

L-Syntax and the Variable Behavior of Manner-of-Motion Verbs*

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Manner-of-motion verbs show both unergative and unaccusative behavior, namely the variable behavior. The variable behavior of these verbs is a problem for Perlmutter's (1978) Unaccusative Hypothesis, which claims that the unergativity or unaccusativity of a verb is based on the meaning of the verb. The Unaccusative Hypothesis loses its predictive power if a certain verb can be both unergative and unaccusative. Mateu (2005) argues that the unaccusativity of manner-of-motion verbs, which are basically unergative, is derived by their conflation into a phonologically null verb heading the canonical unaccusative structure, which is associated to the directed motion event. Despite its apparent simpler manner of explanation, this paper argues that Mateu's (2005) l-syntactic approach to the variable behavior of manner-of-motion verbs is problematic in that it induces the overgeneration problem by exploiting the overly powerful operation of generalized transformation. Although his analysis may give a correct syntactic description of the problem of the variable behavior of manner-of-motion verbs, it cannot gain the status of syntactic explanation without an additional constrained grammatical device to distinguish grammatical structures from ungrammatical configurations, such as Hale and Keyser's (2005) revision of conflation in terms of selection.

Key Words: manner-of-motion verbs, l-syntactic approach, conflation, generalized transformation

I . INTRODUCTION

Perlmutter's (1978) Unaccusative Hypothesis claims that intransitive verbs are divided into two subclasses, namely unaccusative verbs and unergative verbs, each associated with a particular underlying syntactic structure. This hypothesis is based on a number of linguistic diagnostics that differentiate between the two subclasses of verbs. On the basis of these diagnostics, it has been claimed in the literature (Borer, 1994; Folli, 2001; Hoekstra & Mulder, 1990; Levin & Rappaport Hovav, 1995; Mateu, 2005; among others) that manner-of-motion verbs show both unergative and unaccusative behavior, namely the variable behavior (Arad 1998; Levin & Rappaport Hovav, 1995).¹ The

* I would like to thank three anonymous reviewers for their helpful comments and suggestions. Of course, all

variable behavior of these verbs is a problem for the Unaccusative Hypothesis, which claims that the unergativity or unaccusativity of a verb is based on the meaning of the verb. The Unaccusative Hypothesis loses its predictive power if a certain verb can be both unergative and unaccusative.

A notable kind of solution to this problem is the claim that manner-of-motion verbs are unergative on their basic meaning while they are unaccusative on their derived meaning of directed motion. For example, Levin and Rappaport Hovav (1995) propose such an analysis and formulate a lexical argument-structure changing rule which derives unaccusatives from unergative manner-of-motion verbs. Mateu (2005) also assumes that these verbs' unaccusativity is derived from their basic unergativity. But, unlike Levin and Rappaport Hovav's lexical-semantic solution, his analysis is based on the l(exical)-syntactic approach along the lines of Hale and Keyser (1993, 1997, 1998, 2002). Specifically, Mateu (2005) argues that the unaccusativity of manner-of-motion verbs, which are basically unergative, is derived by their conflation into a phonologically null verb heading the canonical unaccusative structure, which is associated to the directed motion event. Despite its apparent simpler manner of explanation, however, this paper argues that Mateu's (2005) l-syntactic approach to the variable behavior of manner-of-motion verbs is problematic in that it induces the overgeneration problem by exploiting the overly powerful operation of generalized transformation.

The organization of this paper is as follows. In section 2, some preliminary discussions on the variable behavior of manner-of-motion verbs will be presented. Section 3 will introduce Mateu's (2005) l-syntactic approach to the variable behavior of manner-of-motion verbs in detail. In section 4, it will be argued that generalized transformation's excessive descriptive power leads Mateu's (2005) analysis to the problem of overgeneration. In the last section, concluding remarks are presented.

II. PRELIMINARIES

The Unaccusative Hypothesis, which was originally proposed by Perlmutter (1978) within the context of Relational Grammar, distinguishes between the two classes of intransitive verbs. One subclass of intransitive verbs, known as unergative verbs, entails willed or volitional acts (e.g., *smile*, *shout*, *laugh*, etc.), and the other subclass, known as unaccusative verbs, denotes unwilled or non-volitional acts (e.g., *burn*, *melt*, *fall*, etc.).²

remaining errors are mine.

¹ According to Zubizarreta and Oh (2007, p. 2), the variable behaviour of manner-of-motion verbs is systematic in English and Dutch, lexically restricted in Italian, and quasi-nonexistent in French and Spanish.

² Unaccusative verbs consist of two subtypes, alternating unaccusative verbs and non-alternating unaccusative verbs.

Both unergative and unaccusative verbs only take one argument, which is realized as surface subject. However, the surface subjects of both verb types are different in the respect of thematic roles. The sole argument of unergatives is an agent whereas the sole argument of unaccusatives is a theme.

- (1) a. Anthony smiled. (Unergative)
 <Agent>
 b. The snow melted. (Unaccusative)
 <Theme>

It is generally assumed that the sole argument of unaccusative verbs is base-generated in the direct object position (i.e., as an internal argument) along the lines of Baker's (1988) Uniformity Theta Assignment Hypothesis.³ According to Burzio's Generalization (Burzio, 1986), unaccusative verbs behave like passives in their inability to assign Accusative Case to the internal argument in direct object position, which forces movement of the theme argument to the surface subject position so that it may be assigned Nominative Case. Then the underlying syntactic configurations of unergative verbs and unaccusative verbs are different, as depicted in (2).

- (2) a. Unergative: DP [_{VP} V]
 <Agent>
 b. Unaccusative: [_{VP} V DP]
 <Theme>

The surface representations of a sentence involving an unaccusative verb, such as *The snow melted*, are the result of DP-movement from the underlying object position to the surface subject position, as illustrated in (3).

- (3) [_{TP} The snow_i [_{VP} melted t_i]]

The class of manner-of-motion verbs (e.g., *slide*, *dance*, *run*, etc.) poses an

Alternating unaccusative verbs (e.g., *break*, *freeze*, *melt*, etc.) have a transitive/causative counterpart like *John broke the window*, but non-alternating unaccusative verbs (e.g., *appear*, *arrive*, *fall*, etc.) do not.

³ The Uniformity Theta Assignment Hypothesis states that identical thematic relations between items should be represented by identical structural relationships between those items at the underlying syntactic argument structure. Since crosslinguistically theme arguments map onto the direct object position, it would be natural to assume that the sole argument of unaccusatives is underlying object.

interesting problem with respect to the Unaccusative Hypothesis. This class of verbs exhibits properties of both unergative and unaccusative verbs. They are unergative with respect to a number of diagnostics when used in isolation. However, when used with a directional phrase, these verbs behave like unaccusatives. The first diagnostic for the dual character of manner-of-motion verbs is the resultative construction. Let us consider the following examples.

- (4) *Unergative Resultatives*
 a. They yelled themselves hoarse.
 b. We laughed the speaker off the stage.
- (5) *Unaccusative Resultatives*
 a. The shirt bleached white in the sun.
 b. The river froze solid.

As is well known, when a resultative construction is based on an unergative, as in (4), the resultative secondary predicate only can be predicated of the so-called fake reflexive, as in (4a), or the non-subcategorized fake object, as in (4b). On the other hand, when the main verb is an unaccusative, as in (5), the resultative secondary predicate is predicated of the subject, which is originally generated in the underlying object position, in line with the Direct Object Restriction (DOR).⁴ Manner-of-motion verbs host unergative resultative constructions when they are used without a directional phrase, as illustrated in (6). On the other hand, when used with a directional phrase, these verbs behave like unaccusatives, as shown in (7).

- (6) a. He danced his feet sore.
 b. Don't expect to swim/jog yourself sober!
 (Levin & Rappaport Hovav, 1995, p. 187)
- (7)⁵ a. She danced/swam free of her captors.
 b. They slowly swam apart.
 c. If fire is an immediate danger, you must jump clear of the vehicle.

⁴ As first noted by Simpson (1983), a resultative secondary predicate can only be predicated of the underlying object. Levin and Rappaport Hovav (1995, p. 34) call this generalization the Direct Object Restriction.

⁵ As Levin and Rappaport Hovav (1995, p. 186) point out, the restricted group of adjectives, such as *free*, *apart*, and *clear*, may be interpreted as having a location-related meaning. For example, the adjective *clear* may describe a state, as in *a clear table*, but in the phrase *clear of the vehicle* found in the sentence in (7c), this same adjective is to be interpreted as a location that is defined as being away from the vehicle. This is why Talmy (1985, p. 104) calls these types of adjectives and directional elements "paths" altogether.

(Levin & Rappaport Hovav, 1995, p.186)

As pointed out by Levin and Rappaport Hovav (1995, p. 187), the resultative phrases in the two separate types of resultative constructions cannot be interchanged, suggesting that they are drawn from distinct classes.

- (8) a. *He danced sore. (cf. (6a))
 b. *Don't expect to swim/jog sober! (cf. (6b))
- (9) a. *You must jump yourself clear of the vehicle. (cf. (7c))
 b. *They swam themselves apart. (cf. (7b))

The second diagnostic for the dual character of manner-of-motion verbs comes from causative alternation. In isolation, manner-of-motion verbs do not causativize, which is the typical behavior of unergatives, as shown in the (a)-examples of (10-11). When manner-of-motion verbs receive a directed motion interpretation with an added directional phrase, they are unaccusative, and so they can occur in causative constructions, as illustrated in the (b)-examples of (10-11).

- (10) a. ??The general marched the soldiers.
 b. The general marched the soldiers to the tents.
- (11) a. *We ran the mouse.
 b. We ran the mouse through the maze.
- (Levin & Rappaport Hovav, 1995, p. 188)

Levin and Rappaport Hovav (1995) suggest that causativization operation is possible only when the external argument is not present. Since the sole argument of unaccusatives is the internal argument, they can be the target of causativization operation, by which an external argument is added and the verb is transitivized.⁶

Another diagnostic for the dual character of manner-of-motion verbs is the auxiliary selection fact. In Italian, the selection of the auxiliary *essere* (the Italian counterpart of English *be*) by intransitive verbs is taken to be an unaccusative diagnostic, while the selection of the auxiliary *avere* (the Italian counterpart of English *have*) is considered to be typically associated with unergativity. Bearing this point in mind, let us consider the following Italian examples from Folli and Harley (2003, p. 25).

⁶ Causativization operation is confined to the so-called alternating unaccusative verbs, such as *break*, *freeze*, and *melt*. See footnote 2.

- (12) a. Gianni ha corso nel bosco per ore/ #in un minuto.
 John has run in the woods for hours/ #in one minute.
 'John ran in the woods for hours/ in one minute.'
- b. Gianni é corso nel bosco in un minuto/ #per ore.
 John is run into the woods in a minute/ #for hours.
 'John ran into the woods in a minute/ #for hours.'

The examples in (12) show that manner-of-motion verbs, like *run*, participate in the variable behavior in Italian. What is worth noting here is that in such cases, the unergative one is atelic, as confirmed by the standard telicity test of time adverbial choice. In (12), changing the auxiliary correlates with a change in the interpretation of the PP, from a locative PP in (12a) to a directional PP in (12b). This point is also confirmed by the Dutch data from Folli and Harley (2003, p. 26), which show that manner-of-motion verbs have the dual character of being used as both unaccusatives and unergatives.

- (13) a. Jan is in het bos gerend.
 Jan is in the woods run.
 'Jan ran into the woods.'
- b. Jan heeft in het bos gerend.
 Jan has in the woods run.
 'Jan ran in the woods.'

All the facts clarified by the three diagnostics indicate that manner-of-motion verbs can indeed be associated with unergativity on the one hand, and with unaccusativity on the other.

III. MATEU'S (2005) L-SYNTACTIC APPROACH

The variable behavior of manner-of-motion verbs causes a problem for the Unaccusative Hypothesis. The Unaccusative Hypothesis claims that the unergativity or unaccusativity of a verb is based on the meaning of the verb. However, if a certain verb can be both unergative and unaccusative just like manner-of-motion verbs, the Unaccusative Hypothesis loses its predictive power. A notable approach to this problem is the claim that manner-of-motion verbs are unergative on their basic meaning while they are unaccusative on their derived meaning of directed motion. For example, Levin and Rappaport Hovav (1995) propose such an analysis and formulate a lexical argument-structure changing rule which derives unaccusatives from unergative manner-of-motion

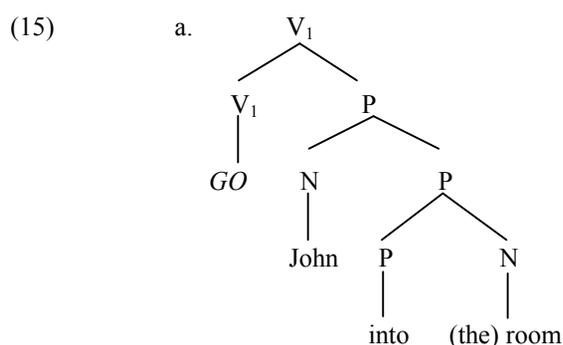
verbs.⁷ Mateu (2005) also assumes that these verbs' unaccusativity is derived from their basic unergativity. But, unlike Levin and Rappaport Hovav's lexical-semantic solution, he takes an l-syntactic approach along the lines of Hale and Keyser (1993, 1997, 1998, 2002). The remaining part of this section will examine Mateu's (2005) l-syntactic approach to the variable behavior of manner-of-motion verbs in detail.

Mateu's (2005) main goal is to argue that the validity of the DOR-based approach to English resultatives must be regained. For this purpose, he must prove that the following sentences, which seem to disobey the DOR, are compatible with the DOR.

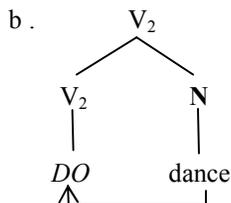
- (14) a. John danced into the room.
b. John danced free of his captors.

Apparently, the sentences in (14) do not obey the DOR since the resultative secondary predicate is uniformly predicated of the subject. Moreover, manner-of-motion verbs like *dance* are canonically assumed as unergatives, and so the surface subject may be understood as the underlying subject in (14).

Mateu (2005) tries to show that those examples in (14) are compatible with the DOR by arguing that the unaccusativity of manner-of-motion verbs, which are basically unergative, is derived by their conflation into a phonologically null verb heading the canonical unaccusative structure, which is associated to the directed motion event. Specifically, he claims that the formation of resultative constructions, like (14a) for example, involves two different l-syntactic structures. The main one is unaccusative, as that in (15a), and the subordinate one is unergative, as that in (15b).

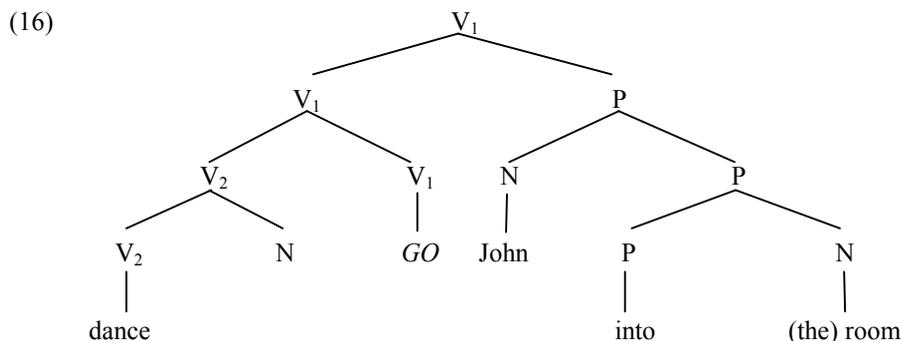


⁷ As for an objection to positing such a lexical rule, see Narasimhan et al. (1996).



As for (15a), Mateu (2005) assumes that the lexicon of English contains a phonologically null predicate expressing transition, namely *GO*, besides its phonologically realized correspondent. This phonologically null unaccusative verb subcategorizes for a PP denoting a directional spatial relation, which relates two arguments, *John* (the theme) and *room* (the goal). The l-syntactic object of (15a) is the result of merging *GO* with the prepositional projection headed by *into*. This configuration is associated to the directed motion event 'to *GO* into the room'. The l-syntactic object of (15b) represents the canonical unergative structure, which involves N-conflation into the phonologically null verb *DO* (see Hale & Keyser, 1993, 1998), and it is associated to an activity 'to *DO* dance'.

However, as it stands, the syntactic configuration of (15a) would not be convergent at PF because the verb *GO*, being devoid of phonological matrix, would not be interpretable or legible at the interface level with sensorimotor systems, in terms of Chomsky (1995). In order to avoid its crashing at PF, Mateu (2005) claims that the empty verb must be conflated with another element with phonological matrix. Being inspired by an important insight from Hale and Keyser (1997), Mateu (2005) argues that the unergative verb *dance* represented in (15b) is conflated to the phonologically null unaccusative verb by means of generalized transformation (GT), as depicted in (16).



As a result, the conflation of *dance* with *GO* will be spelled out as *dance*. Given (16), the resultative sentences like *John danced into the room*, which seem to disobey the DOR

apparently, are uniformly explained under the DOR. The surface subject *John* is understood as underlying object since the verb *dance* becomes an unaccusative verb through the conflation of the unergative *dance* with *GO* by means of GT.

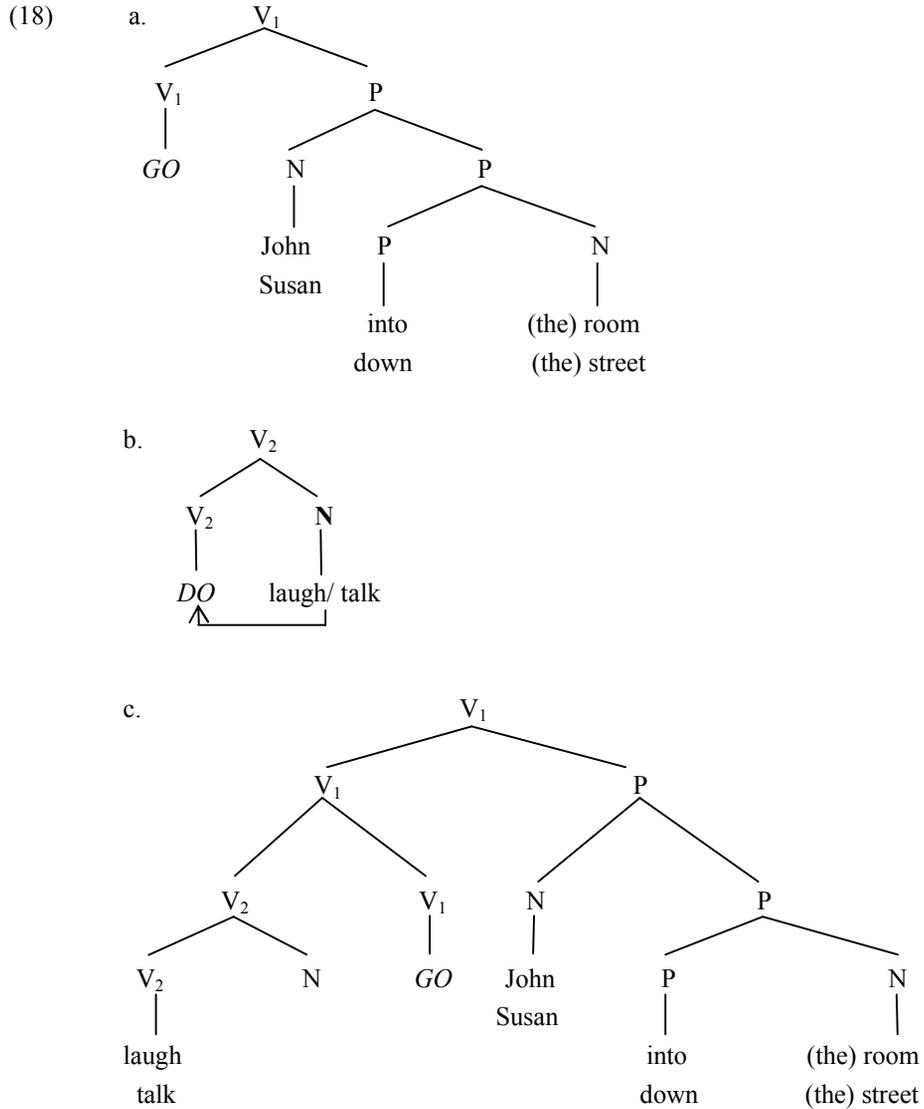
In a nutshell, just like Levin and Rappaport Hovav (1995), Mateu (2005) also explains the variable behavior of manner-of-motion verbs like *dance* by deriving their unaccusativity from their original unergativity. Unlike Levin and Rappaport Hovav (1995), however, Mateu (2005) relies on the l-syntactic operation of conflation which is accompanied with GT in the sense of Hale and Keyser (1997). While Levin and Rappaport Hovav (1995) claim that manner-of-motion verbs get their unaccusativity by the addition of a directional phrase, Mateu (2005) considers their getting unaccusativity as a result of conflation via GT. If Mateu's (2005) analysis is on the right track, the suggested configuration like (16) gives a simple account to the question why manner-of-motion verbs, which are basically unergatives, become unaccusatives with a directional phrase.

IV. AGAINST TOO POWERFUL L-SYNTAX

There is a crucial drawback in Mateu's (2005) l-syntactic approach to the variable behavior of manner-of-motion verbs. It is the overgeneration problem. Since he exploits the powerful operation of GT, his theoretical framework inevitably produces so many ungrammatical sentences like the following.

- (17) a. *John laughed into the room. (Mateu, 2005, p. 217)
b. *Susan talked down the street. (Lupsa, 2003, p. 8)

As Mateu (2005, p. 217) admits himself, the lexical meaning of an item is fully opaque to the syntactic operation like the conflation process. Therefore we cannot prevent the normal unergatives such as *laugh* and *talk*, which do not belong to the group of manner-of-motion verbs, from participating in Mateu's suggested conflation operation, as depicted in (18).



Recognizing such a problem, Mateu (2005, p. 218) suggests another solution to explain the oddity of those examples in (17). He claims that the ungrammaticality of the examples in (17) cannot prevent the derived unaccusative structure such as (18c) from being posited. Rather, the oddity of those examples in (17) may be explained by accepting Wechsler's (1997) semantic account for the oddity of an example like *#The dog barked hoarse*.

- (19) a. *Canonical Result Restriction (CRR)*
 A control resultative⁸ must represent a 'canonical' or 'normal' result state of an action of the type denoted by the verb (Wechsler, 1997, p. 311).
- b. **The dog barked hoarse* is bad because hoarseness is not canonical result of barking—indeed there probably is no canonical result of barking. *The dog barked itself hoarse* is acceptable because it is not a control resultative, so this restriction does not apply (Wechsler, 1997, p. 310).

In short, in Mateu's (2005) theoretical framework, his suggested operation of GT-based conflation freely generates the grammatical configurations like (16), on the one hand, and the ungrammatical configurations like (18c), on the other hand. The ungrammatical structures like (18c) are filtered out not by syntactic principles but by semantic constraints, like the CRR in (19a), in the interpretive semantic component (such as Marantz's (1997) encyclopedic component).

However, such an account undermines the explanatory power of Mateu's (2005) l-syntactic approach to the variable behavior of manner-of-motion verbs since it relies on the semantic constraint like the CRR in (19a) in order to detect the anomaly of the ungrammatical structures like (18c). If his suggested l-syntactic approach cannot distinguish the grammatical structures like (16) from the ungrammatical structures like (18c) without recourse to semantic constraints like the CRR in (19a), it is not a syntactic explanation but a syntactic description of the variable behavior of manner-of-motion verbs.

Moreover, Mateu's (2005) solution to the unacceptable sentences in (17) is not so perfect because Wechsler's (1997) CRR does not seem to be a reliable constraint. Its core concept of 'a canonical or normal result state' is equivocal, as pointed out by Lee (2006,

⁸ Wechsler (1997) calls the resultatives in (i), in which the resultative secondary predicates are uniformly predicated of a semantic argument of the main verb, control resultatives.

- (i) a. John hammered the metal flat. (Transitive Resultative)
 b. The river froze solid. (Unaccusative Resultative)

On the other hand, when the resultative secondary predicates are predicated of fake reflexives or non-subcategorized nominals, as in (ii), Wechsler (1997) calls them ECM resultatives.

- (ii) a. Lucy laughed herself sick. (Reflexive Resultative)
 b. Fred cooked the stove black. (Non-subcategorized DP Resultative)

p. 333). Let us consider the following example in (20).

- (20) If **the kettle** is allowed to **boil dry**, damage may occur to porcelainized coating.
(brochure included with Copco Tea Kettle; cited in Levin & Rappaport Hovav (1995, p. 204))

The resultative secondary predicate *dry* constitutes a so-called control resultative with the verb *boil* in (20), and it is predicated of the subject *the kettle*. But as we can infer from the following main clause, dryness is the most extreme result of boiling of the kettle, rather than the most natural result of boiling. Wechsler's core concept of 'a canonical or normal result state' should be more refined.

It has been pointed that a model of grammar which allows GT is less restrictive than one which does not (Frank & Kroch, 1995, p. 103). If the operation GT is not constrained by proper grammatical principles, it will produce not only grammatical structures but also so many ungrammatical configurations. In this respect, the overgeneration problem of Mateu's (2005) analysis stems from his exploitation of GT. Mateu (2005, p. 216) states that his suggested GT-based conflation is inspired by an important insight from Hale and Keyser's (1997, pp. 228-229) analysis of examples like (21a).

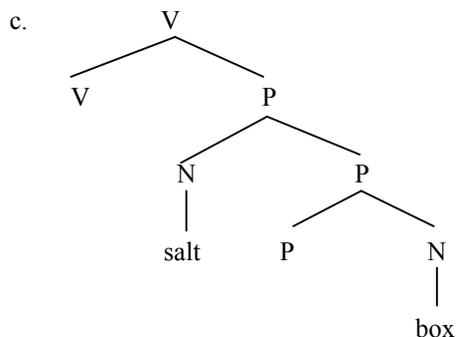
- (21) a. Rizzuto slid into the third base.
b. It is tempting, and perhaps natural, to imagine that the argument structure of *Rizzuto slid into the third base* is, in fact, a composite of the unergative structure and the structure associated with change of location. (...) Such a composite might, for example, be defined by means of a generalized transformation.

(Hale & Keyser, 1997, pp. 228-229)

As clarified in (21b), Hale and Keyser (1997) just proposed a possibility of exploiting the powerful operation GT to produce the unaccusative structure of manner-of-motion verbs like *slide*. In fact, they did not pursue this possibility any further in their subsequent works (Hale & Keyser, 1998, 2002, 2005). Rather, in their recent paper (Hale & Keyser, 2005), they argue that the structural relation for conflation should be refined in terms of selection. Let us consider the following examples.

(22) a. *They salted in the box.

b. They boxed the salt.



In explaining the ungrammaticality of (22a), Hale and Keyser comment on a constrained way of avoiding conflation's overgeneration, as follows.

(23) A properly constrained conflation operation must be strictly local, relating a head (say V) and the head of its complement (e.g., V, P, N). (...) A slightly different way to think about the structural relation which is relevant for conflation is in terms of selection. Strict locality holds for conflation if the head (say V) selects the target X^0 in its complement. This guarantees locality and precludes conflation of a specifier, which bears no structural relation to the head.

(Hale & Keyser, 2005, pp. 15-17)

In line with (23), in (22c), P conflates with *box*, and V conflates with P, resulting in a grammatical structure like (22b). However, in (22c), conflation of V and *salt* is impossible since the latter does not constitute a selectional relation with the former because of its specifier status, thus resulting in an impossible structure like (22a). If Hale and Keyser's (2005) intention to make conflation operation more constrained is on the right track, Mateu's (2005) unconstrained GT-based conflation should not be allowed.⁹

⁹ An anonymous reviewer suggests that the ungrammaticality of the sentences in (17) and (18) may stem from the selectional restriction between *GO* and the conflated verbs like *laugh* and *talk*. He focuses on the point that while the verbs like *dance*, which permit the variable behavior, have the meaning of motion, the verbs like *laugh* and *talk*, which do not permit the variable behavior, don't have the meaning of motion. On the basis of this observation, we may conclude that the crucial point in explaining the variable behavior in terms of conflation is a feature like [+motion]. However the following sentences show that this kind of approach does not seem to cover all the typical cases of the variable behavior.

In a nutshell, under the contemporary assumptions concerning the constrained nature of grammatical principles and operations, Mateu's (2005) analysis is not desirable due to the unconstrained nature of his suggested GT-based conflation operation. Maybe his suggestion may give a correct syntactic description to the problem of the variable behavior of manner-of-motion verbs. However, it needs an additional constrained grammatical device to distinguish grammatical structures from ungrammatical configurations, such as Hale and Keyser's (2005) revision of conflation in terms of selection, so that it may gain the status of syntactic explanation.¹⁰

V. CONCLUDING REMARKS

If a verb has a variety of subcategorization schemes, it raises a puzzling question in language acquisition, and so it must be accounted for properly. Such a problem is found in the behavior of the so called manner-of-motion verbs. They show both unergative and unaccusative behavior, namely the variable behavior. Manner-of-motion verbs host unergative constructions when they are used without a directional phrase. On the other hand, when used with a directional phrase, these verbs behave like unaccusatives. The

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- (i) a. The bullet whistled into the room.
 b. The elevator wheezed upward.
 (Levin & Rappaport Hovav, 1995, pp. 189-190)

Sound emission verbs, which are assumed to be basically unergatives, become unaccusatives having the meaning of directed motion when the subject is not a sound emitter and a directional phrase exists, as shown in (i). However the verbs like *whistle* and *wheeze* do not have the meaning of motion. Considering these data in detail, we may find that if an unergative verb is to be conflated into the canonical unaccusative structure, the activity it denotes must be either the cause or the effect of the directed motion. If this observation can be refined enough to postulate a proper distinctive feature differentiating the verbs permitting the variable behavior and those not, we may get a useful way to constrain Mateu's conflation. But this kind of discussion is beyond the scope of this paper.

¹⁰ It is worth considering that we just assume the verbs which show the variable behavior have two separate lexical argument structures, one unergative and the other unaccusative. In fact, Levin and Rappaport Hovav (1995, p. 189) propose such an analysis for the case of some manner-of-motion verbs' (such as *roll* and *bounce*) variable behavior in which the addition of a directional phrase is not crucial. This alternative may cover the cases of sound-emission verbs (such as *wheeze*, *rumble*, *clash*, etc.) whose variable behavior is not so systematic as that of manner-of-motion verbs (see Levin & Rappaport Hovav, 1995, p. 189-191). Moreover, with this alternative, we don't have to worry about how to filter out ungrammatical structures like (18c). If there must be a grammatical device to capture the fact that both the unergative *dance* and the unaccusative *dance*, for example, are homonymous and semantically related, we may exploit a semantic principle like Croft's (1991, p. 160) generalization stating "Derive Meaning₂ (say the unaccusative *dance*) from Meaning₁ (say the unergative *dance*) if one of the subevents in Meaning₂ is the conceptualized cause or effect of the event in Meaning₁." This paper leaves the pursuit of this alternative for future research.

variable behavior of these verbs is a problem for Perlmutter's (1978) Unaccusative Hypothesis, which claims that the unergativity or unaccusativity of a verb is based on the meaning of the verb. The Unaccusative Hypothesis loses its predictive power if a certain verb can be both unergative and unaccusative.

Among others, Mateu (2005) argues that the unaccusativity of manner-of-motion verbs, which are basically unergative, is derived by their conflation into a phonologically null verb heading the canonical unaccusative structure, which is associated to the directed motion event. Despite its apparent simpler manner of explanation, Mateu's (2005) I-syntactic approach to the variable behavior of manner-of-motion verbs is problematic in that it induces the overgeneration problem. Although he tries to filter out ungrammatical configurations by relying on semantic constraints like Wechsler's (1997) CRR, the result is not so satisfactory. Such a recourse to semantic constraints undermines the explanatory power of his I-syntactic approach to the variable behavior of manner-of-motion verbs. A model of grammar which allows GT is less restrictive than one which does not because GT will produce not only grammatical structures but also so many ungrammatical configurations if it is not constrained by proper grammatical principles. In this respect, the overgeneration problem of Mateu's (2005) analysis stems from his exploitation of GT. Even Hale and Keyser, who gave Mateu the initial inspiration of the GT-based conflation, try to make conflation operation more constrained in their recent study (Hale & Keyser, 2005).

In conclusion, under the contemporary assumptions concerning the constrained nature of grammatical principles and operations, Mateu's (2005) I-syntactic approach to the variable behavior of manner-of-motion verbs is not desirable due to the unconstrained nature of his suggested GT-based conflation operation. Although his analysis may give a correct syntactic description of the problem of the variable behavior of manner-of-motion verbs, it cannot gain the status of syntactic explanation without an additional constrained grammatical device to distinguish grammatical structures from ungrammatical configurations, such as Hale and Keyser's (2005) revision of conflation in terms of selection.

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