

MOURA, Heronides; SANTOS, Valéria Cunha dos; VARASCHIN, Giuseppe; SALIMO, Calawia. Telicity, Definiteness and Animacy: the factors behind Transitivity and differential object marking. *ReVEL*, edição especial, v. 17, n. 16, 2019. [www.revel.inf.br]

## **TELICITY, DEFINITENESS AND ANIMACY: THE FACTORS BEHIND TRANSITIVITY AND DIFFERENTIAL OBJECT MARKING**

*Telicidade, definitude e animacidade: os fatores por trás da transitividade e da  
marcação diferencial de objetos*

**Heronides Moura<sup>1</sup>**

**Valéria Cunha dos Santos<sup>2</sup>**

**Giuseppe Varaschin<sup>3</sup>**

**Calawia Salimo<sup>4</sup>**

heronides@uol.com.br

csvaleria91@gmail.com

giuseppe.varaschin@gmail.com

calawiasalimo@gmail.com

**ABSTRACT:** In this article, we will pursue an explicitly explanatory approach to transitivity and argue that it may provide simpler and more general account than Hopper and Thompson's (1980) theory. Our proposal is that the ten properties of transitivity enumerated by Hopper and Thompson (1980) can be reduced to only two: (i) individuated portions of matter and time and (ii) animacy. In the second step of our argument, we propose that the factors behind differential object marking (DOM) and transitivity are of two kinds. First, there is a compositional factor, i.e., individuated portions of time and matter. Secondly, there is an inherent property of lexical items, i.e., animacy. We will discuss data from Kimwani, a Bantu language, as an example of a grammar in which DOM is sensitive both to a compositional factor (definiteness) and an inherent one (humanness).

**KEYWORDS:** Kimwani; transitivity; direct object; lexical aspect; telicity; differential object marking.

**RESUMO:** Neste artigo, seguiremos uma abordagem explicativa da transitividade e argumentaremos que ela pode fornecer uma explicação mais simples e mais geral do que a teoria de Hopper e Thompson (1980). Nossa proposta é que os dez parâmetros de transitividade enumerados por Hopper

---

<sup>1</sup> Professor at Federal University of Santa Catarina and researcher in linguistics with productivity grants from the Brazilian National Research Council (CNPq).

<sup>2</sup> Valéria holds a master's degree in Linguistics. Currently she is a Doctoral student in the Graduate Program in Linguistics (Federal University of Santa Catarina).

<sup>3</sup> Giuseppe holds a master's degree in Linguistics. Currently he is a Doctoral student in the Graduate Program in Linguistics (Federal University of Santa Catarina).

<sup>4</sup> Calawia holds a master's degree in Linguistics. Currently he is a Doctoral student in the Graduate Program in Linguistics (Federal University of Santa Catarina).

e Thompson (1980) possam ser reduzidos a apenas dois: (i) porções individuadas de matéria e tempo e (ii) animacidade. Na segunda parte do texto, defendemos que os fatores por trás da marcação diferencial de objetos (DOM) e da transitividade sejam de dois tipos. Primeiro, há um fator de composição, isto é, partes individuais de tempo e matéria. Segundo, existe uma propriedade inerente aos itens lexicais: a animacidade. Para sustentar nossa hipótese, trazemos dados do Kimwani, uma língua bantu, como um exemplo de gramática na qual o DOM é sensível tanto a um fator composicional (definitude) quanto a um fator inerente ao objeto (humanidade).

**PALAVRAS-CHAVE:** Kimwani; transitividade; objeto direto; aspecto lexical; telicidade; marcação diferencial de objetos.

## INTRODUCTION

There are roughly two kinds of attitudes one can take towards understanding linguistic phenomena: a descriptive and an explanatory stance. Each of these define a particular measure of success and is subject to its own virtues and drawbacks. Narrow descriptive accounts are, by their very nature, empirically well grounded, but sometimes fail to take notice of underlying regularities and deeper causal principles that give rise to great phenomenal complexity. Broader explanatory theories are, on the other hand, bold and ambitious, but often at the cost of sweeping relevant counterexamples under the rug or resorting to somewhat arbitrary idealizations.

When browsing through the literature on transitivity one finds exemplars of each of these trends. The descriptive stance correlates neatly with the influential functionalist approach of Hopper and Thompson (1980). In their theory, transitivity is conceived as a global property linked to a cluster of syntactic, semantic and discourse parameters that co-vary in systematic and predictable ways. This is essentially, what their “transitivity hypothesis” amounts to. Their goal is to decompose transitivity into surface features of utterances and see how these features generally pattern together. In their descriptive account, transitivity is, thus, radically contextual and compositional, since it depends on a variety of heterogeneous factors.

Other approaches – such as the ones championed by Tenny (1987, 1992, 1994), Levin (1999), Jackendoff (1990), Grimshaw (1990), Kratzer (2004) and many others –, pose the question in an entirely different manner. These theories, diverse as they may be, take transitivity to be simple a lexical fact, namely: the fact that some verbs inherently select for complements/objects/internal arguments. There are surely many ways to define such notions within various frameworks, but, in taking transitivity to be a lexical requirement for the grammatical expression of arguments, these theories ask which semantic factors license this syntactic behavior. In Levin’s (1999) own terms, they ask for the *semantic correlates of objecthood*. Some

candidates are thematic/action tier roles (usually affected patients) (GRIMSHAW, 1990; JACKENDOFF, 1990), aspectual notions (such as *measuring out*) (TENNY, 1994) and complex (e.g. causative) event structures (LEVIN, 1999).

These theories are more explanatory, since they aim for deeper and simpler principles which, presumably, guide language acquisition and account for typological regularities. The assumption common to all of them is that the syntax-semantics linking is not entirely arbitrary and that there are large scale generalizations present in the lexicon. The real issue is to figure out what exactly these generalizations are and in terms of what notions they are codified, both on the semantic as well as on the syntactic side.<sup>5</sup> It is commonplace to assert agents canonically correspond to subjects, patients to objects while instruments and locations are usually mapped into adjuncts. The challenge is to go beyond such platitudes and produce an account which is satisfactory on both descriptive and explanatory grounds.

In this article, we will pursue this explicitly explanatory approach to transitivity and argue that it may provide simpler and more general account than Hopper and Thompson's (1980) theory. Our main question will be: what is the most significant semantic generalization associated with transitivity? Our proposal is that the ten properties of transitivity enumerated by Hopper and Thompson's (1980) can be reduced to only two: (i) individuated portions of matter and time and (ii) animacy. The idea of individuated portions (BACH, 1981; 1986; JACKENDOFF, 1991; KRIFKA, 1998; PINKER, 2008; MOURA, 2019) encompasses both *telicity and definiteness*.

Our argument runs in two steps. First, we pursue a version of Tenny's (1994) Aspectual Interface Hypothesis and try to reduce all the semantic correlates of transitivity to aspectual properties. According to this hypothesis, even definiteness could be derived from telicity. But this alternative faces a serious challenge: the differential marking of objects (DOM, henceforth), which is described as a marking of different degrees of transitivity (WITZLACK-MAKAREVICH; SERŽANT, 2018).

In many languages, DOM is sensitive to animacy and definiteness hierarchies (CROFT, 1990; NAESS, 2004; DE SWART; HOOP, 2007; HASPELMATH, to be published), regardless of aspectual properties. This means that

---

<sup>5</sup> For instance: are the grammatical functions of subject and object primitives, as in Lexical Functional Grammar (BRESNAN, 2001) and Simpler Syntax (CULICOVER; JACKENDOFF, 2005) or should they be reduced to phrase-structure configurations, as in mainstream Generative Grammar (CHOMSKY, 1965, 1981)? Similar queries can be posed on the semantic side, regarding thematic role labels and aspectual notions (cf. JACKENDOFF, 1987, 1996; RAPPAPORT; LEVIN, 1988).

factors which are (apparently) independent of telicity are capable of triggering the use of DOM. As DOM is a relevant syntactic property of argument structure in many languages, this indicates that animacy and definiteness can work in tandem as semantic correlates of transitivity.

In the second step of our argument, we propose that the factors behind DOM and transitivity are of two kinds. First, there is a compositional factor, i.e., individuated portions of time and matter. Secondly, there is an inherent property of lexical items, i.e., animacy. The distinction between compositional and inherent properties has already been made by De Swart; Hoop (2007). What is novel in our proposal is the claim that definiteness and telicity are both ontological specifications of a more abstract semantic property: individuated portions of matter and time (BACH, 1981; 1986; JACKENDOFF, 1991; KRIFKA, 1998; PINKER, 2008; MOURA, 2019). Those individuated portions are defined compositionally, with case markers and particles signaling “strong interpretations” (DE SWART; HOOP, 2007) — i. e., definite and telic readings — in the case of DOM.

For instance, the common noun *dog* may be interpreted as definite or indefinite, depending on the linguistic context (*the dog, a dog*). In a similar way, a verb like *open* may be interpreted as telic (*He opened the door*) or atelic (*He was opening the door*). These are compositional semantic factors behind the use of DOM, which can mark the distinction between strong interpretations (telic, definite) and weak interpretations (atelic, indefinite). Our proposal is that strong interpretations emerge in the presence of individuated portions of matter (definite nouns) and time (telic events). The definite noun triggers a strong interpretation if it occurs in the position of object direct (O, henceforth). Strong interpretations correspond to what Hopper and Thompson (1980) called more transitive sentences.

On the other hand, animacy and humanness are inherent properties of some lexical items. For instance, the proper name *John Kennedy* refers to a definite and unique human being, regardless of the linguistic context in which it appears. In many languages, animacy/humanness takes priority over definiteness and telicity (DE SWART; HOOP, 2007). In this article, we will consider Kimwani, a Bantu language, as an example of a grammar in which DOM is sensitive both to a compositional factor (definiteness) and an inherent one (humanness).

The article is organized as follows. In section 1, we try to show that the aspectual interface hypothesis is a good starting point to discover the semantic

correlate of transitivity. We pursue the idea that affectedness, affirmation and realis may be explained as consequences of telicity. In order to do this, we interpret the Aspectual Interface Hypothesis in terms of telicity, not in terms of “measuring out” (TENNY, 1992). Nonetheless, the Aspectual Interface Hypothesis can't predict why DOM may be insensitive to aspectual factors, giving priority to animacy/humanness.

In section 2, we examine Kimwani, a language in which O should be marked even if the sentence is atelic and with low individuation of O. The sole requirement for markedness in Kimwani is that O be human. Besides, Kimwani is also sensitive to a compositional factor (definiteness), when O is an animate non-human. Inanimate Os never get marked in Kimwani. In section 4, we propose that individuated portions of time and matter are the abstract property that qualifies for compositional strong interpretations, i. e, more transitive ones. Lastly, we will close with some final remarks.

## 1 TRANSITIVITY AND THE ASPECTUAL INTERFACE HYPOTHESIS

In this section, we will pursue a version of the Aspectual Interface Hypothesis (Tenny, 1992; 1994), according to which the mapping between event-structure participants and grammatical functions is governed by aspectual properties. In particular, we will try to show that the grammatical function of (direct) object (and, by consequence, the notion of a transitive predicate) is associated with the aspectual notion telicity – i.e. the notion of a *culminated* event. A grammatical object typically denotes an entity which provides a temporal boundary to an otherwise unbounded or incomplete event. A transitive predicate, in its turn, is typically one that can be conceived as having a temporal culmination, which is normally provided by the denotation of its direct internal argument.<sup>6</sup> Based on Kratzer (2004), we will assume

---

<sup>6</sup> It is interesting to note that telicity already figured as one of the parameters of transitivity in Hopper and Thompson's (1980) analysis. According to them, “an action viewed from its endpoint, i.e. a telic action, is more effectively transferred to a patient than one not provided with such an endpoint” (HOPPER; THOMPSON, 1980, p. 252). We believe the intuition that guides this statement is well-placed – especially in relating telicity to effectiveness in transferring actions (i.e. to affectedness). However, as remarked by various authors, such as Tsunoda (1985), one of the main faults of Hopper and Thompson's (1980) approach is also therein manifested: a lack of discrimination between the parameters, which blinds the analysis to the possibility that some of them are epiphenomenal or reducible to others. In the next section, we will focus on how some of their other criteria, such as affectedness, affirmation and mode (*realis* and *irrealis*) are, in fact, corollaries of telicity.

that this typical pattern of argument realization is explained by the logical structure of culminations, which impose transitivity as a requirement on telic predicates.

Telicity is an aspectual notion, related, as such, to the internal structure of events (cf. COMRIE, 1976). Tenny (1987) was the first to propose that these kinds of properties were crucial for linking theory. According to her, syntax and semantics are connected through a universal aspectual structure. We follow her in arguing that aspect overrides alternative lexical motivations for transitivity, such as thematic notions (affectedness or patienthood) and event complexity (cf. LEVIN, 1999).

However, a perfectly isomorphic across-the-board correlation between argument structure and aspectual structure is too good to be true. We will argue that a theory of linking based on telicity is partially contradicted by the fact that, in many languages, like Kimwani, DOM is triggered by an inherent property such as humanness, regardless of aspectual properties. We will go back to this in the next section.

Tenny's (1992) crucial objection against thematically-based theories of linking are lexical alternations, like the locative alternation in (1). These sentences are followed by a simplified neo-davidsonian representation of their logical form in (1c), in which thematic roles are formalized as relations between events and individuals (cf. PARSONS, 1990):

- (1) a. Mary sprayed paint on the wall.  
 b. Mary sprayed the wall with paint.  
 c.  $\exists e$  [Spray (e) & Agent (e, Mary) & Theme (e, paint) & Goal (e, wall)]

As Rappaport and Levin (1988) show, alternations like these impose conflicting requirements on linking theories: on the one hand, they must recognize a component of meaning which is common to each of the sentences (i.e. something like (1c)) and, on the other, they must explain why this *common semantic core* does not map into identical syntactic structures. This is specifically problematic for thematically-based linking because what is shared by the (1a)-(1b) pair appears to be the thematic relations. If these were the sole determinants of the mapping from semantics to syntax, their identity could not give rise to distinct syntactic expressions.

Tenny (1992) employs these kinds of facts to motivate her own aspectually based account of linking. Her first step in doing so involves noticing that, despite the

common thematic core shared by (1a) and (1b), there is also a subtle semantic difference between them. She attributes this difference to the aspectual role played by the direct object. For her, this aspectual role has to do with the notion of *measuring out*. The *paint* in (1a), for instance, provides a measure for the event of spraying: the more the paint gets sprayed, the more the event progresses. A similar measure is provided by *the wall* in (1b) – the event is terminated once the wall is fully painted. The diverse syntactic expressions of thematic relations are possible because in these kinds of cases both the theme and the goal can be independently construed as measuring out the event.

We broadly agree with her aspectual explanation for the linking of transitive predicates, but our own aspectual criterion – telicity – is, for reasons we will now further explain, somewhat at odds with her the measuring out constraint (TENNY, 1994), and also with Dowty’s (1991) similar incremental themehood property.

First and foremost, let us review a sample of data which also suggests that telicity is more relevant than patienthood or affectedness (more on this on section 2). According to Tsunoda (1985), aside from “direct effect” verbs (*kill, break, eat, etc.*) – which are pretty much universally transitive –, psychological/perception predicates (*see, hear, find, etc.*) are the most common predicate types to be encoded in transitive case patterns across the world’s languages. This is incompatible with a theory that requires a strong correlation between transitivity and affectedness (such as Tsunoda’s (1985) own theory), since the object of a psychological/perception verb is not at all affected by the event denoted by the verb – it undergoes no change of state or location as a result of it. A clear way to illustrate this involves the usual *what happened to x was y* test for affectedness (cf. BEAVERS, 2011):

- (2) a. John saw the brown dot in his shirt.  
b. ? What happened to the brown dot in John’s shirt was that he saw it.
- (3) a. Mary heard a weird noise.  
b. ? What happened to a weird noise was that Mary heard it.

The verbs in (1a) and (2a) are truly transitive (not only in English, but in various languages), and, regardless of that, their objects are not affected, as can be seen in the anomaly of (1b) and (2b). It is noteworthy that these verbs do not fit comfortably within Tenny’s (1992, 1994) theory that direct arguments must measure

out their events, since this imposes a strong bias towards durative eventualities. In what sense can we say that *the brown dot* in (2a) *measures out* the event of seeing? The event of *seeing* simply seems to have no measure: it is a punctual achievement whose culmination is identical to its inception. Being telic, it is, according to our hypothesis, required to be transitive.

To be perfectly fair, Tenny (1994) does address this issue. She claims the distinction between punctual and non-punctual delimited events is blurry and relative. What is peculiar about punctual achievement verbs is, according to her, that their “measuring out” is so quick that it is perceived as virtually instantaneous. Her point is that, whenever there is any kind of change, there must be some time consumed (no matter how little), “and that is enough for an argument to ‘measure out’ the event” (TENNY, 1994, p. 17). We take this latter (revised) notion of measuring out to be an attempt to reconcile incrementality (which is the usual property in most of her examples of measuring out) with punctuality. For us, a better alternative, in light of these facts, is to simply abandon incrementality (i.e. measuring out) in favor of telicity – which includes both incremental (accomplishments) and punctual (achievements) eventualities as subtypes – as a factor for transitivity.<sup>7</sup> This is the alternative we pursue here.

This way of looking at the phenomena also provides an explanation for the differential linking of two types of psychological predicates: the ones mentioned above (*see* and *hear*) and their “agentive” counterparts (*look* and *listen*).<sup>8</sup> The former ones are, as we said, typically transitive across the world’s languages. The latter, although *possibly* transitive, are not necessarily so, as in English (*look at the door*, *listen to the music*). Some of them even display an intransitive usage: as Jackendoff (2007, p. 205) notes, one can *look around* without looking at anything in particular, but one cannot *see* without seeing *something in particular* (that is, one cannot *\*see around*, as one can *walk, sing and dance around*). We argue that this difference has to do with the fact that the *see* class is typically *telic* while the *look* class is *atelic*. Telicity, in a sense we’ll further specify, appears to require transitivity.

<sup>7</sup> Another reason, due to Jackendoff (1996), has to do with the fact that there are counterexamples to Tenny’s (1994) non-measuring constraint on external arguments. That is, since external arguments can also measure out, measuring out is not even a *sufficient* condition for objecthood (two of Jackendoff’s (1996) examples are: *the parade passed the house*; *the crowd exited the auditorium*).

<sup>8</sup> See Gruber (1967) and Jackendoff (2007, chap 6) for a more thorough semantic characterization of these verbs. A typological difference between these two classes is also verified by Tsunoda (1985).

Another example of our proposal that telicity is more relevant to transitivity than affectedness are the following sentences in Chepang, an ergative language from Nepal (the examples come from Tsunoda, 1985, p. 393):

(4) *ngaa + ?i waa? saay? + naa + ng*  
 I+ERG bird+ABS hear + PRES + I st  
 I hear a bird. (non-agentive)

(5) *ngaa + ?i waa? + kaay? saay? + naa + ng*  
 I+ERG bird+DAT hear + PRES + I st  
 I listen to a bird. (agentive)

We agree with Tsunoda (1985) that the features Agentivity and Volitionality (Hopper and Thompson, 1980) are irrelevant to the transitivity of sentence (4), which exhibits the transitive case frame ERG -ABS, whereas the sentence (5) exhibits the non-transitive case frame ERG-DAT. Tsunoda (1985) intends to show that subject features such as Agentivity and Volitionality do not co-vary with object features such as Affectedness. He sustains that the relevant factor for the transitivity of (4) is that the object a bird exhibits the feature Affectedness. In our view, the correct interpretation would not involve the thematic role (or the macrorole, in Van Valin's (2005) sense) of the grammatical object, but the telic value of the sentence (4) and the atelic value of the sentence (5).

The thematic role of the object *the bird* in the sentence is not relevant to the interpretation of (4) as a transitive sentence. In fact, the object *the bird*, in this sentence, is not a patient, but a theme or the stimulus of the psychological experience of hearing. In this case the object both measures out (TENNY, 1992) and provides a natural endpoint to the event of hearing, indicating that this event is complete. It is noteworthy that it is not the bird per se that measures out the event, but his metonymic song. The transitive case frame ERG-ABS denotes telic events, irrespective of the thematic roles both of subject or object.

Our alternative for the semantic analysis of transitivity implies that any occurrence of alleged patienthood can be reinterpreted as a case of telicity. Even in cases in which patienthood really makes sense, it can be explained as a logical consequence or a byproduct of telicity.

The unergative/unaccusative distinction can also be seen under this light. The Aspectual Interface Hypothesis says the syntactic realization of arguments depends

on the aspectual structure of the predicate. If a predicate that selects for only one argument is atelic, it can get realized as an unergative. If it is telic (and its argument plays some role in delimiting the event), it should be spelled out as unaccusative. Unergative verbs do indeed massively correspond to atelic dynamic predicates – i.e. activities in Vendler’s (1967) classification: e.g. *run, sing, laugh, cry, dance*. When they are syntactically provided with a definite object, however, they are turned into accomplishment predicates. The transitive construction (or, through another lens, the direct object) *telicizes* the eventuality, providing it with a culmination, as in (6) and (7):

- (6) a. Martha ran.  
       b. Martha ran two kilometers.
- (7) a. Paul sang.  
       b. Paul sang Hey Jude.

Lexical unaccusative verbs, on the other hand, correspond either to achievement predicates (*die, arrive, explode, crack* etc.) or to accomplishments (*melt, rot, blossom, etc.*). Their relevant semantic feature, which is associated to the fact that they select objects and not subjects, is telicity. Notice that when they figure in transitive alternations (such as causative constructions), the added argument is not one that contributes to telicity or culmination, but is generally an agent, as in (8) and (9). This is because, being lexically telic, they already lexically select for objects.

- (8) a. The bomb exploded.  
       b. Bill exploded the bomb.
- (9) a. The ice melted.  
       b. Bill melted the ice.

Our account correctly predicts, therefore, that unaccusatives behave more like typically transitive verbs than unergatives. Saying that telicity requires transitivity

does not, however, entail that all transitive verbs are telic.<sup>9</sup> What this predicts is that if, for some reason, a given atelic predicate gets expressed *via* a transitive VP in one language, it *does not have to* correspond to transitive VPs and select direct objects in *all* languages.<sup>10</sup> Partitive constructions in French are a case in point. While in English, the verb *kill* invariably selects a direct object, and, thus, heads a transitive VP structure (cf. (10)), in French, when the NP object is somehow unbounded (cf. (11)), rendering the predicate atelic, the argument receives a partitive marker *de(s)*. This marker makes the direct object more oblique and, therefore, reduces transitivity. The same occurs with the predicate *eat* in (12) and (13):

- |      |                               |                |
|------|-------------------------------|----------------|
| (10) | a. John killed Bill.          | (bounded NP)   |
|      | b. John killed people.        | (unbounded NP) |
| (11) | a. John a tué Bill.           | (bounded NP)   |
|      | b. John a tué des gents.      | (unbounded NP) |
| (12) | a. John ate the Big Mac.      | (bounded NP)   |
|      | b. John ate meat.             | (unbounded NP) |
| (13) | a. John a mangé le Big Mac.   | (bounded NP)   |
|      | b. John a mangé de la viande. | (unbounded NP) |

Notice also that unbounded NPs are semantically similar to Fillmore's (1986) *indefinite null complements* (e.g. *Bill sang, Sue drank*), which are also atelic, because the complement of the verb is left unspecified. (One can easily imagine a language where *eat meat* is lexicalized as a single verb, but not *eat the Big Mac*.) The point is that atelic predicates can, but do not have to, correspond to transitive VPs. Only predicates with bounded objects must *universally* correspond to transitive VPs. This is because only they map binary relations into genuinely *telic* eventualities. Tenny's (1994) measuring out constraint also fails to predict this because the unbounded NP argument measures out the event as much as the bounded one. So, for her, all pairs in (10)-(13) would be equally transitive. What the French partitive construction shows

---

<sup>9</sup> It does, however, strongly imply that all telic VPs are transitive. This seems to be correct. Superficially intransitive telic VPs (e.g. *Mary saw, John won*) are usually cases of what Fillmore (1986) calls definite null complements, which require that a definite and highly accessible referent be contextually retrieved. Olsen and Resnik (1997, p.329) concur, and summarize the point: "telic verbs require either an overt object or, if the object is implicit, one that has a definite interpretation".

<sup>10</sup> In other words, what we are claiming is that transitivity is, in some sense, the simplest or *default* expression of telicity.

again is that the relevant aspectual notion is not measuring out, but telicity. In other words, our own version of the Aspectual Interface Hypothesis is stated in terms of the more blunt concept of telicity, not of “measuring out”.

A similar idea can be found in Kratzer (2004), who builds on Kiparsky’s (1998) work. Kiparsky (1998) argues, based on examples like (14)-(16), that the Finnish accusative case is only licensed for bounded VPs. Unbounded VPs take the partitive case. If we assume the accusative case to be a canonical a mark of objecthood, this constitutes yet another correlation between predicate transitivity and telicity:

- (14) a. Ammu-i-n karhu-n  
shoot-PAST-1SG bear-ACC  
‘I shot the/a bear’  
b. Ammu-i-n karhu-a  
shoot-PAST-1SG bear-PART  
‘I shot at the/a bear’
- (15) a. Ammu-i-n karhu-t  
shoot-PAST-1SG bear-PL ACC  
‘I shot the/∅ bears’  
b. Ammu-i-n karhu-j-a  
shoot-PAST-1SG bear-PL-PART  
‘I shot at the/∅ bears’
- (16) a. Ammu-i-n kaksi karhu-a  
shoot-PAST-1SG two-ACC bear-PART  
‘I shot two bears’  
a. Ammu-i-n kah-ta karhu-a  
shoot-PAST-1SG two-PART bear-PART  
‘I shot at two bears’

Once again, Tenny’s (1994) measuring out constraint is at a loss. In (14a), there is barely a case of measuring out, because the event is punctual. In the pairs (15a)-(15b) and (16a)-(16b), both the accusative and the partitive NPs equally measure out the event. The case distinction is, therefore, left unexplained by that notion. What explains it is the boundedness of the VP and its known effect of producing telicity (cf. JACKENDOFF, 1996).

The pattern outlined above is quite widespread and it is found in many of the examples collected by Hopper and Thompson (1980). It also appears, less obviously, in our data from Kimwani (see section 2). Before we close this section, we will try to sketch a deeper explanation for it. Why do we find such a close correlation between telicity and transitivity? In what sense does *telicity require transitivity*, as we said above?

Kratzer (2004) argues that this has to do with the particular logical structure of culminations, the main components of telicity. Following Zucchi (1999), she holds that the notion of culmination requires not only a reference to *events* (as in Parsons (1990)), but also to *entities*. A culmination is always relative to a certain entity, because an event that can be complete relative to one entity may not be complete relative to another. For instance, an event of completely cleaning *my room* might be the same event as the incomplete event of cleaning *my house*. What we have there is one and the same event associated to two different culminations, depending on the entity in terms of which those culminations are defined (*my room* or *my house*).

In light of this, Kratzer (2004) formalizes culmination as a relation between *entities and events*. She thinks of the semantic function of (direct) objects as providing an entity in terms of which culminations can be defined. Simplifying matters greatly, if the (direct) object has the right kinds of properties (e.g. boundedness), the culmination is defined and the predicate is rendered telic. The logical form of a predicate like *shoot the bear* would be something like the following:

$$(17) \quad \lambda x \lambda e [\text{Shoot}(e) \ \& \ \text{Agent}(e,x) \ \& \ [\text{Culmination}(e,\text{the bear}) \leftrightarrow \text{Hit}(x,\text{the bear})]]$$

We will not dwell on the formal details of her proposal. We only note that it provides a logical explanation for the correlation we gathered from the more descriptively oriented literature. The idea is that since telicity requires an entity in terms of which a culmination can be defined and Os are capable of providing such an entity, telicity and transitivity are expected to overlap to a great extent. Insofar as transitivity is the simplest way of coding telicity, we also predict that prototypical transitive structures are telic.

Many authors (Anderson, 1971; Pinker, 1989; Naess, 2004) have tried to show that transitivity is linked to affectedness or, to put it more bluntly, the idea is that only the presence of a patient implies transitivity. The contrasting pairs of

accusative/partitive examples below are intended to show that the accusative case is used to convey the so called holistic effect, whereas the partitive case does not exhibit such holistic effect (ANDERSON, 1971, p. 391):

- (18) a. John chewed his steak.  
b. John chewed on his steak.
- (19) a. The press secretary read his prepared speech.  
b. The press secretary read from his prepared speech.
- (20) a. John painted Bill's portrait this morning.  
b. John painted on Bill's portrait this morning.

The (a) sentences above exhibit the holistic effect. They indicate “the presumed completion of the activity referred to” (ANDERSON, 1971, p. 391). The (b) sentences, on the other hand, don't present the holistic effect. The sentence (18b) implies that John didn't chew his whole steak; the sentence (19b) means that only some of the prepared remarks were delivered; and (20b) means “that some painting was done on a work in progress” (ANDERSON, 1971, p. 391).

The holistic effect is normally described as involving the patient role (PINKER, 1989). This is plausibly true of the O *his steak* and *Bill's portrait*, which are patients that undergo noticeable changes of state. The same description, however, can't be made for the O *his prepared speech*. The speech isn't affected by the act of being read. The same speech could be read indefinitely many times without suffering any change. The relevant point in the pair of sentences (19) isn't the affectedness of the O; it remains unchanged in both situations described by (19a) e (19b). The holistic effect concerns the completion of the activity referred to, or, in other words, telicity. The O *his prepared speech* provides a culmination that indicates the totality of the event to be completed<sup>11</sup>.

What we are proposing is a more principled analysis of the parameters of transitivity. Telicity is a strong candidate for being the main semantic correlate of transitivity. Most of other parameters enumerated by Hopper and Thompson's

---

<sup>11</sup> This is a case of semantic coercion (Pustejovsky, 1995). A physical object is interpreted via telic *quale* as an event.

(1980) can be inferred and are ultimately reducible to this basic feature. However, in the next section we will see that DOM poses a challenge to this consideration, since in many languages DOM is sensitive to animacy/humaness (CROFT, 1990; NAESS, 2004; DE SWART; DE HOOP, 2007), regardless of aspectual properties.

For the moment however, our focus is on other properties which can be duly reduced to telicity. Consider, for instance, affirmation. It is arguable that this parameter isn't independent of the most basic trait of telicity either. A negative sentence indicates that the event to which the verb refer has not been completed. In fact, Dowty (1986, p. 44) argues that, within his aspectual calculus, "the negation of any atomic sentence will [always] be a stative sentence". If negation operators are stativizers and states are necessarily atelic (as is generally assumed), it follows that negative sentences will also be atelic. Many languages signal this atelic nature of negation by marking the O of negative sentences as non canonical (HASPELMATH, 2001). For instance, in Russian, the O of a negative sentence may appear in the genitive case, not in the accusative one, even if O is a definite noun (HASPELMATH, 2001, p. 58):

- (21) *Ja ne ljublju ètogo goroda.*  
 I not love this.GEN town.GEN  
 'I don't like this town.'

Similarly, in French, the O of the negative sentence is marked by the partitive case (HASPELMATH, 2001, p. 58):

- (22) *Je n' ai pas vu de fourmis.*  
 I NEG have not seen GEN ants  
 'I didn't see any ants.'

We predict that, in languages such as Russian or French, when a perfective/telic reading is intended, the O must be in the accusative case, and when an imperfective/atelic case is intended, the O must be in a non-canonical case, such as genitive or partitive (HASPELMATH, 2001). This means that negative sentences are marked as imperfective in these languages. In our view, the negative sentences share a parameter with sentences in which the O is indefinite or receives a partitive reading. All of these sentences describe events that are seen as incomplete.



In the indicative form, the contexts in which the unmarked imperfective are used include present tense sentences and sentences with modal particles. The subjunctive form of the imperfective includes contexts of tensed negatives expressing future, and the jussive form of the imperfective occurs in the context of the negative expressing past tenses and imperative forms. Our point is that many of these contexts are *irrealis*. In Arabic, the contexts of *irrealis* are a subset of the imperfective. The Arabic shows that, contrary to Hopper and Thompson's (1980) claim, the *realis/irrealis* isn't an independent parameter, but a subset of the more general parameter of verbal aspect.

Up to now, we have examined the features of affectedness, definiteness and mode and attempted to infer them from telicity, which we argued to be the main factor for defining transitivity. However, this account runs into trouble when we confront it with the literature on DOM. This is the topic of next section.

## **2 DOM AND ANIMACY**

A feature which is commonly cited in the literature and which presents a challenge to all versions of the Aspectual Interface Hypothesis is animacy. Many languages resort to differential object marking (DOM) when their direct objects are animate beings, and especially when they are human (HOPPER; THOMPSON, 1980; COMRIE, 1981; HASPELMATH, 2001; NAESS, 2004; DE SWART; DE HOOP, 2007). If we assume, following Naess (2004), that what DOM marks is typical transitivity, the fact that DOM is triggered by animacy invalidates an isomorphic across-the-board correlation between argument structure and event structure.

The strongest argument in favor of the independence between animacy and telicity is that, when a language marks its animate O differentially, this marking is common to all eventuality types. This means that the event does not have to be telic or quantized (KRIFKA 1998), in order to receive differential object marking for its animate complement. De Swart and De Hoop (2007), for instance, argue that, in languages such as Hindi, what triggers the accusative marking is the animacy of O, regardless of whether it is definite or not. This implies, according to De Swart and De Hoop (2007), that DOM can be motivated by two completely different sets of reasons.

On the one hand, there are semantic motivations, in which accusative marking is linked to a strong interpretation, i.e, a definite, specific and also telic

interpretation. De Swart and De Hoop (2007) argue that this does not exhaust the possibilities, as far as DOM is concerned. This motivation only covers cases of DOM in which there is a correlation between refined aspects of semantic interpretation and case morphology.

There is, according to them, a second type of motivation for DOM, one that has to do, precisely, with animacy. In this latter case, DOM is driven by “the inherent semantic feature of an argument, i.e., animacy” (DE SWART; DE HOOP, 2007, p. 599). This type of marking simply splits the sentences in two broad types (sentences with animate O x sentences with inanimate O), regardless of whether the sentences with animate O display a strong interpretation.

Kimwani<sup>13</sup>, a Bantu language spoken in Mozambique, is a case in point. In Kimwani<sup>14</sup>, DOM is mandatory when the O is human, regardless of whether it is indefinite (24) or whether the event is atelic (25). The morpheme which signals DOM appears in boldface in the following examples:

(24) Hawa k-a- **wo**-lay-a wanu.  
 Hawa-SBJ 3SG-PERF-OBJ-kill-FV people-OBJ  
 ‘Hawa killed people.’

(25) Caminyani a- ki- **mu**- lay- a nfalume.  
 Criminal-SBJ 2SG-IPFV/PROG-OBJ-kill-FV authority-OBJ  
 ‘The criminal was killing the authority.’

(24) and (25) receive a weak interpretation, which means the object is not definite in (24) and the event is not telic (25). Even so, the sentences are marked. In Kimwani, as far as object marking is concerned, DOM is applied to complements that belong to nominal classes 1 and 2, which consist of nouns denoting humans. The object markers are *mu*, for singular, and *wa*, for plural. The singular object marker can be realized as either *mw*, *m* or *n*. In the plural form, the object marker *wa* can vary *wo*, *we*, *wi* e *wu*, according to the nature of the following vowel. When the

<sup>13</sup> According to Ngunga (2014, p. 51), the Kimwani language belongs to the Swahili group (G40). Other languages that are also members of that group are Kiswahili and Cimakwe. Kimwani is part of the Congo-Kordifanian family, of the Niger-Congo sub-family and of the Bantu Group. The 2007 Mozambique census reports the existence of 77.915 speakers of Kimwani (INSTITUTO NACIONAL DE ESTATÍSTICA DE MOÇAMBIQUE, 2007).

<sup>14</sup> One of the co-authors of this paper is a native speaker of Kimwani.

human object is indefinite, as in (24), the object marker morpheme differs with respect to its morphological shape: the language opts for the plural marker (in the case above, the allomorph *wo* is used, and not *wa*).

When O is a non-human animate being, DOM occurs when the complement is definite, as can be seen in the pair (26)-(27) below:

(26) a. ka-**n**-tafun-a inswi

3SG-PERF-OBJ-eat-FV fish-OBJ

‘He/she ate the fish.’

b. ka -∅-tatun-a inswi

3SG-PERF-OBJ-eat-FV fish-OBJ

‘He/she ate fish.’

(27) a. ka-**mu**-lay-a nguluwe

3SG-PERF-OBJ-kill-FV pig-OBJ

‘He/she ate the pig.’

b. ko- ∅- lay-a nguluwe

3SG-PERF-OBJ-kill-FV pigs-OBJ

‘He/she ate pigs.’ (more than one)

When the O is inanimate, there is no DOM, regardless of whether the event is telic or whether O is definite, as in (28):

(28) Omi ni- dangul- a meza.

I-SBJ 1SG/PERF-destroy-FV table-OBJ

‘I destroyed the table.’

To sum up, Kimwani illustrates a case in which DOM is sensitive both to a compositional factor (definiteness) and an inherent one (humanness). Telicity as such is simply not a relevant factor for DOM in Kimwani.

The three basic semantic correlates of DOM (telicity, definiteness and animacy) are distributed unevenly among different languages. Exploring the possible interactions and combinations of these factors in individual languages is a topic for

future research. In Spanish, for instance, *all of* the three factors are present. Torrego Salcedo (1999) propose DOM in Spanish is regulated by the following three conditions: i. When the direct object is human and indefinite, DOM is optional; ii. When the direct object is inanimate and indefinite, DOM is ungrammatical; iii. telicity may trigger DOM, regardless of animacy and definiteness.

Regardless of specific variations among languages, it seems clear that there are two kinds of factors conditioning transitivity. Definiteness and telicity are compositional factors and animacy is an inherent property. In the next section, we will try to show that the compositional factors may be subsumed under a single more abstract concept, i.e, individuation. This will leave us with two basic kinds of semantic motivations for transitivity: compositional individuation and inherent animacy.

### **3 TELICITY AND DEFINITENESS: INDIVIDUATED PORTIONS OF TIME AND MATTER**

The compositional semantic motivations behind DOM and transitivity are seen as independent (DE SWART; DE HOOP, 2007). This implies that strong interpretations would be linked to a cluster of unrelated factors, such as telicity and definiteness. If this were the case, we would be somehow in the same situation as Hopper and Thompson (1980), according to whom transitivity is conceived as a prototype linked to a cluster of syntactic, semantic and discourse parameters that co-vary in predictable ways.

We would like to suggest here that there is an overarching abstract property that encompasses the compositional semantic motivations for transitivity and DOM and that qualifies for (so-called) “strong interpretations”: individuated portions of time and matter. In other words, whenever a relevant individuated portion emerges compositionally from a sentence, this sentence is interpreted as more transitive. The relevant individuated portion may be nominal (a definite O) or verbal (a telic event).

Many authors (BACH, 1981; 1986; JACKENDOFF, 1991; KRIFKA, 1998; PINKER, 2008; MOURA, 2019) have observed that aspectual classes may be treated in the same way as nouns. It has been proposed that the distinction between telic and atelic events is isomorphic to the distinction between count and mass nouns.

Bach (1986) argues that the same conceptual structure is applied both to time and matter. Bounded portions of time (telic events) are isomorphic to bounded portions of matter (individuated nouns) (BACH, 1986, p. 64).

Bach (1981, 1986) proposes two tests (indivisibility and additivity) to set apart individuated and non-individuated portions. Indivisibility means that no p-part<sup>15</sup> of an individuated portion corresponds to this portion. Indivisibility applies both to count nouns and telic events. For instance, no p-part of a cow is a cow (a cow tail does not constitute the whole cow). The same holds for a telic event: no p-part of the event *give birth* is a *give birth* event in its entirety. An atelic event such as *Mary was giving birth* does not imply the individuated event of *give birth*.

As for additivity, it states that the sum of two portions of a non individuated portion results in the same portion. For instance, a portion of indefinite *people* added to another portion of indefinite *people* results in the same indefinite portion of *people*. But when you add a bounded portion of matter (such as a cow) to other bounded portion of matter (another cow), the result is not the same indefinite portion, but two distinct individuals.

Additivity is also a useful tool to differentiate telic and atelic events. A time interval of the atelic event of *being nervous* added to another time interval of *being nervous* results in the same unbounded event of *being nervous*. But if you add up two telic events, such as *give birth*, you will get two distinct events of *give birth*, and not the same one. To sum up, individuation both of nouns and events presents the same conceptual and semantic restrictions.

Our proposal is that individuation both of events and objects is the overarching compositional semantic motivation for transitivity. While the ontological type of individuation may vary, the conceptual structure of individuation remains the same. Transitivity co-varies with individuation. The more individuated an O and/or an event described in a sentence, the more transitive the sentence will be.

This relation between individuation of participants and boundedness of events has already been pointed out in the literature on transitivity. Naess (2007) sums up this relation, using terms from Kemmer (1993):

a fully transitive event has one “Initiator” which instigates the event, and one “Endpoint” which registers the effects of the event. The categories Initiator and Endpoint subsume a number of different participant roles associated

---

<sup>15</sup> A p-part (proper part) of an object cannot be equal to the whole object.

with distinct phases of an event. Initiator-type roles are conceptualized as “starting points” for an event, such as agents, experiencers, or mental sources. Endpoints are participants associated with the termination of an event, including patients, recipients and beneficiaries (...) it is a basic requirement that the Initiator and the Endpoint participants be two physically distinct entities, and that the event involve some kind of transmission of force from the Initiator to the Endpoint participant.

Our point here is that “distinct entities” and “termination of an event” are compositional semantic properties that may be subsumed under the concept of individuated portion.

#### **FINAL REMARKS**

In this paper, we have attempted to restate an aspectually based conception of transitivity. The main theoretical motivation for this account is the fact that telic predicates require objects in terms of which their culminations can be defined (KRATZER, 2004). As telicity implies transitivity, we tried to show that transitivity is, in some sense, the canonical construction for coding telic eventualities. Transitivity does not strictly imply telicity, but it is, in fact, the simplest way to express telicity in grammar. We presented a broad range of data which appears to lend support to this hypothesis and we also attempted to show how other supposedly criterial properties of transitive structures (affectedness, mood, mode) are byproducts of telicity itself.

Besides telicity, the other compositional semantic factor relevant to transitivity is individuation of O. Trying to unify both nominal and verbal factors, we proposed that individuation both of nouns and events is the main compositional factor behind transitivity. We assumed that a transitive prototype is conceptualized as a telic event, with a high individuation of O.

The trouble is that this idealized prototype does not fit languages like Kimwani. As we have seen, in this language, a marked transitive sentence may be atelic and with low individuation of O. The sole requirement is that O be human. For instance, the noun *people* is non individuated, but if it occurs as O, it must be marked in Kimwani.

A question that remains open is this: Why is the inherent property of humanness of O sufficient to qualify a sentence as highly transitive? The reason is not to avoid ambiguity, because in Kimwani DOM does not serve to differentiate agents

from objects, since grammatical functions are realized by means of correspondences to linear-order: canonically, subject precede verbs and verbs precede objects.

The reason must be related to some semantic or pragmatic property of human nouns. At this point, we can only suggest — very tentatively — which property it would be. We will cite two possibilities. The first one is semantic, the second one is pragmatic.

It is possible that animate beings are perceived as more individuated, in opposition to inanimate beings. Grammatical evidence for this comes from the fact that, in some languages, there is no plural marking for inanimate beings. In these languages, plurals are used only for animate beings. As Comrie (1981, p. 182) argues, “entities of lower animacy are more readily perceived as an indeterminate mass”. A possibility of deeper explanation, which we leave open here, is that events with inanimate O are perceived as a kind of “indeterminate mass” and events with human/animate O are perceived as more individuated.

A second possibility is that humans are high in an Empathy Hierarchy (KUNO, 1987). In language, events are perceived through human eyes and events with human Os are more salient than events with inanimate Os (NAESS, 2007, p. 113). The reason for this is not individuation, but the empathy aroused by human beings. Therefore, even an indefinite O like *people* is marked in Kimwani, simply because it is highly empathic.

## REFERENCES

ANDERSON, S. On the Role of Deep Structure in Semantic. **Foundations of Language**, Vol. 7, No. 3 (Aug., 1971), p. 387-396, 1971.

BACH, Emmon (1981). On Time, Tense, and Aspect: An Essay in English Metaphysics, in Peter Cole (ed.), **Radical Pragmatics**. New York: Academic Press, 1981, p. 62–81.

BACH, Emmon. The algebra of events. **Linguistics and Philosophy**, v. 9, p. 5-16, 1986.

BEAVERS, J. On affectedness. **Natural Language & Linguistic Theory**, v. 29, n. 2, p. 335-370, 2011.

BENMAMOUN, E. Arabic morphology: the central role of the imperfective. **Lingua** vol. 108, p. 175-201, 1999.

BLAKE, B. **Case Marking in Australian Languages**. Canberra: Australian Institute of Aboriginal Studies, 1977.

BRESNAN, J. **Lexical-functional syntax**. Oxford: Blackwell, 2001.

CHOMSKY, Noam. **Aspects of a theory of syntax**. Cambridge: MIT Press, 1965.

CHOMSKY, Noam. **Lectures on government and binding**. Dordrecht: Foris, 1981.

COMRIE, B. **Aspect**. Cambridge: Cambridge University Press, 1976.

COMRIE, B. **Language Universals and Linguistic Typology**. Chicago: The University of Chicago Press, 1981.

CROFT, William. **Typology and universals**. Cambridge: Cambridge University Press, 1990.

CULICOVER, P.; JACKENDOFF, R. **Simpler syntax**. Oxford: Oxford University Press, 2005.

DE SWART, P.; DE HOOP, H. Semantic aspects of Differential Object Marking. In: E. Puig-Waldmüller (ed.), **Proceedings of Sinn und Bedeutung 11**. Barcelona: Universitat Pompeu Fabra, p. 598-611, 2007.

DOWTY, D. The effects of aspectual class on the temporal structure of discourse: semantics or pragmatics? **Linguistics and Philosophy**. v. 9, n.1, p. 37-61, 1986.

DOWTY, D. Thematic Proto-Roles and Argument Selection. **Language**, v. 67, n. 3, p. 547-619, 1991.

DOWTY, D. **Word Meaning and Montague Grammar**. Dordrecht: Riedel Publishing Co., 1979.

FILLMORE, C. J. Pragmatically controlled zero anaphora. In: **Annual Meeting of the Berkeley Linguistics Society**, p. 95-107, 1986.

GRIMSHAW, J. **Argument structure**. Cambridge: MIT Press, 1990.

GRUBER, J. Look and see. **Language**, v. 43, n. 4, p. 937-947, 1967.

HASPELMATH, M. Non-canonical marking of core arguments in European languages. In: AIKHENVALD, A. et al. **Non-canonical marking of objects and subjects**. Amsterdam: John Benjamins, 2001. p. 53-84.

HASPELMATH, M. Role-reference associations and the explanation of argument coding splits. [lingbuzz/004047](https://lingbuzz/004047), to be published.

HOPPER, P.; THOMPSON, S. Transitivity in grammar and discourse. **Language**, v. 56, n. 2, p. 251-299, 1980.

INSTITUTO NACIONAL DE ESTATÍSTICA DE MOÇAMBIQUE. 2007. **Censo 2007**. <<http://www.ine.gov.mz/estatisticas/estatisticas-demograficas-e-indicadores-sociais>>.

JACKENDOFF, R. The status of thematic relations in linguistic theory. **Linguistic inquiry**, v. 18, n. 3, p. 369-411, 1987.

JACKENDOFF, R. **Semantic structures**. Cambridge: MIT Press, 1990.

JACKENDOFF, R. Parts and boundaries. **Cognition**, v. 41, p. 9-45, 1991.

JACKENDOFF, R. The proper treatment of measuring out, telicity, and perhaps even quantification in English. **Natural Language & Linguistic Theory**, v. 14, n. 2, p. 305-354, 1996.

JACKENDOFF, R. **Language, consciousness, culture: essays on mental structure**. Cambridge: MIT Press, 2007.

KEMMER, S. **The middle voice** [Typological Studies in Language 23]. Amsterdam: John Benjamins, 1993.

KIPARSKY, P. Partitive case and aspect. In: BUTT; Miriam; GEUDER, Wilhelm (eds.). **The projection of arguments**. Stanford: CSLI, 1998.

KRATZER, A. Telicity and the meaning of the objective case. In: GUERÓN, J.; LECARME, J. **The syntax of time**. Cambridge: MIT Press, 2004.

KRIFKA, Manfred. The origins of telicity. In S. Rothstein (ed.), **Events and grammar**, 197–235. Kluwer Academic Publishers, 1998.

KUNO, Susumu. **Functional syntax: Anaphora, discourse and empathy**. Chicago: University of Chicago Press, 1987.

LEVIN, B. Objecthood: An event structure perspective. **Proceedings of CLS**, v. 35, p. 223-247, 1999.

LEVIN, B.; RAPPAPORT, M. **Argument realization**. Cambridge: Cambridge University Press, 2005.

MOURA, H. A proposal of a unified theory of nominal and verbal factors conditioning the differential object marking. **Fórum Linguístico**. v. 16, n. 4., 2019.

NAESS, A. What markedness marks: the markedness problem with direct objects. **Lingua** 114, p. 1186–1212, 2004.

NAESS, A. **Prototypical transitivity**. Amsterdam: John Benjamins, 2007.

NGUNGA, A. **Introdução à Linguística Bantu**. 2ª Edição, Imprensa Universitária. UEM. Maringá, 2014.

OLSEN, M.; RESNIK, P. Implicit object constructions and the (in)transitivity continuum. In: **Proceedings of the Chicago Linguistic Society** 33, p. 327-336, 1997.

PARSONS, T. **Events in the semantics of English**. Cambridge: MIT Press, 1990.

PINKER, S. **Learnability and cognition**. Cambridge: MIT Press, 1989.

PINKER, S. **The stuff of Thought: language as a window into human nature**. New York: Penguin Books, 2008.

PUSTEJOVSKY, J. **The Generative Lexicon**. Cambridge, Massachusetts: The MIT Press, 1995.

RAPPAPORT, M.; LEVIN, B. What to do with  $\theta$ -roles. In: WILKINS, Wendy (ed.). **Syntax and semantics: thematic relations**, v. 21. San Diego: Academic Press, 1988.

TENNY, C. **Grammaticalizing aspect and affectedness**. Doctoral dissertation, MIT, Cambridge, 1987.

TENNY, C. The aspectual interface hypothesis. In: SAG, I.; SZABOLCSI, A. (eds.). **Lexical matters**. Stanford: CSLI, 1992.

TENNY, C. **Aspectual roles and the syntax-semantics interface**. Dordrecht: Springer, 1994.

TORREGO SALCEDO, Esther. 1999. El complemento directo preposicional. In: BOSQUE, I.; DEMONTE, V. (eds.). **Gramática descriptiva de la lengua española. Las construcciones sintácticas fundamentales. Relaciones temporales, aspectuales y modales**. Madrid: Espasa Calpe, 1999, vol. 2, p. 1779-1805.

TSUNODA, T. Remarks on transitivity. **Journal of linguistics**, v. 21, n. 2, p. 385-396, 1985.

VAN VALIN, R. **Exploring the syntax-semantics interface**. Cambridge: Cambridge University Press, 2005.

VENDLER, Z. **Linguistics in philosophy**. Ithaca, NY: Cornell University Press, 1967.

WITZLACK-MAKAREVICH, Alena; SERŽANT, Ilja. Differential argument marking: Patterns of variation. In: SERŽANT, Ilja; WITZLACK-MAKAREVICH, Alena. **The diachronic typology of differential argument marking**. Berlin: Language Science Press, 2018.

ZUCCHI, S. Incomplete events, intensionality and imperfective aspect. **Natural language semantics**, v. 7, n. 2, p. 179-215, 1999.