The Case for Split Unaccusativity Hypothesis

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The purpose of this paper is to review the previous treatments of English unaccusative verbs in English syntactic theories and to propose a new hypothesis, in which the conventional unaccusatives should be split into unaccusatives proper (i.e., unaccusatives) and unaccusative hybrids (i.e., ergatives). To make a case for the split unaccusativity hypothesis, ergatives are redefined in terms of four syntactic and semantic properties, and supporting evidence from the areas of syntax, lexical semantics, and psycholinguistics is presented. The projected theoretical relevance is that the separate treatment of unaccusatives and ergatives will help to resolve some issues in the puzzle of unaccusatives and mismatches, as well as contribute to highlighting the interface between syntax and semantics in explaining linguistic phenomena.

Key words: unaccusative, ergative, unaccusativity, ergativity, syntax, ergative verbs, unaccusative verbs, split unaccusativity hypothesis

1. Introduction

One of the most controversial areas of English syntax is ergativity and its corresponding concept, unaccusativity. The term ergativity (and unaccusativity) can be elusive, due to diverse approaches from different traditions. For example, Trask (1993), in his Dictionary of Grammatical Terms, gives relevant entries under the term “ergative”: causative, intransitive, labile verb, middle-passive, middle verb, pseudo-intransitive, pseudo-passive, unaccusative and unergative. Dixon (1994) reports many different uses of “ergative” by several researchers (e.g. Burzio 1981, Pesetsky 1982, Anderson 1968, Crystal 1991). In most works on universal grammar, the terms “ergative” and “unaccusative” are interchangeable (Crystal 2003).

Diverse as the views may be, when we restrict the usage of the term “ergativity” (or “unaccusativity”) to refer to only ergative (or unaccusative) verbs (as opposed to the ergative case), there are three different positions. One is the position of Dixon (1994), in which he, in favor of a typological
treatment of ergativity (in terms of the ergative case), dismisses the validity of the discussion of ergative verbs in English, due to the fact that a phenomenon such as the transitive/intransitive alternation of ergatives [in this study] (e.g. *break*) is "a matter of lexical semantics and does not relate to the grammatical characterization of language" (Dixon 1994: 18). The second position arises from mainstream traditions, such as generative grammar and relational grammar, in which it is claimed that intransitive verbs in many languages can be split into two groups (i.e. unaccusatives and unergatives) on the basis of a deep (or logical) object. This postulation has traditionally been called the "unaccusativity hypothesis" (cf. Perlmutter 1978). The third position is that the unaccusative verbs initially proposed under the unaccusative hypothesis actually consist of two different categories: one is unaccusative verbs, and the other is ergative verbs (e.g. Oh 2004, Haegeman 1994).

This paper focuses on a discussion of the latter two positions, and advances the split unaccusativity hypothesis based on the third position. The split unaccusativity hypothesis postulates that defining unaccusatives based only on the underlying object (or patient role) is not sufficient, and this single category should be split into two classes, because a certain group of unaccusative verbs behaves very differently from another group syntactically and semantically. This postulation is made based on the three areas of supporting evidence: syntactic, semantic, and psycholinguistic evidence. The two positing classes are: Unaccusatives Proper, which do not occur transitively (e.g. *fall*, *exist*, *happen*, *arise*, *vanish*, *begin*, etc., passive verbs and adjectival verbs) and Unaccusatives Hybrid, which can occur both transitively and intransitively (e.g. *break*, *close*, *open*, *increase*, etc.). In terms of lexical semantics, an Unaccusative Proper consists of a single event structure, while an Unaccusative Hybrid consists of two sub-event structures across different representations. In this new proposal, the former are called "unaccusatives" and the latter are called "ergatives". In this way, the term "ergative" is believed to be a true reflection of the ergative system, in the sense that just like the ergative language system, the subject (S) of the intransitive clause and the object (O) of the transitive clause are treated in the same way (i.e., in terms of patienthood), and differently from the subject (A) of the transitive clause (cf. Dixon 1994: 22). Conversely, the term "unaccusative" is a reflection of unaccusativity in the sense that the unaccusative verb inherently "lacks an external argument and therefore cannot assign accusative case to their complement NP" (cf. Haegeman 1994: 323).
The relevance of this approach lies in the fact that not only does the distinct treatment based on the inherent contrast fit with native intuition, but it could also unveil new methods for dealing with problematic areas in theorizing linguistic unaccusativity in syntactic analysis.

In positing the new hypothesis regarding English ergative verbs, this paper does not use any particular theoretical framework and the author has incorporated insights from different traditions.

There are three main sections to this paper. In section 2, the conventional treatment (in generative grammar) of unaccusatives and their theoretical development are discussed. Section 3 introduces a new concept of ergatives and their defining properties, and advances the split unaccusativity hypothesis based on them. Section 4 presents various supporting pieces of evidence as to why ergative verbs should be treated differently from unaccusative verbs, and also discusses the theoretical relevance of the split unaccusativity account.

2. The Unaccusativity Hypothesis and the Treatment of Unaccusatives in Generative Grammar

In this section, we briefly discuss the foundation of the tradition of the unaccusativity hypothesis and some of its theoretical development. This section also touches on some problematic areas of unaccusativity theories and possible alternative solutions.

2.1. The Advent of the Unaccusativity Hypothesis and its Development

In a linguistic theory seeking universal grammar (e.g. relational grammar, generative grammar, etc.), researchers recognized the problems with classifying a special type of verbs in accusative languages such as English, in which these types of verbs cannot be treated very well in terms of intransitive and transitive dichotomy. They resolved this issue by borrowing the concept of unaccusativity (or ergativity), proposing that some intransitives (e.g. ran, eat, as in (1a) ) with agent-like subjects be classified as unergatives, and other intransitives (e.g. fell in (1b)) be classified as unaccusatives, because they have a theme-like subject.
(1) a. Marvin ran to the store
    b. Susan ate early in the morning.
    c. The child fell.  \( \text{(O'Grady 1998: 49)} \)

Perlmutter (1978; 1984) initially came up with the unaccusativity hypothesis, in which he argues that the single argument of unaccusative verbs (e.g. (1c)) is an underlying direct object, and thus displays many syntactic properties of the direct object of transitive verbs; in contrast, the single argument of unergative verbs is a subject at all levels of representation, and thus displays the same syntactic behavior as the subject of transitive verbs. The key notion of this hypothesis lies in the semantic notion of agentivity (of predicates): agentivity correlates with unergativity, and patienthood correlates with unaccusativity. Perlmutter (1978) lists the verb meanings that tend to belong to each class:

(2) a. Generally unergative predicates
   i. Predicates describing willed or volitional acts: work, play, speak, talk, smile, wink, walk, knock, bang, laugh, dance, etc. manner-of verbs: whisper, shout, bellow
   ii. Certain involuntary bodily processes, e.g., cough, sneeze, burp, sleep, etc.

b. Generally unaccusative predicates
   i. Predicates expressed by adjectives: Predicates describing sizes, shapes, colors, smells, states of mind, etc.
   ii. Predicates whose subject undergoes the action on process: burn, fall, drop, dry, sink, wave, soar, tremble, wave, die, perish, flourish, fill, disappear, etc.
   iii. Predicates of existing and happening: exist, happen, transpire, occur, arise, result, end up, etc.
   iv. Involuntary emission of stimuli that impinge on the senses: shine, sparkle, glisten, glow, smell, etc.
   vi. Aspectual predicates: begin, start, stop, cease, continue, end, etc.
   vii. Duratives: last, remain, stay, survive, etc.

This initial proposal, which was born in the tradition of relational gram-
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mar, was later adopted by Burzio (1986) as a syntactic explanation of split intransitivity and, from then on, it was rooted in the tradition of generative grammar, generating a large number of studies (Bresnan 1982, Rosen 1981, Levin and Rappaport Hovav 1986, 1995, Chomsky 1981, 1986, 1991, among others). Many researchers in generative grammar employed the notion of unaccusativity in explaining the major syntactic phenomena or mechanisms, such as case assignment, syntactic coding, linking, interface between semantics and syntax, and language acquisition.

Both fortunately and unfortunately, the discussion on unaccusativity in syntactic theorizing in generative grammar has been ongoing and has taken divergent tracks. A great deal of confusion has arisen, as different views and disagreements have mounted. As this situation prevails, the unaccusativity hypothesis (UH) has been recently challenged on two fronts. First, linguistic theory has moved away from formal models of grammar that inspired the hypothesis. Recent models of generative grammar do not include some of fundamental tenets. The most syntactic accounts of unaccusativity (e.g.

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1) In discussing Italian syntax, Burzio argues for the notion of unaccusativity, considering a number of syntactic phenomena that are sensitive unaccusativity, such as auxiliary selection, ne-cliticization.

2) For instance, one of the most important underpinnings for theorizing unaccusativity is in case assignment in the classical case theory. Considering passive and unaccusative verbs in Italian and comparing them to transitives and unergatives, Burzio (1986) offers the now-classic generalization in (1).

(1) Burzio's generalization

i) Only a verb with an external argument is able to assign accusative case (Burzio, 1986: 178-9).

ii) A verb that fails to assign accusative case fails to theta-mark an external argument (Burzio, 1986: 184).

This generalization describes the fact that the internal argument of passives and unaccusatives cannot stay in its object position because there is no accusative case for it, since these verbs (by his definition) do not have an external argument. So the internal argument must move to the subject position, where it can take the nominative case. The basic concept continues in the GB tradition (Chomsky 1981, 1986), in which unaccusativity is important in theta-assignment: an unergative verb takes a theta-marked deep-structure subject and no object, whereas an unaccusative verb takes a theta-marked deep-structure object, as in (2).

(2) a. Rachel works \( \text{NP [VP V]} \) (unergatives)

   b. Rachel returns \([VP \ V \ \text{NP}] \) (unaccusative)

This is a traditional theory, which defines accusatives in terms of the thematic properties of a verb's argument. This thematic account typically assumes the Universal Theta-Assignment Hypothesis: an Agent is mapped onto syntax as an external argument that is, onto the subject position. A Theme, on the other hand, is mapped as an internal argument and originates in the object position, from where it must move up to the subject position for EPP and Case checking reasons.
Kayne 1993) regard apparent auxiliary ‘selection’ as an epiphenomenon of a syntactic operation of incorporation of an abstract preposition, thus detaching it completely from the UH’ (Alexiadou and et al.: 2004: 244). This is to say that “the development in syntactic theorizing has resulted in a situation where the picture of the syntax of unaccusativity drawn no longer be maintained” (Alexiadou et al.: 2004: 244 see him for further discussion on this.)

2.2. Rethinking the Unaccusativity Hypothesis

Although syntactic theorizing regarding unaccusativity has changed tremendously, it is the author’s view that the original UH has been a foundation all along. However, the trend for syntactic theories to change rapidly regarding unaccusativity itself poses a question: is the original hypothesis really intact? Setting aside the puzzle of theorizing unaccusativity in relation to complex issues such as mapping, syntactic coding, linking and syntactic representation, some fundamental problems revolving around the UH are noted.

First, as noted by Alexiadou et al (2004: 1-4), the classification of unaccusatives itself is not very clear, because different classes of verbs have been analyzed as unaccusative or as having an unaccusative alternate in many different approaches: reflexive verbs in Italian (Rosen 1981, 1984, Burzio 1981, 1986) transitive-intransitive alternates in Dutch and French (Hoekstra (1984 for Dutch, Zribi-Hertz 1987 for French); motion verbs in Dutch (Hoekstra and Mulder 1990 Rapport and Levin 2000), two-place predicates in Italian and Dutch (den Besten 1982; Belletti and Rizzi 1988). Some of these discussions indicate that the main source of the unaccusativity puzzles may be in the classification of unaccusatives itself.

Furthermore, there have been constant puzzles surrounding unaccusativity in terms of “unaccusative mismatches” (e.g. Levin 1988, Dowty 1991, among others) in that “many unaccusativity diagnostics do not pick up the same class of verbs, both within and across languages” (Alexiadou et al: 2004: 8-9). Several points are involved in this issue. One is that within the same language, while some verbs are clearly distinguished according to certain unaccusativity diagnostics, other verbs show mixed behavior in terms of the same diagnostics.3) Second, a similar indeterminacy is observed

3) In Dutch, vallen (fall) is an unaccusative verb and werken (work) an unergative, according to a pronominal perfect particle and auxiliary selection, but verbs such as blijven
cross-linguistically, too. Third, some diagnostics themselves are not clear-cut across the languages.\textsuperscript{4)} That is, a diagnostic working in one language does not work in another language (see Alexiadou et al. 2004: 9). Fourth, individual verbs classified as unaccusatives can differ radically among languages. In Korean, those unaccusative verbs that alternate transitive/intransitive use (i.e. ergatives in the current approach) do not match their English counterparts almost completely. For example, verbs like tat- (‘close’), yel- (‘open’), kkayttuli- (‘break’), thaywu- (‘burn’), etc. all have only transitive use, unlike their English counterparts. On the other hand, verbs like nayri- (‘lower; fall (down)’), kali- (‘cover; be covered’), etc. alternate the transitive/intransitive differently from their English counterparts. (See section 4.3 for further discussion.)

Finally, there are some linguistic phenomena that cannot be handled very well in terms of a syntactic account of unaccusativity. One example is resultative constructions in English (cf. Levin and Rapport Hovav 2000).

All of these considerations lead one to pause and rethink the original formulae of the unaccusativity hypothesis. At this juncture, let us consider other possible scenarios regarding unaccusativity, particularly in English.

3. Ergativity Approach and Split Unaccusativity Hypothesis

It is generally known that the terms “unaccusative” and “ergative” are interchangeable in linguistic theory. For example, Crystal (2003) notes that mixing the terms “ergative” and “unaccusative” is common practice in relational grammar. O’Grady also notes that the use of “unaccusative” is preferred by researchers in relational grammar; “ergative” is used by those from the field of generative grammar [2004 personal communication]. Pervasive though this recognition may be, there has also been a different position, in which the notion of ergative verbs is used differently.

(stay) and bloeden (bleed) show mixed behavior: they are unergative by the first diagnostic unergative by the second diagnostic (Alexiadou et al. 2004: 9).

\textsuperscript{4)} In Italian and Dutch, please-type predicates take an auxiliary BE. On the other hand, in German, predicates such as gefallen (please) select the auxiliary HAVE, and do not form attributive participles and impersonal passives. Moreover, in French the selection of être (be) as a perfect auxiliary is restricted to a narrow set of unaccusative verbs, and there are languages such as English, Spanish, and Greek, in which all intransitive predicates uniformly select the auxiliary HAVE (Alexiadou et al. 2004: 9).
3.1. The Ergativity Approach

The distinct use of ergatives from unaccusatives in the tradition of generative grammar was first suggested by Haegeman (1994: 335-337). She advances that there are two different groups of the verbs that take a single argument: one is a group consisting of raising verbs, passive verbs, and verbs of movement and change of state (which she calls “unaccusatives”) and the other group is one-argument verbs like sink, which has a transitive pendant (which she calls “ergatives”). She uses only two pieces of syntactic evidence (i.e., a there-construction and transitive pendant property) for proposing the splitting of conventional unaccusatives into two different classes, but she does not pursue the discussion further on this point.

Separate from this ‘split’ approach, there have been similar discussions on ‘ergative’ verbs from the different perspectives of the traditional unaccusative hypothesis. The first indication of the theoretical importance of ergatives as a verb class is found in Fillmore (e.g. 1969). In his proposals for a case grammar, Fillmore argues that the traditional concepts of grammatical subject and object ignore important semantic facts. For example, “there is a semantically relevant distinction between the door and open that is the same” (Fillmore 1969: 363) in sentences such as:

(5) a. The janitor will open the door.
   b. The door will open.
   c. The door will open with this key.
   d. This key will open the door.

Here, the same event is expressed in various ways, using both the door and open, but in different combinations. Fillmore gives a list5 of verbs that “have a certain amount of freedom with respect to the syntactic environment into which they can inserted” (Fillmore 1969: 365). The behavior of these verbs is then at the basis of his proposal for his case grammar, which uses concepts including Agentive, Objective and Instrumental. Fillmore uses Objective for the function that is the subject of an intransitive verb and the

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5) This list includes: advance, bend, bounce, break, burn up, burst, circulate, close, connect, continue, crumple, dash, decrease, develop, drop, end, enter (contest), expand, hang, hide, hurt, improve, increase, jerk, keep away, keep out, move, pour, repeat, retreat, rotate, run, rush, shake, shift, shine, shrink, sink, slide, spill, spreads, stand, start, starve, stir, stretch, turn, twist, wake up, wind, withdraw.
object of the corresponding transitive verb. This is called “affected” by Halliday (1976) and “ergative” more recently by Halliday (1985, 1994).

A similar approach is found in Sinclair (1987, 1990). In referring to English ergative verbs, Sinclair notes that they can describe an action from the point of view of the performer of the action, or from the point of view of something that is affected by the action. (6),

(6) a. Those companies have closed their factories. [transitive]  
   b. Factories have closed. [intransitive]

Here, the verb close takes the same noun, factories, as both object in (6a) and subject in (6b), but in both cases the closing happens to the factories. Sinclair calls this verb an ergative verb. The essential point is that ergative verbs have both agentive and non-agentive uses, as shown in (6). Sinclair includes verbs such as open, change, close, develop, form, improve, increase, etc. for this group.

Following the spirit of Fillmore, Halliday, and Sinclair and along the same lines as Haegeman (1994), Oh (2004) discusses the separate treatment of English ergative verbs (from the conventional unaccusatives). Considering the distinct behaviors of some unaccusative verbs, he proposes the restricted usage of the “ergative verb” only for the groups of verbs that alternate the transitive/ intransitive use to refer to the same event (e.g. broke in They broke the window and The window broke.) He justifies the use of the term “ergative” in this case by suggesting that the term is a reflection of ergative language, in the sense that as in the ergative language system, the subject (S) of the intransitive clause and the object (O) of the transitive clause are treated in the same way (i.e., in terms of patienthood), and differently from the subject (A) of the transitive clause (cf. Dixon 1994: 22). He proposes three syntactic and one semantic defining property for English ergative verbs, as in (7).

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6) One notable point is that ergative language is case-focused, while ergative verbs are theme-focused.
(7) The four defining properties of English ergative verbs (Oh 2004)\(^7\)

i) Ergative verbs can be used both transitively and intransitively.

ii) Ergative verbs allow the same nominal group as an object in transitive clauses and as a subject in intransitive clauses.

iii) This nominal group functions as a logical (or underlying) object in intransitive clauses.

iv) The transitive sentence and intransitive sentence of ergative verbs refer to the same event.

According to these determinants, the conventional unaccusative verbs, such as *bend, break, drop, brighten, shine, sparkle*, are classified as ergatives, but other conventional unaccusative verbs, such as *fall, flourish, die, vanish, disappear, exist, happen, begin, remain*, etc., and all adjectives, are excluded from the ergative list in (2).

3.2. The Split Unaccusativity Hypothesis

Following the same line of argument in Oh (2004), we now propose the split unaccusativity hypothesis, as in (11).

\[(11) \text{Split Unaccusativity Hypothesis} \]

The single-argument intransitive verbs that take the patient role have two separate distinct classes, which need to be treated differently: ergatives and unaccusatives. Ergatives are those that can occur both transitively and in transitively to refer to the same event; unaccusatives are the rest of the (conventional) unaccusative verbs that cannot have a transitive pendant. This is represented as follows:

\[
\text{(Conventional) Unaccusatives} \begin{cases}
\text{Unaccusatives Proper} \rightarrow \text{Unaccusatives} \\
\text{Unaccusatives Hybrid} \rightarrow \text{Ergatives}
\end{cases}
\]

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7) Independently of these defining conditions, Oh (2004) proposes a simple meta-linguistic diagnostic for checking the status of ergative verbs, as shown in (1).

(1) A diagnostic for English ergatives (Oh 2004):

Ergative verbs can take the following structure, when the premise of the subordinate clause and the conclusion of the main clause refer to the same event.

'If X DOES Y, Y DOES' (X: agentive nominal; Y: non-agentive nominal)
We use the term Unaccusatives Proper in the sense that the verbs inherently cannot assign the accusative case, while the term Unaccusatives Hybrid is used in the sense that these verbs are inherently able to assign the accusative case in the default environment (transitive use), but cannot do so in a certain environment (intransitive use). In other words, this inherent ability to assign the accusative case is key in drawing the distinction between unaccusatives and ergatives. (In lexical semantic terms, the unaccusative hybrid inherently has two sub-events in its lexical semantic representation, but one of the sub-events (i.e., the causer sub-event) is unexpressed on the surface level, while the single event is always expressed in the case of the unaccusative proper.)

While postulating this hypothesis, a natural question arises at this juncture: how can we know that they are distinct verb classes, and why is this new hypothesis necessary? The supporting evidence and some theoretical justification for positing ergative verbs separate from unaccusative verbs will be discussed in the subsequent section.

4. A Case for Split Unaccusativity in English

Although in traditional terms the unaccusative verb class may be a neat category for handling particular linguistic regularities, such as case assignment, there are several other linguistic phenomena that cannot be explained by this single category. In this section, we discuss the theoretical relevance of the split unaccusativity hypothesis and some evidence supporting the hypothesis. We begin the discussion by considering these proofs, and then present some thoughts on theoretical relevance in the latter part of this section. The supporting evidence comes from three different areas: syntax, semantics and psycholinguistics.

4.1. Syntactic Evidence

In this section, six syntactic phenomena will be introduced as supporting evidence for the split unaccusativity hypothesis. We will begin with the two important diagnostics for the status of conventional unaccusativity in English, as found in the literature. They are the past participle modifier form (cf. Bresnan 1982, Levin and Rapparport 1986: 654) and the *er*-nominalization (cf. Keyser and Roeper 1984: 396-97). If we consider these two diagnostics
more carefully, there are important features that are ignored by these researchers. We will use these new features as supporting evidence.

Researchers like Bresnan (1982) and Levin & Rappaport (1986: 654) use the past participle pronominal modifier as a diagnostic for unaccusative/unergative distinction. The past participle form of many unaccusative verbs can be used as prenominal modifiers, but the past participle form of an unergative verb cannot, as shown (12a) and (12b). Although this could be a test for the conventional unaccusative/unergative distinction, there are other interesting phenomena, which these researchers did not consider, regarding past participle usage. That is, it is the post-nominal past participle modifier that can be used for (new) unaccusative/ergative distinction. This is shown in (12c) and (12d).

(12) a. Conventional Unaccusatives: wilted lettuce/ fallen leaf/ collapsed tent/ swollen feet/ rotted railing
   b. Unergatives: *sneezed patient/ *walked man/ *cried child/ *exercised athlete/ *flown pilot
   c. [New] Unaccusatives: *leaf fallen by X/ *lettuce wilted by X/ *feat swollen by X
      *easily fallen leaf/ *easily wilted lettuce/ *easily swollen feat/ *easily disappeared purse
   d. Ergatives: tent collapsed by X/ the window broken by X/ the business developed by X
      easily collapsed tent/ easily broken window/ easily developed business/ easily burnt house

As shown in (12c) and (12d), both the post-nominal usage and pre-nominal modifier usage of the past participle show an asymmetry between unaccusatives (in this study) and ergatives. This indicates that there are structural differences in the two verb classes. That is, there is an indication that the two classes have different semantic structures. (See section 5 for further discussion.)

Another important diagnostic used for the unaccusative/unergative distinction in English is the -er nominalization. That is, many unergative verbs permit -er nominalization, while most conventional unaccusative verbs do not (Keyer & Roeper 1984: 396-97), and this is shown in (13a) and (13b).
(13) a. Unergatives: walker/runner/ player/ singer/ writer/ speaker/ painter, etc.
   b. Conv. Unaccusatives: *closer/ *faller/ *breaker/ *exister/ *vanisher/ *burner/ *ariser/ *laster/
   c. [New] Unaccusatives: *faller/ *exister/ *disappearer/ *remainer/ *happener/ *dier

What the researchers missed in the previous studies is that we can use the same diagnostic for our new unaccusative/ ergative distinction. An interesting observation is that while word formation for the secondary meaning (e.g. burner as a device for burning, instead of as a person who burns something) is possible for ergatives, as in (13d), it is not possible for the unaccusatives, as in (13c). This different morphosyntactic behavior indicates that the two classes of verbs do not share the same lexical semantics. The intuitive explanation is that while ergative verbs involve causation (hence taking a causer participant), unaccusatives do not have a causational meaning. (See section 5 for the discussion of lexical semantics of unaccusatives verbs).

The next two pieces of syntactic evidence are found in Haegeman (1994). In arguing for the separation of ergatives from unaccusatives, she provides two reasons: the transitive-pendants property and the there-construction.

According to her, as opposed to conventional unaccusative verbs like arrive, verbs such as sink, close, increase, break, and drop have a transitive pendant that does assign the accusative case, as in (14).

(14)a. The enemy sank the ship.
    b. *I arrived the baby to the crèche. (a. b. from Haegeman 1994: 335)
    c. John dropped the vase.
    d. *John fell the vase to the ground.

The second argument is that, unlike the unaccusative verbs of movement and change of state, sink does not appear in the there-construction, as shown in (15).
(15) a. There came three new sailors on board.
   b. *There sank three ships last week. (a. b. from Haegeman 1994: 335)
   c. There fell the vase.
   d. *There dropped vase.

The fifth proof has to do with resultative constructions. A resultative phrase "denotes the state achieved by the referent of NP it is predicated of as a result of the action denoted by the verb. Resultative phrases may be predicated only of the object of a transitive verb, never of the subject. Intransitive verbs, then, divide into two groups: resultative phrases can appear with unaccusative, but not with unergatives" (Alexiadou et al 2004: 05). Some researchers (Van Voost 1985; Levin and Rapport Hovav 1995) use resultative phrases for the diagnostic for conventional unaccusative/unergative distinctions, as shown in (16) (cited by Alexiadou et al 2004: 05).

(16) a. She licked the peanut butter clean
   b. *Dora shouted hoarse.
   c. The bottle broke open.

However, if we examine these examples carefully, we can find that while ergatives allow [bare XP] resultative construction as in (16c), unaccusatives do not as in (6b). This point is illustrated by the following examples.

(17) a. The door closed tight/ The door opened wide/ The snow melt messy/ The ship sank deep
   b. *The glasses fell broken/ *The baby fell hurt/ *The business thrives big/ *The wild animals disappeared quiet/ *The hills disappeared flat/ *The baby died cold/ *The flower perished dead

As shown here, all the verbs in (17a) that allow a resultative phrase are ergatives, whereas those verbs in (17b) that do not allow resultative constructions are unaccusatives.

The sixth argument for unaccusative/ergative separation has to do with the number of different syntactic mappings that a verb can have for the same event. This evidence may appear as indirect, circular, or even redundant (to the third evidence), but this is eventually about the stability of category status. It is this author's assumption that the more different ways there are of mapping a verb for surface representation, the less stable its
(syntactic) category. Although the universal applicability of this diagnostic has not been tested, it has the most important theoretical significance in English.

(18) a. Mark dropped the hat  a'. The hat fell.
    b. The hat was dropped.
    c. The hat dropped.

As we can see here, verbs like *drop* can have up to three different surface representations for a single event, as shown in (18a, b, c); verbs like *fall* have only one representation on the surface for the single event, as in (18a'). This distinction not only functions as a diagnostic, but also bears some theoretical importance that deserves some consideration here.

The ability for a verb to have several different syntactic representations means that it has fewer clear syntactic structures, reflecting the less established nature of its category. Hence, we can say that verbs like *drop* belong to a less stable category; verbs like *fall* a more stable category. We can, thus, distinguish ergatives and unaccusatives in terms of stability of category. As noted in Oh (2004), the existence of ergatives in English reflects the less stable transitivity system. From the perspective of language change, the increase in the indeterminate use of transitives means an increase of ergatives. The more meanings a verb acquires, the less clear its mapping to a syntactic structure becomes. In this way, we can say that the inherent nature of the English ergativity system reflects the close interface between semantics and syntax. Looking at it this way, we can explain the linguistic phenomena surrounding unaccusativity more powerfully.

Speaking of the interface between syntax and semantics, let us turn our attention to the semantic evidence in order to support the split unaccusativity hypothesis.

4.2. Semantic Evidence: Event Structure

The strong evidence supporting the distinct treatment of unaccusatives and ergatives in English can be found in lexical semantics.\(^8\) By considering

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\(^8\) We assume that a consideration of lexical semantics is relevant to this discussion, in that the lexical semantic structure of a verb represents the portion of the verb's meaning that is relevant to a determination of the syntactic structures in which the verb can appear.
the lexical semantic structures of verbs, we attempt to prove that the distinct classification of verbs is justifiable, because the two classes of verbs have different event structures.

According to the lexical semantic theory of Levin and Rapport Hovav (1995) and some of the insights of McKoon and MacFarland (2000), there are two types of change-of-state verbs: "internally caused change-of-state" (ICCS) verbs and "externally caused change-of-state" (ECCS) verbs. ICCS, known by "their prototypical members as bloom-type verbs, is a change of state for which the means of bringing about the change-of-state event is conceptualized as residing in the entity undergoing the change. Flowers bloom because of something internal to flowers" (McKoon and MacFarland 2000: 833). On the other hand, ECCS "known as break-type verbs is conceptualized as coming about because of something external to the entity that undergoes the change of state---The responsibility for a window breaking lies not with itself but with some external force" (McKoon and MacFarland 2000: 833).

These two types of verbs have different event structures in their lexical semantics. The lexical semantic representation (or TEMPLATE) for ECCS verbs, such as break, and ICC verbs, such as bloom, are represented as follows:

(19) a. They broke the window.
   a'. ECCS verbs TEMPLATE: ((a) CAUSE (BECOME (x <STATE>)))

   b. The flowers bloom.
   b'. ICCS verbs TEMPLATE: (BECOME (x <STATE>))
      (adapted from Levin and Rapport Hovav 1998: 125-26)

In (19a'), ECCS verbs make explicit an external cause of the event denoted by the verb in a causing sub-event and a resulting change of state, in the change-of-state event the two events are connected by the relation CAUSE. On the other hand, in (19b'), the events described by ICCS verbs are conceptualized as having no external cause, and so the lexical semantic template assigned to them shows a simple structure of only one sub-event. Lexical semantic templates also show participants in verbal events. The template for ECCS shows one participant (x) in the change-of-state sub-event, and the other participant (a) in the causing sub-event, while the template for ICCS verbs shows one participant, (x), which appears as the subject in an intransitive construction, as in (19b). (See Levin and Rapport Hovav 1995;
Understanding that the two sentences in (19) have different lexical semantic structures, there arises a critical question: what is the lexical representation of *broke* in the intransitive use as in *The window broke?* Is it different from the lexical representation of *broke* in the two-place sentence, *They broke the window?* The critical answer is no. Regardless of the different surface syntactic structures (i.e., two-place vs. one-place representation), the verb maintains the SAME external causation meaning, and hence takes the ECCS TEMPLATE, not the ICCS TEMPLATE, according to Levin and Rapport Hovav (1995). This is along the same argument of other researchers (e.g. Fillmore 1969; Halliday 1985, 1994; Sinclair 1987, 1990), who noted that both of the sentences *They broke the window* and *The window broke* refer to the same event. Levin and Rapport Hovav noted that "some externally caused verbs (such as *break*) can be used intransitively without the expression of an external cause, but even when no cause is specified, our knowledge of the world tells us that the eventuality these verbs describe could not have happened without an external cause" (1995: 92-93). In this explanation, they claim that the lexical representation of the intransitive use of an ECCS verb (as in *The window broke*) is still the same as the transitive use (as in *They broke the window.*) This means that *broke* in the intransitive use still has the external cause sub-event, but this information is unexpressed\(^9\). When this occurs, according to Levin and Rapport Hovav, the single expressed argument, the entity that changes state, is lexicalized in the direct object position, thus giving rise to the conventional-unaccusative behavior characteristic of these verbs (Levin and Rapport Hovav 1995). In this case, the mapping from the lexical structure to the syntax itself is the same as for the intransitive use of ICCS verbs like *bloom*. With this reasoning, the template for the intransitive use of *broke* is represented as in (20).

(20)a. *The window broke*: \(((a) \text{CAUSE} (\text{BECOME} (x \text{<STATE>})))\)

This semantic account resonates with our treatment of ergatives and unaccusatives in the split unaccusativity hypothesis. ECCS verbs like *broke* participate in causative/inchoative alternation with the same lexical representation, and this exactly matches our determining criteria of ergatives: er-

\(^9\) They suggest an existential binding for its mechanism.
gatives can occur both transitively and intransitively to represent the same event. (See (14).) Alternatively, ICCS verbs like bloom have one single event structure, and thus occurs intransitively only. This matches with the properties of unaccusatives. That is to say that ergative verbs like break, close, open, sink, increase, etc. have the ECCS verb template, while unaccusative verbs like bloom, arrive, fall, die, disappear, etc. have an ICeS verb template. According to Levin and Rapport Hovav (1995), some verbs take more than one lexical template.\(^{10}\)

As shown here, the unaccusatives and ergatives do not have the same lexical semantic structures. Even on the surface, an unaccusative verb, like fell in The ball fell, and an ergative verb, like dropped in The ball dropped, have different semantic structures; they look similar only because of the surface realization through mapping (i.e. the external participant of dropped is suppressed in the linking process from lexical structure to syntactic representation.) (See the section 4.3 for brief discussion of the mechanism for syntactic representation). This strongly supports our distinct treatment of unaccusatives and ergatives.

Another essential question is how do we know that this postulation is empirically sound? In the following section, we will present a piece of evidence showing that it is empirically valid.

4.3. Psycholinguistic Evidence

So far, we have considered the supporting evidence for the distinct two-verb postulation from the theoretical basis. We intend to add evidence, but at this time the support comes from empirical data.

As empirical evidence, we cite a psycholinguistic experiment carried out by McKoon and MacFarland (2000). In an attempt to validate the distinct lexical semantic structures of two different types of change-of-state verbs, originally proposed by the lexical semantic theory of Levin and Rapport Hovav (1995), McKoon and MacFarland investigated different sentence acceptability judgment time for sentences with externally caused change-of-state (ECCS) verbs and internally caused change-of-state (ICCS) verbs.

A very brief description of the experiment is presented here. (See McKoon

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10) Verbs like burn, for example, might have an ECCS reading for events like people burning leaves, and also an ICeS reading for events like people burning brightly. But we assume that the majority of change-of-state verbs have only one lexical template.
and MacFarland (2000: 847-56) for the detailed description of the methods and results of the experiment.) In order to ascertain the different sentence processing time (that is, sentence acceptability judgment time) over the two different sets of sentences containing ECCS verbs and ICCS verbs separately, McKoon and MacFarland devised two different experiments. In one experiment, they compared the judgment time between the INTRANSITIVE use of both ECCS verbs and ICCS verbs in two sets of 14 different sentences, which are matched on several dimensions (such as the same number of words contained in the sentences of both sets). Selected sample sentences used in this experiment are shown in (21).

(21) **ECCS verbs**

<table>
<thead>
<tr>
<th>a. The missile exploded.</th>
</tr>
</thead>
<tbody>
<tr>
<td>b. The concrete crumbled</td>
</tr>
<tr>
<td>c. The crops shriveled.</td>
</tr>
<tr>
<td>d. The turkey thawed.</td>
</tr>
</tbody>
</table>

**ICCS verbs**

<table>
<thead>
<tr>
<th>a'. The flowers bloomed.</th>
</tr>
</thead>
<tbody>
<tr>
<td>b'. The beams rusted.</td>
</tr>
<tr>
<td>c'. The leaves wilted.</td>
</tr>
<tr>
<td>d'. His knee swelled.</td>
</tr>
</tbody>
</table>

(adapted from McKoon and MacFarland (2000: 866)

In the second experiment, they compared the judgment time between the TRANSITIVE use of both ECCS verbs and ICCS verbs\(^{11}\) in two sets of 28 sentences (the same 14 verbs used twice in a different environment), which also matched equally on several dimensions. Selected sample sentences used in this experiment are shown in (22).

(22) **ECCS verbs**

| a. The scientists exploded the nuclear device |
| b. Religious extremists exploded the bomb.   |
| c. The French chef crumbed the cheese.      |
| d. The nervous teenager crumbled the cigarettes. |

---

\(^{11}\) Due to the flexibility and creativity of language use (such as the figurative use of language), the TRANSITIVE use of ICCS verbs occurs in real language use, according to McKoon and MacFarland. Even in this case, the proposed same ICCS semantic template is maintained, just as for the INTRANSITIVE use of ECCS verbs because, as McKoon and MacFarland note, the causation is not externally triggered but it is triggered by the inherent internal causation exemplified in a causation event involving natural change.
ICCS verbs
a'. The plants bloomed yellow blossoms
b'. The trees bloomed pink flowers.
c'. The constant rain rusted the car.
d'. The salt water rusted the machinery.

The finding from these two experiments was that sentence acceptability judgment times are longer for sentences with ECCS verbs, for both transitive and intransitive sentences. It is worth noting that the judgment time for sentences with an INTRANSITIVE use of ECCS verbs, as in (21a), is longer than that of ICCS verbs. Their interpretation of this finding is that verbs describing ECCS are more complex than verbs describing ICCS, regardless of their surface (syntactic) representations, because the ECCS verb has two sub-events in its lexical semantic representation, whereas the ICCS verbs have only one. This finding provides strong empirical support for the psychological reality of differences between the two classes of verbs differences that are in accordance with their lexical semantic templates.

For this point, McKoon and MacFarland note:
"The strongest aspect of the psycholinguistic data in terms of placing constraints on theory is that the difference in acceptability judgment times between external and internal causation verb appeared with both transitive and intransitive sentences. Our interpretation of this finding is that, for any verb that is not ambiguous, the lexicon contains a single lexical semantic structure for the verb, and the structure is always involved in comprehension of sentences in which the verb is used, no matter what the sentences's syntax. In other words, an intransitive sentence with an external causation verb (e.g., atrophy) is understood as denoting a complex event with an external cause subevent as well as a change of state event though no external cause is specified. And transitive sentence with an internal causation verb (e.g., erode) is understood as denoting a single event with the entity in subjects position being part of the change-of-state event." (McKoon and MacFarland 2000: 856)

For ECCS verbs the lexical semantic template ((a) CAUSE (become (x state))) represents the causing event (a) as relatively independent of the change of state. Thus, the kinds of entities that can figure in the causing event should be relatively unrestricted the subjects of transitive sentences with external causation verbs were spread across artifacts, natural entities, animate beings, and abstract entities and events. In contrast, in the lexical
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semantic template of an ICCS event with only the one structural participant (x, the entity that changes state). If there is a second participant, it is licensed by the content part of the meaning, and it should be an inherent participant in the event, that is, an inherent participant in the change of state.

Again, as discussed in section 4.2, the ECCS verbs described here match precisely with ergatives, and the properties of the ICCS verbs also correspond with unaccusative verbs. That is, ECCS verbs like broke participate in transitive/ intransitive alternation with the same lexical representation (i.e., it has two structural participants) to represent the same event, which matches with the properties of ergatives. On the other hand, ICCS verbs like bloom have one single event structure (i.e., one structural participant), and thus occurs intransitively only. This matches with the properties of unaccusatives. Therefore, we can take this psycholinguistic experiment as a showcase that empirically validates the distinct treatment of unaccusatives and ergatives in English.

Finally, following again (Levin & Rappaport Hovav 1995) and McKoon and MacFarland (2000), the mechanism for syntactic representations relating two different types of verbs are briefly introduced. According to Dowty's sections principles, the argument with the greater number of proto-agent properties becomes the subject and the argument with the greater number of proto-agent properties becomes the direct object in a transitive construction. For ECCS verbs then, argument realization is fairly straightforward: The external cause will become the subject of a transitive use and the entity changing state will become the direct object. For an intransitive use of

12) The transitive use of unergatives (though it occurs mostly in figurative speech) deserves special attention and further investigation in the future study.

13) It is noted by McKoon and MacFarland (2000) that there are two components to the syntax-semantics interface. First, an assumption common in the literature is that, in order for sentences to be interpretable, elements in the syntax must be linked to the semantic representation, and elements in the semantic representation must be realized in the syntax. Recent proposal (e.g., Grimshaw & Vikner 1993, Rappaport Hovav & Levin 1998, Van Hout 2000) have extended such well-formedness conditions to event-based lexical semantic representations, so that each event or subevent must be identified by an element in the syntax. Second, there is the question of how event participants specified in the semantic by linking rules (Dowty 1991, Jackendoff 1990, Levin Rappaport Hovav 1995, 1996, vanValin & LaPolla 1997).

14) Dowty (1991) lists five proto-agent properties: volitional involvement in the event described by the verb, and existence independent of the event; and five proto-patient properties: undergoing a change of state being the incremental theme of the event. Being causally affected by another participant, and not having an independent existence. (McKoon and MacFarland 2000: 854).
an external causation verb, the lexical representation of the verb is still the same that is still has the external cause subevent but this information is unexpressed in an intransitive use. (Levin & Rappaport Hovav (1995) suggests existential binding for the mechanism). But the single expressed argument, the entity that changes state, is lexicalized in direct object position, thus giving rise to the ergative --in our term-- behavior characteristic of these verbs (Levin & Rappaport Hovav 1995). For intransitive uses of ICCS verbs, the mapping from lexical structure to syntax is the same as for the intransitive uses ECCS verbs. The single expressed argument is the entity affected in the change of state and it is lexicalized as direct object, again giving rise to unaccusative behavior (Levin & Rappaport Hovav 1995).

4.4. Relevance of Split Unaccusativity

As we have seen, all the syntactic, lexical semantic, and psycholinguistic evidence supports the validity of postulating split unaccusativity. In proposing the hypothesis, the author hopes that this will be a starting point for examining the linguistic phenomena surrounding ergativity (and also unaccusativity) in English from a new perspective. It is a matter of course that more effort needs to be made to further substantiate the relevance of this hypothesis in linguistic theory. Particularly, the universal applicability should be tested with more cross-linguistic data. Leaving these tasks for future endeavors, the possible benefits that can be gained from the new approach are predicted below.

One prediction is that this hypothesis will eliminate some stumbling blocks that arise from the irregular behaviors of the conventional unaccusatives in theorizing syntactic phenomena or mechanisms, such as case assigning, theta-assigning, grammatical relations, and argument structures. Since the hallmark of distinction of unaccusatives and ergatives lies in the recognition of more established intransitive verbs (i.e., unaccusatives) versus less established intransitive verbs (i.e., ergatives) within the conventional unaccusative system in English, it is a natural expectation that linguistic theory will become more sensible if we separate the two in terms of different categories.

Some insightful solutions may be also drawn in the areas of what are called "mismatches" surrounding unaccusativity (cf. Alexiadou 2004; Levin 1988a). It is highly likely that some mismatches arise due to the inherent categorical difference between unaccusatives and ergatives. For example, a bet-
A farther explanation can be offered as to the question of why Korean un­accusatives match their English counterparts very well, but Korean erga­tives do not match their English counterparts. For example, while Korean er­gative verb nayli- ‘fall; lower’ can be used intransitively and transitively, there is no corresponding English counterpart as shown in (23).

(23)a. cip-kaps-i nayli-ess-ta  
    house-price-NOM fall-PST-END  
    ‘The house prices went down.’

b. cuwin-i pang-kaps-ul nayli-ess-ta  
    landlord-NOM room-price-ACC lower-PST-END  
    ‘The landlord lowered the rent.’

As we can see here, two separate verbs are needed to express Korean erga­tive verb nayli- in English. The same is true for most English ergative verbs. For instance, using the ergative verb, close, the same event can be expressed by three ways in English whereas it can be expressed only two ways in Korean, as in (24).

(24)a. swuwi-ka mun-ul tat-ass-ta  
    janitor-NOM door-ACC close-PST-END  
    ‘The janitor closed the door.’

b. mun-i tat-hi-ess-ta  
    door-NOM close-PASS-PST-END  
    ‘The door was closed.’

c. *mun-i tat-ass-ta  
    door-NOM close-PST-EDN  
    ‘The door closed.’

As shown here, Korean does not have an ergative equivalent for the English verb close. Since there is no intransitive counterpart of English close in Korean, only way to express the intransitive use of close is to use a pas­sive construction when interpreted in Korean. This illustrates that lan­guages can be different with regard to expressing the ergative constructio­n, implying that speakers from different languages encode the same event

15) In fact, although it is very rare, the author has found one exception:
differently.

This similar point regarding inherent categorical difference between unaccusatives and ergatives can be made when we consider two different types of German unaccusative verbs (the primary unaccusative vs. the secondary unaccusative verbs) proposed by Ryu (1996), where he, in objecting a dichotomous distinction of intransitive verbs in terms of unergatives and unaccusatives, posits four different types of intransitive verbs in German based on the typology of the subject argument structures. The different characteristics of the four different types of German intransitive verbs in terms of split intransitivity (SI) diagnostics are shown in (25).

(25)

<table>
<thead>
<tr>
<th>SI phenomena:</th>
<th>Type 1</th>
<th>Type 2</th>
<th>Type 3</th>
<th>Type 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>arbeiten/tanzen</td>
<td>'to work/dance'</td>
<td>ankommen</td>
<td>'to arrive'</td>
<td>laufen/tanzen+pp</td>
</tr>
<tr>
<td>auxiliary selection:</td>
<td>haben</td>
<td>sein</td>
<td>sein</td>
<td>haben</td>
</tr>
<tr>
<td>impersonal passive:</td>
<td>yes</td>
<td>no</td>
<td>yes</td>
<td>no</td>
</tr>
<tr>
<td>prenominal attribute:</td>
<td>no</td>
<td>yes</td>
<td>yes</td>
<td>no</td>
</tr>
<tr>
<td>Agent nominalization:</td>
<td>yes</td>
<td>no</td>
<td>yes</td>
<td>no</td>
</tr>
</tbody>
</table>

According to Ryu (1996), Type 1 corresponds to the unergative verbs (e.g. arbeit 'work' ) and Type 2 to the primary unaccusative verbs (e.g. ankommen 'arrive'), Type 3 to the secondary unaccusative verbs (e.g. laufen + pp 'run (through)', bruch 'break'), and Type 4 to those verbs (e.g. schneien 'snow', regnen 'rain', bluten 'bleed'), which have not previously received any detailed account in the context of unaccusativity literature. The pri-

---

a. The driver moved the car. 
   a'. 'wuncensa-ka cha-lul wumciki-ess-ta
   driver-NOM car-ACC move-PST-END

b. The car was moved 
   b'. cha-ka wumciki-e.ci-ess-ta
   car-NOM move-INF.PASS-PST-END

c. The car moved. 
   c'. cha-ka wumciki-ess-ta
   car-NOM move-PST-END

As shown here, the English ergative verb move corresponds with the Korean ergative verb, wumciki: both can occur intransitively and transitively. Except for this exceptional case, most English ergatives have no equivalents in Korean, and they are expressed only by passive constrictions when interpreted in Korean.

16) This classification is based on the subject argument structure in that the least oblique argument is token identical (i) only to the external argument, (ii) only to the internal argument, (iii) both to the external argument and the internal argument, or (iv) to neither the external argument nor the internal argument.
mary unaccusative verbs (=Type 2) in German are similar to English un-
accusative verbs, which have a more stable categorical status than ergative
verbs whereas the secondary unaccusative verbs (=Type 3) in German at
least include verbs similar to English ergative verbs (e.g., bruch ‘break’) and
English unergative verbs (e.g., laufen ‘run through’). This again attests that
German also has both well-established group of unaccusative verbs and
poorly-established group of unaccusative verbs, which includes ergatives (in
this study) and other English unergative-like motion verbs.

The immediate benefit from split unaccusativity in this situation is that
we can at least achieve a well-drawn demarcation between a well-matched

group and an unmatched group. That way, a linguistic account becomes
more economical than an account that treats the two groups as an identical.
More importantly, we can find answers for the puzzle of unmatched erga-
tives when we relate this problem to the individual language's different
transitivity system. That is, we can claim that the English transitivity sys-
tem is relatively less stable than the Korean system, due to its flexibility in
utilizing its transitives in intransitive use (See Stubbs (1996) for his argu-
ment for unstable English transitivity system). This is because, contrary to
some researchers' observations that English ergative verbs are not pro-
ductive (e.g. Trask 1993), they are very productive. Halliday (1994: 144) notes,
that the “ergative pattern has come to prominence as part of a far-reaching
process in modern English” and that “the majority of verbs in common use
in English are ergative.” A similar observation was made by Sinclair (quoted
by Stubb (1996: 144)): “intransitive uses are probably intelligible with almost
any verb, although such uses initially need an evaluative adverb, as in these
examples from a wine club advertisement and an applied linguistics text-
book:

(26)[this wine] will continue to improve although it is drinking well now.
    Subjects who do not test well (who become over-anxious). (Stubb 1996:
    144)

The tendency of a transitive verb to be used intransitively is also found in

(27)a. These companies relocate to development areas.
    b. Organizations that have located in Milton Keynes.
Here the transitive verbs, *relocate* and *locate*, are used in intransitive clauses. According to Sinclair (1987), the intransitive use of *relocate* has recently entered the Cobuild Dictionary; the latter has not yet. This trend in which more transitive verbs are acquiring an intransitive usage in modern English implies that the transitivity system in English is unstable.

One consequence of this unstable transitivity in English is the unstable ergativity system, and this situation in turn creates more mismatches with other languages such as the Korean (ergative) system, in which transitivity is more stable due to its resistance toward inter-categorical use. The implication is that when it comes to class membership, unaccusatives tend to be more universal (e.g. more matches) while ergatives less so, cross-linguistically.

Finally, it is expected that the split unaccusativity hypothesis will illuminate the interface between semantics and syntax. It is the author's view that linguistic explanation without a serious consideration of the semantic aspect is untenable, simply because linguistic meaning is an essential component of a language system. Put differently, seeking a syntactic theory purely on a structural basis is bound to meet with limitations. It is encouraging that more linguists are now turning their attention to the interaction between linguistic meaning and form. Since the split hypothesis is semantically based, it is believed to be important for highlighting the interface between syntax and semantics when it is applied in a syntactic analysis.

5. Conclusion

A case for the split unaccusativity hypothesis was presented in this paper. In light of that, this paper reviewed the conventional unaccusative hypothesis, its theoretic development in the tradition of generative grammar, and the separate views on unaccusativity from different traditions, what the author calls the ergativity approach. The original unaccusativity hypothesis, proposed by Perlmutter (1978) and later adopted by many researchers from the field of generative grammar, postulates that intransitive verbs in many languages should be split between unaccusatives and unergatives in terms of patienthood. However, in recent studies, the unaccusativity hypothesis has faced several problems regarding irregularities of unaccusatives and "unaccusative mismatches", among others (cf. Alexiadou 2004). It is suggested that the possible source of the problems related to unaccusative puz-
Zles and mismatches lies in treating two separate classes as a single category. As an alternative, the author adopts the separate verb class, ergatives, which was originally introduced by researchers such as Halliday (1985, 1994), Sinclair (1987) and Haegeman (1994), and advances the "split unaccusativity hypothesis", in which the conventional English unaccusatives should be divided into unaccusatives proper (i.e., unaccusatives) and unaccusative hybrids (i.e., ergatives). Ergatives are those intransitive verbs that participate in transitive/intransitive alternation to represent the same event; unaccusatives refer to the rest of the conventional unaccusatives. The four determining properties, originally proposed in Oh (2004), have been reintroduced to redefine English ergatives. Furthermore, evidence from the areas of syntax, lexical semantics, and psycholinguistics has been provided to support the new hypothesis. Six pieces of syntactic evidence do indicate that there are distinct syntactic behaviors by these English ergatives, different from the rest of the conventional unaccusatives. It is also suggested that the unstable transitive system in English is responsible for ergatives. Stronger supporting evidence comes from lexical semantics, in which researchers (e.g., Levin and Rapport Hovav1995) claim that it is the event structure between the internally caused change-of-state verbs and externally caused state-of-verbs. These two types of verbs match with unaccusatives and ergatives respectively within the current hypothesis, and this confirms that positing different classes of verbs is semantically valid. Furthermore, this distinction proves empirically valid because psycholinguistic experiment data attest that those two types of verbs are situated in psychological reality.

The split unaccusativity hypothesis recognizes both the syntactic properties and the semantic basis of the ergatives, and it is projected that it will contribute to highlighting the interface between syntax and semantics, as well as resolve some issues in the unaccusatives puzzle and mismatches as noted by Alexiadou (2004) and Levin (1988a). A theoretical application, with more cross-linguistic data, is left for future study.

References

The Case for Split Unaccusativity Hypothesis

London: Edward Arnold.


Conference on HPSG (HPSG ’96, 20.-22.5.1995, CNRS, Marseille, France), University of Dusseldorf & University of Tubingen.


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Received: Dec. 1, 2004
Revised version received: Feb. 11, 2005
Accepted: Feb. 23, 2005