the tests are not correctly instantiated, since modification is intended in an internal reading.

- (726) Le zèle successif des magistrats et des administrateurs [améliora / améliorerait] les choses.
 'The successive zeal of the magistrates and the administrators [improved / would improve] things.'

However, the [CF] test correctly rejects them, thus highlighting an entity reading.

- (727) a. La mauvaise humeur de mon père [✓ m'a rendu / # me rendrait] malade.
 'The bad mood of my father [made me / would make me] sick.'
- b. La mauvaise humeur de mon père pendant cinq jours [✓ m'a rendu / # me rendrait] malade (v.k.)
 'The bad mood of my father for five days [made me / would make me] sick.'
- c. La [fréquente / constante] mauvaise humeur de mon père [✓ m'a rendu / # me rendrait] malade. (v.k.)
 'The frequent/constant bad mood of my father [made me / would make me] sick.'

By contrast in (728), the deadjectival nominal passes [CF]. I'm using the internal modifier *effectif*_A 'actual' favors a state reading, as deadjectival (AS)-Ns tend to be by default interpreted as Quality nominals (cf. *infra*, § 4.3.5.1).

- (728) ✓ La disponibilité effective de mon père le jour de mon anniversaire me rendrait heureux.
'The actual availability of my father on the day of my birthday would make me happy.'

Conversely, Ns that refer to spatiotemporally localized behaviors and have been called endo-actional states by Martin (2008), cf. (729) (cf. *infra*, §§ 2.1.1.1 and 2.1.2.3).

- (729) # Le courage effectif de tous ces clients nous permettrait de porter plainte.
'The actual courage of all these customers would allow us to press charges.'

As we can see, [CF] invariably fails in the absence of an argumental subject. That makes it a fully reliable test to distinguish between (AS)-Ns and (non-AS)-Ns.

Now, let us see what happens with unbounded states. Let us take *vétuste*_A 'dilapidated', which is mostly used as an individual-level modifier, but may be coerced into a stage through Outer Aspect, cf. (730).

- (730) a. # Cette maison fut vétuste.
'This house was dilapidated.'
b. Cette maison fut vétuste pendant un temps, mais elle a été entièrement rénovée.
'This house was dilapidated for a time, but it has been completely renovated.'

If non-quantized (AS)-Ns pass [CF], it must be because [CF] is sensitive to Outer Aspect. We therefore expect that [CF] might be able to coerce typical individual-level As into denoting a perfective state. This seems to be borne out, judging by (731), where the nominal is interpreted as the punctual verification of a permanent state. It is indeed possible to use a modifier that will insist on the positive polarity, here *effectif*_A 'actual', cf. (800) in § 4.3.5.1 *infra*.

- (731) On nous a informé que cette maison était plutôt vétuste. Nous allons vérifier cela, mais sa vétusté effective constituerait une pierre d'achoppement.
'We were informed that this house was rather dilapidated. we will verify this, but its actual dilapidation would be a stumbling block.'

Note the adjective *vétuste*_A 'dilapidated' should nominalize into *vétusteté*_N, see e.g. {*chaste*_A 'chaste' → *chasteté*_N 'chastity'} or {*honnête*_A 'honest' → *honnêteté*_N 'honesty'}. I assume that *vétusté*_N 'dilapidation' and *gratuité*_N 'gratuity' are formed by haplology from °*vétuste*_A-*té*_N and °*gratuit*_A-*e*_{FEM}-*té*_N. In any case, we can use past counterfactual, exactly like we did in § 3.1.2.3. However, a Quality reading would still be favored, unless we added something like a Preposed Negation (cf. *supra*, section 4.1); cf. (732).

- (732) a. Mon père était quelqu'un de disponible. Et heureusement, car sa non-disponibilité eût été difficile à vivre pour des enfants ayant perdu leur mère jeunes.
 'My father was someone available. And fortunately, for his non-availability would have been difficult for children who lost their mother young.'
- b. Cette maison extérieurement magnifique s'avéra vétuste à l'intérieur. C'est dommage, car avec tous les atouts qu'elle possède, sa non-vétusté eût fait d'elle un investissement idéal.
 'This house, outwardly magnificent, turned out to be dilapidated inside. It's a pity, for with all its assets, its non-dilapidation would have made it an ideal investment.'

This is expected if, as I shall argue in § 4.3.5.1 *infra*, Quality Ns denote the variable introduced by the phase head: by inserting an IMP, we assign value to this variable and thus, it cannot be expressed by the nominalizer — since that would require a free variable. The nominalizer, then, comes to denote the event variable introduced by Asp.

Husband (2012: 151) suggests that the individual- vs. stage-level distinction is actually another manifestation of Quantization, which would align well with the syntactic treatment of Aktionsart favored in the present work. What such data show us, is that in the absence of low Quantization, an episodic reading can be coerced using a Past Counterfactual variant of [CF]. I will thus assume Asp on top of whatever projection introduces the internal predication of (AS)-Ns, regardless of whether they exhibit low Quantization. The [CF] test crucially reveals that all state-denoting deadjectival nominals project an eventuality variable through Outer Aspect. Indeed, although individual-level states tend to be interpreted as Qualities by default, they can be coerced into a perfective reading. In Roy (2010), the nominalizer spells out the Pred head. A claim I make is that Asp exclusively selects for a projection present only in phonologically identifiable and semantically interpretable verbal and adjectival bases. I claim that this is so because the head of this projection is a *phase* head; and it also licenses Modulation: this is ∇ .

I therefore argue that deadjectival (AS)-Ns are (Φ)-Ns. Remarkably, the suffix *-at*, historically the same as that of *-at_v-ion_N* nominals, i.e. being part of what I call Third Stem morphology, also builds status-denoting nouns. I regard this fact as an additional argument in favor of ∇ being spelled out by such morphology (cf. *supra*, § 4.3.1.4). Another typical modulation-ready suffix is *-té*. Drawing on Roy (2010), who proposes that this suffix spells out the Pred head, I posit that *-té* actually spells out the Asp head, thus expressing the eventuality variable. As will be further elaborated in § 4.3.5.1, the δ variable can be saturated by the suffix itself, resulting in a *Quality* reading. As argued in section 4.3 *supra*, the ability of *-té* to denote either a state — as in (733a) — or a quality — as in (733b) — is thus indicative of the presence of ∇ P. It is important to note that even when AspP is present, the argument must always make a stop in [Spec, ∇ P], which serves as an escape hatch from the phase (see *infra*, § 4.3.4.1).

- (733) a. ce qui fait la non-héroïcité d’Ulysse (R.W., 2013)
 ‘what constitutes the non-heroicity of Ulysses’
 b. la contradiction entre les formes d’une héroïcité univoque et les contenus d’une non-héroïcité éclatante. (R.W., 1993)
 ‘the contradiction between the forms of an unequivocal heroicity and the contents of a glaring non-heroicity.’

It is true not only for *non-*, but also for other particles such as *quasi-*, cf. (734).

- (734) Comment un capitaine obscur et d’âge mûr en 1792 est-il parvenu à l’état de quasi-héroïcité huit ans plus tard ? (A. Le Bloas, 2022)
 ‘How did an obscure and middle-aged captain in 1792 manage to reach a state of quasi-heroicity eight years later?’

Regarding *-isme_N* ‘-ism’ nominals, for which there does not always exist a corresponding *-iste_A* ‘-ist’ A, the suffix attaches directly to common adjectival base (cf. 735) (see *supra*, § 3.1.2.2).

- (735) a. le non-somnambulisme (cf. °*somnambuliste*)
 ‘non-somnambulism’
 b. le non-professionnalisme (cf. °*professionnaliste*)
 ‘non-professionalism’

As previously seen, **MODUL** can be used with unbounded states using Past Counterfactual. For instance, *hérédité_N* ‘heredity’, which lacks an attested adjectival source, cf. (736).

- (736) °*hérède_A* ‘hereditary’
 Les médecins établirent que ce kyste était héréditaire. Cela me soulagea, car sa non-hérédité eût soulevé des inquiétudes quant à une éventuelle origine cancéreuse.
 ‘The doctors established that this cyst was hereditary. That relieved me, for its non-heredity would have raised concerns about a possible cancerous origin.’

Deadjectival Ns inherit the ability of the source A to take a negation, whether the latter denotes a stage- or an individual-level predicate, cf. (737).

- (737) a. Compte-tenu de la non-disponibilité de l’article, la commande a été annulée. ‘Due to the non-availability of the product, the order has been cancelled.’
 b. La non-intégrité de cet homme m’indigne. ‘The non-integrity of this man outrages me.’
 c. la non-responsabilité du savant face aux utilisations détournées de ses découvertes (P. Desproges, 1986)
 ‘the non-responsibility of the scientist regarding the misuses of his discoveries’

Some do not have an attested adjectival source, cf. (738).

- (738)
- a. *célérité*_N ‘celerity’ (cf. °*célère*_A ‘fast’)
 - b. *cécité*_N ‘blindness’ (cf. °*cèce*_A ‘blind’)
 - c. *dextérité*_N ‘dexterity’ (cf. °*dextère*_A ‘skillful’)
 - d. *équité*_N ‘equity’ (cf. °*equé*_A ‘equal’)
 - e. *félicité*_N ‘felicity’ (cf. °*félice*_A ‘happy’)
 - f. *hérédité*_N ‘heredity’ (cf. °*hérède*_A ‘hereditary’)
 - g. *inanité*_N ‘inanity’ (cf. †*inane*_A ‘inane’)
 - h. *innocuité*_N ‘innocuousness’ (cf. °*innocu*_A ‘innocuous’)
 - i. *longévité*_N ‘longevity’ (cf. °*longève*_A ‘lasting’)
 - j. *probité*_N ‘probity’ (cf. †*probe*_A ‘virtuous’)
 - k. *sécurité*_N ‘security’ (cf. °*sécurve*_A ‘secure’)
 - l. *ubiquité*_N ‘ubiquity’ (cf. °*ubique*_A ‘ubiquitous’)
 - m. *vacuité*_N ‘vacuity’ (cf. °*vaque*_A ‘vacuous’)
 - n. *véracité*_N ‘veracity’ (cf. ■*vérace*_N ‘true’)

As usual, the lack of an attested corresponding adjective is of no consequence: IMPs modify the underlying structure, thus highlighting the presence of a modulated predicate within it, cf. (739).

- (739)
- a. Il fallait se convaincre de la non-inanité de la vie de famille (P. Zech, 2021)
‘It was necessary to be convinced of the non-inanity of family life.’
 - b. La non-félicité de son incursion crée un revirement sémantique. (R.W., 2015)
‘The non-felicity of his incursion creates a semantic turnaround.’
 - c. L’erreur sur la cécité, ou plutôt sur la non-cécité des nouveau-nés, est potentiellement dramatique (R. Lécuyer, 2020)
‘The mistake about blindness, or rather about the non-blindness of newborns, is potentially dramatic.’
 - d. C’est là le prisme à travers lequel il convient de juger de la célérité ou de la non-célérité d’une procédure. (I.C.C., 2020)
‘This is the prism through which the celerity or non-celerity of a procedure should be judged.’
 - e. Il prétend qu’il n’a jamais entendu personne se plaindre de la non-probité de son oncle. (1851)
‘He claims he has never heard anyone complain about the non-probity of his uncle.’
 - f. Le rapport a certainement contribué à démontrer la non-innocuité de l’ecstasy. (WEB, 2004)
‘The report certainly helped to demonstrate the non-innocuousness of ecstasy.’

In sum, similar to what is suggested in (cf. *supra*, §4.3.1.5), the boundary between allomorphy and so-called lexical sourcelessness is not always clear. This is the case with e.g. *proximité_N* ‘proximity’, related to *proche_A* ‘close’.

(740) Il semble que la non-proximité d’une école élémentaire puisse être un facteur handicapant.

‘It seems that the non-proximity of an elementary school could be a limiting factor.’

The same issue arises with, for instance, e.g. *ébriété_N*, related to *ivre_N* ‘drunk’, next to *ivresse_N*. This is not unexpected providing we acknowledge that there is no such thing as a lexical source, bases being structures whose spellout is contextually determined.

In any case, the argument of adjectives must raise to a position where it will become the subject of the Modulated property, but then also raise to [Spec, AspP]. I have argued in section 2.2 that (AS)-Ns lack a TP projection, which has been independently motivated by Stowell (1982) — admittedly for English, but on empirical grounds that also apply to French; see for instance Alexiadou (2001: 59–66) for an overview of the arguments in favor of this view. In the absence of AspP, no eventuality variable is involved, and consequently, the nominalizer can only realize ∇ : the derivation, then, outputs a quality-denoting (AS)-N. Thus in (741) below, I assume that the internal aP is not governed by an AspP projection and as a result, no event reading is triggered. Instead, a Modulated property is denoted, cf. (741).

(741) Nous regretterons notre ami Jean, car sa générosité était grande.

‘We shall miss our friend Jean, for his generosity was great.’

IMPs, which spell out the Modulator introduced by ∇ , are inserted as left ∇ P adjuncts, then raise to the domain of the entity description, up to the prenominal position, i.e. to [Spec, KP]. The structure I propose for (*non*)-*héroïcité* is given in (743) (on the next page).

To conclude, the strong functional properties identified in deadjectival (AS)-Ns are fully accounted for if we posit an additional projection on top of the argument-introducing layer: ∇ P. In order to denote a grammatical state, a nominalization must be built on an aspectualized aP. This exactly parallels what will be noticed about unergative (AS)-Ns: in the absence of low Quantization, Asp is required, which introduces an upper predication. Asp may only select for ∇ P, which is the phase head of all L-Phases. I am now going to recapitulate and formalize when and how a phasal base is required.

4.3.3.4 Unergative (AS)-Ns

The distinction between unaccusative and unergative predicates has been shown to be empirically justified when studying nominalizations. It has been pointed out in the literature that the two classes differ drastically in terms of their grammatical properties and therefore, in terms of their structure. Alexiadou (2001, 2017) claims that English only possesses two types of

nominalizations, transitives and unaccusatives. She argues that the nominalizing shell triggers an ergative pattern. According to Van de Velde (2006), there are two types of Ns derived from intransitive Vs: type 1 Ns, such as *naissance*_N ‘birth’ and *départ*_N ‘departure’, behave exactly like Ns derived from transitive Vs, being ambiguous between an (AS)-N and a (non-AS)-N reading; type 2 Ns, such as *protestation*_N ‘protestation’, always behave as (non-AS)-Ns (cf. 742). Types 1 and 2 seem to correspond to unaccusative and unergative (AS)-Ns, respectively.

(742) **Unergatives and [CF]** (ad. fr. Van de Velde 2006: 125)

a. # *La protestation des salariés ne servirait à rien.* [judgment Van de Velde’s]

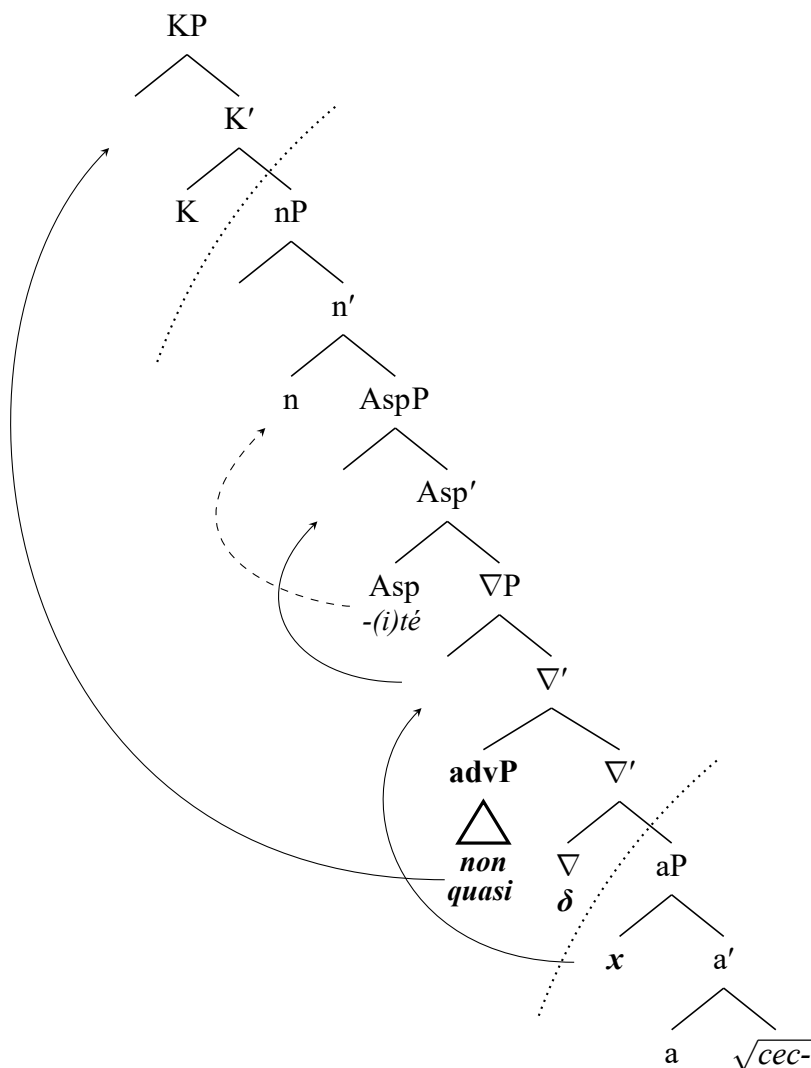
‘The protestation of the employees would be useless.’

b. ✓ *Le départ des avions en pleine nuit surprendrait l’ennemi.*

‘The departure of the planes in the middle of the night would surprise the enemy.’

(743) **The Raising of Internal Modulation Particles**

[*non-/quasi-*]cécité



Nouns such as *protestation*_N, as well as some lexically sourceless Ns such as *collision*_N ‘collision’, *sécession*_N ‘secession’ or *sédition*_N ‘sedition’, typically refer to distinct instances, i.e. tokens. As argued in section 2.2 *supra*, a prerequisite for a nominal to be classified as an (AS)-N is that it must refer to event kinds than specific entity tokens. However, the analysis of stative nominalizations (cf. Kayne 1984, Borer 2003, 2013, Alexiadou 2011) has proved AS to not necessarily be correlated to theme incrementality: as noticed by Borer (2013: 191, ex. 33d–e) — here reproduced as (744a–b), the [FOR-X] tests works with stative nominals, thus hinting at the presence of Outer Aspect, cf. (744).

- (744) a. the party’s satisfaction with the results for a few hours
 b. Jill’s fondness of cats for several years

If unergative nominalizations lack theme-related Quantization, they can still be (AS)-Ns through Outer Aspect, one that relates the subject of AspP to the predication the latter introduces. Crucially, as was argued in § 4.3.3.3, [CF] is sensitive to Outer Aspect as well, cf. (745) and (746).

- (745) La défection de ces soldats déclencherait une crise majeure.
 ‘The defection of these soldiers would trigger a major crisis.’
- (746) Impossible de savoir ce que donnerait, pour la durée du corps, la collision répétée de l’épiderme et de la chaleur ambiante. (J. Jouet, 1994)
 ‘Impossible to know what would yield, for the duration of the body, the repeated collision of the skin with ambient heat.’

Also worth noting is that unergatives pass the [POT] test regardless of whether their base is autonomously attested. Thus in (747), the conditional clause clearly imposes truth conditions onto the eventuality embedded inside the nominalization.

- (747) °*sécéder*_v ‘withdraw’
 Les États du Sud, qui avaient annoncé leur **sécession** si Lincoln était élu...
 (WEB, 2012)
 ‘The Southern states, which had announced their secession if Lincoln was elected...’

The analysis of stative nominalizations (cf. Kayne 1984, Borer 2003, 2013, Alexiadou 2011) has established that AS projection is not necessarily correlated to theme incrementality. Here, I argue that [CF] succeeds where all other tests fail, i.e. in correctly identifying non-quantized (AS)-Ns, while rejecting conceptual, i.e. non-grammatically-relevant eventualities. I will show that if unergative nominalizations can sometimes seem reluctant to [CF] as pointed out by Van de Velde (2006) (cf. *supra*, subsection 2.2.1), it is actually due to the absence of a low event projection (vP). Because of this absence, and assuming Voice to be unable to introduce an event variable, the complement tends to be interpreted as a possessor. However, as argued in § 2.1.3.2 *supra*, unergative nominals do pass [CF], but through Outer, i.e. Outer Aspect, provided

they contain an AspP projection. In sum, non-quantized (AS)-Ns pass [CF], not because Voice or a introduces an event variable — it does not, actually; otherwise we would find non-phasal non-quantized (AS)-Bases (cf. *supra*, § 4.2.2.3), but because Asp introduces one. See (748).

- (748) a. # La [protestation / tristesse] de mon frère m'inquièterait.
 'The [protestation / tristesse] of my brother would worry me.'
- b. ✓ La [protestation / tristesse] de mon frère le jour de son propre anniversaire m'inquièterait.
 'The [protestation / tristesse] of my brother on his own birthday would worry me.'

Those contrasts are expected if unergative and deadjectival nominals projects an event variable through Perfectivity. In (748), a perfective reading is induced by temporal localization. This correctly predicts that imperfective processes and states will never be able to project their argument when nominalizing, because the variable introduced by Asp must be existentially, not generically quantified (see *supra*, § 4.1.4.1).

Therefore, a key highlight of the [CF] test is that in the absence of theme-related Quantization, Grammatical Aspect, and, more specifically, Perfectivity is required. Crucially, while some supposedly unergative nominalizations such as *protestation*_N 'protestation' pass [FOR-X], others, such as *travail*_N 'work', do not pass the tests for eventivity, and I argue that this is so because they are not deverbal and thus, they lack this landing site. They only pass *subject-related* modification as defined in § 2.1.1.2 *supra*, which says nothing of the argumental or non-argumental status of the complement (cf. §§ 2.1.1.1 and 2.1.2.1 *supra*). It means that they are not even (AS)-Ns.

I will therefore assume that the argument of unergatives raises to [Spec, AspP], thus promoting it to a grammatical subject. Asp introduces a relation of quantification that binds the eventuality to the raising argument. This predicts a dissymmetry: on the one hand, telic (AS)-Ns, i.e. transitives and unaccusatives, will exist in two flavors, namely those that have AspP and those who lack it; on the other hand, non-quantized (AS)-Ns, i.e. unergatives and deadjectivals, can only draw Quantization from the grammatical subject and thus, they require AspP (cf. *supra*, § 2.1.1.1). And indeed, this is what we observe: while, as will be shown in chapter 4, telic transitive and unaccusative (AS)-Ns may be built on structures smaller than a phasal verb, non-quantized (AS)-Ns, by contrast, must always be built on a full verb.

- (749) a. le constant travail de ces salariés pendant des mois...
 'the constant work of those employees for months'
- b. le travail successif de ces différents salariés pendant des mois...
 'the successive work of those different employees for months'
- ... a permis de faire aboutir le projet.
 'allowed for the completion of the project'

This is illustrated in (750), where the hash symbol indicates impossible non-presuppositional use, i.e., ungrammaticality in an *out-of-the-blue context*: in other terms, *travail_N* fails [CF].

- (750) a. Le constant travail de ces différents salariés (pendant des mois)...
 ‘The constant work of those different employees for months...’
 b. Le travail progressif de ces différents salariés (pendant des mois)...
 ‘The work progressive of those different employees for months...’
 c. Le travail successif de ces différents salariés (pendant des mois)...
 ‘The work progressive of those different employees for months...’
 ... [✓ a permis / # permettrait] de faire aboutir le projet
 ‘[allowed / would allow] for the completion of the project.’

This highlights a crucial constraint on unergative (AS)-Ns, namely that they require a *phasal source*. (Ψ)-Ns, which are (AS)-Ns built on a structure smaller than a phase, require *theme-related Quantization* (cf. *supra*, subsection 4.3.2): since they lack Outer Aspect, they need an incremental theme in order to project AS. Consider unergative nominalizations such as *chahut_N* ‘ruckus’, related to *chahuter_v* ‘make a ruckus’.

- (751) a. le constant chahut de ces élèves a nui au reste de la classe
 ‘The constant uproar of these students harmed the rest of the class.’
 b. le chahut successif de ces quelques élèves a nui au reste de la classe
 ‘The successive uproar of these few students harmed the rest of the class.’

While it would logically seem that they should be able to project an external argument, they actually fail to do so, as evidenced by their inability to pass [CF]; see (752). While all event (AS)-Ns denote event kinds, as will be argued in section 2.2, nominals built on unergative predicates can only denote tokens.

- (752) # Le chahut de ces élèves aurait de graves conséquences.
 ‘The ruckus of these students would have serious consequences.’

This limitation is expected if we consider that the argument introduced via VoiceP is unable to raise to a subject position. For instance, the noun *échec_N* ‘failure’, although historically related to Persian *shah_N* ‘king’, synchronically relates to *échouer_v* ‘fail’. The prediction is that, being unergative, it could not be a (Ψ)-N. This is borne out, since, for instance, it takes IMPs, cf. (753).

- (753) Même tonalité partout ailleurs, où l’on appuie plus ou moins sur le succès de la droite,
 plus ou moins sur le *non-échec* de la gauche. (Radio France, 2015)
 ‘Same tone everywhere else, with either more or less emphasis on the success of the
 right, or more or less on the non-failure of the left.’

We can use [CF] to verify the internal reading of the particle, cf. (754).

- (754) Le non-échec de la gauche aux élections aurait rendu le pays plus vivable. (v.k.)
 ‘The non-failure of the left in the elections would have made the country more livable.’

That unergative (AS)-Ns are always built on a phase is predicted if a non-arbitrary internal argument is required to trigger Quantization. Now we turn to stative transitive (AS)-Ns.

4.3.3.5 Stative Transitive (AS)-Ns

The question whether the Phasality Requirement affects transitive atelic predicates must be discussed. By *atelic*, I mean lacking inherent Quantization — an issue that was extensively discussed in subsection 2.1.3. I will take as an example the noun *culte*_N ‘worship’, and wonder if it qualifies as an (AS)-N. Indeed, as observed in (755), *adulation*_N, which might be regarded as a (Φ)-N counterpart to *culte*_N, does not exhibit inherent Quantization, as it fails [IN-X] by default.

- (755) l’adulation [# en quelques minutes] de cette idole
 ‘the adulation in a few minutes of this idol’

Therefore, the postposed [IN-X] must be used. Indeed, as discussed in section 2.1 *supra*, atelic predicates may draw Quantization from definite theme quantification. See (756), where the event is construed as having a natural endpoint.

- (756) L’**adulation** successive de ces milliers de divinités *en l’espace de quelques millénaires* démontre le caractère relatif de la religion. (v.k.)
 ‘The successive adulation of these thousands of deities within a few millennia demonstrates the relative nature of religion.’

Bounded theme quantification allows division of the overall event into a finite number of subevents. The [DIV] test — which I argued in subsection 2.1.2 infallibly identifies themes in transitive contexts, is therefore, as we can see, passed by *culte*_N. See the attested examples in (757).

- (757) a. les masses, auxquelles le culte successif de la Raison, de la Science, de la Loi
 n’a pas donné d’âme (La Croix, 1941)
 ‘the masses, to whom the successive worship of Reason, Science, and Law has
 not given a soul’
- b. L’esprit mauvais a ballotté les générations humaines d’espoir en espoir à travers
 le culte successif des sept péchés capitaux. (A. Dumouch, 1996)
 ‘The evil spirit has tossed human generations from hope to hope through the
 successive worship of the seven deadly sins.’

The overall event reaches culmination when all these subevents have occurred. Thus, each time [DIV] is successfully passed, derived Quantization may be triggered, cf. (758).

- (758) a. L'année liturgique est constituée par le **culte *successif*** de tous les mystères de la vie de Jésus-Christ. (A.-F. Saubin)
 'The liturgical year is constituted by the successive worship of all the mysteries of the life of Jesus Christ.'
- b. Le **culte *successif*** de tous les mystères de la vie de Jésus-Christ *en l'espace d'une année* épuise les ecclésiastiques.
 'The successive worship of all the mysteries of the life of Jesus Christ within a year exhausts the ecclesiastics.'

This is what I have called *derived Quantization*. As (758b) shows, *culte_N* passes [IN-X] in its derived form, thus qualifying it as an atelic (AS)-N. Also see (759). Note that, as previously noticed in § 2.1.3.2, the sequential reading is somehow favored through the use of *successif_A*.

- (759) Le **culte *successif*** de ces milliers de divinités *en l'espace de quelques millénaires* démontre le caractère relatif de la religion. (v.k.)
 'The worship of these thousands of deities within a few millennia demonstrates the relative nature of religion.'

The adjective *simultané_N* 'simultaneous' is also broadly attested, cf. (760).

- (760) a. La fusion des divers éléments de la population eut pour résultat le culte simultané des deux divinités. (1861)
 'The fusion of the various elements of the population resulted in the simultaneous worship of the two deities.'
- b. N'est-ce pas le charme du caractère français que de concilier dans les temps modernes le culte simultané des belles-lettres et des sciences? (R.W., 1912)
 'Is it not the charm of the French character to reconcile in modern times the simultaneous worship of literature and science?'
- c. À Pylos, le culte simultané de Déméter, de Coré et d'Hadès se montre établi dès une extrême antiquité. (R.W., 2017)
 'At Pylos, the simultaneous worship of Demeter, Kore, and Hades was established from a very ancient period.'

Note that, as expected, *culte_N* also passes [MULT], cf. (761).

- (761) a. Chaque section organise la commémoration de ses disparus et le **culte *régulier*** de Jeanne d'Arc. (F. d'Almeida, 2007)
 'Each section organizes the commemoration of its fallen members and the regular worship of Joan of Arc.'

- b. Comme si le **culte régulier** de Jehovah n'eût d'autre base que de vieilles traditions ou des rites passés dans les habitudes. (*Revue des Deux Mondes*, 1868)
 'As if the regular worship of Jehovah had no other basis than old traditions or rites that had become habitual.'
- c. Et peu après s'établissent les mystères d'Eleusis, la doctrine sacrée et le **culte régulier** de Cérés. (1828)
 'And shortly after, the Eleusinian Mysteries, the sacred doctrine, and the regular worship of Ceres were established.'

Nominals headed by *culte*_N appear to be able to take adjectival event-internal modifiers, cf. (762) and (763).

- (762) a. Finnegan a voulu fuir la prison du matérialisme obscène de l'argent et le **culte effréné** de la réussite. (*Le Point*, 2017)
 'Finnegan wanted to escape the prison of obscene materialism of money and the relentless worship of success.'
- b. L'emprise ancestrale de la tradition laisse place à la fièvre du rush, au **culte effréné** du nouveau. (*Le Monde*, 1987)
 'The ancestral hold of tradition gives way to the fever of the rush, to the relentless worship of the new.'
- c. Le féminisme, c'est le **culte effréné** de la statistique. (E. Bastié, 2017)
 'Feminism is the relentless worship of statistics.'
- (763) Il était rivé à jamais au joug de ce qu'on appelle en Russie la civilisation, c'est-à-dire le culte aveugle de la puissance absolue. (G. Sand, 1890)
 'He was forever bound to the yoke of what is called civilization in Russia, that is, the blind worship of absolute power.'

Moreover, they may be interpreted as actions, especially as complements of suasive verbs, cf. (764) and (765).

- (764) Pythagore, Platon, Socrate recommandent le culte de ces hommes qu'ils appellent des héros. (F.-R. de Chateaubriand, 1802)
 'Pythagoras, Plato, Socrates recommend the worship of these men whom they call heroes.'
- (765) a. Baudelaire préconise le culte de l'inutile et de la beauté. (R.W., 2014)
 'Baudelaire advocates the worship of the useless and beauty.'
- b. Le système éducatif singapourien préconise le culte de l'excellence. (WEB, 2023)
 'The Singaporean educational system advocates the worship of excellence.'

Such nominals may also be interpreted as facts — which only internal predication can trigger, cf. (766) and (767).

- (766) a. Ce que le Régourdou a révélé, c’est peut-être le **culte** de l’ours par les Néandertaliens, thèse popularisée puis battue en brèche. (*Sud-Ouest*)
 ‘What Régourdou revealed is perhaps the bear worship by Neanderthals, a theory that was popularized and then debunked.’
- b. La corruption des élus, le **culte** de la prévarication par les fonctionnaires distinguent comme jamais l’appareil d’État. (*Le Devoir*)
 ‘The corruption of elected officials, the worship of prevarication by civil servants distinguishes the state apparatus like never before.’
- c. Cette mesure confirme bien le respect et le **culte** des morts par les Germains. (*M.-P. Terrien, 2007*)
 ‘This measure clearly confirms the respect and worship of the dead by the Germans.’
- (767) Le nom seul du Donon suffit pour attester une haute antiquité; l’inscription *Bellicus Surbur*, gravée sur un rocher, d’autres inscriptions latines, des fondations d’édifices, et de nombreuses statues aux formes massives comme celles des Germains, **attestent le culte simultané du polythéisme gaulois et du polythéisme romain**, et semblent aussi prouver l’existence sur cette montagne d’un poste militaire. (1874)
 ‘The name alone of the Donon is enough to attest to its great antiquity; the inscription *Bellicus Surbur*, engraved on a rock, other Latin inscriptions, foundations of buildings, and numerous statues with massive forms like those of the Germans, attest to the simultaneous worship of Gaulish polytheism and Roman polytheism, and also seem to prove the existence of a military post on this mountain.’

As seen in (766c), *culte*_N can share its complementation structure with an (AS)-N, which would be difficult to explain should its own complementation not be argumental. Besides, this noun is often found alongside other (AS)-Ns, cf. (768) and (769).

- (768) Sparte se bâtit sur les champs de bataille une terrible réputation. Mais le **culte** exacerbé de la force martiale et l’**érosion** continue d’élites jalouses suscitent par réaction de puissantes unions rivales (*Science & Vie, 2022*)
 ‘Sparta built itself a terrible reputation on the battlefield. But the exacerbated cult of martial strength and the continuous erosion of jealous elites gave rise to powerful rival alliances as a reaction.’
- (769) Il est même superflu de montrer tout ce qu’il y a d’insolamment germanique dans cette **adoration** de l’absolutisme, dans ce **culte** effréné de la force, dans ce **mépris** du droit et de la liberté. (*Revue des Deux Mondes, 1915*)

‘It is even superfluous to point out everything that is insolently Germanic in this adoration of absolutism, in this frenzied worship of force, in this contempt for law and freedom.’

In (770) below, *culte*_N not only passes [CF], but it is also used in conjunction with *apothéose*_N ‘apotheosis’, a noun which, as I argued in § 4.2.3.1, qualifies as an (AS)-N — and even as a (D)-N, more specifically.

- (770) Le **culte** absolu de la matière, l’**apothéose** exclusive de l’industrie, **auraient** pour les peuples de l’Europe mille dangers. (M. Chevalier, 1840)
 ‘The absolute worship of matter, the exclusive apotheosis of industry, would pose a thousand dangers for the peoples of Europe.’

Note that the complement need not be generic, and modal subordination is not contextually inferred. Therefore, one could not object that [CF] is licensed through extensional anchoring (see *supra*, section 2.2), cf. (771).

- (771) Le **culte** irraisonné de cet idéal égalitaire nous **mènerait** au chaos. (v.k.)
 ‘The unreasoned worship of this egalitarian ideal would lead us to chaos.’

It is possible to take genuine example — (768), for instance, and apply [CF], cf. (772) and (773).

- (772) Prenons garde: Sparte a beau être forte, le **culte** exacerbé de la force martiale et l’**érosion** continue d’élites jalouses susciteraient par réaction de puissantes unions rivales. (v.k.)
 ‘Let us be cautious: Sparta may be strong, but the exacerbated cult of martial strength and the continued erosion of jealous elites would provoke powerful rival unions in response.’

- (773) a. Le **culte** effréné de la jouissance déshumanise, conduit à la soumission. (*Le Monde*, 2005)
 ‘The relentless worship of pleasure dehumanizes and leads to submission.’
 b. Le **culte** effréné de la jouissance **déshumaniserait**, **conduirait** à la soumission.
 ‘The relentless worship of pleasure would dehumanize and lead to submission.’

[POT] can also be used, cf. (774).

- (774) ✓ L’oracle avait prédit le **culte** exacerbé des valeurs patriotiques jusqu’aux confins de l’Empire **en cas de victoire contre les Perses**. (v.k.)
 ‘The oracle had predicted the exacerbated worship of patriotic values to the farthest reaches of the Empire in the event of a victory against the Persians.’

Furthermore, *culte*_N seems to accept PP event modification; see (775).

(775) **Le culte des morts par le biais des monuments** apparaît particulièrement révélateur comme représentation de la guerre et du militaire.

‘The worship of the dead by way of the monuments appears particularly revealing as a representation of war and the military.’ (R.W., 2009)

Licensing of vP-adjuncts is also observed, such as the one italicized in (776), which expresses the purpose of the worship action.

(776) Le **culte** aveugle de l’objet antique *pour lui-même* est donc à proscrire. (R.W., 2008)

‘The blind worship of the antique object for its own sake is therefore to be avoided.’

Of course, as we intuitively sense, *culte*_N, unlike e.g. *adulation*_N or *vénération*_N, lacks an internal *L-Phase*. Most saliently, it fails [MODUL] and [FOR-X], cf. (777) and (778), and thus, qualifies not as a (Φ)-N, but rather as a (Ψ)-N.

(777) a. ✓ l’adulation pendant plusieurs siècles d’un individualisme exacerbé
‘the adulation for several centuries of an exacerbated individualism’

b. * le culte pendant plusieurs siècles d’un individualisme exacerbé
‘the worship for several centuries of an exacerbated individualism’

(778) a. la [✓ non-]vénération de cette idole vous vaudrait des représailles
‘the [non-]veneration of this idol would earn you reprisals’

b. le [* non-]culte de cette idole vous vaudrait des représailles
‘the [non-]veneration of this idol would earn you reprisals’

To conclude, the event variable can be introduced at two distinct levels. Whatever base lacks theme-related Quantization will not be able to denote an eventuality unless equipped with Outer Aspect. However, as the grammatical properties of the noun *culte*_N clearly demonstrate, Quantization need not arise from inherent affectedness: the *little v* head builds (AS)-Ns even in the absence of inherent affectedness, *provided the theme is existentially quantified*. In sum, the Phasality Requirement does not affect transitive atelics, since atelics can draw Quantization from their theme; but it affects unergatives, since their theme is generic — which is why *culte*_N ‘worship’ works as a (Ψ)-N, while *chahut*_N ‘ruckus’, for its part, does not.

In this discussion, evidence was provided that the internal structure of (Φ)-Ns contains an AspP projection, whereas (Ψ)-Ns, for their part, simply lack Outer Aspect. I argued that the only way non-quantized (AS)-Ns can still pass [CF], is through Asp. The prediction, therefore, is that deadjectival and unergative (AS)-Ns are always built on a full-fledged phasal projection, headed by ∇ and selected for by Asp: all non-quantized (AS)-Ns are (Φ)-Ns, and conversely, (Ψ)-Ns can only be quantized, i.e. either transitive or unaccusative.

4.3.4 The Structure of Agent and Event (Φ)-Ns

I will now propose structures for phase-based Event (AS)-Ns and their Agent counterparts.

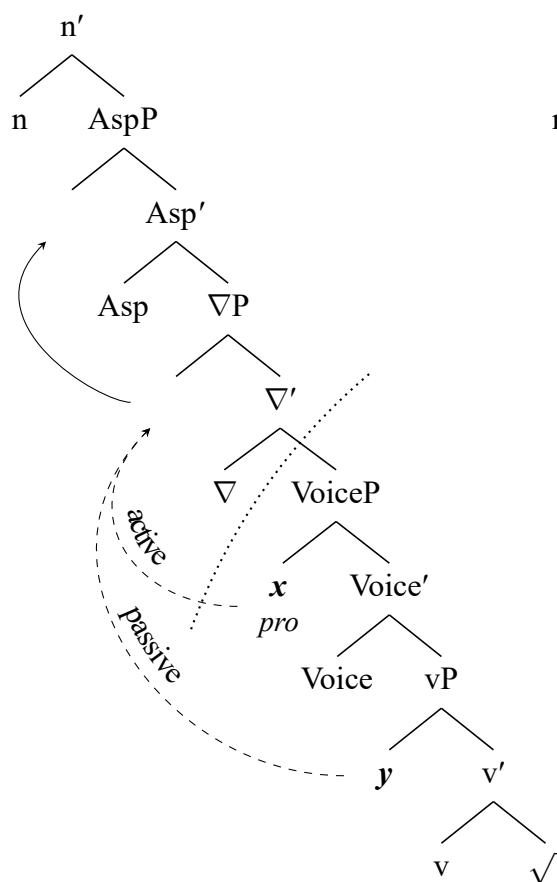
4.3.4.1 Event (Φ)-Ns vs. (Ψ)-Ns

In Chomsky's (2000) framework, the complement of a phase head represents a domain that, once completed, becomes "sealed off", making its contents generally inaccessible to operations outside the phase (phase impenetrability). The specifier of the maximal projection of the phase head, though, remains accessible to further operations and thus, typically constitutes an *escape hatch* through which phrases may transit in order to leave the phase. Here, the argument cannot go directly to [Spec, AspP], but must make a stop at [Spec, ∇P]: this is the *Subject of Modulation*.

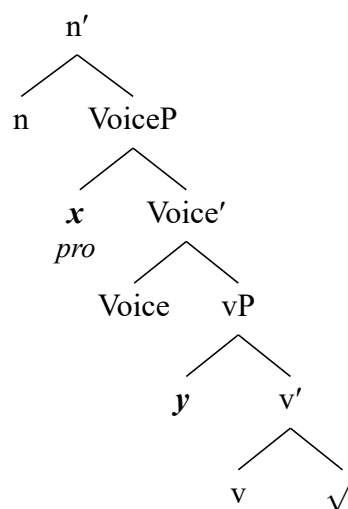
The representations for (Φ)-Ns and (Ψ)-Ns are given in (779a, b).

(779) (Φ)-Ns vs. (Ψ)-Ns

a. Transitive (Φ)-Ns



b. Transitive (Ψ)-Ns



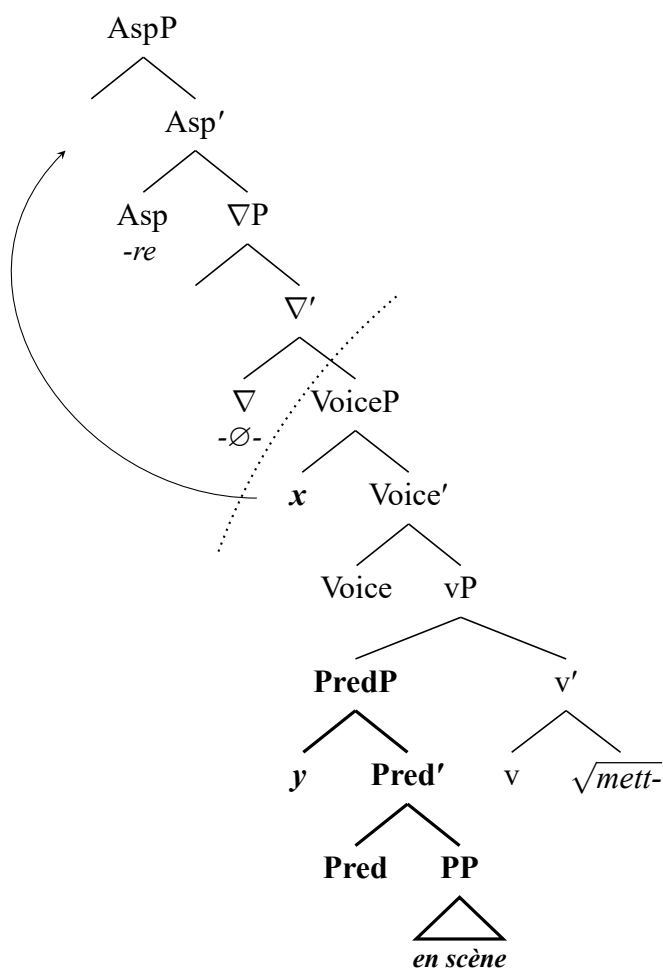
4.3.4.2 Silent Argument Realization

Departing from e.g. Alexiadou's (2001) analysis, I suggest that the arguments of (AS)-Ns are not obligatorily realized. Consider the following sentence in (780).

- (780) Vincent est un fêru d'**exploration**.
'Vincent is fond of exploration.'

I claim that even in cases where such a deverbal noun appears without an explicit object, there is still a theme projected, but only, as an arbitrary pronoun. In § 4.3.2.2 *supra*, I argued that the apparent requirement that AS be overtly realized in (AS)-Ns is actually due to constraints inherent to nominal reference. Further evidence is given by PPs analyzed as small-clause predicates. Consider the idiom *metteur en scène*_N 'stage or film director', which literally means 'putter on stage'. It contains a directional predicate which must be structurally adjoined: I assume for *put*_v-like verbs, following Hale & Keyser's (1993: 88, ex. 61) analysis, a theme structured as a small clause. I thus propose for *mettre en scène* the representation in (781).

- (781) **mettre en scène**
put on scene



In consideration of this configuration, two observations must be made. First, this directional predicate needs a subject; we are thus compelled to posit a phonologically null pronoun as its subject. Note that the exact same argument applies to the event counterpart *mise en scène* ‘stage or film direction’. Second, the suffix *-eur* is interpreted as an agent; then, in order to account for the transitive denotation, we also need an external argument. Besides, *mise en scène* exhibits strong categorial properties. For instance, it passes $\overline{\text{XPX}}$, which I have argued signals the presence of ∇P , cf. (782).

- (782) Tous les volets précédents pastichaient Donkey Kong avec la mise en scène étape par étape de l’enlèvement de Pauline. (WEB, 2016)
 ‘All previous sections parodied Donkey Kong with the step-by-step staging of Pauline’s kidnapping.’

Now, as argued in § 4.3.2.2 *supra*, the alleged obligatory character of overt argument realization in nominals only applies when the definite article is used. As seen in (783), *mise en scène* passes $\overline{\text{XPX}}$ even when its arguments are not phonologically realized.

- (783) a. Cette mise en scène étape par étape m’a totalement subjugué.
 ‘This step-by-step staging completely captivated me.’
 b. Une mise en scène étape par étape permettrait de suivre l’enlèvement de Pauline.
 ‘A step-by-step staging would allow for the following of Pauline’s abduction.’
 c. La mise en scène étape par étape de ce programmeur rend l’enlèvement réaliste.
 ‘The step-by-step staging by this programmer makes the abduction realistic.’

Other examples of *-eur* nominals exhibiting this setup can be found, but they are not numerous. See (784) for examples.

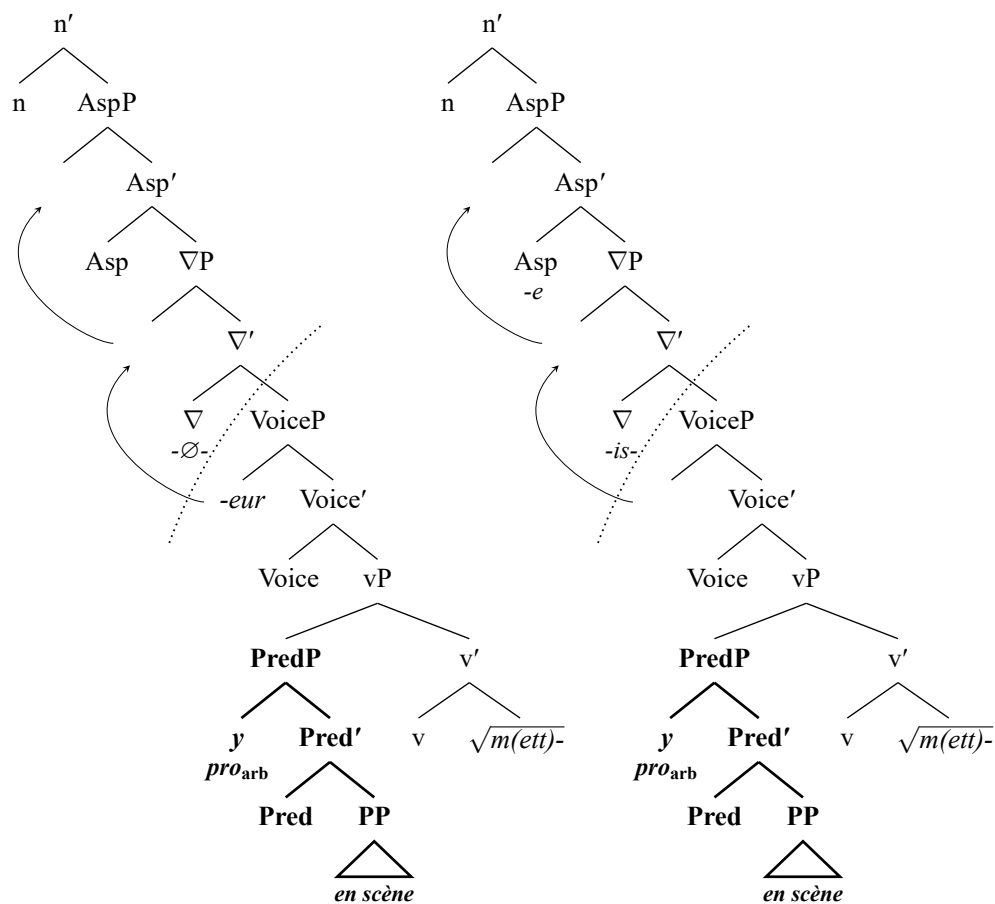
- (784) a. **metteur en pages**
 ‘page assembler’
 b. **metteur en ondes**
 ‘broadcast director’
 c. **metteur en œuvre**
 ‘implementer’
 d. **metteur en carte**
 ‘pattern drawer’
 e. **metteur au point**
 ‘developer’

I will assume for the two (AS)-Ns the respective representations in (785).

(785) Arbitrary Arguments in (AS)-Ns

a. **metteur en scène**
putter on stage

b. **mise en scène**
putting on stage



More Event nominals exist, headed by *mise_N* ‘putting’, cf. (786).

- (786)
- | | |
|--|---|
| a. mise en garde
‘warning’ | e. mise en examen
‘indictment’ |
| b. mise en oeuvre
‘implementation’ | f. mise en pratique
‘practical application’ |
| c. mise en valeur
‘highlighting’ | g. mise en forme
‘formatting’ |
| d. mise en cause
‘implication’ | h. mise en route
‘startup’ |

They take IMPs — which clearly shows that IMPs take scope over the whole internal predication, rather than over the head noun alone. Also see examples with *prise_N* ‘taking’, which nominalizes *prendre_v* ‘take’, cf. (787).

- (787) a. **prise en charge**
 ‘handling’
 b. **prise en main**
 ‘handling’

Thus, the ambiguity in Derived Nominals is not a question of (AS)- vs. (non-AS): most morphologically verbal or adjectival bases involve AS projection — that is, unless full lexicalization is achieved, as might be the case for e.g. *professeur_N* ‘teacher’, since †*professer_V* ‘teach’ is archaic (see the structure in 404b, in § 3.3.1.1 *supra*). Only, arguments are not necessarily projected outside the nominal shell. They can be saturated by the suffix itself, or a null pronoun — which is exactly what happens here: the agent is spelled out by the suffix, and the theme remains either arbitrary or context-sensitive. In most cases, overt morphology reflects internal structure. Following Roy & Soare’s (2012, 2013) proposal, building on Fabb’s (1984), I propose that the nominalizer *-eur* spells out the raising argument, thus saturating it as Fabb (1984: 207) suggests:

“Thus the external argument of the verb is not only matched with the role of the suffix, but phrasally unrealizable. This kind of pre-emption of a theta-role fits with what we find in theta-indexing (theta-assignment); a theta-role, once matched can not be assigned again. Thus we suggest that the external theta-role is matched with the affix *-er*; that is, is assigned to the affix *-er*.”

The external argument eventually lands in [Spec, AspP], which I assume hosts the subject of the temporally extended predication.

Let us now turn to the structure of Quality and Manner Nominals.

4.3.5 Quality and Manner Nominals as Mode-Denoting (Φ)-Ns

This section is a tentative unifying account of two types of nominals treated separately in the literature, namely Quality Nominals, as in (788a), and Manner Nominals, as in (788b).

- (788) a. *La tristesse de Pierre est grande.*
 ‘Pierre’s sadness is great.’
 b. *La disposition des tables me paraît judicieuse.*
 ‘The arrangement of the tables seems sensible.’

I will argue that the δ variable provides a straightforward way to accomplish this task. I will be advocating for an unconventional, although not unheard of, position: *Manner Nominals* embed a full verbal projection. This drastically departs from the position held by Grimshaw (1990) and subsequently supported at least since Borer (1993) and Alexiadou (2001), where all sorts of Result Nominals — Manner included — are assumed to have a minimally complex internal structure (i.e. [_{NP} n $\sqrt{\quad}$]). Thus, for instance, Borer (1993: 6) states that in Result Nominals “there is no VP, and hence no argument structure, no event reading, and no inheritance of any sort”.

I will propose an account based on the *Nabla* analysis of the Φ -N vs. Ψ -N distinction, providing evidence that both Manner and Degree derived nominals exhibit grammatical properties inherited from a phasal source. Building on Roy & Soare's (2012, 2013) proposal for deadjectival $\overline{\text{AS}}$ -Ns, I have proposed in subsection 4.3.4 that the nominalizing suffix of event- and state-denoting Φ -Ns spells out Asp. In this section, I keep following this rationale for Degree and Manner Nominals, arguing them to denote *Modes* (the term *Mode* being borrowed from D. Williams (1986)): since δ is introduced by ∇ , I will propose that the nominalizing suffix of both Manner and Quality nominals spells out ∇ itself, thus providing a unifying account for both types.

In § 4.3.5.1, I address the structure of Quality Nominals. I argue that they denote *Modes of Entity Predicates*. Likewise, § 4.3.5.2 argues, on the basis of internal modification, that Result Nominals are derived in the Syntax. Their structure, addressed in § 4.3.5.3, is claimed to involve a raising of the Modulation variable.

4.3.5.1 Qualities as Modes

While Grimshaw (1990) correlates AS projection with the presence of an Event Structure, her account was revised (cf. Borer 2003, Alexiadou 2011) in the light of the existence of non-eventive $\overline{\text{AS}}$ -Ns. This applies to French as well, with such Ns as *connaissance*_N 'knowledge' or *possession*_N 'possession'. However, such $\overline{\text{AS}}$ -Ns need not denote eventualities, but sometimes refer to degrees or manners. This is a second ambiguity in the nominal system. That deadjectival Ns may either denote a state or a degree is shown by Chomsky (1970: 19–20, fn. 10):

“The artificiality might be reduced by deriving nominals from underlying nouns with some kind of sentential element included, where the meaning can be expressed in this way: for example, *John's intelligence* from *the fact that John is intelligent* (in *John's intelligence is undeniable*), and from *the extent to which John is intelligent* (in *John's intelligence exceeds his foresight*).”

That Quality Ns project AS has been established by Roy (2010). Roy points out that French deadjectival Ns in *-eur*_N '-or', *-té*_N '-ty', etc. may indeed either denote States or Qualities, but both readings involve the projection of a Holder inherited from the source predicative adjective. Roy (2010) argues that in state-denoting $\overline{\text{AS}}$ -Ns, the suffix spells out the *Pred* head. Building on her work, I propose that in Quality Nominals, the nominalizing suffix denotes the degree to which the predicate denoted by the aP is true and therefore, that the suffix spells out ∇ . States take Modulation Particles, which means that, unlike in Modes, the δ variable is not preemptively saturated: it remains available for modification. Building on Moltmann's (2007) account of tropes — specifically on her claim that “Tropes can be measured with respect to the degree to which they instantiate the property expressed by the base predicate”, cf. (789), I will argue that Quality Nominals denote *Modes of Entity Properties* — Manner Nominals, for their part, denote Modes of *Event Properties* (cf. *supra*, § 4.1.3.3).

(789) Moltmann (2007: 369, ex. 6)

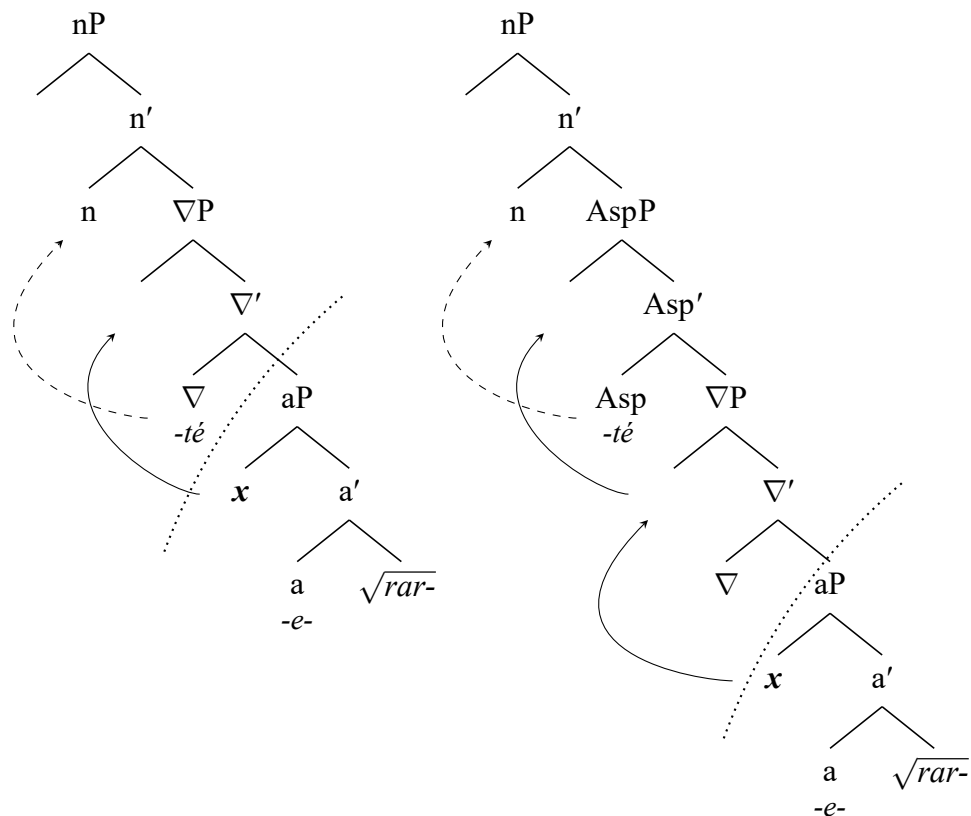
- a. John's tiredness was extreme.
 b. * John's being tired was extreme.

If indeed the nominalization suffix of Quality $\textcircled{\Phi}$ -Ns expresses the δ variable, then we can assume that it spells out the ∇ head itself. I have advocated it for *-at* in § 4.3.1.4 *supra* and, comparing such pairs as $\{anonymat_N \text{ 'anonymity'} \leftarrow anonym_e_A \text{ 'anonymous'}\}$ to their English counterparts, it becomes apparent that *-at*_N 'ate' and *-té*_N 'ty' have a similar denotation. By contrast in State $\textcircled{\Phi}$ -Ns, the δ variable is available for modification by IMPs or *manner / degree* adverbials (cf. *supra*, § 4.1.3.4). In State $\textcircled{\Phi}$ -Ns, the suffix denotes the aspectual eventuality which I have shown is introduced in all $\textcircled{\Phi}$ -Ns, i.e. the Asp head itself. In both cases, the suffix may eventually raise to *little n*. Thus, the structures of Quality and State $\textcircled{\Phi}$ -Ns are as in (790).

(790) **Quality Nominals vs. State Nominals**

- a. **Quality $\textcircled{\Phi}$ -N**
(degré de) rareté
 '(degree of) rarity'

- b. **State $\textcircled{\Phi}$ -N**
(non-)rareté
 '(non-)rarity'



Quality Nominals fail the event-related tests for the obvious reason that no event is denoted, and yet, their meaning can only be constructed from the projection of an argument structure. The proposal is that they denote a *Mode*, i.e. the nominalizing suffix expresses the δ variable itself, which is represented by means of a dashed arrow.¹

Borer (2003, 2013) and Alexiadou (2011) state that the nominal in (791) is an (AS)-N, interpreting it as a state.

- (791) a. His awareness of the problem is strong.
 ‘Highlighting its state-like nature.’
 b. His non-awareness of the problem is a good thing.
 ‘Suggesting a quality-like interpretation.’

However, this nominal is in fact ambiguous between denoting a State and a Mode. As argued in Moltmann (2004, 2007, 2009, 2019), only *tropes* — which my (stative) *Modes* approximate — may be measured, but not *States*, cf. (792b).

- (792) a. La [\checkmark non-] longueur de ses cheveux le rajeunit.
 the non- length of his hair him makes look younger
 b. La [* non-] longueur de ce pantalon est de x cm.
 the non- length of these pants is of x cm

Importantly and as established by Roy (2010), the argument can remain unexpressed, thus denoting an arbitrary holder, cf. (793).

- (793) Mon coiffeur trouve que la [\checkmark non-] longueur confère un certain style.
 My hairdresser believes that the non- length provides a certain style

A decisive argument to decide that Qualities must denote Modes is that they reject Modulation Particles. I propose that this is so because the δ variable is already assigned value by the nominalizing suffix. This is shown in (794).

- (794) a. La [* non-] longueur de ce meuble est de x cm.
 the non- length of this piece of furniture is of x cm
 b. La [* non-] popularité de ses chansons est grande.
 the non- popularity of his songs is great

¹Whether it is *-té*, *-eur*, or *-esse*, suffixes of Latin origin are thus capable of spelling out one or the other of the two heads, ∇ or Asp. By contrast, Germanic suffixes are sometimes differentiated. For instance, it appears that *-th*, as in *length_N*, is dedicated to denoting ∇ — whence, perhaps, the limited aspectual properties of *growth_N*. Cf. (i).

(i) # the non-length of her hair

It therefore seems that we are dealing with a sort of homonymy that is coincidental rather than systemic.

As opposed to (793), (794a–b) reject *non-*, which is accounted for if a propositional interpretation is not available. Besides, *non-* has been argued (for English, but it is certainly true for French as well) by Zimmer (1964) and Allen (1978) to exclude any possibility of gradability — unlike negative prefixes, as illustrated in (794a–b). Thus, the Ns in (794a–b) do not seem to denote a fact at all, but rather, a gradable property. Note that whether the base is autonomously attested or not does not change anything to the acceptance of *non-*, cf. (795) (*contra* Allen’s 1978: 53 observations for English) (cf. *supra*, § 4.3.3.3).

(795) °*eque*_A ‘equal’

- a. la [✓ grande] inéquité de cette répartition
‘the [great] inequity of this distribution’
- b. la [* grande] non-équité de cette répartition
‘the [great] non-equity of this distribution’

Building on Moltmann (2004), general qualities can be construed as denoting *kinds of tropes*. They are not objects in the sense that they cannot bear properties, instead they just “play a role for semantic predicate-argument relations”. Now consider the following sentence in (796).

(796) Quelle est la périodicité de ce journal ?
‘What is the periodicity of this journal?’

This interrogation does not question the fact that the journal appears at a certain frequency, but rather, inquires about the nature of the frequency, i.e. it could be gloss as in (797).

(797) **How** periodic is this journal?

What is striking is the homonymy between, on the one hand, State and Quality nominals and, on the one hand, Event and Manner nominals. Thus in (798), both *hardiesse*_N and *élancement*_N can be interpreted either as the extent to which the vaults or columns are bold or slender, or as the state of them being so to some standard extent. Besides, similar to Event nominals, Manner nominals are suffixed through *-ion*-style allomorphy, which, as seen in *fabrique*_N ‘making’, can, in French, be silently realized.

(798) Nous admirons la **hardiesse** des voûtes, l’**élancement** des colonnes, en un mot la **fabrique** tout aérienne. (P. Mérimée, 1870)
‘We admire the boldness of the vaults, the slenderness of the columns, in short, the entirely aerial making.’

Of course, due to extragrammatical factors, not all nominals can switch from one reading to the other. Some of them, as in (799a), can only denote a State (*excellent*_A being non-gradable, cf. # *very excellent*). Others, as in (799b), can only denote a Mode.

The sentences in (799) illustrate another property shared by State and Quality Nominals: both inherit *en_p*, ‘at’-P modification denoting the domain of application of a predicate.

- (799)
- a. son **excellence** en mathématiques [✓ n'est plus à démontrer / # laisse à désirer]
'His excellence in mathematics [is beyond question / leaves something to be desired].'
 - b. sa **performance** en mathématiques [# n'est plus à démontrer / ✓ laisse à désirer]
'His performance in mathematics [is beyond question / leaves something to be desired].'
 - c. sa **compétence** en mathématiques [✓ n'est plus à démontrer / ✓ laisse à désirer]
'His competence in mathematics [is beyond question / leaves nothing to be desired].'

Note that (799b, c) both feature a lexically sourceless $\textcircled{\Phi}$ -N: $\textcircled{\text{P}}_{\text{performer}_v}$ 'perform' is an anglicism criticized by the *Académie française*; $\textcircled{\text{P}}_{\text{compéter}_v}$ 'compete', for its part, does not exist.

A similar type of modification, which involves en_p 'in'-Ps, is exemplified in (800).

- (800)
- a. La richesse en magnésium de cette eau est extraordinaire.
'The richness in magnesium of this water is extraordinary.'
 - b. La richesse effective de cette eau en magnésium m'eût dissuadé d'en acheter un pack.
'The actual richness actual of this water in magnesium would have dissuaded me from buying a pack.'

This may constitute a proof that Ns such as $carence_N$ 'lack' and $teneur_N$ 'content', which take such complements, are built in the syntax, cf. (801).

- (801)
- a. Carence en magnésium
'Deficiency in magnesium.'
 - b. Teneur en sucre
'Content of sugar.'

Let us now discuss the properties and structure of Manner nominals.

4.3.5.2 Manners Derived in the Syntax

Here, I make a proposal regarding Manner nominals, namely that they are (AS)-Ns, and more specifically $\textcircled{\Phi}$ -Ns expressing the δ variable itself. According to the Davidsonian tradition,

manner adverbials are modifiers of the event variable¹. However, I have demonstrated in subsection 4.2.2 that (Ψ)-Ns take event modifiers, but reject manner modification; and because of that, *manner / degree* modifiers cannot be event modifiers; instead, they are Mode modifiers, i.e. modifiers of δ . I will argue that Manner nominals

Aside from Chomsky's (1970) insight, the first authors to specifically notice an event vs. manner ambiguity were Katz & Postal (1964: 122–144) and Vendler (1967: 122–146). Katz & Postal (1964: 123, ex. 161) notice a correspondence between the two sentences in (802).

- (802) a. John's rapid washing of the car.
b. John washes the car rapidly.

Vendler (1967: 140) points out an ambiguity in this one, cf. (803).

- (803) John's singing of the Marseillaise surprised me.

Piñón (2007) approaches the issue through perception verbs. In (804) below, he shows that the structures in (804a.i, b.i) resembles that in (804a.ii, b.ii), the fact reading involving an event, the manner one referring to some structure related to that event.

- (804) Piñón (2007)
- | | | | |
|----|------|-------------------------------------|--------------------------------|
| a. | (i) | Malika saw Rebecca write illegibly. | <i>Perception of an Event.</i> |
| | (ii) | Malika saw how Rebecca wrote. | <i>Perception of a Manner.</i> |
| b. | (i) | Rebecca heard Malika speak softly. | |
| | (ii) | Rebecca heard how Malika spoke. | |

The same ambiguity arises with infinitives. Thus, the nominal in (805) is ambiguous between referring to a throwing event initiated by Julien and referring to Julien's manner of throwing at a specific moment.

- (805) J'ai beaucoup aimé le **lancer** de Julien.
'I really enjoyed Julien's throwing.'

Various proposals have been made, in e.g. Katz (2000: 397–400) and Alexeyenko (2015: 68, fn.38), in order to account for this productive transformation. My claim is that Result Nominals exhibit grammatical properties. The following example in (806) clearly challenges the assumption that the structure of result nominals does not encode argument structure.

¹Alternative accounts (cf. Dik 1975, M. Schäfer 2008, Piñón 2007): manner-denoting units should be attributed their own semantic type, namely *m*, instead of being treated as events of type *v*.

- (806) a. L'objet de cette étude est de décrire l'**organisation en groupes** des unités *selon leur taille*. (INSEE)
 'The objective of this study is to describe the organization of units into groups according to their size.'
- b. L'objet de cette étude est de décrire la **façon** dont les unités sont **organisées en groupes** *selon leur taille*.
 'The objective of this study is to describe the way in which the units are organized into groups according to their size.'

As we can see, the referent of the nominal in (806a) is an object of description. It is, as such, ambiguous between an event and a result. The context clearly induces a result reading. However, what matters is the degree to which both readings converge structurally. Both can be glossed as in (806b), each deriving from a specific reading of the passive: an eventive passive or a resultative passive. Notably, the PPs *en groupes* 'into groups' and *selon leur taille* 'according to their size', could not occur without the presence of an internal event. This section discusses the structure of Manner nominals in this light.

The correspondence in (807), which represents a regular and predictive pattern, represents a reliable basis for the analysis.

- (807) a. La **configuration** de cette pièce me semble ingénieuse.
 'The configuration of this room seems ingenious to me.'
- b. La *façon* dont cette pièce *est configurée* me semble ingénieuse.
 'The way this room is configured seems ingenious to me.'

To start, let us observe that the boundary between such nominals and the degree-denoting nominals just addressed can be blurry. Consider, for example, the correspondence in (808).

- (808) a. La **concentration en bicarbonate** de cette solution me semble élevée.
 'The concentration in bicarbonate of this solution seems high to me.'
- b. Le *degré* auquel cette solution *est concentrée en bicarbonate* me semble élevé.
 'The degree to which this solution is concentrated in bicarbonate seems high to me.'

As we can see, while the nominal in (807) seems to denote a manner, the nominal in (808) appears to denote a degree. But both appear to derive from the same sort of resultative verbal structure. Judging by the examples in (809), this type of nominals indeed seems to nominalize a *Resultative Participle*.

- (809) a. (i) la **configuration** *judicieuse* de cette pièce.
‘the judicious configuration of this room’
(ii) Cette pièce est *judicieusement configurée*.
‘This room is judiciously configured.’
- b. (i) la **préparation** *fine* de ce plat
‘the delicate preparation of this dish’
(ii) Ce plat est *finement préparé*.
‘This dish is delicately prepared.’
- c. (i) la **présentation** *admirable* de cette vitrine
‘the admirable presentation of this display’
(ii) Cette vitrine est *admirablement présentée*.
‘This display is admirably presented.’
- d. (i) la **disposition** *curieuse* des caméras
‘the curious arrangement of the cameras’
(ii) Les caméras sont *curieusement disposées*.
‘The cameras are curiously placed.’
- e. (i) la **fabrication** *solide* de cet objet
‘the sturdy manufacture of this object’
(ii) Cet objet est *solidement fabriqué*.
‘This object is sturdily made.’
- f. (i) la **conception** *brillante* de ce mécanisme
‘the brilliant design of this mechanism’
(ii) Ce mécanisme est *ingénieusement conçu*.
‘This mechanism is brilliantly designed.’
- g. (i) la **répartition** *inéquitable* des richesses
‘the inequitable distribution of wealth’
(ii) Les richesses sont *inéquitablement réparties*.
‘Wealth is inequitably distributed.’

We also find other suffixes. Here are examples with *-ment* and *-age*.

- (810) a. Le **placement** de ces verres ne me convient pas.
‘The placement of these glasses does not suit me.’
- b. L’**alignement** de ces étoiles varie selon divers facteurs.
‘The alignment of those stars varies according to various factors.’
- c. L’**aménagement** de ce jardin apporte une sensation de paix.
‘The arrangement of this garden brings a sense of peace.’

- (811) Le **découpage** de ce texte apparaît clairement.
 ‘The structuring of this text is evident.’

This correspondence is systematic. There is, to my knowledge, no exception. See (812).

- (812) a. (i) Soulignons la **construction** *méticuleuse* de cette nouvelle d’une centaine de pages. (WEB, 2020)
 ‘Let’s highlight the meticulous construction of this short story of a hundred pages.’
- (ii) J’apprécie tout particulièrement de me rendre au grenier pour prendre de belles photos du paysage alentour et admirer la **construction** *ingénieuse* de la toiture. (WEB, 2020)
 ‘I particularly enjoy going to the attic to take beautiful photos of the surrounding landscape and admire the ingenious construction of the roof.’
- b. (i) cartouche dont la **confection** *ingénieuse* empêche les fuites de gaz
 ‘cartridge with an ingenious execution that prevents gas leaks’ (1863)
- (ii) Notre bar mobile modulable à la **confection** *ingénieuse* peut adopter plusieurs configurations et prendre différents aspects. (WEB)
 ‘Our modular mobile bar with an ingenious execution can adopt several configurations and take on different aspects.’
- c. (i) Grâce à la **conception** *astucieuse* de ces étagères, vous pouvez fixer les supports métalliques à la fois en bas et en haut (WEB)
 ‘Thanks to the clever design of these shelves, you can attach the metal supports both at the top and bottom.’
- (ii) La **conception** *astucieuse* de ce masque garantit également un ajustement sûr et confortable (WEB)
 ‘The clever design of this mask also ensures a secure and comfortable fit.’

As we are now accustomed, whether the base is lexicalized is of no consequence, cf. (813)–(815).

- (813) °*confaire*_v ‘confect’ (see {*réfection*_N ‘restoration’ ← *refaire*_v ‘restore’})
- a. la confection admirable de cet objet
 ‘the admirable confection of this object’
- b. Cet objet est admirablement °confait.
 ‘This object is admirably confected.’

- (814) °*emplacer*_v ‘locate’
- a. l’emplacement idéal de cette maison
‘The ideal location of this house.’
 - b. Cette maison est idéalement °emplacée.
‘This house is ideally located.’
- (815) °*struire*_v ‘arrange’ (see {*construction*_N ‘construction’ ← *construire*_v ‘construct’})
- a. la structure étrange de cette molécule
‘the strange structure of this molecule’
 - b. Cette molécule est étrangement °struite.
‘This molecule is strangely structured.’

Usefully for morphological studies, the availability of the Manner reading can also be seen as evidence of deverbality. Consider for instance the following nominal in (816).

- (816) La taille grossière de cette croix dénote incontestablement l’emploi d’instruments très primitifs. (R.W., 1924)
‘The coarse carving of this cross indisputably denotes the use of very primitive tools.’

Since the ∇ P projection indicates a phase, availability of the manner reading predicts that Ns such as *taille*_N ‘carving’ will be deverbal. I argue that the flexibility between the event and the manner readings is the hallmark of (Φ)-Ns. This is made possible by the ∇ projection, cf. (817).

- (817) a. La fabrication de cet objet nécessite la découpe de plusieurs matériaux.
‘The fabrication of this object requires the cutting of several materials.’
- b. J’aime la découpe élégante de ce manteau.
‘I like the elegant cut of this coat.’

To conclude, if we regard verballity as being the manifestation of a set of functional projections, then we may *use the syntax to determine morphology*. Thus, (817) tends to prove, I argue, that *découpe*_N is a true deverbal, since the semantic flexibility observed in (817) would be impossible otherwise. My claim, is therefore the following: if *découpe* was not deverbal, there is no way it could be ambiguous between an event and a manner: it would have to be *frozen* under one reading or another. I would like to suggest that instead of thinking in terms of individual structures, each of which would yield one particular denotation, it may be more beneficial to consider what we may call the *structural array* of (Φ)-Ns: the combinatorics that the additional projection provides in terms of possible setups. Thus, what distinguishes deverbal (Φ)-Ns from (Ψ)-Ns is the configurational character of their structure, directly inherited from the grammatical flexibility of the verb they are built on, which grants them their modifiable nature.

4.3.5.3 Modulation Raising

As previously stated, the eventuality denotation is only one of the possible denotations for (AS)-Ns: following Bowers (2011), they may also denote the agent or theme of the predicate. I will argue that (Φ)-Ns and only (Φ)-Ns, i.e. not (Ψ)-Ns, can also denote the *Mode*, i.e. express the δ variable itself. Manner nominals have often been regarded as devoid of internal structure (cf. Grimshaw 1990, and many authors after her who treat such nouns as root-derived). However, the reasoning follows the same lines as with *-ble* (AS)-As (cf. *supra*, § 4.1.4.2): in the absence of an event argument within their internal structure, these nominals could not convey the observed denotation; so, there must be a grammatical eventuality embedded inside such nominals.

My claim is that in the *Manner* reading of nominals such as in *the configuration of the room*, the internal position is in fact internally saturated through resultative passivization, thus giving the wrong idea that it is not projected. I argue that such nominals denote the Manner in which the referent of the argument is *X*ed, *X* representing the verbal stem, and *-ed* the spellout of some resultative participial morphology. According to Embick (2004), building on Parsons (1990) (see also Alexiadou, Anagnostopoulou & Schäfer 2015), resultative participles refer “to a state that is the result of a grammatically represented event”. Consider the well-known contrast *cool_A* vs. *cooled_V*, *open_A* vs. *opened_V*, etc., where Manner adverbs such as *well* are only compatible with the resultative form, and not with the adjective. I propose that in resultative participles, the Modulation variable of the verbal ∇ head *raises to the ∇ node of the adjectival shell*. And I propose that this phenomenon, which I call *Modulation Raising*, is exactly what occurs in the internal structure of such nominals, which are indeed built on a Resultative Participle.¹

I will analyze such nominals as *Modes of stativized passivized transitive predicates*, more simply as *Modes of Results*. Thus, first, I argue that they denotes Modes. Building on e.g. Alexeyenko (2015), the agent-introducing projection is dominated by a head which licenses *Manner* modification. In my model, this head is ∇ . Then, a straightforward account is to hypothesize that the nominalizing suffix expresses the variable introduced by this projection, namely δ . A major implication of this position is that alleged (non-AS) manner nominals are (AS)-Ns after all: their denotation is impossible to explain while maintaining the common claim that they lack an internal event. The hypothesis that the nominalizer saturates δ makes a prediction: since δ is already assigned value, Manner modification should be unauthorized in the Manner variant of an (AS)-N. This is fulfilled, cf. (818).

- (818) a. L’empilement l’une sur l’autre de ces assiettes [# est insolite].
 ‘The stacking of those plates on one another is unusual.’
- b. Le placement l’un en face de l’autre de ces deux invités [# est insolite].
 ‘The seating of those two guests in front of one another is unusual.’

¹Observations made by Hay, Kennedy & Levin (1999), related to the inheritance of the scalar structure of adjectives to account for the typology of Degree Achievements, could maybe be analyzed along those lines.

Acceptation of manner modification induces the propositional interpretation, cf. (819).

- (819) La configuration de cette pièce **tout en longueur** [* est insolite / ✓ permet des installations intéressantes].
 ‘The lengthways layout of this piece [is unusual / allows for some interesting installations].’

It strikingly parallels what was observed of Quality vs. State (Ⓣ)-Ns in § 4.3.5.1 *supra*, ex. (794). This is why Manner (AS)-Ns must be analyzed as *Modes*, exactly as Quality (AS)-Ns.

Second, I argue that such nominals are built on Resultative Participles. The passivized event is stativized through embedding into an AspP projection located on top of the modulated aP. The central argument supporting that hypothesis lies in the grammatical properties exhibited by manner-denoting counterparts of transitive nominalizations. In essence, the novel finding is that Manner nominals such as *configuration*_N inherit properties characteristic of past participles.¹ Consider the parallel contrast in (820a, b).

- (820) a. Cette maison est [✓ construite / * détruite] de façon originale.
 b. J’aime la [✓ construction / * destruction] originale de cette maison.
- (821) a. Cette viande est [cuite / préparée] à la perfection.
 b. Je me régale: la [cuisson / préparation] de cette viande est parfaite.

As we can see, *construction*_N ‘construction’, *destruction*_N ‘destruction’, *cuisson*_N ‘cooking’ and *préparation*_N ‘preparation’ all denote a Manner of Result. The same is true of *configuration*_N ‘configuration’, *présentation*_N ‘presentation’, *disposition*_N ‘disposition’, *fabrication*_N ‘fabrication’, *conception*_N ‘conception’ and *disposition*_N ‘disposition’, and the list could continue endlessly, so productive is this formation — not to mention *-ment* nominals such as *placement*_N ‘placement’ and *comportement*_N ‘behaviour’, *-ure* nominals such as *courbure*_N ‘curving’ and *écriture*_N ‘writing’, or *-{a/e}nce* nominals such as *performance*_N ‘performance’ and *différence*_N ‘difference’. This is predicted if the ability of a transitive (AS)-N to denote a manner directly follows from its being built on an L-Phase that may undergo resultative passivization, i.e. stative passivization that preserves licensing of manner modification. I therefore take such nominals as in (820b) and (821b) to involve the *resultative passivization* of an internal verb: I assume that their respective denotations are *way of being built* and *way of being cooked*. If this is on the right track, we expect the derivation to be blocked if conceptual consistency prevents formation of a resultative participle. The prediction is borne out: the contrast in (820) is predicted if ability of a noun to denote a manner directly follows from its

¹In this light, the past-participle suffixal morphology found in certain French nominalizations, such as *arrivée*_N ‘arrival’, *tenue*_N ‘holding’, *découverte*_N ‘discovery’ or *teinte*_N ‘tint’ becomes less mysterious: since event and result nominals are homonymous for the most part, a contamination between the two types is likely to have occurred (see also masculines such as *(le) phrasé*_N ‘phrasing’, *(le) planté*_N ‘pole planting’ and *(le) déhanché*_N ‘hips swaying’).

being built on a verb which may undergo resultative passivization, i.e. stative passivization that preserves licensing of Manner modification.

Kennedy & McNally (1999, 2005) show the strong connection between the degree of a deverbal adjective and the Event Structure of its source verb. Dowty's (1991) example in (822) illustrates that Resultative adjectival forms inherit Manner modification from an internal verb.

(822) The truck is loaded with hay.

I assume for Results — also called *Resultant States* — a structure along lines proposed in Alexiadou, Anagnostopoulou & Schäfer (2015) for English (see also Anagnostopoulou 2003): a v/Voice-containing verbal layer embedded into a stativizing adjectival projection. The difference is that in the present account, there is an additional projection on top of each lexicalizable categorial projection, whose head triggers the respective phases — namely, ∇ P. This projection allows for a straightforward analysis of Results: the adjectival projection inherits Modulation from its internal verb, thus accounting for the licensing of Manner adverbs¹ I indeed contend that Ns such as *configuration*_N are similar to Quality Nominals, except their aP does not receive its own Modulator, but inherits that of the vP it embeds. This accounts for Kennedy & McNally's observations about (822), that Resultant States are related to culmination of their source verb: the holder of the adjectival state is identified with the incremental theme of the telic event predicate. According to Krifka's (1998) mereology (cf. *supra*, § 2.1.3.1), a mapping can be defined between event progression and theme consumption. Due to this relationship, a resultative participle can be modified with respect to the quantity already processed. See the entailment in (823).

(823) *The truck is half-loaded.* \models *The truck has been half loaded.*

The *degree of loadedness* at any given moment is congruent with the quantity of incremental theme that has been processed up to that point. The degree to which the truck is loaded thus corresponds to the manner in which the loading event has progressed. This explains why manner modification is barred with non-resultative adjectives, cf. (824).

(824) **Manner Modification of Resultative Participles**

- a. Le camion est très [✓ gros / ✓ chargé].
'The truck is very [big / loaded].'
- b. Le camion est [complètement / intelligemment] [# gros / ✓ chargé].
'The truck is [completely / intelligently] [big / loaded].'

Crucially, this correlation also applies to Modulation particles, cf. (825).

¹Alexiadou, Anagnostopoulou & Schäfer (2015) make a distinction between Resultant States and what they call "Target States". The fact that the considered participles take verb-level adverbial modification uncontroversially qualifies them as Resultant States.

- (825) a. J'ai quasi terminé mon travail.
 'I have nearly finished my work.'
 b. Mon travail est quasi terminé.
 'My work is nearly finished.'

I propose to analyze this phenomenon in terms of a *transfer from the Modulation value of the internal verb to that of the adjectival shell* — an operation I will call *Modulation Raising*. Noting ∇_n each ∇ head, n representing the *phase rank* (i.e. phase 1, phase 2, etc.), I propose that the modulation value spelled out by IMPs on top of v/Voice is transmitted from ∇_n to ∇_{n+1} . The [Spec, aP] position provides an intermediary stop for the raising internal argument, which thus becomes the holder of the adjectival property, before promoting to a grammatical subject in [Spec, ∇ P]. The external argument cannot realize and thus remains arbitrary: this is passivization. Along lines similar to Embick (2004), the event can for instance be assumed to be stativized through Asp. I therefore assume that such Manner $\textcircled{\Phi}$ -Ns denote *Modes of Results*, as represented in (828) (on the next page). The nominalizing suffix expresses the raising δ , which is symbolized by a dashed arrow.

Finally, some nominals derived from stative transitive verbs seem to denote degrees. For instance, the noun *audition*_N, which we have encountered on various occasions as not being based on an autonomously lexicalized base, arguably exhibits such a degree reading, cf. (826).

- (826) L'audition de ma grand-mère décline. (v.k.)
 'My grandmother's hearing is declining.'

The structure of these nominals may be akin to that of Manner $\textcircled{\Phi}$ -Ns built on results, yet the stative nature of their base verb obviates the need for stativizing passivization. The external argument, not the internal one, would raise, which I have assumed corresponds to an active voice. The denotation of *-{a/e}nce* nominals such as in (827) can be analyzed along the same lines, except that the argument of the stative internal verb first raises as the holder of an upper internal adjective (cf. *supra*, § 3.2.2.5).

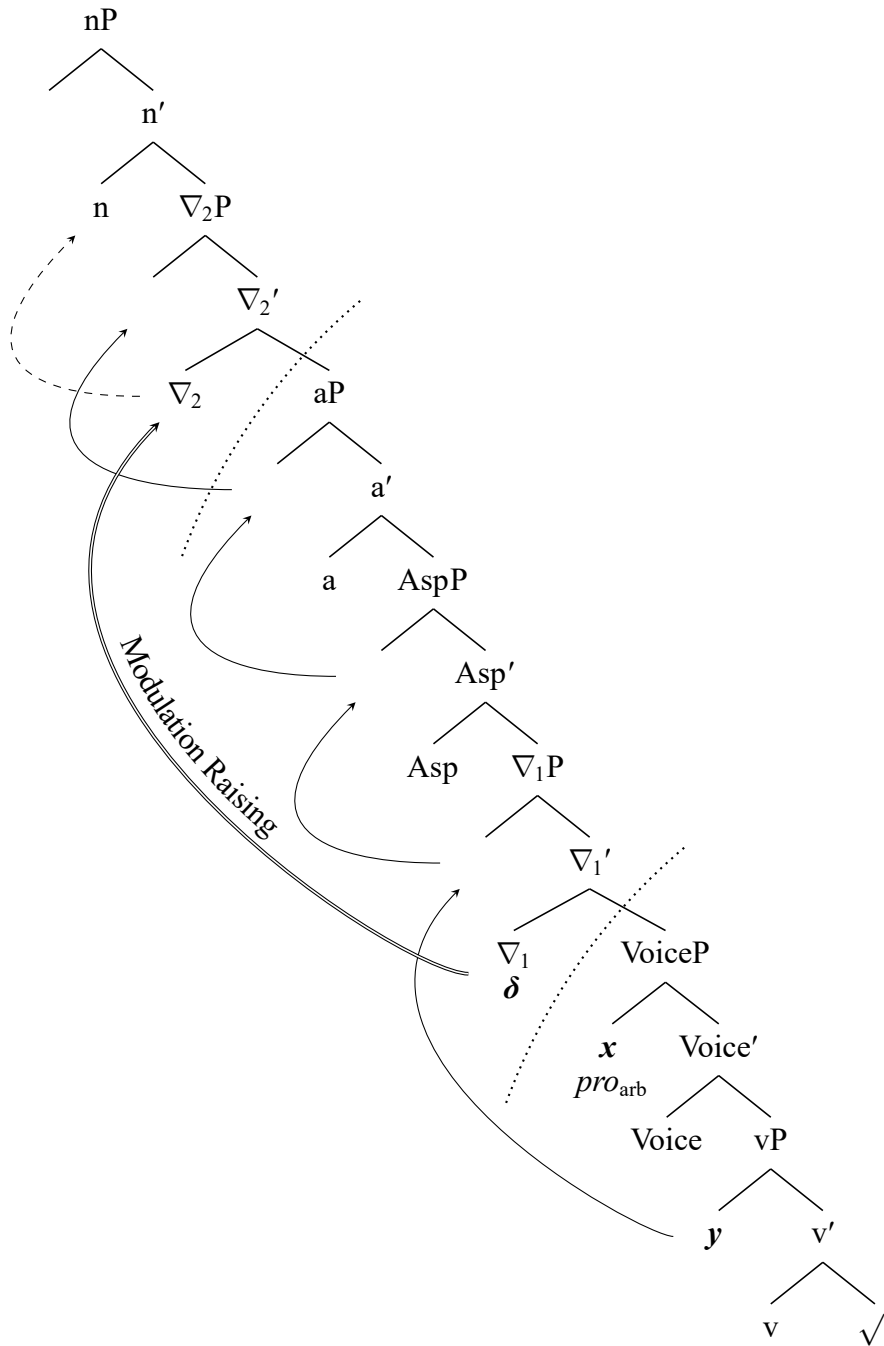
- (827) La rémanence du produit serait bien plus importante que ne l'autorise la législation.
 (*Le monde*, 1998)
 'The persistence of the product would be far greater than legislation allows.'

In this case, Modulation Raising applies in the same way as for Results: the value of the ∇ of the verbal predicate is transmitted to the ∇ of the adjective. This for instance predicts that *-{a/e}nce* nominals will take Mode modification typical not of adjectives, but rather of non-quantized verbs. This seems to be borne out: the denotation of *rémanence*_N, like that of *audition*_N, appears to stand somewhere between a manner and a degree. It could indicate that the *Manner vs. Degree* binary distinction might not be sufficiently fine-grained. The unified account proposed in this work advantageously avoids the need to separately address each possible intermediary case.

(828) **Modes of Results**

e.g. *la préparation raffinée de ces rognons*

‘the refined preparation of these kidneys’



Conclusion

The object of chapter 4 was the demonstration that two types of (AS)-Ns exist. In section 4.1, I argued that the internal reading of Modulation particles in Event (Φ)-Ns was licensed by ∇P, a projection introducing a Modulation variable, which I named δ . ∇ is a phase head which maps conceptual dimensions of a predicate onto a *scale of values*. Modulation particles and modifiers modify δ to assign a range of values to δ , thus specifying the extent to which the predicate holds true: similarly to event modifiers modifying the event variable, Mode modifiers modify δ . The subject of Modulation and the subject of Aspect, introduced in their respective specifiers, provide landing sites for raising argument, thus licensing passivization and allowing non-quantized predicates to derive (AS)-Ns. In section 4.2, I reviewed all the event properties of (Ψ)-Ns. Now, we know that (Ψ)-Ns only embed the functional material necessary to AS projection: they pass the tests for eventivity, namely [IN-X], [CF], [GRAD] and [I-TEMP], but fail the tests for Modulation, i.e. [MODUL] and [XPX]. Only (Φ)-Ns pass them, because they additionally contain the ∇P projection, which licenses Modulation particles and Mode-related modifiers. In section 4.3, I proposed structures for Event, Agent and Mode (AS)-Ns. Event and Agent (AS)-Ns are almost identical, but the structure of Event (AS)-Ns, the nominalizer spells out Asp, thus expressing the event variable it introduces. Eventually, we also found out that Manner and Degree nominals are (AS)-Ns after all. They are (Φ)-Ns that seem to express the δ variable itself. In Mode (AS)-Ns, the nominalizer spells out ∇, thus denoting a Manner or a Degree — or possibly, something in between. Manners and Degrees are interpretations of Modes, whose denotation varies according to the semantic type of the input operated by ∇. Modes of States tend to be interpreted as Degrees, Modes of Events as Manners. Intermediary interpretations might also exist.

General Conclusion

This dissertation has provided a thorough investigation into the syntactic properties of (AS)-Ns in French. Its primary focus has been on understanding how these nominals, whether or not their source exists in a lexicalized form within a specific state of the language, can be tested and classified based on their syntactic behavior and grammatical properties. Below, the main findings from each chapter are synthesized.

Until now, the prevailing view in the field had been that the building of (AS)-Ns requires a lexical source. However, in light of the data uncovered by the present work, this generalization must be abandoned. This research has indeed challenged that assumption by demonstrating that some nominals lacking a lexicalized source can, in fact, function as (AS)-Ns. This conclusion ensues from a careful observation of various nominals that exhibit AS projection despite not being related to a clearly identifiable lexical base.

Before testing these nominals, it was crucial to establish tests applicable to (AS)-Ns in general. Traditional tests for (AS)-Ns have relied heavily on aspectual modification. However, these tests are not always adequate for all (AS)-Ns, necessitating the introduction of novel tests in order to cover a broader range of cases. Upon applying the tests to nominals not related to a lexicalized verb or adjective, the results turned out to be consistent with those obtained from testing (AS)-Ns whose base happens to be lexicalized. This finding indicates that the question whether or not a source is lexicalized does not impact the grammatical properties of the nominals. In contrast, the lexicalizable vs. non-lexicalizable character of the base is an essential distinction with syntactic implications, as it informs us of the phasal vs. non-phasal nature of the source structure: lexicalizability of a structure marks its phasal nature. This opposition thus leads to the emergence of two types of bases, and consequently, two types of (AS)-Ns.

Indeed, further tests revealed stronger categorial properties that are not passed by all (AS)-Ns: the ability to take Modulation particles in an internal reading and modification by

manner / degree adverbials, such as those of the *XPX* form. These stronger categorial properties reveal a higher degree of structural complexity with respect to $\overline{\text{AS}}$ -Ns lacking such strong properties. It was indeed discovered that $\overline{\text{AS}}$ -Ns which pass these advanced tests, referred to as $\textcircled{\Phi}$ -Ns, are built on a *phasal* structure; by contrast, $\overline{\text{AS}}$ -Ns whose base is not phasal, called $\textcircled{\Psi}$ -Ns, fail them.

To account for the respective properties of the two types of $\overline{\text{AS}}$ -Ns, I posited an additional syntactic projection on top of the AS-licensing set of layers — a projection whose head I called ∇ (*nabla*). This projection introduces a δ variable — the *Mode*, measuring a property in one conceptual dimension of the predicate and being assigned value through modification by Modulation particles or *manner / degree* adverbials. The ∇ P projection also provided a unified account of Manners and Degrees. This turned out to be particularly useful for a consistent account of *Manner nominals* and *Quality nominals*: both types were analyzed as *Mode*-denoting $\textcircled{\Phi}$ -Ns — thereby diverging from the prevailing trend in the literature. I proposed that, while in Event $\textcircled{\Phi}$ -Ns, the nominalizer expresses the eventuality variable, in *Mode* $\textcircled{\Phi}$ -Ns, it expresses δ . Agent nominals, for their part, were analyzed as $\textcircled{\Phi}$ -Ns whose nominalizing suffix denotes the raising external argument of an internal event predicate.

In summary, this research has demonstrated that, while the presence of a lexicalized source does not constitute a prerequisite for AS projection in nominals, the presence of a lexicalizable source does constitute a prerequisite for the emergence of stronger, *Modulation*-related properties. The syntactic behavior and grammatical properties of $\overline{\text{AS}}$ -Ns can be adequately accounted for using a combination of traditional and novel tests. The identification of $\textcircled{\Phi}$ -Ns and $\textcircled{\Psi}$ -Ns, in the light of the *Nabla* analysis, offers valuable insight into the typology of $\overline{\text{AS}}$ -Ns.

Future research should focus on refining the established classification and exploring its implications. Cross-linguistic studies, in particular, will enable a thorough evaluation of the *Nabla* analysis, thereby confirming or challenging its relevance. As the research on Derived Nominals advances, so does our understanding of the interfaces.

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Titre : La dérivation syntaxique des nominalisations événementielles :
Des propriétés héritées par-delà la lexicalisation

Mots clés : nominalisations, événements, structure argumentale, aspect, quantisation

Résumé :

Cette thèse s'intéresse à la structure des nominalisations, se concentrant sur les propriétés grammaticales héritées. Elle met en évidence l'indépendance des propriétés grammaticales par rapport à l'existence ou à la non-existence d'une source lexicale. Ainsi, la dérivation s'opère de façon syntaxique.

L'étude remet par ailleurs en question la classification binaire traditionnelle « nominaux à SA vs. sans SA », plaidant pour une analyse plus détaillée. Elle identifie deux types de nominaux à SA, analysant leurs propriétés et attribuant les différences à la présence ou à l'absence d'une nouvelle couche fonctionnelle, la projection Nabra.

Deux types se dégagent, l'un construit sur une phase, l'autre sur une structure plus petite. Les nominaux à SA basés sur des phases présentent des caractéristiques catégorielles fortes. Parmi ces propriétés, on identifie leur capacité à recevoir des particules scalaires ou des adverbiaux de manière/degré. À l'inverse, les nominaux à SA nus, bien qu'ils passent les tests d'événementialité, n'ont pas ces propriétés scalaires. Cette défektivité est mise sur le compte de l'absence, dans leur structure interne, de la projection Nabra. Ainsi, on émet l'hypothèse que la tête de cette projection est la tête de phase.

Title : The Syntactic Derivation of Event Nominals: Property Inheritance Beyond Lexicalization

Keywords : nominals, events, argument structure, aspect, quantization

Abstract :

This dissertation focuses on the grammatical properties that certain nominals inherit from their derivational bases. It reveals how French nominalizations pass Argument-Structure (AS) tests despite lacking a lexicalized source, suggesting that the lexicalization of the source is irrelevant to its grammatical properties. This supports a syntactic approach to AS and word formation, where AS inheritance is structurally determined, independent of external variations. The study challenges the traditional binary classification of AS- versus non-AS- nominals, advocating for a more detailed analysis. It identifies two types of AS-nominals, analyzing their properties and attributing differences to the presence or absence of a novel layer, the Nabra projection.

Nominals of the first type are built on a verbal or adjectival phase, whereas those of the second type derive from smaller structures. Phase-based AS-nominals exhibit strong categorial properties, including the ability to be internally modified by Scalar Particles or manner/degree adverbials.

Conversely, Bare AS-nominals, while passing the tests for grammatical eventivity, lack such scalar properties, which is attributed to the absence of the Nabra projection from their internal structure.