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## Abstract

In this paper, I aim to explore the argument realization properties of change-of-state verbs and those of pseudo-transitives. I pursue this by (1) providing an overview of two approaches towards the representation of argument structure and event structure information and (2) applying them to English and Hungarian change-of-state verbs and pseudo-transitives. In the end, although I acknowledge the merits of both models, I would like to emphasize the descriptive power of the second model with regard to my Hungarian data.

## 1. Introduction

This paper is concerned with the distinct behavior of change-of-state (COS) verbs and pseudo-transitive verbs. The members of the former class, such as *break*, *crack*, *explode*, *dry*, *harden*, *melt* and *open*, are considered to exhibit prototypical transitive behavior (Hopper and Thompson 1980, Blume 1998, Testelec 1998, *inter alia*), whereas those of the latter class, such as *eat*, *drink*, *sweep*, *write*, *knit*, *translate*, which are also referred to as ambitransitive or labile (Næss 2009), are known to feature both transitive and intransitive properties. The lexical semantic representation of COS verbs is fairly straightforward by virtue of the fact that they are consistently provided with a representation containing two obligatory elements (i.e. an agent argument projected as a subject and a patient argument projected as a direct object) participating in the event that the verb describes. The explanation researchers provide when accounting for this behavior is twofold: First, it is widely assumed that what makes a verb prototypically transitive is the semantically maximally distinct behavior of its arguments (e.g. Kemmer 1993, Næss 2009). To put it concretely, the role the first argument of, for instance, *break* plays in the event is clearly distinguishable from that of the second argument as is apparent from the clearly agentive characteristics of the first argument and the unambiguously patientive characteristics of the second argument. Second, proponents of the view that event complexity has a role in argument realization posit that with these verbs the obligatory presence of two arguments follows from the fact that they denote complex events<sup>1</sup> (Levin and Rappaport Hovav 2005, van Hout 1996).

Conversely, the lexical representation of pseudo-transitive verbs poses a challenge for lexical-semanticists and syntacticians since these verbs are capable of licensing both explicit and implicit arguments. Along the lines of the above mentioned notion of semantic distinctness, it is often argued that pseudo-transitives, some core examples of which are *eat* and *drink*, exhibit both transitive and intransitive properties as the roles that their arguments play in the denoted event show overlapping properties. Although I acknowledge the predictive power of this notion, I find there is a clear need for a more systematic analysis of these verbs. Therefore, in this paper, I discuss two models which I consider to be endeavors attempting to give a systematic description of the argument realization of verbs across languages. Given the

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\* Thanks to Katalin Tóth, Ildikó Balogh, and Judit Kiss, all native speakers of Hungarian, for their judgements on all my Hungarian data in section 4 of this paper.

<sup>1</sup> See the Argument-Per-Subevent Condition in section 3.1 of this paper.

spectrum of these theories (i.e. the fact that they are aimed at describing all possible verb meanings), I believe that we can rightly expect both models to provide the exposition of the distinct behavior of COS verbs and pseudo-transitives. The first model I elaborate on has been proposed by Levin and Rappaport Hovav in numerous publications of theirs (Levin 2006, Levin and Rappaport Hovav 2001, Rappaport Hovav and Levin 2001, *inter alia*), while the second one has been worked out by Ramchand (Ramchand 2008). Through my detailed analysis, I intend to show that, while both approaches share commonalities in their exploration of grammatically relevant facets of verb meanings, Ramchand's First Phase Syntax model seems to provide a more convincing representation of the verb types that constitute the core of this paper. I corroborate this view by (1) illuminating a problem that Levin and Rappaport Hovav's theory presents and (2) providing Ramchand's model as a possible solution to the previous problem through, amongst others, the Ramchandian representation of Hungarian COS as well as pseudo-transitive verbs.

The structure of this paper is as follows: In section 2, I discuss some argument realization patterns in which COS verbs and pseudo-transitive verbs appear, with the aim of demonstrating their different syntactic behavior. Following from the idea that "major facets of the syntax of a sentence are projected from the lexical properties of the words in it" (Levin and Rappaport Hovav (to appear)), I consider the different argument realization patterns to be a clear indication of distinct lexical semantic properties of the members of the two verb classes. In section 3, I investigate whether Levin and Rappaport Hovav's Dynamic Lexicon View (a term I have taken from Ramchand 2008) can account for this distinct syntactic behavior in a convincing manner. In this section, I give a brief overview of two versions of this approach and raise some questions concerning its applicability to some English data. In section 4, I turn to Ramchand's First Phase Syntax theory, which assumes a weaker lexicon, and provide a concise review of this system with the ultimate aim of showing that it is a promising endeavor. In order to support my view, I test the system mainly on some Hungarian COS verbs, pseudo-transitive verbs and their prefixed versions. In section 5, I draw some conclusions.

## 2. COS verbs versus pseudo-transitive verbs

In recent years, much attention has been devoted to verbs that can occur in multiple argument realization options (cf. all the references by Levin and Rappaport Hovav cited in this paper). This unique behavior of such verbs, which also involve COS verbs and pseudo-transitives, has been credited to aspectual notions, such as measure and incremental theme (Tenny 1994, van Hout 1996, Ramchand 2008) and event complexity (Levin and Rappaport Hovav 2005), amongst other factors. In what follows, I intend to discuss the argument realization patterns of two verb classes that constitute the focus of this paper as I believe such an investigation provides us with clear evidence concerning their distinct behavior. I also make reference to the above listed notions in later sections of this paper.

One of the most widely-investigated alternations which characterize COS verbs is the so-called causative alternation, as illustrated in (1) and (2) below.

- (1)    a. Mary broke the stick.  
          b. The stick broke.
  
- (2)    a. John exploded the bomb.  
          b. The bomb exploded.

The (a) examples demonstrate that COS verbs can occur in a syntactic environment in which their agent argument is projected as a subject, whereas their patient argument, which undergoes change of state, surfaces as a direct object. The sentences in 1 (b) and 2 (b), on the other hand, exemplify the intransitive (more specifically, unaccusative) variants of these verbs, in the case of which it is only a patient argument that appears on the syntactic surface in subject position. Second, COS verbs do not occur with non-subcategorized (non-thematic) objects, as is seen in the resultative constructions in (3) and (4) below.

- (3) \*I broke myself out of a set of dishes. (taken from Rappaport Hovav and Levin 2005)
- (4) \*John exploded himself out of the house.

It is often noted that the inherent core transitive properties of *break* and *explode* are responsible for this phenomenon. Specifically, as instances of prototypical transitive verbs, they must occur with agents and patient that are semantically maximally distinct from each other (see Kemmer 1993). This condition is not met in (3) and (4) as in both cases the agent is affected by virtue of the fact that the target of the event is the agent itself.

Third, change-of-state verbs cannot license implicit objects. Therefore, the omission of *the stick* and *the door* in (5) and (6) result in ungrammatical sentences.

- (5) Mary broke \*(the stick).
- (6) John opened \*(the door).

Crucially, the above condition cannot be relaxed even if the referent of the object is recoverable from the context. Consider example (7) below:

- (7) She pounded the window, trying to break \*(it), even knowing she couldn't wriggle out of the narrow opening. (example adapted from the COCA<sup>2</sup>)

Finally, their patient argument must be projected as a direct object in the syntax. For examples, see (8) and (9).

- (8) a. Kerry melted the chocolate.  
b. \*Kerry melted at the chocolate.
- (9) a. Sally opened the door.  
b. \*Sally opened at the door.

In summary, looking at the above alternations, we can notice the relatively rigid argument realization pattern of *break*-type verbs, which makes them contrast with verbs such as *eat*, *drink*, *knit*, *write* and *translate*, the brief discussion of which follows next.

The term 'pseudo-transitive' characterizes different types of verbs, such as verbs of creation (e.g. *cook*, *write*, *knit*), verbs of ingestion or consumption (e.g. *eat*, *drink*), and verbs of surface contact (e.g. *sweep*). They occur in a variety of grammatical environments, unlike change-of-state verbs. For instance, they appear in the transitivity alternation, in which the alternating verb may appear with an explicit object or with an indefinite null complement (INC)<sup>3</sup> (Fillmore 1986).

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<sup>2</sup> COCA is short for The Corpus of Contemporary American English and is available on [www.american corpus.org](http://www.american corpus.org).

<sup>3</sup> Indefinite null complements are also called indefinite null instantiations (Ruppenhofer 2005). For more examples of INC, see Fillmore (1986) and Mittwoch (2005).

- (10) a. Mary is eating.  
b. Mary is eating an apple.

- (11) A: What are you doing?

B1: I am studying.

B2: I am studying maths.

Next, they are also compatible with the direct object-oblique alternation, which is also referred to as the conative alternation in Ramchand (2008).

- (12) a. I ate an apple.  
b. I ate at an apple for hours.

- (13) a. I wrote my dissertation in 23 months.  
b. I really really need to write on my dissertation. (example adapted from Beavers 2006)

- (14) a. I read the book.  
b. I read from the book.

Furthermore, unlike change of state verbs, pseudo-transitives occur with non-subcategorized objects in resultative constructions.

- (15) a. I ate myself sick.  
b. He read his eyes sore.

This property and the one discussed above nicely fit into the notion of semantic distinctiveness as the verbs in (12) through (15) denote events in which the agent does not only carry out the action as the initiator of the event but it is also directly affected by it.

Finally, an interesting feature of verbs of creation, verbs of ingestion and verbs of surface contact is that they occur with a special type of direct object, called incremental theme (for a detailed discussion of incremental themes, see Dowty 1991, Levin and Rappaport Hovav 2005, Wechsler 2005, Ramchand 2008). In the case of these verbs, parts of the entity denoted by the theme argument can be mapped onto parts of the event denoted by the verb (Krifka 1992). For instance, examine the event expressed in (16).

- (16) John ate an apple.

The incremental theme in this example is the *apple*, whose gradual disappearance is in line with the temporal progression of the eating event. Specifically, if, for example, John has consumed half of the apple, it is an indication of the fact that John has been exactly halfway through the event. As this property appears to be systematic (empirically attested) with these verbs<sup>4</sup>, we can rightly expect our system to accommodate it at some point (i.e. as a lexical feature or in the syntax).

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<sup>4</sup> These verbs are identical with the measuring out verbs of Tenny (1994) and Vendler's (1967) accomplishments.

Having demonstrated the semantic and syntactic differences of COS verbs and pseudo-transitives, let us see what kind of motivation is found behind this distinctiveness, first by Levin and Rappaport Hovav, and then by Ramchand.

### 3. Levin and Rappaport Hovav's approach to verb meanings

#### 3.1 The explication of the system

When it comes to matters of argument realization, researchers are split into several camps regarding the role of the lexicon and that of aspectual notions in this process. As I will discuss in section 4 in greater detail, some bolster the so-called Free Argument Projection Hypothesis which says that "arguments of verbs are projected freely onto syntax, with verbs being unspecified for those components of meaning that determine argument expression"<sup>5</sup> (Rappaport Hovav and Levin 2005: 275). Others attribute argument realization patterns purely to aspectual properties such as incremental theme and measure. Unlike the former two 'camps', Levin and Rappaport Hovav strongly reject the Free Argument Projection Hypothesis and also question the sole role of aspect in argument expression. Their theory is fundamentally lexically-based as is seen below in the exposition of the system.

They assume that that every verb is assigned with a structured lexical-semantic representation in the form of predicate decompositions. On this view, lexical representations contain two types of components, which are associated with every verbal representation in every language. One such component is the so-called event-structure template, including primitive predicates such as BE, ACT, CAUSE, BECOME and slots for arguments. A verb may be assigned a simpler template, containing a single primitive predicate, or a more complex template, containing multiple primitive predicates. The event-structure template enables verbs to form natural classes of the same type across languages. For instance, the lexical specification of verbs denoting activities, such as *run* and *swim*, are assigned an event-structure template that contains a single primitive, which is ACT, whereas change-of-state verbs, such as *break* and *open*, are assigned three primitive predicates, namely ACT, CAUSE and BECOME. Another component, which is always present in the lexical entry of a verb, is referred to as a constant, or in more recent work by Levin and Rappaport Hovav, a root (after Pesetsky 1995). As the core of lexical representations, this element is responsible for distinguishing verbs belonging to the same class from one another. In order to incorporate the roots into the event-structure templates, they also introduce a small number of canonical realization rules in their theory. In what follows, I cite the five rules they assume to actively participate in the creation of verb meaning:

(17) means/manner → [ x ACT<sub><MANNER></sub> ]

e.g. *jog*, *run*

(18) thing/stuff → [ x CAUSE [ BECOME [ y WITH <THING/STUFF> ] ] ]

e.g. *butter*, *oil*

(19) place → [ x CAUSE [ BECOME [ y <PLACE> ] ] ]

e.g. *bag*, *box*

(20) internally caused state → [ x <STATE> ]

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<sup>5</sup> For analyses supporting the Free Argument Projection Hypothesis, see e.g. Hoekstra and Mulder (1990).

e.g. bloom, blossom

(21) externally caused result state  $\rightarrow$  [ [ x ACT] CAUSE [ BECOME [ y <RES-STATE> ] ] ]  
e.g. break, explode

(Levin 2006)

Another important facet of this theory is that it proposes that every lexical structured representation – or event structure - has an internal structure that mirrors the argument structure of its verb. To put it in concrete terms, the complexity of the event determines the number of arguments with which a verb must appear on the syntactic surface. This idea is formulated in their argument-per-subevent condition, cited below:

THE ARGUMENT-PER-SUBEVENT CONDITION: There must be at least one argument XP in the syntax per subevent in the event structure.

(Rappaport Hovav and Levin 2001: 779)

The popularity of this condition is apparent from the fact that it has been accommodated in the work of numerous researchers, e.g. Goldberg (2005)<sup>6</sup>, Grimshaw and Vikner (1993), van Hout (1996), *inter alia*. An important consequence of this is that verbs denoting simple events must project a single argument, whereas verbs expressing complex eventualities always occur with at least two obligatory elements in the syntax. The former class is represented by activity type verbs. For instance, *run* lexicalizes a single event in its lexical representation, which in turn yields the obligatory appearance of a single argument (i.e. an agent) in subject position. A prototypical verb exemplifying the latter class is the causative verb, *break*, which is associated with two subevents, one being the causing event and the other one, the event caused by the causing event. The causing event is a simple activity, while in the second subevent an externally caused result state is brought about. In order to illustrate how this system works, I provide the predicate decomposition representation of *run* and *break* in (22) and (23) below:

(22) [ x ACT <JOG> ]

(23) [[ x ACT ] CAUSE [ BECOME [ y <BROKEN> ] ]]

The verb *jog* is associated with an activity event-structure template and a manner constant (or 'root'), *JOG*, which is incorporated into the template through the first canonical realization rule, which I listed above in (17). As this verb describes a simple event, it must appear with a single XP argument as in (24).

(24) I jog every morning.

Conversely, *break* is assigned a causative event-structure template and the RES-STATE constant *BROKEN*, which finds its way into the template through the canonical realization rule in (21). As this verb denotes a complex event consisting of two subevents, it must occur with two XP arguments in the syntax as in (25).

(25) John broke the vase.

After we have laid out the generalities of Levin's and Rappaport Hovav's system of lexical representations, we are ready to narrow down our discussion to the analysis of pseudo-

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<sup>6</sup> See Goldberg's Argument Realization Principle in Goldberg (2005).



transitives in this model. This is what follows in section 3.2 below.

### 3.2 Pseudo-transitive verbs on a subeventual approach

Levin and Rappaport Hovav describe *sweep*, an example of this class, as a manner verb whose manner constant <SWEEP> is inserted into an activity event-structure template (see (17) above). However, *sweep* is a special activity in that it does not only take a single argument (which is introduced by the template as such), but it is also associated with an additional, optional participant, the surface that is being swept. When accounting for the optionality of such arguments, the authors claim that, in fact, there are important differences between the structural arguments introduced by an event-structure template, and this latter type of arguments that depend on the conceptual content of a constant. The structural arguments are required, so they may not be omitted under normal circumstances. However, the non-structural arguments belonging to constants may be left implicit if they are recoverable, either through lexical stereotypes or based on the context. For example, there is a type of things that are normally swept (namely, floors), and this stereotype allows the interpretation that some floor is being swept even if the verb is used intransitively and the context does not reveal what exactly is being swept. Secondly, they claim that structural objects are relevant to the event structure of the predicate, whereas non-structural ones are not.

Furthermore, they add that this non-structural argument can be made obligatory and structurally relevant by means of adding a secondary predicate to a verb like *sweep*. The secondary predicate serves to transform the simpler template of activity verbs into a complex accomplishment template. For example, it is possible for *sweep* to occur in the complex resultative construction *sweep the floor clean*, where *clean* specifies a result state introducing a second subevent, and thereby adds a second structural argument, which is identified with the non-structural argument of *sweep*. Levin and Rappaport Hovav call this lexical operation of creating a more complex event description based on a simpler one template augmentation, which is illustrated below.

(26) [ x ACT <SWEEP> y ]

(27) [ x ACT <SWEEP> y ] CAUSE [ BECOME [ y <CLEAN>]]

Apparently, the sole obligatory argument of the event denoted by the verb in (26) and that of the first subevent in (27) is x. The second argument in (26) is a non-structural component, therefore it may be omitted, whereas in (27) it is the sole obligatory argument of the second subevent.

If we try to apply this model to other members of pseudo-transitives, such as *eat*, *read* and *write*, we notice some inconsistencies. For instance, it is clearly implicated by Levin and Rappaport Hovav that these verbs denote fundamentally atelic activities even if they are used transitively. However, if we examine other verbs, such as *wave*, and compare them to verbs of ingestion, creation and surface contact, we find that this assumption is not attested empirically. The verb *wave* is optionally transitive and its lexical-semantic representation contains an activity template, which is, as indicated above, compatible with atelic interpretation, in line with Levin and Rappaport Hovav's predictions. However, if we look at *eat*, *read*, and *write*, we find (as discussed in section 2) that these verbs occur with a special object type, called incremental theme, which yields important argument realization consequences. For purposes of illustration, see the examples in (28) and (29) below:

(28) John waved a flag for 2 minutes / \*in 2 minutes.

(29) John ate an apple \*for 2 minutes / in 2 minutes.

The difference between the two verbs is that *wave* can only receive atelic interpretation regardless of the quantization properties of its object, whereas *eat* is telic when occurring with a quantized object. This is not what Levin and Rappaport Hovav's model would predict as they assign identical lexical-semantic representations to the two verbs, which would assume identical argument realization patterns.

Based on similar evidence, Levin and Rappaport Hovav revised their theory in their 2004 paper in the following way. On the one hand, they still bolster the view that events denoted by *eat* and *sweep* consist of two subevents, namely, the action carried out by the eater (or sweeper) on the one hand, and the gradual disappearance of the apple, or the gradual "becoming swept" of the room. On the other hand, however, they note a significant difference between this event structure and that of truly complex causative verbs. They posit that the two subevents of an eating or a sweeping event occur at the same time and cannot be clearly separated since, as they put it, they are temporally dependent on each other. Therefore, they refrain from calling these true complex events, claiming that this duality can be grasped only conceptually, which explains why these events are simple from a linguistic point of view. In particular, the fact that the object of these verbs can be dropped, and that non-subcategorized objects can combine with them (see section 2), is regarded as evidence for the "simple event" character of *eat*-type verbs.

Although the revised version of this theory seems to be more appealing, there still appears to be a need for a more principled treatment of verbal behavior, one that can handle such subtleties of verbal meaning as illustrated in (28) and (29). In the section below, we will see how this endeavor is achieved by Ramchand.

#### 4. Ramchand's theory

##### 4.1 Ramchand's view of the lexicon and the syntax-semantics interface

In her 2008 book on First Phase Syntax, Ramchand provides a well-articulated description of the opposing Lexicon views found in the literature. She distinguishes between two camps, one of which represents the Lexical-Thematic Approach, while the other one believes in a generative view of the lexicon. Given the length constraints of this paper, I will only delineate some major assumptions of both approaches and attempt to show the lexicon view Ramchand is pursuing.

First, she discusses the so-called Lexical-Thematic Approach, advocated by Larson (1988), Dowty (1991), as well as Levin and Rappaport Hovav. As we have already seen the most important tenets of Levin and Rappaport Hovav's system, I will only mention two characteristics of such a lexicon. On the one hand, these theories assume that the Lexicon is an independent module of grammar, one that is well-equipped with argument realization information and, at least in some versions of this approach, lexical-internal processes (see Levin and Rappaport Hovav's template augmentation discussed in section 3.2). In other words, according to lexicalist models, the bulk of information relevant in argument expression originates from the lexicon. A major ramification of this decision is that the advocates of this line of research have to account for grammatically relevant processes in two modules of grammar (i.e. the lexicon and syntax) and they have to propose a well-established linking theory between the two modules.

However, as Ramchand argues, if we believe in the widely-accepted notion that one of the driving forces behind the architecture of grammar is parsimony, we have a good reason to cast doubts on the above ideas. This is one of the problems that has yielded the well-known debate



between the proponents of the Lexicalist-Thematic Approach and that of a Generative Lexicon. The latter camp (see Borer 2005) is clearly in favor of a much more simplified lexicon, one that is not a genuine module of grammar. This lexicon does not contain argument structure information or any syntactically relevant information. The primary argument that Ramchand proposes for such a weak lexicon is that language is abundant in verbs occurring in a number of different syntactic frames, as illustrated in (30 (a-e)) below:

- (30) a. The fire stations sirened through the raid.  
 b. The factory sirened midday and everyone stopped for lunch.  
 c. The police sirened the Porsche to a stop.  
 d. The police car sirened up to the accident.  
 e. The police car sirened the daylights out of me.

(from Borer 2005)

In (a) *siren* is an unergative verb, in (b) it is transitive, in (c) it expresses caused-motion, in (d) it is an activity verb with a goal argument that makes the event bounded, and in (e) it appears with a nonsubcategorized object.

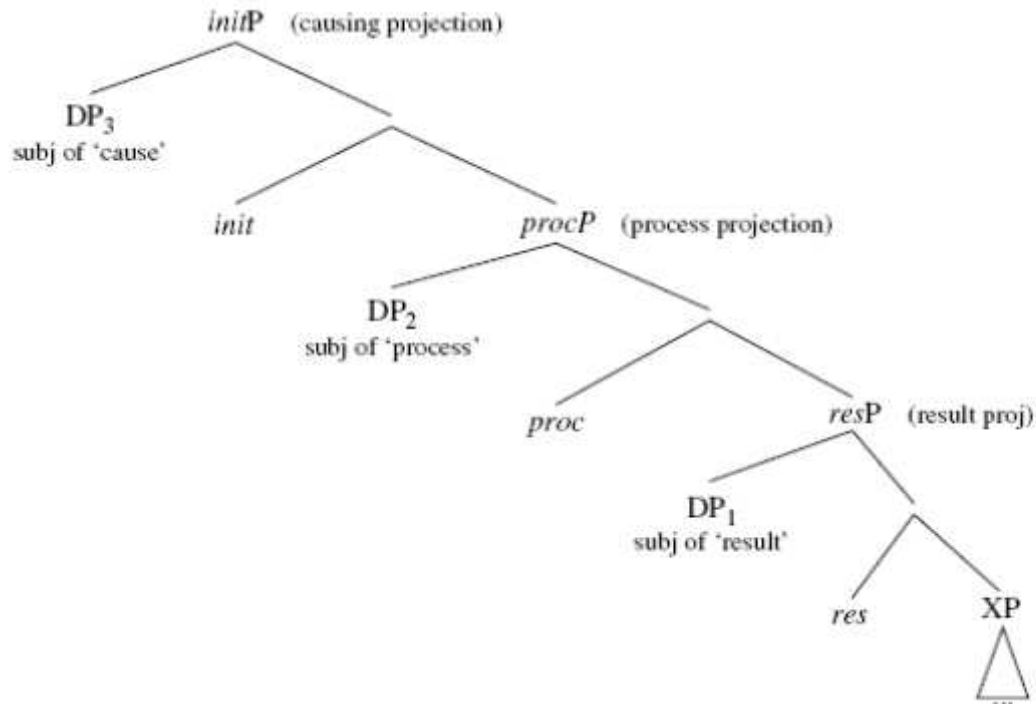
Nevertheless, this view also poses a challenge when accounting for the ungrammaticality of examples, such as (31) and (32):

- (31) \*Mary cried John.  
 (32) \*Kate broke herself out of the room.

Seeing the complexity of this issue and that both camps have to stipulate part of their system, Ramchand's objective is to find the golden mean between the two 'extreme' Lexicon views by assuming that the Lexicon is void of argument structure information but at the same time, it contains syntactically relevant selectional information, which feeds insertion. In section 4.2, I will provide a brief overview of this notion through the discussion of her First Phase Syntax.

## 4.2 A First Phase Syntax

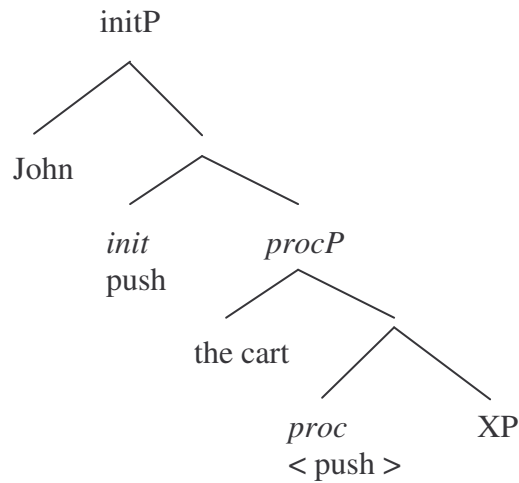
Ramchand's theory is based on the commonly assumed notion that the event structure representation and the argument structure associated with a verb are mirror images of each other. This is captured in analyses that assume that both argument expression and event structure follow from functional heads in the syntax, which are characterized by relevant semantic and syntactic information. By semantic information, Ramchand means to accommodate in her system concepts such as causation, telicity and the attainment of a result state, amongst other things. As for the latter, she assumes that the functional heads may license specifiers that might appear on the surface as external or internal arguments of a given verb. On this view, then, as discussed in section 4.1, the lexicon does not contain information that determines the argument structure of a predicate. To the contrary, it includes lexical items that contribute conceptual content to structural aspects of meaning, and that are tagged with category labels only (Ramchand 2008: 21). The information that determines argument expression and event structure can be found at the level of first phase syntax and takes the following form.



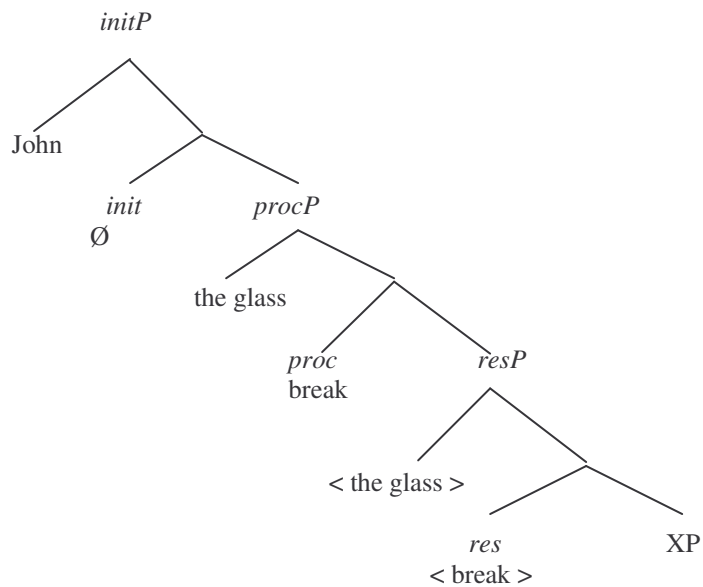
(Ramchand 2008: 46)

As is apparent from the above representation, the VP may contain a maximum of three functional projections, which are *initP*, *procP* and *resP*. The heads of these projections are *init*, *proc* and *res*, respectively, and they all project a specifier and a complement. The specifier position always gives place to a DP argument, which might surface in the syntax. In the topmost projection, this position is retained for INITIATORS, that is, entities whose properties/behavior are responsible for the eventuality coming into existence. The specifier of the second projection, which is obligatory, is called UNDERGOER, that is, an argument that undergoes a change of state or location of material property. Finally, the specifier of the third projection is a RESULTEE argument, one that attains a final state as specified by the verbal predicate itself. The complements may have two functions. They are either functional projections of subevents or XPs that provide additional information about the subevents. For purposes of illustration, let us consider the representations of *push* in (33) and *break* in (34), two verbs showing distinct argument realization patterns.

(33) John pushed the cart.



(34) John broke the glass.



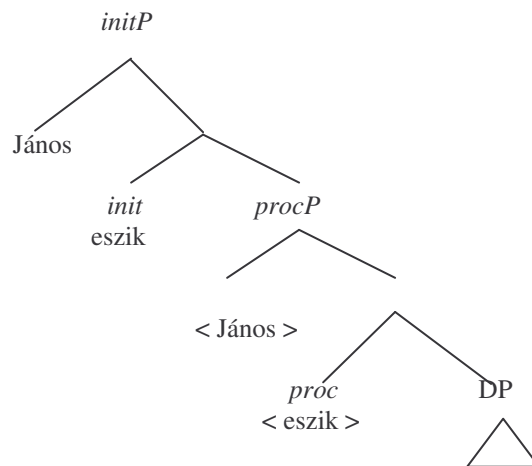
The first phase syntactic representation of *push* captures the fact that it is an *init-proc* type verb with two arguments licensed by the *init* and the *proc* heads. The former is an INITIATOR instantiated by John, and the latter is an UNDERGOER instantiated by the cart. In (34), we can observe an *init-proc-res* type verb, *break*, whose obligatorily transitive behavior is reflected in the representation as it contains a *res* projection whose specifier, a RESULTEE argument, must appear on the syntactic surface.

In the next section, I will examine the Ramchandian representation of *eat*-type verbs and show how she handles the pseudo-transitivity of these verbs.

### 4.3 Pseudo-transitives under this view

Ramchand's model seems to be a promising venture when it comes to the analysis of pseudo-transitives as it nicely accommodates several argument structure properties of these verbs. For instance, this system can account for the property that these verbs are not obligatorily transitive and when they occur with an object, they are not obligatorily telic, unlike COS verbs. Ramchand achieves this by assuming that verbs such as *eat* and *drink* are associated with an *init-proc* representation. In other words, the base-generated position of, for instance, *eat* is the *proc* head and this verb is not characterized by a *res* projection, which would yield the licensing of an obligatory object. Another interesting property of these verbs is that they have path objects, which provide the part-whole structure that gives rise to quantization properties on the part of the event (see section 2). In order to account for this behavior, Ramchand posits that *proc* DP complements are paths that measure out the event. For illustration, consider Hungarian *eszik* ('eat') in (35) below.

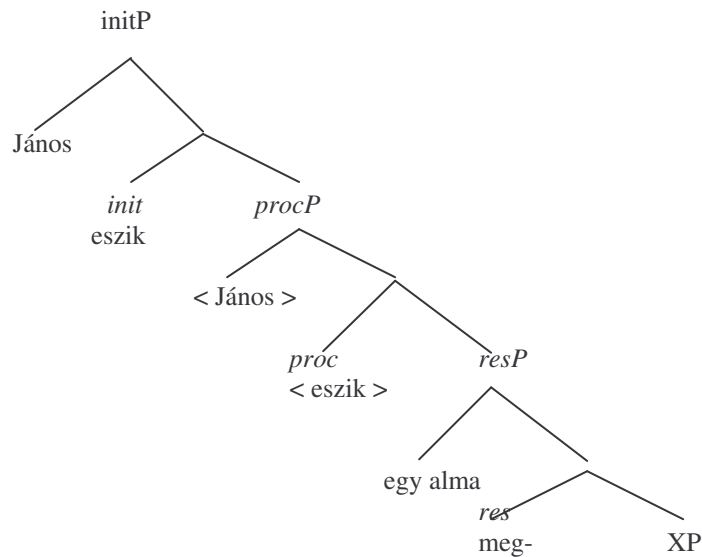
(35)



Interestingly, in Hungarian, the argument structure of these verbs can be augmented if we attach certain prefixes, such as *meg* to them. What we get as a result of this augmentation process is a derived structure, which corresponds to a complex event consisting of the eating event and a final state that the patient argument must attain. Specifically, *megeszik* ('pref-eat') entails that the patient argument must disappear. Researchers investigating Hungarian prefixes (see É. Kiss 2004) assume that some prefixes, such as *meg*<sup>7</sup>, a telicizing verbal prefix, are responsible for the radically different argument realization pattern of prefixed verbs (i.e. they are obligatorily transitive), which is in perfect harmony with Ramchand's theory as she also believes that particles may have a *res* feature as part of their lexical specification, as a result of which they can facilitate the creation of complex structures. Therefore, I believe it is possible to incorporate the Hungarian prefix *meg* in Ramchand's analysis by assuming that *meg* identifies the *res* projection, the specifier of which is the patient argument that attains a final state (i.e. it disappears). The objects of these verbs are no longer paths, which is compatible with the structure in (36) as RESULTEEs serve only to further specify the result state as discussed in section 4.1.

<sup>7</sup> For more on the verbal prefix *meg* and more Hungarian examples with the pseudo-transitive verbs *eszik* and *ír*, among others, see, for instance, Maleczki (2001), É. Kiss (2006), Csirmaz (2006), Pethő and Kardos (2008), and Piñón (2008).

- (36) János megevett egy almát.  
 John pref-eat-past-3sing an apple-ACC  
 (John ate an apple. - telic)



#### 4.4 A possible refinement of the theory: the wave-eat problem revisited

As discussed in section 4.3, *eat*-type verbs are *init-proc-path* verbs in Ramchand's model, which is compatible with the fact that they may be used intransitively and they are either atelic or telic. Apparently, telicity is not in a direct relationship with the theme argument of these verbs. Interestingly, however, if we look at Hungarian data we find that with prefixes, these verbs become obligatorily transitive and telic as is apparent in (37) and (38), in which the prefixed versions of *eszik* ('eat') and *lendít* ('wave') are used with the obligatory objects *almát* ('apple-ACC') and *zászlót* ('flag-ACC') and they receive a telic interpretation.

- (37) Mária megevett egy almát egy perc alatt.  
 Mary pref-eat-past-3sing an apple-ACC a minute in  
 'Mary ate an apple in a minute'
- (38) Mária meglendített egy zászlót egy másodperc alatt.  
 Mary pref-wave-past-3sing a flag-ACC a second in  
 'Mary waved a flag in a second'

Therefore, the unified behavior of the prefixed versions of *eszik* and *lendít* can rightly lead us to the assumption that *meg* supplies the first phase syntactic representation of *eat*-type verbs with a *res* projection.

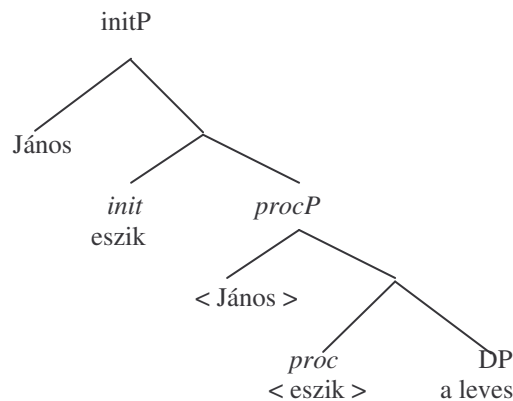
In other words, the *res* projection seems to have two instantiations in language. On the one hand, verbs associated with a complex argument and event structure are automatically characterized by a *resP*, as illustrated in (34). Strikingly, the example in (34) and other COS telic verbs occur as prefixed verbs in Hungarian as in (39a).

- (39) a. Eltörtem egy poharat.  
 Pref-break-past-1sing a glass-ACC  
 'I broke a glass'

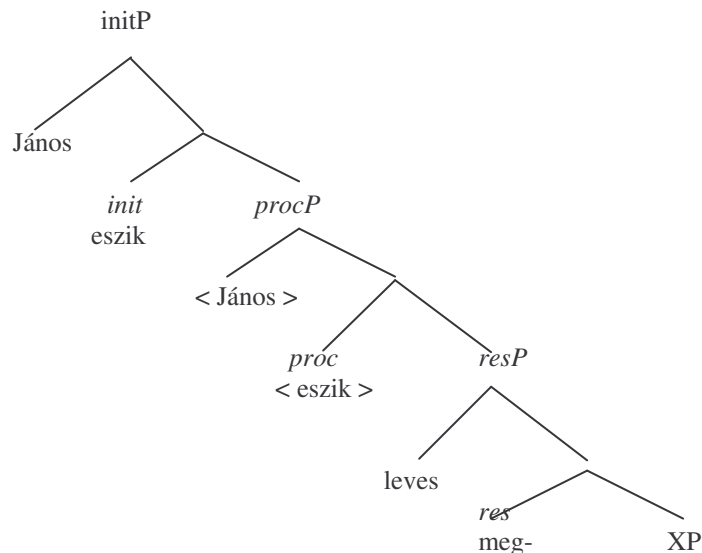
- b. ??Törtem                    egy poharat.  
       Break-past-1sing     a     glass-ACC  
       'I broke a glass'

On the other hand, I believe it is right to assume that *eat*-type verbs are fundamentally *init-proc* and when they express complex eventualities their *res* feature originates from an external component, for instance, a prefix. This can be observed in (40) (a) and (40) (b).

- (40) a. János (két percig) ette a levest.  
       'John ate the soup (for two minutes)'



- b. János (két perc alatt) megette a levest.  
       'John ate the soup (in two minutes)'



Finally, we need to provide an explanation for the distinct behavior of *eat* and *wave* in their basic forms. Given the heterogeneous nature of the "class" of pseudo-transitive verbs, it is possible to hypothesize that pseudo-transitives that consistently occur in atelic descriptions must be combined with an external component to express telicity (see (42)), while pseudo-transitives such as *eat* and *drink*, which are *init-proc-path* verbs, denote telic events if (1) they occur with a quantized object (see (43)) or (2) if their first phase syntactic representation is augmented (see (44)).



- (41) János        lengetett                    egy    zászlót  
 John wave-past-3sing    a        flag-ACC  
 ('John waved a flag' – atelic)
- (42) János        meglendített                    egy    zászlót.  
 John        pref-wave-past-3sing    a        flag-ACC  
 ('John waved a flag' – telic)
- (43) Mária        evett                                    egy    almát.  
 Mary        eat-past-3sing                    an        apple-ACC  
 ('Mary ate an apple' – telic)
- (44) Mária        megevett                                    egy    almát.  
 Mary        pref-eat-past-3sing                    an        apple-ACC  
 ('Mary ate an apple' – telic)

## 5. Conclusion

In this paper, my objective was to explore the argument realization properties of two distinct verbs classes, namely, change-of-state verbs and pseudo-transitives. More specifically, my goal was twofold: On the one hand, I intended to provide a brief exposition of two theories of argument expression, the first one assuming a stronger lexicon and the second one positing a weaker lexicon, and their treatment of the two verb classes. On the other hand, I aimed to show the merits of a relatively new approach proposed by Ramchand by applying the system to my Hungarian data. As my paper was concerned with pseudo-transitives and COS verbs when discussing Ramchand's model and its applicability to Hungarian verbs, I am well aware that the further verification of the system is necessary so that we can exclude any stipulatory mechanism the current model might involve.

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Corpus used: Corpus of Contemporary American English (COCA), <http://www.americanacorporus.org>