



HAL
open science

HOW A MEANINGLESS AFFIX CAN CREATE MEANINGFUL DERIVATIVES: A CASE STUDY OF (NON)POLYSEMY

Bernard Fradin

► **To cite this version:**

Bernard Fradin. HOW A MEANINGLESS AFFIX CAN CREATE MEANINGFUL DERIVATIVES: A CASE STUDY OF (NON)POLYSEMY. *Lingue e Linguaggio*, 2024, XXIII (2), pp.291-315. hal-04849292

HAL Id: hal-04849292

<https://hal.science/hal-04849292v1>

Submitted on 19 Dec 2024

HAL is a multi-disciplinary open access archive for the deposit and dissemination of scientific research documents, whether they are published or not. The documents may come from teaching and research institutions in France or abroad, or from public or private research centers.

L'archive ouverte pluridisciplinaire **HAL**, est destinée au dépôt et à la diffusion de documents scientifiques de niveau recherche, publiés ou non, émanant des établissements d'enseignement et de recherche français ou étrangers, des laboratoires publics ou privés.

HOW A MEANINGLESS AFFIX CAN CREATE MEANINGFUL DERIVATIVES: A CASE STUDY OF (NON)POLYSEMY

BERNARD FRADIN

ABSTRACT: The French suffixation in *-ier*, *-ière* is a system inherited from Latin, which has been largely remodeled. One of its most striking features is the great number of different meanings that the derived nouns in *-ier* show. Contrary to what may seem, it is argued that the suffix *-ier* should not be considered as polysemic and that such a hypothesis even prevents to correctly describe the facts. The suffix is meaningless which means that compositionality is not an option to account for the meaning of the derivatives in *-ier*. It is proposed that this meaning be developed on the basis of inferences drawn from the semantics of their base name and regulated by the derivational series and families in which the derived Ns are included. Suffixes which supposedly manifest a true polysemy are discussed and it is shown that this is not a true polysemy, as is the case with lexemes, but an effect of the multiplicity of meaning obtained by lexeme formation patterns.

KEYWORDS: derivational series, derivational paradigm, onomasiological pressure, emergence of meaning

1. THE INITIAL PROBLEM¹

Haspelmath (2002) mentions a well-known fact about French, namely that suffixing *-ier* to the stem of nouns that denote a fruit allows one to derive the name of the plant, generally a tree, which yields this fruit. Examples (1) illustrate this phenomenon and (2) expresses the meaning it involves as an inference.

- (1) *pomm-ier* ‘apple-tree’, *prun-ier* ‘plum-tree’, *abricot-ier* ‘apricot tree’, *cocot-ier* ‘coconut palm’, *pamplemouss-ier* ‘grapefruit tree’, *avocat-ier* ‘avocado tree’, *banan-ier* ‘banana tree’, *groseill-ier* ‘redcurrant bush’, *néfl-ier* ‘medlar tree’

¹ Abbreviations: AGT ‘agent’, bN ‘base noun’, dN ‘derived noun’, N-ier ‘noun suffixed with *-ier*’; language names (ISO 639-3): lat ‘Latin’, eng ‘English’, fra ‘French’, fro ‘Old French’

- (2) **Fruit tree** If N denotes a kind of fruit, then N-ier denotes the tree that produces that fruit e.g. *poire* ‘pear’ / *poir-ier* ‘pear-tree’.

However many other nouns suffixed by *-ier* exist and have a completely different meaning, as the following examples show.

- (3) **Producer / trader** *bijout-ier* ‘jeweller’, *pot-ier* ‘potter’, *céréal-ier* ‘cereal farmer’ *chemis-ier* ‘shirt maker’
- (4) **Hunter** *renard-ier* ‘fox-hunter’, *canard-ier* ‘duck hunter’, *loutr-ier* ‘otter hunter’
- (5) **Container** *sucr-ier* ‘sugar bowl’, *chéqu-ier* ‘checkbook’, *plum-ier* ‘pencil box’
- (6) **Boat** *langoust-ier* ‘lobster boat’, *thon-ier* ‘tuna boat’, *balein-ier* ‘whale-boat’

An inferential description can be devised for each of these cases too, as long as the base supplies us with the information needed to specify the meaning associated with these derived lexemes.

- (7) **Producer, trader** If the bN denotes a kind of artefact, then N-ier denotes the person who produces or sells that artefact e.g. *horloge* ‘clock’ / *horloger* ‘watchmaker’
- (8) **Hunter** If the bN denotes a wild animal species, then N-ier denotes the agent who hunts animals of that species e.g. *renard* ‘fox’ / *renardier* ‘fox-hunter’
- (9) **Container** If the bN denotes a substance or an object having a specific use, then N-ier denotes the container where that substance or object is kept e.g. *sucré* ‘sugar’ / *sucrier* ‘sugar bowl’, *plume* ‘nib’ / *plumier* ‘pencil box’
- (10) **Boat** If the bN denotes a fish or a sea animal, the N-ier denotes the boat specially used to fish that kind of animal e.g. *langouste* ‘lobster’ / *langoustier* ‘lobster boat’

In all these cases, an exponent is connected with multiple meanings. This situation seems to support the idea that the affix *-ier* is polysemic.

If we agree with Lieber’s claim that “sorts of polysemy displayed by derivation should be like those found in simplex lexicon” Lieber (2004: 74), it should be possible to state that *-ier* is intrinsically associated with several meanings such as ‘agent’, ‘tree’, ‘container’, ‘boat’, etc. in the same way as the basic meaning of fra *hérisson* ‘hedgehog’

(‘small nocturnal mammal with a spiny coat and short legs (...)’, online Oxford Dictionary of English) is associated with meanings (b) ‘chimney sweep brush’, (c) ‘bottle-drainer’, (d) ‘tooth roller’, etc. because the referents of these descriptions show parts similar to the hedgehog’s spines (more on polysemy in section 6). However these contents cannot be associated with *-ier* alone since they correspond to the entire meaning of the derived word. Under these conditions, any semantic instruction attached to *-ier* may be redundant with the meaning of the word itself or evade any wording. In addition, since these meanings are attached to the suffix exclusively and independently of the base, what would prevent *-ier* associated with the meaning ‘boat’ to be used to derive lexeme *pomm-ier* with the meaning ‘boat that carries apples’? If suffix *-ier* has multiple meanings, it is not easy to formulate the conditions that would forbid the multiplication of non-attested combinations like this one. On the other hand, if no meaning is associated with *-ier*, suffice it to say that this type of derived word does not exist because names of boats ending in *-ier* require their base N to denote a sea animal. This is exactly what pattern (10) expresses. We only know for sure that the formulation of the appropriate derived meaning depends on two elements: the meaning of the base and the presence of the derivational exponent in question. For the time being, an ‘inferential presentation’ of the meaning is adopted, which limits itself to deducting the referent of the derived N from a set of relevant semantic indices. What does this situation entail for the polysemic approach?

If the derivational suffix *-ier* is not associated with any fixed meaning, it cannot be a morpheme and has to be analyzed as a morph defined as “minimal linguistic form” Haspelmath (2020: 117) also Crysmann & Bonami (2015). Since it cannot, and need not, be correlated with any identifiable meaning, it cannot be polysemous either. This conclusion requires us to address at new costs several essential issues.

The first one is empirical: we have to account for the fact that several sets of derived lexemes suffixed by *-ier* exhibit completely different meanings and this account cannot resort to the polysemy of the exponent as an explanation of the phenomenon. We need to uncover which elements play a role in the construction of the meaning of these lexemes and see how these meanings are organized at a global level (§4).

The second one concerns the extension of the phenomenon. Are there lexemes derived with affixes which are polysemous? Do polysemous derivational affixes (and more generally exponents) different from *-ier* exist at all? If they do, which conditions would make polysemy possible

for some derivational exponents and impossible for others? (§§5-6).

The third one has to do with the origin of the derived meanings exhibited by nouns suffixed in *-ier*. If these senses do not result from the combination of the meaning of the base with that of the affix, where do they come from? I will deal with this issue first.

2. THE ORIGIN OF DERIVED MEANING

Since the meaning of the derived nouns in *-ier* mentioned so far cannot be obtained through the combination of the meaning of their parts inasmuch as the derivational exponent lacks any identifiable meaning (more in section 4), I assume that this meaning comes from the discourse the derived lexemes occur in and, more broadly, from the lexical networks they belong to. This suggests that a Word and Paradigm approach is worth exploring. For inflection, Blevins (2016: 170) claims that “Paradigmatic relations (...) operate over larger sets of words (...) It is the affiliation with these larger sets of forms that principally constrains uncertainty in the association between individual word-forms and grammatical properties”. For derivation, the association between individual derived words / lexemes and their meaning is constrained by the morphological derivational series they belong to. The items of each series have distinct syntactic distributions, hence distinct meanings. This can be illustrated through the word *sucriers*, which exhibits two different meanings ‘sugar manufacturers’ and ‘sugar bowls’, as shown in (11a) and (11b) respectively, each of which is correlated with a lexeme that belongs either to derivational series (12a) or (12b).

- (11) a. *L’analyse des possibilités de l’éthanol (...) fait clairement apparaître que les **sucriers** et les distillateurs ne contribueraient que modestement à ce dessein national.* (Web)
 ‘the analysis of the possibilities of ethanol (...) makes it clear that sugar-manufacturers and distillers would contribute only modestly to this national purpose’
- b. (...) *verres de couleur pour les vitraux d’églises et un verre ressemblant à une porcelaine demi-transparente pour les **sucriers** et les **comptiers*** (Web)
 ‘colored glasses for church windows and semi-transparent porcelain-like glass for sugar bowls and fruit dishes’
- (12) a. *houblon* ‘hop’ / *houblonnier* ‘hop farmer’, *betterave* ‘beetroot’ / *betteravier* ‘beetgrover’, *céréale* ‘cereal’ / *céréaliier* ‘grain farmer’

- b. *cendre* ‘ash’ / *cendrier* ‘ash tray’, *plume* ‘nib’ / *plumier* ‘pencil box’, *légume* ‘vegetable’ / *légumier* ‘vegetable dish’, *chèque* ‘check’ / *chéquier* ‘checkbook’

The meaning is built in discourse through sentences such as (11) and the semantic inferences they allow to draw. These inferences are not the same in (11a) and (11b) since the verbal construction is different in both sentences, as (13a)-(14a) show. In (13a), *sucriers* denotes a human being, whereas in (14a), *sucriers* denotes a container made of glass or china; hence the ungrammaticality of (13b) and (14b).²

- (13) a. *les **sucriers** et les distillateurs contribuent modestement à ce dessein national*
‘sugar manufacturers and distillers modestly contribute to this national design’
- b. **les **sucriers** et les compotiers contribuent modestement à ce dessein national*
‘sugar bowls and fruit dishes modestly contribute to this national design’
- (14) a. *un verre ressemblant à une porcelaine demi-transparente pour les **sucriers** et les compotiers*
‘a glass which looks like semi-transparent porcelain for sugar bowls and fruit dishes’
- b. **un verre ressemblant à une porcelaine demi-transparente pour les **sucriers** et les distillateurs*
‘a glass which looks like semi-transparent porcelain for sugar manufacturers and distillers’

Besides its well-entrenched meaning, it may happen that a derived lexeme gets associated with new meanings that gain ground over time. The emergence of these new meanings offers an opportunity to observe their discursive origin. The discussion will be conducted on the basis of examples provided by quality nouns suffixed with *-ité*. These nouns derive from adjectives (cf. (15)) and denote the capacity for somebody or something to have the property the adjective denotes e.g. *fluidité* ‘fluidity’ = ‘ability to be fluid’ or ‘ability to flow easily’. They occur in discourse contexts such as those given in (16).

² These inferences are of the same nature as those put to the light by Dowty (1989) in the constitution of thematic roles.

Type	grand N-ité	très ADJ	Great number
(a)	<i>grande fluidité</i>	<i>très fluide</i>	—
(b)	* <i>grande citoyenneté</i>	* <i>très citoyen</i>	—
(c)	* <i>grande admissibilité</i>	* <i>très admissible</i>	—
(d)	<i>grande mortalité</i>	* <i>très mortel</i>	~ of deaths
(e)	<i>grande fécondité</i>	<i>très fécond</i>	~ of babies

TABLE 1: SEMANTIC BEHAVIOR

- (15) *dur* ‘hard’ / *dureté* ‘hardness’, *admissible* ‘admissible’ / *admissibilité* ‘admissibility’, *citoyen* ‘citizen’ / *citoyenneté* ‘citizenship’, *mortel* ‘mortal’ / *mortalité* ‘mortality’, *fécond* ‘fertile’ / *fécondité* ‘fertility’
- (16) *la fluidité des transports* ‘the fluidity of transport’; *la certitude de la mortalité de l’âme* ‘the certainty of the mortality of the soul’ (TLFi); *l’admissibilité à ce concours lui ouvre des portes* ‘eligibility for this competition opened doors for her’; *leurs prières au génie de la fécondité* (TLFi) ‘their prayers to the spirit of fertility’; *la formation à la citoyenneté* (FrWaC) ‘formation to citizenship’

To quantify how much the property in question is involved in a given context, speakers can modify nouns in *-ité* with adjectives such as *grand* ‘great’ as in *grande fluidité* ‘great fluidity’ = ‘ability (of X) to be fluid to a great extent’. For other nouns in *-ité* however, the same construction triggers a completely different meaning; for instance *grande mortalité* does not mean ‘ability to be mortal to a great extent’ but something like ‘great amount of dead people’. This semantic difference, for a part, stems from the semantic properties of the adjectival base, as shown in Table 1. Adjective *fluide* ‘fluid’ is scalar, with an unbound upper scale (Kennedy & McNally 2005); hence the possibility of *très fluide* ‘very fluide’, which is consistent with the content of *grande fluidité*. The adjectives in (b), (c) are non-scalar, hence the ungrammaticality of *grande N-ité* ‘great N-ity’ and *très ADJ* ‘very ADJ’. In (d) *mortel* is also non-scalar, but the meaning of *grande mortalité* shifts to ‘great number of deaths’.

In (e), *fécond* is a scalar adjective but in some contexts it may also get the great number meaning as in *le lièvre est d’une grande fécondité* (FrWaC) ‘the hare is very fertile’ = ‘the hare gives birth to many leverets’. Nouns in *-ité* with a quantitative interpretation denote the number of individuals or the amount of a substance in a given space or period. For example, when we say *la mortalité a augmenté* ‘mortality has increased’, it is said that the number of dead people has increased. This meaning emerges in discourses that contain sentences such as those in (17) (all

examples come from FrWaC).

- (17) *Les nouvelles tables de mortalité ont été publiées par l'INSEE* 'The new mortality tables have been published by INSEE'; *le taux de mortalité des marcassins a considérablement diminué* 'the mortality rate of young boars has decreased significantly'; *la mortalité de la zone géographique concernée est supérieure à la moyenne française* 'mortality in the geographical area concerned is higher than the French average'; *Taux de fécondité : 6,5 enfants/femme* 'fertility rate: 6.5 children/woman'; *Une partie de l'Europe connaît cependant toujours un niveau de fécondité très faible* 'However, part of Europe still has a very low level of fertility'; *La goutte froide va finir par se rapprocher de nous ce qui risque d'augmenter la nébulosité vers le Nord Est* 'The cold drop will eventually get closer to us which may increase the cloudiness to the Northeast'; *La salinité rend les sols toxiques et impropres à l'agriculture* 'Salinity makes soils toxic and unsuitable for agriculture'

Suffixed nouns in *-ité* that occur in syntactic contexts (16) vs. (17) do not have the same distribution and are associated with different meanings. These contexts determine what their meaning can be in function of their semantic properties (cf. Table 1). The derivational series they belong to are also very different. For derived nouns in (16), the derivational series is a standard one, as (15) shows: the derived nouns are formally correlated with their base through the suffix and semantically, the correlation is kept constant 'capacity to be ADJ' (not formulated in (15)). As for nouns in *-ité* with a quantitative interpretation, the story is different. First, some of them are not derived, such as *natalité* borrowed from Latin *natalitas* in Middle French, but with a different meaning (Martin 2015), and attested only in 1868 with its modern quantitative meaning (Littré); *nébulosité* 'nebulosity' is another loanword, from late Latin *nebulositas* (1488). Second, it is not obvious to decide which form has to be considered as the base: as shown in (18), formally the denominal adjective the N in *-ité* is derived from seems to fulfill this function, but semantically, the noun on which this adjective is built, when it exists, is a better candidate e.g. *la salinité de l'eau* 'the salinity of water' = 'the amount of salt in water'.

- (18) *mort* 'death' / *mortel* 'fatal' / *mortalité* 'mortality', ? / *fécond* 'fertile' / *fécondité* 'fertility', *sel* 'salt' / *salin* 'saline' / *salinité* 'salinity', ? / *nébuleux* 'nebulous' / *nébulosité* 'nebulosity'

Three main conclusions can be drawn from the preceding discussion.³

³ Quality nouns in *-ità* in Italian offer similar meaning extensions; some of which even

1) Derived nouns in *-ité* are likely to have a quantitative meaning whenever they occur in discourses that include constructions and predicates expressing an evaluation or a quantification e.g. *le taux de N*, *augmenter / diminuer N*, *le niveau de N*, *le N moyen*, etc. as illustrated in sample (17). A hypothesis (to be confirmed in future studies) would be that similar discourses did not exist in older periods of the language. In other words, no nouns in *-ité* could then combine with the just mentioned predicates. If this proves true, it would give a basis to the idea that the meaning of the derivatives studied here originates in the discourse.

2) The emergence of nouns in *-ité* with a quantitative meaning arose from the development of new social needs, linked to the necessity to measure phenomena which have a bearing on every day life. In other words, the discourses which gave rise to the quantitative meaning in question result from an onomasiological pressure. The scientific development forces scientists to coin new terms. This was precisely the case of *nébulosité*, which was adopted by meteorology (attested 1890), a science that owes much of its development to military reasons. The development of statistics increased the tendency (cf. the use of *natalité*).

3) Lexemes that present a quantitative interpretation are not uniform. The only relevant property these nouns must have seems to be the capacity to denote entities that can be measured or counted. Data in Table 1 show slight differences between *mortalité* and *fécondité*, but *nébulosité/natalité* still behave differently. This suggests that a wider variety could be observed in a larger sample of suffixed nouns in *-ité*. This means that the conditions for the appearance of quantitative meaning might be not strictly identical. This goes against the idea that this new meaning could be attached to suffix *-ité* independently of the nouns that host this suffix, in a completely above ground way, so to speak.

3. THE SEMANTIC CONTRIBUTION OF THE SUFFIX

The discussion so far could suggest that it is base N that plays the main, or even exclusive, role in determining the meaning of the derivative. This viewpoint could be strengthened by the data mentioned in (1) and (3), which show that the referent of the base noun must be conceived as being able to be involved in various relations, which can be chosen to construct a derived meaning. For instance, *sucré* denotes both a produced artefact (involved in *sucrier* ‘sugar manufacturer’) and an

barely exist in French e.g. *gestualità* ‘gesture, movement’ (Grossmann & Rainer 2004: 293-295)

edible substance (involved in *sucrier* ‘sugar bowl’). Although fair, this view must be corrected, insofar as suffix *-ier* too plays a role in the construction of the derived meaning. It puts constraints on the type of information that can be selected from the base. This can be illustrated through the contrast between adjectives suffixed in *-ier* vs. *-eux*, a topic discussed at length in Corbin & Corbin (1991).

Both adjectives *laitier* and *laiteux* are derived from *lait* ‘milk’. To account for the contrast between (19) and (20), Corbin & Corbin (1991) contends that, semantically, suffixation in *-ier* builds a prototype of the base noun’s referent and selects pragmatic properties of this prototype, excluding sensory or intrinsic properties⁴, whereas suffixation by *-eux*, on the contrary, selects the intrinsic properties of the base noun referent (see also Fradin 2007).

- (19) a. *un ciel laiteux* ‘a milky sky’
 b. **un ciel laitier* ‘a dairy sky’
- (20) a. **une coopérative laiteuse* ‘a milky cooperative’
 b. *une coopérative laitière* ‘a dairy cooperative’

The grammaticality judgements given in (19)-(20) depend on the semantic relationship established between the referent of the base-noun (milk) and that of the head-nouns (sky, cooperative society). (19a) states that the color of the sky = color of the milk (intrinsic property); and (20b) states that the cooperative does what must be done to process milk into dairy products (pragmatic relationships).

The comparison between *-ier* and *-eux* suffixation was more relevant for Corbin & Corbin (1991) than for us to the extent that these authors claimed that *-ier* was primarily used to build adjectives, which were converted in nouns afterwards. Nevertheless, it can be argued that suffixed nouns in *-ier* impose similar constraints on the relationship between their referent and their base-noun. This relationship must be pragmatic i.e. it must involve actions on reality, scenarios that include human actors, be oriented towards use, etc. In addition, a spatial or synecdochical relationship is sometimes encountered (Roché 1998). Anyway, the elements involved in these three types of relationship are not considered for their internal properties, but as actors and nothing else.

The semantic properties of *-ier* highlighted at the moment are not expressed positively by predicates but in a hidden way through proper-

⁴ In Middle French though adjectives in *-ier* could do that e.g. *sable coquillier* ‘sand with shells’ cf. section 4.

ties that allow or prohibit the relationship. The following section will precisely clarify the semantic contributions of the suffix.

4. THE VARIETY OF DERIVED NOUNS IN *-IER*

Derived nouns in *-ier* are based on derivational patterns inherited from Latin. Over time, some of these patterns disappeared, others developed. A reshuffling occurred when Latin derived nouns in *-er* (< *-are*) were absorbed by derived nouns in *-ier* (< *-ariu*) (Roché 2006: 68-69)⁵.

In Latin, the initial model prototypically uses suffixes *-arius*, *-aria*, *-arium*. Old French takes over from the Latin derivational pattern. This pattern implicates a process where the derived nouns generally denote the agent (21)-(22), the instrument (23a) or sometimes the beneficiary of the process (24), whereas the base N denotes what motivates the process in question, dubbed ‘the object’ by Roché (2006: 57-58). This object may denote the material used in the process (22a), the place of activity (22b), the activity itself (22c)-(22d) and the instrument (23b)-(23c). Here a few examples taken from (Roché 2006).

- (21) a. lat *asinus* ‘donkey’ → *asinarius* ‘donkey-driver’
 b. fro *barbe* ‘beard’ → *barbier* ‘barber’
 c. fro *lait* ‘milk’ → *laitière* ‘milkwoman’
- (22) a. fro *platre* ‘plaster’ → *plâtrier* ‘plasterer’
 b. fro *mer* ‘sea’ → *marinier* ‘sailor’
 c. lat *vectura* ‘transport’ → *vecturarius* ‘carriage-driver’
 d. fro *peinture* ‘painting’ → *peinturier* ‘the one who decorates’
- (23) a. lat *musca* ‘fly’ → *muscarium* ‘fly-whisk’
 b. lat *scopa* ‘broom’ → *scoparius* ‘cleaner’
 c. fro *arc* ‘bow’ → *archier* ‘bowman’
- (24) a. lat *ususfructus* ‘usufruct’ → *usufructuarius* ‘usufructuary’
 b. fro *pension* ‘pension’ → *pensionnier* ‘the person receiving a pension’

Latin suffixes *-aris*, *-are* (allomorphs of *-alis*, *-ale*) were used to derive plain relational adjectives and were not distinguishable from the

⁵ Most of the examples and several of the ideas in this section come from Roché (1998) and Roché (2006), to which I refer for details.

adjectives in *-alis*, which gave birth to the abundant series of French derivatives in *-el* or *-al* e.g. *présidentiel* ‘presidential’, *national* ‘national’ (Roché 2006: 63). While the semantics of derivatives in *-arius* requires the existence of a process, such a requirement does not exist for derivatives in *-are*, *-aris* since they are mere relational adjectives. Many examples illustrate this opposition: *puellaris* ADJ ‘girlish, innocent, delicate’ vs. *puellarius* N, ‘the one who loves young girls’, which presupposes an activity involving an agent and a patient; *paleare* N ‘heap of straw’ (← *palea* ‘straw’), which only informs us about the disposition of straw vs. *palaerium* N ‘straw loft’, which assumes a shelter where to put the straw (action).

But this derivational distribution changed in Romance languages and notably in Old French. Many words semantically inherited from both sides e.g. *pailler* ← *paille* ‘straw’, which means either ‘straw loft’ or ‘heap of straw’. Admittedly doublets constructed on the same basis already existed in Latin e.g. *vinealis* / *vinearius* ‘vine, vineyard related’ but to a lesser extent. In Old French a large subgroup of suffixed nouns in *-ier* tends to denote entities that belong to separate series such as mass substance vs. a space or device that contains that substance e.g. *brasier* ← *braise* ‘embers’ = ‘cluster of embers’ or ‘brazier’, *ordier* ‘garbage heap’ or ‘place where garbage is thrown away’. In late Latin and more widely in Old French and other Romance languages, three parallel series that denote natural places have largely developed from bases denoting plants, animals and material deposited in the ground. Although formed with *-ier*, *-ière*, no pragmatic action is presupposed by the oldest attestations of these nouns; the latter have a collective reading, while the more recent ones involve the active participation of an agent in a process.

A. Nouns denoting places where specific plants grow: (i) spontaneous plant formations: *houssiere* ‘hollywood’, *jonchiere* ‘area where rush grows’; (ii) *chataigniere* ‘chestnut grove’, *coudrière* ‘hazel wood’, *cressoniere* ‘watercress bed’; (iii) cultivated plant formations: *faviere* ‘field of broad bean’, *lentilliere* ‘lentil field’.

B. Nouns denoting animal habitat: (i) habitat out of human control: *formüiere* ‘ant hill’, *haironiere* ‘place where herons live’, *taupiere* ‘mole-hill’, *renoillere* ‘frog pond’; (ii) habitat under human control: *colombier* ‘dovecote’, *gelinier* ‘henhouse’.

C. Nouns denoting quarries: *argiliere* ‘clay pit’, *sabloniere* ‘sand pit’, *ferriere* ‘iron ore mine’, *ardoisiere* ‘slate quarry’.

The absorption by *-ier* of the Latin suffix *-er* made new types of adjectives in *-ier* emerge, whose distinctive feature is to convey a relational

meaning, as adjectives suffixed in *-er* did. These adjectives involve no process and do not stage any agent or instrument. They express a belonging relationship between the derived and the base noun referents e.g. *escolier* ‘schoolboy’ ← *escole* ‘school’ (Roché 2006: 68-69). This absorption has also fostered the development of a new family of relational adjectives, which express, among others, a temporal, spatial, material relationship or a similarity e.g. *printanier* ‘spring-like’; *cornier* ‘located in a corner’, *senestrier* ‘located on the left’; *marbrier* ‘made of marble’; *archier* as in *fenestres archieres* ‘bow-shaped windows’. I refer to Roché (2006) for a discussion of other historical aspects of adjectives in *-ier*. In the rest of this article, I will focus on nouns because they constitute the majority of derivatives in *-ier* in both Old (84,7%) and Modern French (78,5%), according to Roché’s counts (Roché 2006: 76).

This short historical overview aimed at helping the understanding of the derivatives in *-ier* and *-ière*. Although the picture that we depicted appears complex and even blurred, it helps to see how regularities have emerged and consolidated. Our claim is that these regularities are reflected in the derivational patterns that underlie the derived lexemes series. In contemporary French, the majority of these patterns involve an agentive process, while most of the remaining instantiates various stative relationships.

To grasp the specificity of the derivation in *-ier*, let us examine the morphological derivational family⁶, given in (25).

(25) *chasser* ‘to hunt’, *chasseur* ‘hunter’, *chasse* ‘hunting’

The verb *chasser* is an event V which denotes an action performed by an agent, denoted by the N *chasseur*, while the N *chasse* denotes the action in question. In other words, the semantics of the derived lexemes included in the family is dictated by the construction of the verb itself, as schematized in (26) for *chasseur*.

(26) $chasseur' = \lambda x \exists y \exists e. [chasser'(x, y, e) \wedge AGT(x) \wedge PAT(y)]$

If we compare *chasseur* with *bécassier*, which denotes somebody who hunts woodcocks, we see that the concept of hunting is not formally

⁶ Strictly speaking, “morphological derivational families are sets of lexemes pairwise correlated together through derivational morphological patterns based on series of forms exhibiting recurrent form / meaning correlations” (Fradin 2018: 158). Very often though, derivational families are not distinguished from lexical derivational families. A discussion of these concepts is given in the just-mentioned article, which is a digest of the presentation in Hathout (2011).

present in the base-noun *bécasse*. We hypothesize that the selection of a hunting scenario when *bécasse* is the base N is triggered by the fact that this N denotes a wild animal and the derived N a human being. It is the knowledge associated with woodcocks as potential actors in (human-dominated) social relationships that makes this scenario available and plausible. Obviously, whenever the base N changes and denotes another type of entity, the scenario changes accordingly. The suffix plays no role in the story, which proves that the notion of polysemy is irrelevant in this case. The suffix simply guarantees the admissibility of this type of relationship.

The links between the referents of the base and of derived N can be more or less tight. In some cases, this link amounts to an implication, in others it is a simple possibility. For instance, the existence of a woodcock does not allow to infer that the corresponding hunter exists. On the other hand, knowing what a crane (machine) is leads us to conclude that an agent capable of using it is required: $\lambda y.\mathbf{crane}(y) \rightarrow \exists x \exists e.\mathbf{operate}(y,x,e) \wedge \mathbf{AGT}(x)$. In a similar way, since *pot* ‘pot’ denotes an artefact, this implies that an agent made it (the potter, *potier*). Strong relationships also exist between the fruits and the plants that produce them e.g. *pomme* ‘apple’ and *pommier* ‘apple-tree’ (Fradin 2021: 154). The stronger the link, the better the prediction about the elements that belong to the derivational family in question and, more generally, to the derivational paradigm⁷ since a derivational paradigm is a stack of derivational families with strict alignment constraints (Bonami & Strnadová 2018).

While the agentive relation rooted in verbs says nothing about the type of action that the agent performs, for Ns in *-ier* this action is part of the meaning of the derivative and varies according to the meaning of the N serving as base. A sample of these relations is listed below; Y specifies the ontological type of the base N’s referent (more examples in Roché 1998):

‘X in charge of Y’ Y = entity requiring know-how to use: *caissier* ‘cashier’, *focquier* ‘sailor in charge of the jib’, *fauconnier* ‘falconer’

‘X take care of Y’, Y = domesticated animal or space: *jardinier* ‘gardener’, *ânier* ‘donkey-driver’

‘X command Y’, Y = group of people: *brigadier* ‘corporal (in artillery or transport division)’

‘X make or repair Y’, Y = artifact: *horloger* ‘watchmaker’, *chapelier*

⁷ For a discussion see Fradin (2020, 2021); Bagasheva *et al.* (2020), Sanacore *et al.* (2021).

‘hatter’

‘X manage Y’, Y = public institution: *hôtelier* ‘hotelkeeper’, *boutiquier* ‘shopkeeper’

‘X work in Y’, Y = space dedicated to an activity: *buronnier* ‘shepherd who makes cheese in a mountain pasture construction’, *chambrière* ‘hotel maid’, *agencier* ‘journalist working in a news agency’

‘X play Y’, Y = music instrument: *balafonier* ‘balafon player’, *cymbales* ‘cymbal player’

‘X cultivate Y’, Y = cultivated plant: *houblonnier* ‘hop farmer’, *céréaliier* ‘grain farmer’

‘X work Y’, Y = natural substance: *marbrier* ‘marble mason’, *ardoisier* ‘slate worker’

‘X is armed with Y’, Y = weapon: *hallebardier* ‘halberdier’, *archer* ‘bowman’, *canonnier* ‘gunner’

‘X participate to Y’, Y = public event: *festivalier* ‘festival-goer’, *régatier* ‘participant in a regatta’

‘X practice Y’, Y = activity type: *cuisinier* ‘cook’, *couturier* ‘fashion designer’, *contrebandier* ‘smuggler’

‘X write Y’, Y = written production: *chansonnier* ‘cabaret artist’, *préfacier* ‘preface writer’

The relationships are numerous and varied. Insofar as each relationship expresses the nature of the action performed by the agent, it is part of the semantics of the derived N. It cannot be attributed to an assumed polysemy of the suffix, because its content varies according to the meaning of the N base. Once more, the idea according to which the suffix *-ier* is polysemic proves to be indefensible.

In addition to the agentive meaning, derived nouns in *-ier* can denote instruments, means⁸ and beneficiaries. In this case the referent of the base N is not always easy to identify and may greatly vary.

Instruments: ‘X use Y to V Z’, Y = concrete entity: *tisonnier* ‘poker’, *souricière* ‘mousetrap’, *pétrolier* ‘oil tanker’.

Cooking instrument: ‘X use Y (to cook | prepare) Z’, Z = food preparation: *yaourtière* ‘yoghurt maker’, *couscoussier* ‘couscous-maker’, *gaufrier* ‘waffle maker’.

Means: ‘X make Y be realized’, Y = effect : *ombrière* ‘structure to provide shade’, *tendière* ‘horizontal pieces that tighten a scaffolding’ (the base is the V *tendre* ‘to tighten’).

⁸ The means are very often confused with the instruments. They can occur as a subject NP, which is not the case for true instruments. Criteria to distinguish them are given in Fradin (2021).

Protective means: ‘X protect Y’, Y = body part: *jambière* ‘greave’, *mentonnière* ‘chinpiece’, *visière* ‘visor’ (fro †*vis* = *visage* ‘face’).

Beneficiaries: ‘X receive Y’, Y = money, advantage: *créancier* ‘creditor’, *prébendier* ‘prebendary’.

Another large group of suffixed nouns in *-ier*, *-ière* has to be distinguished, whose distinctive features are (i) that the derived N denotes inanimate entities and (ii) that the relationship between the base and the derivative is stative. For space reasons, the presentation will be very sketchy and I refer to Roché (1998: 52-63) for details. In the first subgroup the derived N denotes an artefact intended to contain, wrap or support the entity denoted by the base N.

‘X contain Y in a convenient way’, Y = product or object : *théière* ‘teapot’, *coquetier* ‘eggcup’, *tabatière* ‘snuffbox’, *cendrier* ‘ashtray’

‘X contain Y’, Y = valuable object or product: *vaisselier* ‘dresser’, *médaillier* ‘medal cabinet’, *fruitier* ‘storeroom for fruit’.

‘Y goes through X’, X = opening: *boutonnière* ‘buttonhole’, *arbalétrière* ‘loophole for crossbow’, *chatière* ‘catflap’.

In the second subgroup, the derived N denotes a mass or a collection of the entities denoted by the base noun. ‘X organized set of Y’, X = functional artefact: *boulier* ‘abacus’, *dentier* ‘dentures’, *nuancier* ‘color chart’.

‘X denote a mass of Y’, Y = mass substance: *glacier* ‘glacier’, *pierrier* ‘scree’, *gerbier* ‘heap of sheaves’.

The third subgroup involves a strictly locative relation between the base and the derived N referents. This group already existed in Old and Middle French (section 4).

‘X grow in Y’, X = plant, tree: *rizière* ‘paddy field’, *houblonnière* ‘hop-field’, *avenière* ‘oats field’, *sapinière* ‘fir plantation’.

‘X is made up of Y’, Y = type of deposit: *ardoisière* ‘slate quarry’, *tourbière* ‘pit bog’.

‘X inhabit Y’, X = animal: *termitière* ‘termites’ nest’, *crapaudière* ‘place where toads live’, *colombier* / *colombière* ‘dovecot’.

If all the semantic distinctions that we have highlighted were associated in proper to the suffix, as would be the case if we contend that it is polysemic, this suffix would be very strange. Indeed, it is very rare, not to say unobserved, for a suffix to express both agentive (true agentive and instrumental) and stative relationships (means and spatial). The suspicious character of this strangeness is explained when we see that all the semantic variations observed are related to the content of the base

and do not owe anything to the suffix. This means that the hypothesis of the polysemy of the suffix *-ier* has no basis.

To make the connection with what was said in section 1, an inferential presentation of some of the just discussed nouns (except for (30)) is given in (27)-(30).

- (27) **Keeper** If bN denotes an institution that provides services for consideration, then N-ier denotes the agent who runs or is in charge of this institution e.g. *hôtel* ‘hotel’ / *hôtelier* ‘hotelkeeper’; *boutiquier* ‘shopkeeper’
- (28) **Practitioner** If bN denotes an activity, then N-ier denotes the agent who practices this activity e.g. *couture* ‘sewing, dressmaking’ / *couturier* ‘fashion designer’; *cuisinier* ‘cook’, *contrebandier* ‘smuggler’
- (29) **Habitat** If bN denotes a wild animal, then N-ière denotes the area where this animal lives e.g. *héron* ‘heron’ / *héronnière* ‘place where herons live’, *fourmilière* ‘ant hill’
- (30) **Functional opening** The dN denotes an opening (hole, slot) designed to be gone through by the base N’s referent e.g. *bouton* ‘button’ / *boutonnière* ‘buttonhole’, *chat-ière* ‘catflap’, or by something that is shot by this referent e.g. *arbalète* ‘crossbow’ / *arbalétrière* ‘loophole for crossbows’

The mentioned examples show that the base referent provides crucial information for the formulation of the semantic relationships between the bN and the dN. This is possible only because the base nouns denote entities with a rich ontological content⁹ and a widespread relational network. On the model of what we saw for *sucrier* (section 2), the semantic relationships in question (i) are rooted in morphological series of derived Ns where the meaning / form correlation is kept constant, and (ii) are made visible though the recurrent inferences that can be drawn from the sentences in which the suffixed nouns in *-ier* occur. Moreover, other complex nouns derived on the same pattern belong to morphological families, which can be stacked to form paradigm-like networks where the semantic relationship specific to each member and between members can be deduced from the place of the members in the network (Table 2).

⁹ This is a property of nouns that is often emphasized by philosophers (Vicente 2018: and references therein). Many of the nouns in question are categorematic (Kleiber 1981; Huyghe 2014) or denote functional artefacts.

Object	Agent	Activity	Place
<i>chapeau</i>	<i>chapelier</i>	<i>chapellerie</i> ₁	<i>chapellerie</i> ₂
‘hat’	‘hatter’	‘hat trade’	‘hat store’
—	<i>couturier</i>	<i>couture</i> ₁	—
—	‘dress designer’	‘dressmaking’	—
<i>hôtel</i>	<i>hôtelier</i>	<i>hôtellerie</i> ₁	—
‘hotel’	‘hotelier’	‘hotel business’	—
<i>jument</i>	—	—	<i>jumenterie</i> ₂
‘mare’	—	—	‘mare stud farm’

TABLE 2: EXAMPLE OF DERIVED NOUNS NETWORK

In Table 2, the semantic relationship between the members of column Agent and Activity, or Agent and Place is kept constant, which allows one to formulate the meaning in a uniform manner. However the examples showed us that the meaning associated with Agent or Place may vary in function of the nature of the object referred to by the Object. None of these semantic variations depends on a semantic content attached to suffixes *-ier* or *-erie*.

It is time now to address the second issue mentioned in section 1: are there lexemes derived with other affixes which are polysemous?

5. DO POLYSEMOUS AFFIXES EXIST?

The meaning of nouns derived from verbs is directly correlated with the variables appearing in the semantic representation of the verb. This meaning changes in function of the variable selected. Nouns suffixed with *-eur* denote an agent since the variable their semantic representation is the agent variable x of agentive verbs, as shown with *nageur* ‘swimmer’ in (31a). In (31b), the variable which identifies the kind *lavoir*, that is to say z , corresponds to the landmark of a spatial (inessive) relationship, of which the correlated figure is the event denoted by *laver* ‘wash’. Hence the dN *lavoir* ‘wash house’ denotes a place of washing.

- (31) a. $nageur' = \lambda x \exists e. [\mathbf{swim}'(x, e) \wedge \text{AGT}(x)]$
 b. $lavoir' = \lambda z \exists y x \exists e. [\mathbf{wash}'(x, y, e) \wedge \text{AGT}(x) \wedge \text{PAT}(y) \wedge \text{LOC}(e, \mathbf{in}'(z))]$

The definition of what an instrument is can be discussed at length (Koenig *et al.* 2008; Huyghe & Tribout 2015; Fradin 2021); here I assume that it is an object that an agent has to use to complete a given action

and that this object exists before and after the action. This idea is embodied in the representation given for *tondeuse* in (32)

$$(32) \quad \textit{tondeuse}' = \lambda z \exists y x \exists e^1 \exists e^2 . [\textit{shear}'(x, y, e^1) \wedge \textit{AGT}(x) \wedge \textit{PAT}(y) \rightarrow \textit{use}'(x, z, e^2) \\ \wedge \textit{INS}(z)]$$

The semantic representation associated with the V TONDRE ‘to shear’ can also be used to formulate the meaning of the agentive N *tondeur*, given in (33). Obviously, the variable linked with the AGT is selected here.

$$(33) \quad \textit{tondeur}' = \lambda x \exists z y \exists e^1 \exists e^2 . [\textit{shear}'(x, y, e^1) \wedge \textit{AGT}(x) \wedge \textit{PAT}(y) \rightarrow \textit{use}'(x, z, e^2) \\ \wedge \textit{INS}(z)]$$

To be associated with several meanings, it is sufficient that the exponent of the derived N be connectable with variables of the base verb distinct from each other. This is what is observed for *tondeur* / *tondeuse* (agent) et *tondeuse* (instrument). In this case, it is tempting to say that the affixes in question have several meanings and are therefore polysemous or rather polyfunctional (Salvadori & Huyghe 2022). However it is more accurate to say that the same exponent is used in derivational patterns that express distinct meanings (see section 6). Among the exponents of this type, we find French suffixes *-eur* ‘agent / instrument’, *-oir* ‘place / instrument / patient’, *-age* and *-ment*, which can form nouns exhibiting half a dozen of distinct meanings (Fradin 2005). All of them basically derive nouns from verbs. The inferential approach is useless here since the base of the derivatives already provide the variable they need.

6. DERIVATIONAL AFFIXES AND POLYSEMY

Two types of criteria have been used to distinguish between homonymy and polysemy: the etymological information and the unrelatedness vs. relatedness of the meaning. Two (or more) lexemes with different meanings but sharing the same phonology should be considered as distinct, i.e. homonyms, if their etymons are distincts, as illustrated by fra *limon*₁ ‘silt’ from Latin, *limon*₂ ‘shaft (of a cart)’ probably from Celtic, and *limon*₃ ‘lemon’ ultimately from Persian. On the other hand, a lexeme with different meanings will be polysemous if these meanings can be considered as connected by the speakers of the language (cf. *hérisson* §1); this is the case of eng *mouth*₁ ‘The opening and cavity in the lower

part of the human face...’ and *mouth*₂ ‘An opening or entrance to a hollow, concave, or enclosed structure’ (online Oxford English Dictionary). As well-known, these criteria are open to discussion and their relevance may depend on the insight of the analysis (Lyons 1977: 550-557). But when their use is sound, the lexeme in question can be considered as ambiguous.

Lieber’s claim according to which “sorts of polysemy displayed by derivation should be like those found in simplex lexicon” (Lieber 2004: 74) implies that polysemic affixes must be treated on the same basis as polysemic lexemes. Consequently, truly polysemic affixes should be affixes with the same phonology and each associated with a specific semantic content, independent of the semantic of the lexeme within which they occur. This semantic content should combine with that of the base lexeme, in the image of what we observe for lexemes (or more appropriately, words) in sentences. For instance, in (34), the meaning of nouns *mouth*₁ and *mouth*₂ includes selectional restrictions that constrain the distribution of these nouns in a distinct way (cf. the discussion of examples (13) and (14), §2). As expected, *mouth*₂ cannot occur in (34a) and vice versa for *mouth*₁ in (34b).

- (34) a. *This causes spasm of the muscles as a reaction and therefore resulting in the inability to open the **mouth**₁.* Myhealth.gov.my. 2024/09/16
- b. *A further 9,000 people were evacuated from the Chongming District, an island at the **mouth**₂ of the Yangtze River.* <https://www.bbc.com > articles>. 2024/09/16

This independence of the semantic content of lexemes from that of the lexical units with which they combine can also be observed in compounding. For instance, in the French NN compound *idée-phare* ‘flagship idea’ lit. idea-lighthouse, the semantic representation of *phare* includes information about the function of its denotatum, which is to be a beacon for boats or people sailing on the sea¹⁰ (cf. ‘A tower or other structure containing a beacon light to warn or guide ships at sea’ online ODE). The meaning of the compound takes up this information and states that what denotes an *idée-phare* is a kind of beacon light in a given conceptual domain. An *idée-phare* is an idea that has, metaphorically, the same function as a lighthouse: a leading idea that also indicates the direction to follow. This interpretation can be obtained by taking advantage of

¹⁰ This information would belong to the Telic quale of Pustejovsky (1995) and to the Event attribute in Frame Semantics (Gamerschlag *et al.* 2015).

Type	Construct	Reading type	Example
(a)	<i>non-A</i>	Negative reading	<i>nonsubstantial</i>
(b)	<i>non-A</i>	Contradictory reading	<i>non-commercial</i>
(c)	<i>non-N</i>	Negative reading	<i>non-member</i>
(d)	<i>non-N</i>	Stereotype negation	<i>non-color</i>
(e)	<i>un-A</i>	Contrary reading	<i>unfriendly</i>
(f)	<i>un-A</i>	Contradictory reading	<i>undeniable</i>
(g)	<i>un-V</i>	Reversative reading	<i>unzip</i>
(h)	<i>un-N</i>	Negative reading	<i>un-turkey</i>
(i)	<i>un-N</i>	Stereotype negation	<i>un-diva</i>

TABLE 3: DERIVATIVES PREFIXED WITH *non-* AND *un-*

the semantics ordinarily associated with *phare* ‘lighthouse’, *idée* ‘idea’ and the pattern that rules this type of compounds (Fradin 2009). What has just been recalled about the semantic content of simple lexemes is trivial and unproblematic. But what is the situation for affixes?

The problem is that affixes in general are not associated with a semantic content independent of the semantic of the lexeme they are part of, although some formulations suggest the opposite. For example, Lieber (2004: 77) writes “that the two affixes [-ize and -ify] show a wide range of polysemy” (about seven distinct interpretations). If we assume that polysemy is the same phenomenon for simple and derived lexemes, this sentence means that each different meaning is associated with *-ize* in the same way as the two interpretations mentioned above are associated with the polysemic *mouth*. But this is not verified. The meanings of derived lexemes result from the interaction between instructions carried by the affix and the semantic representation of the base. Lieber herself acknowledges this fact, as do many morphologists. Summing up the account she proposes, Lieber (2004: 81) says “I claim that the affixes *-ize* and *-ify* are associated with a unitary skeleton,¹¹ and that the polysemy displayed by their derivatives arises from a combination of factors including the semantic category of the base and the positions in the affixal skeleton with which the base argument is co-indexed”. Many analyses of polysemic derivatives show how affixes interact with the semantic representation of their base lexeme, as we will see now.

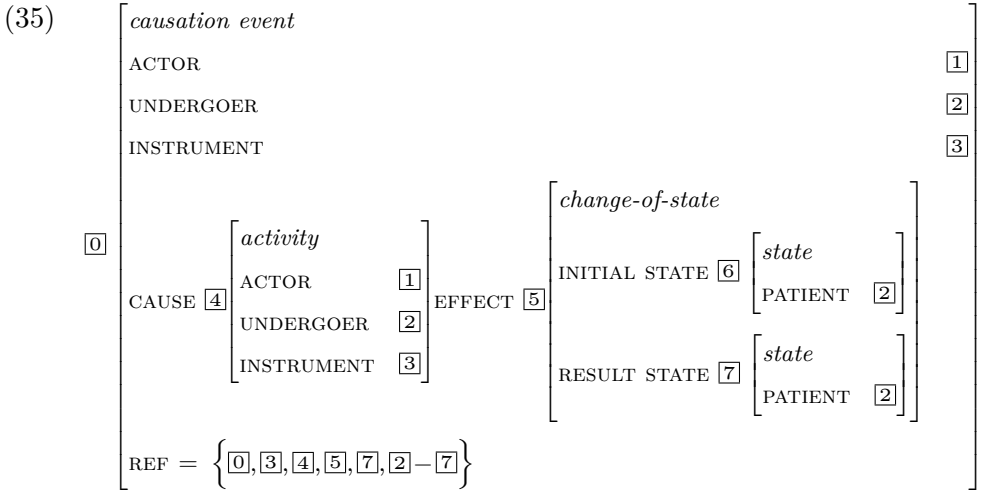
Derivatives formed with negative prefixes *un-* and *non-* have the in-

¹¹ Lieber develops a framework based on proposals made by Jackendoff (1990) among others; hence the use of LCSs (Lexical Conceptual Structures) and co-indexation. Her account shares many similarities with Plag (1998), from which it presents itself as an improvement.

terpretations listed in Table 3, based on Andreou (2017) (see also Lieber (2004: 111-115)). Andreou’s article limits itself to ‘stereotype negation’. Nouns with this reading denote a kind of objects which are devoid of some of the typical properties shared by the exemplars of the same kind; for instance, *non-color* would denote objects whose color is less intense than the color of other objects of the same kind. In the Frame Semantics framework adopted by Andreou this can be rendered by indicating that the value of the INTENSITY attribute is not maximum: [INTENSITY \neg maximal]. In the same vein, and based on the analysis of documented examples, he argues that the relevant attributes to distinguish a typical *diva* and an *un-diva* are INNOVATIVITY, OBSCURITY and EMPHASIS; the first two receive the value ‘minimal’ and the third the value ‘music’ for *diva*, whereas their respective values are ‘ \neg minimal’ and ‘ \neg music’ for *un-diva*. More generally, Andreou proposes “that stereotype negation can be analyzed in terms of a lexical rule that overrides the value of an attribute of the base lexeme” Andreou (2017: 10). This analysis shows that the semantic content of derivational affixes cannot be stated independently of the semantic representation of their base lexeme. Their content does not have a life of its own. It is therefore impossible to claim that they can be polysemous.

English verbs prefixed with *-out* provide us with an additional argument for this view. I succinctly report the analysis proposed by Kotowski (2023) for the simplest locative *out*-verbs, a sample of which is given here: (a) *to outhouse books*, *to outload the compostable material*, (b) *gas outstreaming from the young stars*, (c) *were forced to outmigrate*. For examples of type (a), Kotowski argues that *out* “does not introduce a new sub-event, but expresses that the respective endpoints of the path are not contained in some bounded ground”. Obviously, the ground and the path depend on the type of event involved, that is to say information attached to the base verb and the construction it governs.

Plag *et al.* (2018) aims at accounting for the polysemy of the English nouns formed by the suffixation of *-ment* on change of state or psychological verbs. Six meanings can be distinguished for the first series of nouns (event, instrument, cause of event, result state and patient) and five for the second (event, stimulus, cause, effect, result state). The analysis is formalized in Frame Semantics, a framework where frames are recursive attribute-value structures (Barsalou 1992; Petersen 2007; Löbner 2014; Gamerschlag *et al.* 2014; Pollard & Sag 1994), with the addition of conditions that state which attributes and values



are appropriate for each (sub)type. Change of state verbs have three core arguments ACTOR, UNDERGOER, INSTRUMENT and two sub-events, as shown in AVM (35). The cause is an *activity* (the referential nodes are written in italics) with three participants, the ACTOR, the UNDERGOER and the INSTRUMENT. The EFFECT is a *change-of-state* which includes an initial state and a result state, both describing the state of the PATIENT. The attribute REF (for ‘reference’) is introduced at the highest level to deal with the referential shifts exhibited by the derived nouns in *-ment*. The value of this attribute determines the reference of the derived noun. For instance, when its value is [0], the derived noun denotes an event e.g. “*against the befoulment of natural resources*” (Web), when it is [1], the noun denotes the ACTOR; [3] captures the INSTRUMENT/MEANS reading e.g. “The **advertisement** demanding the pair be dropped was paid for by crowdfunding” (Web, The Guardian 2018) while [6] and [7] denote respectively the reading INITIAL STATE and RESULT STATE of a PATIENT e.g. “*to the bemusement of those he’s interviewing*” (<https://www.documentary.org>), which are the two states involved by *change-of-state*. The kind of elements denoted by the nominalization varies in function of the value of the attribute that has been selected, in the same way as changing the selection of the variable determines the meaning in the case of *tondeur* or *tondeuse* in section 5. The meaning change stems from the structured lexical rules (and inheritance mechanisms), not from a putative meaning variation associated with the affix. This is another case where rules yielding several semantic outcomes use the one and same exponent. The same idea is expressed in the following citation: “We propose that polysemy in derivation should

be treated as multiplicity of meaning in word formation patterns. (...) this multiplicity of meaning can be expressed in an inheritance hierarchy of lexeme formation rules” Plag *et al.* (2018: 560) (for inheritance hierarchy I refer to Koenig (1999); Riehemann (1998); Bonami & Crysmann (2016)).

The points made in the discussion so far are as follows: (a) lexemes are associated with their own semantic content; (b) the semantic content of derivational affixes is constructed from the representation provided by their base lexeme. It does not exist without it; (c) affixes may be semantically related to semantic phenomena dealt with in other parts of the grammar (negation, spatial relations, plurality, etc. cf. *un-*, *out-*) or carry restrictions on their use cf. *-ier*; (d) because of (b), derivational affixes cannot be polysemous as lexemes are; (e) polysemy in lexeme formation stems from the fact that several lexeme formation patterns associated with a unique exponent e.g. *-ment* are part of the same inheritance hierarchy; to that extent, the so-called ‘polyfunctional affixes’ are those which appear in derivatives that may refer to several elements within the semantic representations of their verbal base (variables in logical formulas, values of attribute REF in AVMs).

The phenomenon of polysemy in derivation dealt with in section 6 concerned affixes that were added to verbs. This account cannot be extended to derivatives in *-ier* because their base is not a verb but a noun in the overwhelming majority of cases. As a consequence, the reference of derived nouns in *-ier* cannot be fixed through the selection of a value chosen among the values of REF (or of variables made available by a verbal base). In other words, there is no direct access to variables / values of attribute REF because there is no verb. To overcome this problem, the derivation in *-ier* has to indirectly recover semantic relationships, and therefore positions of actors, thanks to the semantics of the base N.

The inheritance hierarchy leads to grouping the rules of lexeme formation by affixes e.g. rules that suffix *-ment*, or by semantic relations e.g. derivatives formed on change of state verbs, on verbs of emission, etc. Such groupings have to be given up with *-ier* derivatives. The grouping of lexeme formation rules into inheritance hierarchies needs to be rethought or completed on new bases. This is not the place to undertake a treatment of derivatives in *-ier*. I will just indicate possible elements of answer to the two issues that have been raised.

What allows speakers to recover the semantic relationships and, consequently, the actors roles they give access to, is the meaning associated

with the base noun. Some hints about this point have already been given at §3. For example, if you know what a fruit is, then you know that it is produced by a certain entity at the end of a process. This allows us to retrieve relation (i), where y corresponds to the referent of the fruit: (i) $\lambda y.\mathbf{fruit}(y) \rightarrow \exists x\exists e.\mathbf{produce}(x,y,e) \wedge \mathbf{AGT}(x) \wedge \mathbf{PAT}(y)$. The pattern which forms the nouns denoting fruit trees uses variable x as the referential variable for these nouns. Note that the Agent argument limits itself here to perform the action. The ontological category of the referent of the base seems to be reliable indice for inferring a relationship involving this referent. The inference in question gives at the same time the predicate which describes the relation and varies according to the nature of the latter. If the base N denotes a complex appliance or machine (e.g. *grue* / ‘crane’ in §4) *operate* seems to be the right predicate; if it denotes a public institution (e.g. *hôtel* / hotel), the predicate ‘manage’ seems appropriate; if the referent is a wild animal (cf. *héron* / heron), ‘inhabit’ might be suited. In short, the semantics associated with the N base helps us to build scenarios that provide us both the actors and situations in which they act. The appropriateness of the predicate can be assessed using the derivational series the derivatives belongs to: if the other members of the series share the same predicate, it should be appropriate.

As for the grouping of lexeme formation rules, the one based on conceptual proximity could be the more promising. For instance if we take all derivatives denoting a place, the latter can be characterized by the substances from which it is composed e.g. *glacier* ‘glacier’, by the animals that inhabit it e.g. *termitière* ‘termites’ nest’, by the plants that grow in it e.g. *genêtère* ‘place where broom grows’, by what is contained in its soil e.g. *ardoisière* ‘slate quarry’, etc. However, it is difficult to see what conceptual hierarchy could organize the rules that yield these derivatives. This feeling is confirmed when looking at the derivatives in *-ier* that denote an agent. These derivatives can denote the one who commands a group of people e.g. *brigadier* ‘corporal’, the one who manages an institution e.g. *hôtelier* ‘hotelkeeper’, the one who makes or repairs complex artefacts e.g. *horloger* ‘watchmaker’, etc. There is no need of a hierarchy in this case, since the referent of the derived N can always be identified on the basis of what the base N denotes. A thorough study of the various derivatives in *-ier* has to be undertaken to be able to say something insightful on their organisation.

7. CONCLUSION

The formation of derivatives in *-ier* results from the confluence of several derivational exponents that were distinct in Latin. It shows readjustments, disappearances, or on the contrary proliferations of other types of derivatives. For this reason, the picture it presents is rather complicated. One of its most striking features is that these derivatives display many different meanings. It has been shown that the suffix *-ier* should not be considered as polysemic and that such a hypothesis even prevents to correctly describe the observable facts. It was argued that the meaning of the derivatives in *-ier* was not compositional because the suffix is meaningless. We hypothesize that their meaning is built from the scenarios that allow us to reconstruct the semantics of the base noun. It is stabilized through the derivational series and morphological families to which the *-ier* derivatives in question belong. But initially, it is rooted in the discourses where the derivatives occur.

Because of the nature of their meaning, affixes in general are not polysemic in the same way as lexemes are. Their meaning is always constructed from a representation of the semantics of the lexeme they are attached to. Their meaning is not independent as is that of lexemes. When we say that these affixes (e.g. eng *-ment*, fra *-eur*), etc. are polysemic we mean in fact that the lexemes where they appear exhibit different meanings. This multiplicity of meanings is understood if the derivational polysemy is treated as a multiplicity of meanings arising from lexeme formation patterns. This multiplicity of meanings is particularly common in the derivatives formed on verbs.

The suffixation in *-ier* always applies to nouns that denote entities with a rich ontology. The ontological types involved are numerous (human, wild / domestic animals, substances, activities, weapons, places, etc.). Besides, many nouns denote entities that belong to several kinds (cultivated plant, commodity). The meaning of derivatives in *-ier* is very varied because it takes advantage of fine-grained distinctions and scenarios rooted in every day life (cf. *chat-ière* ‘catflap’) and is not uniquely based on conceptual differentiation and super-subordinate relations.

ACKNOWLEDGEMENTS

I thank the two reviewers for their stimulating and attentive reading of the text, which allowed me to revise and complete several points. Many thanks also to Vito Pirelli for his express troubleshooting. As it should,

all remaining errors and misinterpretations are mine.

REFERENCES

- Andreou, M. (2017). Stereotype negation in frame semantics. *Glossa*, 79(2(1)). 1–30 DOI: <https://doi.org/10.5334/gigl.293>.
- Bagasheva, A., J. Fernández-Domínguez & C. Lara-Clares (eds.) (2020). *Paradigmatic relations in derivational morphology, Empirical Approaches to Linguistic Theory*, volume 16. Leiden: Koninklijke Brill NV.
- Barsalou, L.W. (1992). Frames, concepts, and conceptual fields. In A. Lehrer, E.F. Kittay & R. Lehrer (eds.) *Frames, Fields, and Contrasts: New Essays in Semantic and Lexical Organization*, 21–74. Hillsdale: Lawrence Erlbaum Associates.
- Blevins, J.P. (2016). *Word and Paradigm Morphology*. Oxford: Oxford University Press.
- Bonami, O. & B. Crysmann (2016). The role of morphology in constraint-based lexicalist grammars. In A. Hippisley & G.T. Stump (eds.) *Cambridge Handbook of Morphology*, 609–656. Cambridge: Cambridge University Press.
- Bonami, O. & J. Strnadová (2018). Paradigm structure and predicability in derivational morphology. *Morphology*, 29(2). 167–197.
- Corbin, D. & P. Corbin (1991). Un traitement unifié du suffixe *-er(e)*. *Lexique*, (10). 61–145.
- Crysmann, B. & O. Bonami (2015). Variable morphotactics in information-based morphology. *Journal of Linguistics*, 51(1). 1–64.
- Dowty, D.R. (1989). On the semantic content of the notion of ‘thematic role’. In G. Chierchia, B.H. Partee & R. Turner (eds.) *Properties, Types and Meaning*, volume 1, 69–129. Dordrecht: Kluwer Academic Publishers.
- Fradin, B. (2005). On a semantically grounded difference between derivation and compounding. In W.U. Dressler, D. Kastovsky, O.E. Pfeiffer & F. Rainer (eds.) *Morphology and its Demarcations*, 161–182. Amsterdam / Philadelphia: John Benjamins.
- Fradin, B. (2007). Three puzzles about denominal adjectives in *-eux*. *Acta Linguistica Hungarica*, 54(1). 3–32.
- Fradin, B. (2009). *Ie, romance: French*. In R. Lieber & P. Štekauer (eds.) *Oxford Handbook on Compounding*, 417–435. Oxford: Oxford University Press.
- Fradin, B. (2018). Paradigms and the role of series in derivational morphology. *Lingue e linguaggio*, XVII(2). 155–171.
- Fradin, B. (2020). Characterizing derivational paradigms. In A. Bagasheva, J. Fernández-Domínguez & C. Lara-Clares (eds.) *Paradigmatic relations in derivational morphology, Empirical Approaches to Linguistic Theory*, volume 16, 49–84. Leiden: Koninklijke Brill NV.
- Fradin, B. (2021). Caractériser les paradigmes dérivationnels. *Verbum*, XLIII(1). 149–178.

- Gamerschlag, T., D. Gerland, R. Osswald & W. Petersen (eds.) (2014). *Frames and concepts types: Applications in language and philosophy*. Number 94 in Studies in Linguistics and Philosophy, Dordrecht: Springer.
- Gamerschlag, T., D. Gerland, R. Osswald & W. Petersen (eds.) (2015). *Meaning, frames, and conceptual representation*. Düsseldorf: Düsseldorf University Press.
- Grossmann, M. & F. Rainer (eds.) (2004). *La formazione delle parole in italiano*. Tübingen: Max Niemeyer Verlag.
- Haspelmath, M. (2002). *Understanding Morphology*. London: Arnold.
- Haspelmath, M. (2020). The morph as a minimal linguistic form. *Morphology*, 30(2). 117–134. <https://doi.org/10.1007/s11525-020-09355-5>.
- Hathout, N. (2011). Une approche topologique de la construction des mots: propositions théoriques et application à la préfixation en *anti-*. In M. Roché, G. Boyé, N. Hathout, S. Lignon & M. Plénat (eds.) *Des unités morphologiques au lexique*, 251–318. Paris: Hermès / Lavoisier.
- Huyghe, R. (2014). Noms syncatégorématiques et degrés de dépendance syntactico-sémantique. In E. Hilgert, S. Palma, P. Frath & R. Daval (eds.) *Les théories du sens et de la référence. Hommage à Georges Kleiber, Res per Nomen*, volume 4, 155–172. Reims: Epure.
- Huyghe, R. & D. Tribout (2015). Noms d’agents et noms d’instruments: le cas des déverbaux en *-eur*. *Langue française*, 185(1). 99–112.
- Jackendoff, R.S. (1990). *Semantic Structures*. Cambridge: MIT Press.
- Kennedy, C. & L. McNally (2005). Scale structure, degree modification, and the semantics of gradable predicates. *Language*, 81(2). 345–381.
- Kleiber, G. (1981). *Problèmes de référence: description définies et noms propres*. Paris: Klincksieck.
- Koenig, J.P. (1999). *Lexical Relations*. Stanford: CSLI.
- Koenig, J.P., G. Mauner, B. Bienvenue & K. Conklin (2008). What with? the anatomy of a (proto)-role. *Journal of Semantics*, 25(2). 175–220. <https://doi.org/10.1093/jos/ffm013>.
- Kotowski, S. (2023). *Modeling locative semantics. A formal account of the english verbal prefix -out*. Cambridge: Cambridge University Press.
- Lieber, R. (2004). *Morphology and Lexical Semantics*. Cambridge: Cambridge University Press. GDR 2220.
- Löbner, S. (2014). Evidence for frames from human language. In T. Gamerschlag, D. Gerland, R. Osswald & W. Petersen (eds.) *Frames and concepts types: Applications in language and philosophy*, 23–67. Dordrecht: Springer.
- Lyons, J. (1977). *Semantics*. Cambridge: Cambridge University Press.
- Martin, R. (ed.) (2015). *Dictionnaire du Moyen Français (1330-1500)*. Nancy: <http://www.atilf.fr/dmf>.
- Petersen, W. (2007). Representation of concepts as frames. In J. Škilters, F. Toccafondi & G. Stemberger (eds.) *Complex Cognition and Qualitative Science, The Baltic International Yearbook of Cognition, Logic and Communication*, volume 2, 151–170. Riga: University of Latvia.

- Plag, I. (1998). The polysemy of *-ize* derivatives. In G. Booij & J. van Marle (eds.) *Yearbook of Morphology 1997*, 219–242. 1997, Dordrecht: Kluwer Academic Publishers.
- Plag, I., M. Andreou & L. Kawaletz (2018). A frame-semantic approach to polysemy in affixation. In O. Bonami, G. Boyé, G. Dal, H. Giraudo & F. Namer (eds.) *The lexeme in descriptive and theoretical morphology*, 467–486. Berlin: LSP.
- Pollard, C. & I. Sag (1994). *Head Driven Phrase Structure Grammar*. Chicago: The University Press of Chicago.
- Pustejovsky, J. (1995). *The Generative Lexicon*. Cambridge (Mass.): MIT Press.
- Riehemann, S.Z. (1998). Morphology and the hierarchical lexicon. *Journal of Comparative Germanic Linguistics*, 2. 49–77.
- Roché, M. (1998). Deux études sur la dérivation en *-ier(e)*. Technical Report 2, ERSS, Toulouse.
- Roché, M. (2006). La dérivation en *-ier(e)* en ancien français. *Lexique*, 17. 55–96.
- Salvadori, J. & R. Huyghe (2022). Affix polyfunctionality in french deverbal nominalizations. *Morphology*, 33. 1–39.
- Sanacore, D., N. Hathout & F. Namer (2021). Frame-like structures for morphosemantic description. *Verbum*, XLIII(1). 179–194.
- Vicente, A. (2018). Polysemy and word meaning: an account of lexical meaning for different kinds of content words. *Philosophical Studies*, 175(2). 00–00.