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Accounting for the semantics of the NP V NP Construction in English

Lise Hamelin et Dominique Legallois

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Abstract : In English the NP1 V NP2 construction typically involves arguments that are construed as Agent and Patient, or Subject and Object. It is associated with the notion of transitivity and analyzed accordingly, even when it exhibits only the syntactic properties of transitivity but not its semantic characteristics. This phenomenon is well-known and has been accounted for by linguists (Lakoff 1977, Hopper and Thompson 1980, among others) as a result of the absence of some prototypical transitive features in the utterance.
This paper aims at demonstrating that the NP1 V NP2 structure has a semantic value and conveys a general abstract sense, of which prototypical transitivity represents only one particular realization whose occurrence is determined by the semantic and aspectual properties of the context. It will be argued that the sense of this construction can be explained through concepts that are not usually used in the description of transitive utterances, namely conjunction and disjunction. In some examples, the subject enters a relation of conjunction or disjunction with the object. In others, it is the other way round.

Keywords : constructions, transitivity, semantic roles, prototype, conjunction, disjunction

The word *transitivity* derives from Latin "*transitivus*" which means: "something that passes through something else". The notion has regained interest since it emerged as a flourishing issue for cognitive and functional linguistics. Consequently, many linguists have tried to propose a formal description of transitivity. This has not proved an easy task, especially from a semantic perspective. So far, the issue has been tackled mostly by identifying a series of features considered as typical of transitive utterances. In consequence, several prototype theories have been proposed, relying on different linguistic backgrounds. Thompson and Hopper (2001) remark that, in terms of frequency, most Subject Verb Object (SVO) utterances do not possess all the semantic features defining prototypical transitivity. Such an assessment highlights the

need to account for the existence of non-prototypical transitive utterances. Whereas there is a consensus over the existence of a prototype, there are differences as to the explanation provided for the existence of those utterances. This shall be the object of the first section of this paper. Then we will address the issue of non-prototypical transitive utterances, not by identifying the aspects in which they differ from the prototype, but by bringing into focus their common properties, i.e. how they relate to the prototype. The perspective adopted here is inspired by construction grammars[1]. Accordingly, the idea that each construction, including transitivity, can be associated with a particular sense is set as a premise. By comparing non-prototypical transitive utterances with prototypical transitive utterances, we hope to identify the abstract sense of the SVO construction. Section 2 provides a semantic classification of transitive constructions based on Levin's (1993) verb categories. This classification will be the basis of the analysis developed in section 3, in which we will expose different subcategories of transitivity.

The study proposed here focuses only on accusative constructions NP V NP, which means that double-object constructions, causatives and resultatives as well as prepositional constructions and the passive voice are let aside. Our analysis is corpus-driven and relies on genuine utterances from the Open American National Corpus (OOANC) and the Corpus of Contemporary American English (COCA)

1. The Prototype Theories

Though they may differ in their approaches and objects, most studies on transitivity concede particular importance to the existence of a prototypical transitive pattern. The existence of such a pattern is grounded on studies in typology arguing that there is a universal prototypical action generally expressed *via* the transitive construction (see Comrie 1989, Lazard 1998 and 2008). It should be noted though that prototypicality is to be distinguished from primacy since prototypical transitive verbs are not the first transitive verbs is not the first construction acquired by children as shown in Ninio (1999) or Ibbotson and al. (2012). In English, prototypical transitivity is illustrated in example (1):

(1a) He told the jury <u>Morton **killed** his wife</u> because she wouldn't have sex with him. (*COCA*)

[1] Goldberg 1998

In this example, a typical agent (*Morton*, a human being) willingly initiates a dynamic and telic action (*kill*+simple past, affirmative context) which dramatically affects the patient (*his wife*). This patient can be construed as the subject of a passive voice, as shown below:

(1b) Morton's wife **was killed** because she wouldn't have sex with him.

From a syntactical perspective, transitivity designates a construction in which a verb takes a direct object. The features highlighted above (dynamicity, agency, etc.) refer not to syntactical but to semantic properties. Further investigation of those properties has brought focus on more specific traits.

The need for a definition of prototypical transitivity arises since not all transitive utterances exhibit the same characteristics. From a syntactical perspective, it can be observed that some transitive utterances are not easily turned into the passive voice:

(2a) *I **know** a good spot.* (COCA)
(2b) *? A good spot **is known** to/by me.*

Our object here is the semantics of the N1(S) V N2(O) construction and therefore, we will not focus on the passive form (see Rice 1987 for a study of the relation between the passive voice and prototypical transitivity).

The approaches mentioned below are well-known to linguists interested in the issue. They all attempt to provide reliable criteria to define prototypical transitive. Though the works surveyed here are quite homogenous as to the criteria they select as characteristic features of transitivity, they provide different explanations for the emergence of non-prototypical utterances, because they endorse different theoretical prerequisites.

1.1. Functional Perspective

Among other linguists, Hopper and Thompson (1980) who adopt a functional viewpoint on the issue, have provided a set of features in order to account for transitivity from a cross linguistic perspective. Thus, they select a set of properties defining prototypical transitivity in every language that exhibits such a construction. In table 1, N1 and N2 are referred to respectively as Agent (A) and Object (O):

		high transitivity	**low transitivity**
A	**Participants**	2 or more participants, A and O	1 participant

B	**Kinesis**	action	non-action
C	**Aspect**	telic	atelic
D	**Punctuality**	punctual	non-punctual
E	**Volitionality**	volitional	non-volitional
F	**Affirmation**	affirmative	negative
G	**Mode**	realis	irrealis
H	**Agency**	A high in potency	A low in potency
I	**Affectedness of O**	O totally affected	O not affected
J	**Individuation of O**	O highly individuated	O non-individuated

Table 1. High and Low Transitivity

Newman and Rice's analysis of the functioning of the intransitive uses of the verbs *eat* and *drink* (2006) is grounded on this set of features. Those features emerge from an in-depth-study that re-examines and imparts the elements already highlighted by Givón (1984: 126), who construes the following elements as a basis for a cross-linguistic study of transitivity:

- Semantic prototype of transitive event

a. Agentivity: Having a deliberate, active *agent*.

b. Affectedness: Having a concrete, affected *patient*.

c. Perfectivity: Involving a bounded, terminated, fast-changing *event* in real time.

- Syntactic prototype of transitive clause

Clauses and verbs that have a *direct object* are syntactically transitive. All others are syntactically intransitive. […]

- Prototypical mapping between semantic and syntactic transitivity

When the simple clause codes a semantically transitive event (9), the event's *agent* will be the clause's *subject*, and the event's *patient* the clause's direct *object* (10).

According to Hopper and Thompson (1980), non-prototypical transitive utterances are sentences in which one or several of those features is or are missing. In example (2) above (*I know a good spot*), criteria B (kinesis), C (Aspect), D (Punctuality), E (Volitionality) and I (Affectedness) are not fulfilled. Indeed, *know* is a stative verb (criterion B), does not imply the existence of a true Agent initiating the action on purpose (criterion E) and does not trigger any effect on the Object (criterion I), the tense is the simple present and the utterance refers to an event that is not bounded and can be considered as generally true (criteria C and D).

Since it lacks several of the criteria defining prototypical transitivity according to Hopper and Thompson (1980), (2) is perceived as exhibiting a low degree of transitivity. Semantic transitivity is thus construed by the linguists as a scale whose highest point corresponds to the prototype (example (1): *Morton killed his wife*), and the lowest to utterances that are transitive only from a syntactical perspective (example 2).

Even if Hopper and Thompson's approach is closely related to Givón's functional analysis, there are differences since the latter adopts a cognitive perspective. Consequently, non-prototypical utterances are viewed as extending metaphorically from the prototype. Accordingly, in the typology provided by Givón, (2) illustrates what happens when the agent is construed as being not nominative but dative: it becomes a metaphorical agent: "The agent-subject of the prototype transitive verb is both *conscious* (having volition) and *active* (initiating the event). Dative subjects, on the other hand, are conscious participants in the event without either intending or actively initiating it." (1984: 129)

Following Givón's approach, in non-prototypical utterances, either the subject or the object is a metaphorical agent or patient, for it lacks some of the properties that would make it a real agent or a real patient. The main difference between this explanation and the one provided by Hopper and Thompson (1980) has to do with the fact that Givón's analysis does not take some enunciative elements into account, such as Affirmation, Mode or Aspect. It should also be added that since Givón (1984) provides no definition of the concept of metaphor, and since the mechanism of the process of metaphorical extension is not described, the reader can only assume that the syntactical positions of subject and object make their participants be spontaneously construed as agent and patient, either metaphorically or not.

More recently, Naess (2007), without rejecting the validity of Hopper and Thompson's and Givón's approaches, has proposed another model relying on the following hypothesis: prototypical transitivity is characterized by a high degree of distinctness (maximum distinctness) between the arguments. Argument distinctness is a concept inherited from generative semantics (see Chomsky 1995, and Bornkessel-Schlesewsky and Schlesewsky 2008 for a discussion of the relation between argument distinctness and transitivity). In prototypical utterances the agent is volitional, instigating and unaffected by the event, whereas the patient is non-volitional, non-instigating and affected by the event:

	Agent	Patient
Volitionality	+	–
Instigation	+	–
Affectedness	–	+

Table 2: Agent and Patient as maximally distinct categories (from Naess 2007: 44)

This approach does not contradict the analyses mentioned above, but it implies that every utterance must be considered individually and it does not allow for generalizations such as the ones drawn by Hopper and Thompson (1980): for example, it does not predict that atelic verbs are unlikely to be prototypically transitive. Nonetheless, Naess's approach enables discrimination between different subcategories of non-prototypical transitive utterances, depending on the feature(s) that deviate(s) from the prototype. Indeed, if we adopt Naess's approach, we can note that (2) does not exhibit the criterion of maximum distinctness of the two participants since neither the agent nor the patient are volitional, instigating or affected by the event described in the sentence.

1.2. Cognitive Linguistics

Langacker also argues that syntactical structures are to be related to a particular abstract sense: "We thus expect a language to exhibit a number of basic clause types, each associated with a conceptual archetype that constitutes its prototypical value." (1991: 308) This statement is especially relevant as far as transitivity is concerned since the validity of the prototype theory cannot rely on its frequency.

Langacker's analysis does not differ from the functionalist approaches in so far as it relies on the idea that the agent and the patient of a model transitive clause exhibit a high degree of distinctness: "the arguments of a prototypical transitive clause represent distinct, clearly delimited participants that are sharply differentiated from each other […]" (1991: 362) The linguist proposes a definition of the agent/subject and patient/object that relates with more abstract notions in Cognitive Linguistics: in transitive clauses, the subject is the Trajector (the most prominent element in the relation) and the object is the Landmark (the ground) of the relation profiled by the verb. Accordingly, the verb establishes a particular relation between the Trajector and the Landmark. At an abstract level, whether or not the subject and object exhibit the properties of a real agent and a real patient is of no importance.

In the perspective of construction grammar, Goldberg construes the SVO construction as meaning *X acts on Y*. Besides, in previous work, she considers that verbs such as *possess* or *acquire* refer to a basic pattern of experience that is different from verbs such as *cube* (1998: 189).

Consequently, an example such as *Bill has a good job* will be considered as less transitive than *John killed Mary* by Hopper and Thompson, as metaphorically transitive by Givón (1984), as transitive with an unvolitional agent by Naess (2007), and as not transitive but possessive by Goldberg (1998).

In this very short survey, we wish to remind the reader of the problematics inherent in the notion of transitivity, but many other linguists, whose work is not mentioned here, have dedicated studies to this particular phenomenon (Taylor 1995, section 12.4, and Croft 1988 among others). Anyone willing to find a more detailed and complete survey of the different approaches to transitivity should find Naess 2007 rather useful. However, we hope that the section above is extensive enough to show that the relative homogeneity that is reached when it comes to defining the prototype cannot be extended to the explanations provided as to the existence of non-prototypical transitivity.

2. Towards Another Definition of Transitivity?

Our approach[2] differs in that we consider, like Langacker (1990, 1991) that syntactical transitivity, i.e. N1 V N2, is correlated with a particular abstract meaning. Therefore, we will not try to highlight the differences between non-prototypical and prototypical utterances. On the contrary, we will focus on their common properties to find out what primitive semantics they share.

2.1. Preliminary Remarks

The different prototype theories seem to rely on the semantic prerequisite stating that there is one prototypical event - in which a volitional entity intentionally initiate a dynamic telic process that affects a passive entity – and that such an event is somehow primary in our cognitive representations. Indeed, there is no indication otherwise that prototypical transitivity should be primary in languages. It has been noticed by other linguists (Thompson and Hopper among others) that, in English at least, when it comes to frequency, the prototype is far from prevailing.

We have worked on two sub-corpora in order to statistically identify the verbs most frequently used transitively. Both sub-corpora come from OANC[3]:

- The sub-corpus “face-to-face” (Conversation), 60330 words, 7069 occurrences of the transitive construction.
- The subcorpus “Press papers” (a collection of articles from Slate), 62478 words, 5801 occurrences of the transitive construction.

[2] This approach is developped and illustrated for French in Legallois 2022
[3] https://anc.org/

We have used collostructional analysis (Stefanowitsch and Gries, 2003) and applied Fisher's exact test to highlight the propensity of the different verbs of the corpus to appear in the transitive construction.

The results show that the verbs whose propensity to appear in a (syntactic) transitive utterances is highest are often very unlikely to be prototypical, because they do not tend to refer to prototypical events, as shown in tables 3 and 4 (we only give the first 20 verbs in decreasing order of attraction):

Verb	**Verb frequence in Conversation**	**Verb frequence in the transitive construction**	**Collostruction strength**
take	129	78	39.04
have	1098	280	36.42
see	128	65	26.59
read	136	51	14.1
hit	19	17	13.71
put	61	29	11.35
thank	12	11	9.22
leave	36	17	6.86
buy	16	11	6.85
bring	21	12	6.15
appreciate	19	11	5.76
encourage	6	6	5.59
set	14	9	5.32
share	14	9	5.32
love	45	17	5.21
open	9	7	5.06
visit	16	9	4.66
spend	24	11	4.49
break	11	7	4.19
treat	11	7	4.19

Table 3. Verbs most strongly attracted to the Transitive construction in « Conservation »

Verb	**Verb frequence in Conversation**	**Verb frequence in the transitive construction**	**Collostruction strength**

get	168	74	31.6
make	146	56	20.56
see	58	31	16.71
put	35	24	16.62
take	72	33	15.15
ask	46	25	13.83
use	60	26	11.39
quote	34	19	10.95
include	39	19	9.58
defend	16	12	9.29
have	749	120	8.54
run	44	19	8.47
contain	13	10	7.98
carry	15	10	7.04
know	75	23	6.77
mention	31	14	6.7
read	16	10	6.65
support	13	9	6.59
answer	6	6	6.19
undermine	6	6	6.19

Table 4. Verbs most strongly attracted to the Transitive construction in «Press papers »

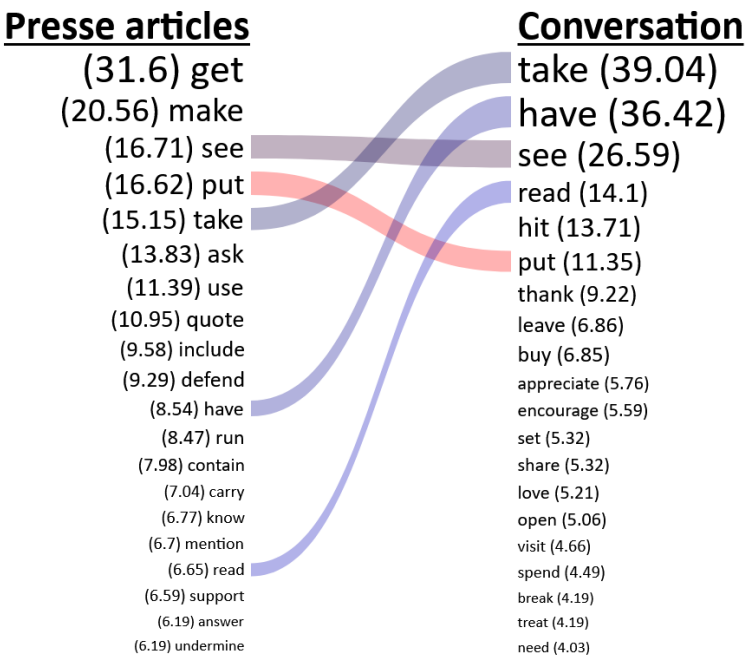

Figure 1. Verbs common to the two sub-corpora

Events denoted by verbs such as *have* are unlikely to affect the referent of the object. Nonetheless, such events are denoted by the verbs whose collostructional strength is highest in our sample. If frequency and propensity to appear in a transitive construction were considered criteria valuable enough to determine prototypicity, *have*, in (3)

(3) *"We don't **have** any milk!"* (OANC, *Conversation*)

would be more prototypical than *kill* in (4):

(4) *The NYT brings word that nearly 12 years after Palestinian terrorists **killed** a disabled passenger [...] the Palestinian Liberation Organization has settled for an undisclosed sum a lawsuit brought by the Klinghoffer family.* (OANC, *Press papers*)

Again, the prototypical character of *kill* relies only on its propensity to express what is construed as a prototypical event.

2.2. What Transitive Relations Express

If we take a closer look at the corpora, a classification of the basic semantic categories the construction denotes can be provided[4]:

Type of relation	Verbs in English
"abandon" verbs	*Abandon, leave*
"accompany" verbs	*accompany*
"admire" verbs	*Support, like, love, hate, value, appreciate*
"advance" verbs	*Reach, leave*
"amuse" verbs	*bother, disturb*
"appear" verbs	*open*
"assess" verbs	*study*
« balance » verbs	*open*
« begin » verbs	*keep*
« bring » verbs	*take*
« carry » verbs	*carry*
« characterize » verbs	*choose, value, take, use, appreciate*
« conjecture » verbs	*know*

[4]The classification in table 5 is based upon Levin's semantic categories (1993)

« cost » verbs	*take, carry*
« crane » verbs	*open*
« create » verbs	*Create*
« decrease » verbs	*appreciate*
« destroy » verbs	*Destroy, annihilate*
« dub » verbs	*make*
« eat » verbs	*Eat, drink*
« engender » verbs	*create*
« entrust » verbs	*leave*
« ferret » verbs	*seek*
« fit » verbs	*Take, carry, use, contain*
« get » verbs	*Get, keep, choose, reach, buy, rent, leave*
« give » verbs	*Rent, sell*
« hug » verbs	*Hit, meet, help, support, contain*
« keep » verbs	*Keep, leave*
« learn » verbs	*Learn, read, study*
« marvel » verbs	*bother*
« meander » verbs	*run*
« meet » verbs	*meet*
« pain » verbs	*bother*
« pedal » verbs	*drive*
« perform » verbs	*take*
« prepare » verbs	*run*
« price » verbs	*value*
« quote » verbs	*ask*
« run » verbs	*run*
« see » verbs	*See, watch*
« sight » verbs	*discover*
« steal » verbs	*take*
« swarm » verbs	*run*
« touch » verbs	*Touch, stroke*

Table 5. Relations expressed *via* transitivity

The most striking aspect here is the instability of some of the verbs in relation to the categories in which they are classified. Indeed, the tables do not provide any indication as to the context in which the verbs appear, and therefore, polysemic verbs are likely to give rise to different interpretations. But even with verbs whose meaning is less ambiguous, things are not so obvious. Thus, in examples (5) and (6), the verb *leave* functions as an “abandon” verb as it expresses social relationship between two people in (5),

(5) *'Did you mean to **leave** him?' 'He **left** me first.'* (OANC, *Conversation*)

whereas it functions as an "advance" verb, since it expresses a change of location in space for the referent of N1 in (6), because it is associated with the mention of a place. Therefore, it is necessary to provide an analysis allowing to take into account different categories of criteria (semantic, aspectual, enunciative) :

(6) *Yes, he did talk of strains in his marriage and suggested the he'd be "alone" after he **left** the White House.* (OANC, *Press papers*)

Furthermore, the verbs listed in table 5 follow two main trends: either they tend to express contact (in a broad sense: *know, see, realize, study, love, choose, reach, touch, meet*) between the entities referred to by the subject and the object, or they express absence of contact (*ignore, forget, lose, leave, hate*) between these entities. Such contact can be physical (between two people for example) or geographical, as illustrated in example (7):

(7) […] *it's [Robinsville's] at the tip of North Carolina and Tennessee, it's in North Carolina but it **touches** Tennessee.* (OANC, *Conversation)*

In (7), the relation between the referents of *Robinsville* and *Tennessee* corresponds to such closeness that *Robinsville* is considered as being almost in *Tennessee*, since it is on its border.

In association with a cognitive verb, cognitive contact is expressed, i.e. the idea that an element is or becomes part of the representations of a human being. This is expressed in the particularly interesting example (8) below:

*(8) It's also his standard demeanor, which features a permanent I-**know**-a-secret-that-I'm-not-telling-you grin*.

In (8*), a secret* is part of the knowledge, that is to say, of the cognitive representations of the referent of *I*, but the referent of *you* is denied access to it. The particular relation between *I* and *a secret* is one of cognitive connection.

Verbs denoting perception also express a particular type of contact between the perceiver and the entity that is perceived. Through their sensations, the perceiver is aware of the existence and perhaps of some of the characteristics of the object:

*(9) I'**ve**, you know, **seen** it [Fiddler on the roof] on television, but I've never read it.*

(9) gives information as to the type of contact that exists between the referents of *I* and *it[Fiddler on the roof]*. Such contact is not cognitive (*read*) it is perceptive (*see*). The type of contact is correlated with the properties of *it* (the fact that *Fiddler on the Roof* can refer to a film, a play or a book). Contact may also have to do with social relations in examples such as (10):

*(10) And **having** first **met** someone she had the ability to quickly make them feel they had been in the family, and not only in the family, but a loved member and close member of the family.*

Indeed, example (10) indicates what happens when the referent of *she* happens to share their location with a person. Here, contact is social interactions.

In all the examples above, there is contact between the referents of the subject and the object, but as mentioned above, transitivity may also express the absence of contact between those entities. To be more accurate, contact can be reached, maintained, aimed at, or it can be broken or perceived as inadequate. The word contact is used here in its common meaning and is not associated with any theoretical background. In consequence, to account for the two trends we have just mentioned, we will resort to the concepts of *conjunction* (reached, maintained or aimed at contact) and *disjunction* (broken, inadequate contact). We use the concepts of conjunction and disjunction here as linguistic basic operations and we propose that N1 (subject) V N2 (object) can be analyzed thus: the construction expresses either conjunction or disjunction between the referents of N1 and N2.

- N1 ∨ N2 (conjunction)
- N1 ∧ N2 (disjunction)

2.3. Categories of Verbs Expressing Disjunction

It is worth noting that some of the semantic categories proposed by Levin (1993) always express disjunction between N1 and N2. This occurs with the "abandon" verbs, which, unsurprisingly, refer to the separation of N2 from N1 (see example (5) above), but also of other verbs appearing in the corpus but not listed by Levin: *forget, ignore, lose,* or *refuse*.

*(11) But I was like, **forget** it, I'm going to eat lunch I was hungry. (*OANC*, Conversation)*

What is expressed in (11) is the desire of the speaker for cognitive contact to stop between the referents of N2 (*it*), and N1 (the subject of the imperative, i.e. the addressee). In (12), contact ceases between the referents of N1 and N2, but this time, not accordingly to N1's will:

(12) […] But we only ***lost*** *one CIA pilot there […] (*OANC*, Conversation)*

As for (13), this example expresses the fact that there has not been any contact between the referents of N1 and N2, because N1 (*she*) was not willing to.

(13) *[...] she* ***had refused*** *an interview. (*OANC*, Press Papers)*

In examples (11) to (13), disjunction between N1 and N2 is expressed. According to the meaning of the verb, disjunction can be cognitive (11), concrete/physical (12), or social (13).

2.4. Categories of Verbs Expressing Conjunction

On the other hand, some categories will always be associated with the expression of conjunction. That is the case with "touch", "see" and "eat" verbs among others. Thus, in (14), there is necessarily physical contact between the referents of *Man* (N1) and *something* in (N2):

(14) *These [headlines] are all unnecessarily off, kind of like running "Man* ***Bites*** *Something" without mentioning that the bitee [sic] was a dog.* (Corpus Of Contemporary American)

In (15), the referent of *thousands of people* (N1) reaches access to *the service* (N2) thanks to *giant television screens*. Therefore, the service becomes perceptible to the *people* :

(15) […] *there was spontaneous applause in the church and on the expansive meadow of Hyde Park jammed with thousands of people who* ***were watching*** *the service on giant television screens. (OANC, Press Papers)*

Examples such as (16) also express conjunction between N1 and N2 insofar as the content of *too many bottles* (N2) is ingested by *he* (N1):

(16) *It won't bother me because he* ***drinks*** *too many bottles right now. (OANC, Conversation)*

Again, in all the examples examined in this section, the semantic nature of the relation expressed depends on criteria such as the meaning of the verb, but the verbs appearing in (14) to (16) can be construed as denoting conjunction (perception, ingestion of the referent of N2), as they all convey the idea that some connection exists between the referents of N1 and N2.

2.5. Categories Expressing either Conjunction or Disjunction

Levin's categories are helpful as they provide a solid basis for a consistent semantic classification of the English verbs. However, some categories refer to meanings that are much more specific than others. Thus, the "abandon" verbs are not very numerous and tend to convey a homogenous meaning, whereas the "advOANCe" verbs include all the verbs that express intentional change of the location in space of an animate being, either to or from a particular point. The "admire" category includes verbs expressing either like or dislike, admitting thus a positive or a negative connotation.

Categories that convey a wider range of meanings often involve verbs that can express conjunction as well as verbs that can express disjunction between N1 and N2. Thus, it is conjunction that is expressed in (17), in which N2 becomes the location in space of N1:

(17) *When he* ***reached*** *Washington Street, two things changed […]* (COCA)

In (17), the result of the event is that the referent of *he* (N1) is now located in *Washington* (N2). On the contrary, in (6), *the White House* (N2) ceases to be the location of *He* (N1).

It is also conjunction, this time in the domain of appreciation, that is expressed in (18).

(18) *Russia doesn't* ***like*** *the idea of expansion, period.* (*OANC, Press Papers*)

In example (18), the fact that *Russia* (N1) might enjoy appreciative contact with *the idea of expansion* (N2) is ruled out, as the appreciative conjunction denoted by *like* in the transitive construction falls under the scope of the negation expressed by *doesn't*. The possibility of a contact between N1 and N2 is considered, and then denied.

On the contrary, in example (19), *I* (N1) rejects *the smell of peanut butter* (N2) out of the domain of the things they enjoy.

(19) [….] *she would eat peanut butter cups, and she knows that I* ***hate*** *the smell of peanut butter* […] *(OANC, Conversation)*

In consequence, it is appreciative disjunction that is expressed in example (19).

As can be seen, some semantic categories can be associated with either conjunction or disjunction.

2.6. Junction

A limited number of verbs can express junction, that is to say the fact that an already existing conjunction between N1 and N2 is maintained. Those are mostly and unsurprisingly verbs belonging to the "keep" category.

Thus, in example (20), N1 (*they*) was initially the owner of N2 (*that part of the building*), the situation could have changed because an event likely to trigger a modification of this state of affairs happened (*because they sold it to some woman in New Orleans*). Eventually though, the relation of conjunction between the owner (N1) and their property (N2) is not altered.

(20) *And eventually they, they were, Livingston, in his older, in his old age, was relegated to the, to the kitchen in the sub-basement of the building because they sold it to, to some woman in New Orleans, but they'd* ***kept*** *that part of the building and he loved it, that was, for him that was like, that was the greatest.* (OANC, *Conversation*)

It is therefore possible to find a common basic sense to all transitive utterances in English. Depending on the meaning of the verb and on the properties of N1 and N2, they express conjunction, disjunction or junction between N1 and N2. Most of the verbs mentioned in this section appear in non-prototypical utterances. However, the analysis we propose to develop can also account for prototypical examples. Conjunction, disjunction and junction are concepts that enable us to describe, as shall be seen in section 3 the functioning of all transitive utterances, either typical or non-typical. Therefore, those primitives allow for a classification of all transitive utterances. To provide such a classification, it is necessary to impart our analysis by accounting for the ambiguity of some of the verbs appearing in different semantic categories (Levin 1993).

3. Towards a New Analysis of Transitivity

3.1. Domains of Reference

Such semantic variation occurs in (21) and (22), with the verb *integrate.* A similar phenomenon was noted about utterances (5) and (6) above, involving the verb *leave*:

(21) *What's important is how you* ***integrate*** *that experience, and how fully you work through your own neurotic material.* (COCA)
(22) *I think that's the same kind of thing we heard when we* ***integrated*** *the armed forces years ago.* (COCA)

In (21), *that experience* (N2) becomes part of the cognitive sphere represented by *you* (N1) and the relation. In (22), *we* (N1) becomes included in *the armed forces* (N2). Both examples express conjunction between N1 and N2, but with a difference: indeed, N1 and N2 are not equally prominent in (21) and (22). Thus, the semantic variation noticed between (21) and (22) is triggered by the fact that in (22), N2 refers to a well-known group of people with a particular function. In consequence, the reference of N2 is more stable than that of N1. An operation that expresses the existence of a connection or disconnection between N1 and N2 has to give information as to the hierarchical relation that exists between them. One of them is indeed likely to have a more prominent, stabilized reference than the other. This one will be considered as the locator in relation to which the other one is located. It can thus be construed as the domain of reference in relation to which conjunction or disjunction is established. The existence of such a hierarchy gives rise to the following effect: the relations of conjunction and disjunction can correspond to five different scenarios.

- N1 comes into conjunction with N2 and N1 is the domain of reference.
- N1 comes into conjunction with N2 and N2 is the domain of reference.
- N1 comes into disjunction with N2 and N1 is the domain of reference.
- N1 comes into disjunction with N2 and N2 is the domain of reference.
- N1 and N2 remain in junction

The concept of domain of reference, by implying the existence of a locator and a locatee may remind the reader of the TR and the LM as they are construed in cognitive linguistics (see section 1.3 *supra*). The reason why we chose not to use those terms is the following: according to Langacker (1991), in the N1 V N2 construction, N1 is always the TR and N2 the LM. We think that those roles can also be distributed the other way round, as in (21), depending on parameters such as the meaning of the verb or the prominence of the referents of N1 and N2.

The existence of a particular domain of reference allows for the following classification of transitive utterances.

3.2. Conjunction (N1∨N2), N2 is the Domain of Reference

Figure 2 illustrates this particular scenario

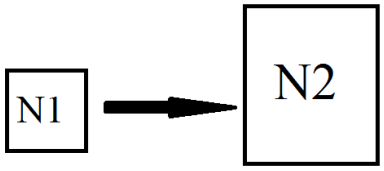

Figure 2. Conjunction with N2 as Domain of Reference

N2 can be construed as the locator in particular when it refers to a location in space, as mentioned above (see examples (5) and (6) with *leave*), in examples such as (23) and (24):

(23) *When the first Mariner spacecraft* ***reached*** *Mars in the 1960s, reality was disheartening.* (COCA)
(24) *So far the couple has burned up $10,000 in legal fees over this, and the husband had to abandon his business here to* ***rejoin*** *his wife.* (OANC, *Press Papers*)

In examples (23) and (24), N1 comes into conjunction with the domain of reference N2: its location becomes that denoted either directly (*Mars*) or implicitly (with *his wife*) by N2.
(23) and (24) involve non-prototypical transitivity, but actually, prototypical transitivity can be assimilated with this scenario, since it implies the same basic operations, as will be shown below. More accurately, with prototypical transitivity, N2 undergoes a change of state or condition by being involved in the process denoted by the verb.

This process can be creation:

(25) *I got the bread machine and we always* ***make*** *a big loaf of bread.* (*OANC, Conversation*)

In (25), the initial condition of N2 is that of non-existence and the verb describes a process allowing it to come to existence, which corresponds to its final condition. Prototypical transitivity here denotes passage from non-existence to existence for the referent of N2.
It is possible to have the contrary, i.e. passage from existence to non-existence, with verbs such as *destroy*, *annihilate,kill* :

(26) *The NYT brings word that nearly 12 years after Palestinian terrorists* ***killed*** *a disabled passenger [...] the Palestinian Liberation Organization has settled for an undisclosed sum a lawsuit brought by the Klinghoffer family.* (*OANC*, *Press Papers*)

In other cases, prototypical transitivity is associated with a more minor alteration of the properties of N2 :

(27) *I don't always appreciate what Disney has done with it, now, because they have* ***commercialized*** *it so, but, um, that's one of the few things, I, I never really was a cartoon kid?* (*OANC*, *Conversation*)

In example (27) the referent of N2 becomes available to customers by undergoing the process denoted by *commercialize* and instigated by the referent of *they*.

(28) *Then he'd* ***dress*** *me, and, uh, he'd set the injection on me […]* (*OANC, Conversation*)

In example (28), the referent of *me* undergoes a process through which they are first *not (completely) dressed*, then, they become *(completely) dressed*.

Some verbs denote a change of location in space for N2 :

(29) *[...] Palestinian terrorists killed a disabled passenger, Leon Klinghoffer, by* ***pushing*** *the wheelchair bound man* <u>*off the hijacked cruise ship*</u> *[…]* (COCA)

In example (29), the initial location of the referent of *the wheelchair bound man* was on the *hijacked cruise ship*, his final location is *off the hijacked cruise ship*.

So, depending on the meaning of the verb and on the references of N1 and N2, the alteration of the properties of N2 can be more or less important. Anyway, this alteration always occurs under the impulse of N1, which could be glossed thus : *N1 initiates an event whose effect is to make N2 shift from an initial state to a final state*.

Some contact occurs between N1 and N2, which means that a phenomenon of conjunction is at work. This conjunction has the peculiarity of being causative in the sense in which Langacker (1991) defines causation in the billiard-ball metaphor. So, first, N1 comes into conjunction with N2 (N1 ∨N2), and as a consequence of this contact, the properties of N2 are altered (N2 => N2'). The only difference between prototypical transitivity and non-prototypical

transitivity as illustrated in (23) and (24) is the fact that an additional operation is added, as shown in figure 3:

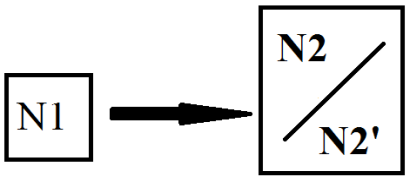

Figure 3. Prototypical Transitivity

The reader may have noticed the fact that this representation, by construing N2 as the domain of reference, makes our analysis quite similar to the description of transitivity by Langacker (1990, 1991). Indeed, we think that Langacker's description is accurate for prototypical transitivity, but that is does not allow for consideration of the sentences in which the domain of reference, i.e. the more prominent element, is N1.

The only difference between (23) and (24) on the one hand, and (25) to (29) on the other hand is the fact that in the latter group N2 undergoes a change of state as a consequence of N1's coming into conjunction with it. It is worth noting that in all the examples of this sub-section, the subject is not always volitional but it is always instigating, to use Naess's terminology.

3.3. Conjunction (N1∨N2); N1 is the Domain of Reference

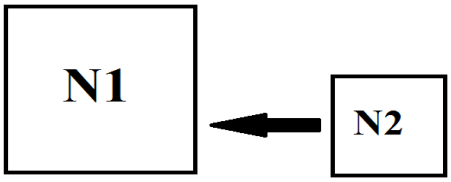

Figure 4. Conjunction with N1 as Domain of Reference

As has been said earlier, the domain of reference corresponds to the term that is more prominent in the examples we investigate. Here, N1 refers to the cognitive, physical, perceptive sphere N2 becomes part of.

This second scenario corresponds to what can be observed with a large number of verbs denoting perception, with which N2 becomes part of the representations of the human being referred to by N1 :

(30) *[...] she* ***saw*** *the names of her paternal grandparents in an inscribed list of Holocaust victims.* (OANC, *Press papers*)

It can also be observed with verbs of cognition, when N2 becomes part of the knowledge, experience or awareness of N1 :

(31) *It's very lonely here and people don't really* ***understand*** *that."* (COCA)
(32) *And* ***believe*** *it or not that was in the 40's, 50's.* (OANC, *Conversation*)

The same pattern is at work with verbs denoting possession such as *have*, *own*, etc.

(33) *Slim, diffident, Princeton, he is an engineer who* ***owns*** *several copper mines near Santa Fe, New Mexico.* (COCA)
(34) *The 52 camps that agreed to participate in the study* ***had*** *a total of 1076 residents*. (COCA)

Both in (33) and (34), N2 belongs to the domain represented by N2.

Those verbs express (reached or aimed at) conjunction of N1 with N2, with N2 coming into contact with N1.

3.4. Disjunction (N1 ∧ N2); N1 is the Domain of Reference

On the contrary, disjunction expresses the absence of connection between N1 and N2. Such absence or lack of contact may be construed either as the rejection or as the upholding of N2 out of the domain of reference represented by N1:

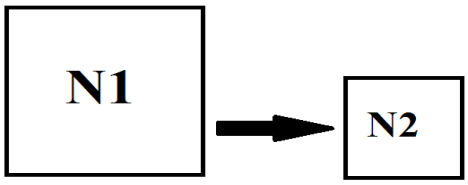

Figure 5. Disjunction with N1 as Domain of Reference

With cognitive verbs, this scenario occurs with verbs such as *forget*:

(35) *They say they drink to* ***forget*** *their troubles and then that's all they talk about.* (OANC, *Conversation*)

In example (31), *their troubles* cease to be part of the cognitive sphere of the referent of *they*.
In the domain of social relations, this scenario occurs with the verb *ignore*:

(36) *[…] Poe* ***ignored*** *me for five minutes. I waited patiently, saying nothing.* (COCA)

In example (36), *Poe*, by refusing to acknowledge the presence or the existence of the referent of *me*, rejects this person out of their domain of representations.

In a more concrete sphere, it can be encountered with *lose*:

(37) *[...] her parents weren't one of these that had money in the bank that they actually* ***lost*** *anything anyway.* (OANC, *Conversation*)

In (37), what is implied is that N2 could have been disconnected from the sphere represented by *they*, but this did not happen (*her parent weren't one of these that had money*).
Those verbs all express relations of (aimed at or actual) disjunction of N1 with N2.

3.5. Disjunction (N1 ∧ N2); N2 is the Domain of Reference.

In this scenario, N2 is the locator, the domain of reference out of which N1 is rejected or maintained. This can be observed with *leave* in (38):

(38) *[...] and so they just* ***left*** *town [...]* (OANC, *Conversation*)

In (38), the event described corresponds to a change of location for N1 (*they*), which ceases to be part of the domain represented by N2 (*town*), which can be represented as follows:

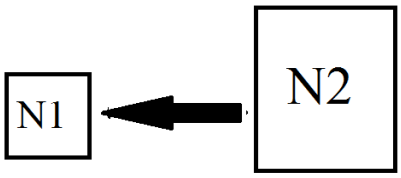

Figure 6. Disjunction with N2 as Domain of Reference

In the domain on social relations, this can be observed with verbs such as *abandon:*

(39) *[...] and the husband had to* ***abandon*** *his business here to rejoin his wife.* (OANC, *Press Papers*)

In (39), the conjunction that once occurred between N1 *the husband* and N2 *his business* does not exist anymore. In utterances (38) and (39), N1 is located in a relation of (spatial or social) disjunction with the domain of reference N2.

3.6. Junction between N1 and N2

When transitivity expresses junction between N1 and N2, it seems to be compatible with only one possible domain of reference: only N1 can be construed as the locator, which means that N2 is maintained inside the sphere represented by N1 :

(40) *We sold that on speculation, and* ***kept*** *the money.* (COCA)

In (40), N1 (*they*) was the owner of N2 (*the money*), the situation could have changed, they could have spent the money, but they haven't. This can be represented as follows:

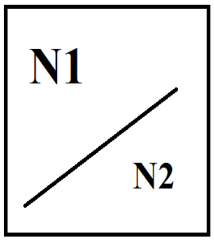

Figure 7. Junction

The verbs appearing in a transitive relation of junction are not very numerous in our corpus and tend to express the ownership or sameness of location maintained.

3.7. Synthesis and conclusion

The analysis presented here involves a limited number of concepts. It relies mainly on the opposition between conjunction and disjunction of N1 and N2:

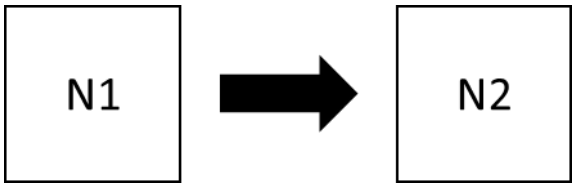

Figure 8. Conjunction

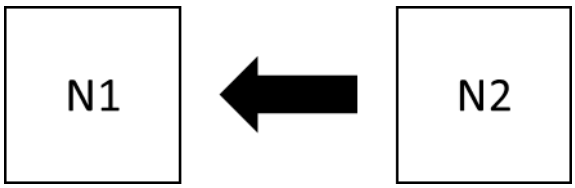

Figure 9. Disjunction

Combined with another variable, the domain of reference, the theoretical model gives rise to five scenarios, recapped in table 6 below:

Domain of Reference	Conjunction	Disjunction	Junction (Conjunction maintained)
N1	*[…] people don't really* ***understand*** *that […]*	*[…]Poe* ***ignored*** *me for five minutes.*	*[…] they'd* ***kept*** *that part of the building […]*

	*he **saved up** his money* *they **found** this house*	*I'll just **skip** that.* *Granny **hated** that*	*Fannie Mae [‘s agency] has always **preserved** its lucrative privileges* *[The magazine] Gear […] **retains** certain elements of the old men's mag ethos […]*
N2	*[…] he **reached** Washington Street […]* *[…] we always **make** a big loaf of bread […]* *she used to **visit** her sister*	*[…] they just **left** town […]* *we **finished** the school* *To **abandon** it [the program] would leave Russian cosmonauts jobless*	Ø

Table 6. Synthesis: the five scenarios

By concentrating all the different senses that can be expressed through transitivity into five scenarios, our approach provides an economical and consistent classification of the great variety of meanings that may be encountered in transitive utterances: it does not discard the prototype theory but includes prototypical transitivity in a wider system and resorts to a limited number of criteria. As a consequence, prototypical utterances may easily be compared and contrasted with less prototypical transitive utterances.

We have worked on two sub-corpora: research on a larger corpus could provide interesting statistics as to the distribution of those scenarios in use.

Also, we have noted that some verbs inherently convey conjunction or disjunction of N2, especially with a plural noun phrase but also with collective nouns:

*(41) But Sundays are the perfect time to **gather** the family together […] (COCA)*

*(42) […] the Iranians […] **dispersed** the hostages outside Teheran. (COCA)*

In (41) and (42), the conjunction of N1 and N2 results in the conjunction or disjunction of a N2. It is due to the semantics of the verb and the (internal) plural of N2.

In (41), the members of the family, initially scattered, come together and therefore come into conjunction within each other. In (42), the hostages are initially gathered (conjunction) and become separated (disjunction) as a result of the action of the subject.

However, further reflexion on examples such as (41) and (42) may lead to comparison with some resultative construction, especially complex transitive ones. This shall be the topic of another study.

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