When it Does Not Fit Into The Schema

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Abstract. Second Language Acquisition research has indicated that English ergative verbs, a special sub-class of intransitives, pose acquisition problems for language learners and to some extent for native speakers as well. Studies on the topic have revealed that non-target passivisation of these verbs seems to be the most remarkable problem for learners from various mother language backgrounds. The ultimate cause of this unique interlanguage structure has always been within the concern of English language teaching.

Considering the nature of the problem, which is language universal rather than language specific, and learners’ consistent tendency to the passive structure, this study tries to shed light on the cause of the problem in connection with the schema theory. Detailed review of the evidence presented by previous studies under the light of cognitive procedures of sentence production process shows that expected sentence structure with ergative verbs is not consistent with learners’ existing knowledge about the grammatical organization of prototypical sentence. Besides, the non-target passivized structure emerges as an alternative way that fits into their current or past knowledge.

Key Words: Schema, ergative, transitivity, grammar, language teaching.

Özet. İkinci dil edinimine ilişkin araştırmalar, özel bir çeşit geçişsiz fiil olan “kılıçsız geçişsiz fiillerin” dil öğrenenler için, belli bir dereceye kadar da
anadili İngilizce olan kişiler için sorun olduğunu göstermektedir. Konu üzerindeki çalışmalar, bu fillerin hatalı olarak edilen yapı içinde kullanılmasının, anadilleri ne olursa olsun bütün öğrencilerin yaptıkları en belirgin yanlış olduğunu göstermektedir. Bu değişik aradıl yapı sının tam nedeninin ne olduğu sorusu İngilizce öğretiminin ilgi alanı içinde olmuştur.

Bu çalışmanın amacı, sorunun belli bir dile özgü olmasından çok genel bir mahiyette olmasını ve bu fillerin hep edilen yapı içinde kullanılmayı eğilimini dikkate alarak, şema kuramı ile bir açıklama getirmeye çalışmaktır.

Konuya ilişkin önceki çalışmaların bulguları, cümle üretiminde yaşanan bilişsel süreçlerin ışığı altında ayrıntılı şekilde incelendiğinde, kılıcısız geçişsiz eylemlerin gerektirdiği cümle yapısının, öğrenenlerin “tipik bir cümlelinin yapısına ilişkin mevcut bilgileri” ile ortuşmediği görülmektedir. Dahasi, bu fillerin yanlış olarak edilen yapı içinde kullanılması da öğrenenlerin geçmiş ve hâlîhazırda bilgileri ile ortuşan alternatif bir yapı olarak ortaya çıkmaktadır.

Anahtar Kelimeler: Şema, kılıcısız geçişsiz fiiller, geçişlilik, dilbilgisi, dil öğretimi.

I. Brief description of schema

Following Plato’s elaboration of the Greek doctrine of ideal types, nearly three centuries ago, in his work Critique of Pure Reason, Immanuel Kant (1781) claimed that new information, new concepts and new ideas are meaningful only when they can be related to something already known. Since then, many other terms including frame, scene, scenario and model have been used to express the phenomenon in the fields of psychology, linguistics, anthropology and artificial intelligence.

According to Greg Kearsley’s The Theory into Practice (TIP) Database¹, Bartlett (1932, 1958) is credited with first proposing the concept of schema. He suggested that memory takes the form of schema which provides a mental framework for understanding and remembering information. Mandler (1984) and Rumelhart (1980) have further developed the schema concept.

From that perspective, a schema can be regarded as a knowledge structure, or framework, which interrelates all of one’s knowledge about a given topic. According to Piaget (1970), schemata (plural form of schema) are cognitive structures that organize an individual’s operational activities. Classic schema

¹ WWW Version 2.5 available at http://tip.psychology.org/schema.html
theorists (e.g., Rumelhart, 1980; Taylor & Crocker, 1981) describe schemata as general knowledge structures residing in long-term memory.

Anderson (1977: 418, 419) lists the following characteristics of schemata;

- Schemata are always organized meaningfully, can be added to, and, as an individual gains experience, develop to include more variables and more specificity.
- Each schema is embedded in other schemata and itself contains subschema.
- Schemata change moment by moment as information is received.
- They may also be reorganized when incoming data reveals a need to restructure the concept.
- The mental representations used during perception and comprehension, and which evolve as a result of these processes, combine to form a whole which is greater than the sum of its parts.

The study of Walton, Armstrong and Bower (1998) revealed that formation of schemata starts even with birth. As discussed in the study, newborns, only a few hours of age, form schemata by identifying mother’s face.

Schema seems to be very important since it enables us “to perceive objects and occurrences around us and to make efficient sense of them by consulting our readymade store of similar occurrences and understandings” (Douglas and Hargadon 2001:155). Besides, serving as organizers for input, schemata facilitate the comprehension of new experiences. Moreover, “prior knowledge organized in schemata, in turn, influences the form and content of knowledge” (Richgels 1982:54). Schank and Abelson (1977:41) mention usefulness of script (an event schema that is “a predetermined, stereotyped sequence of actions that defines a well known situation”) in communication.

Schema has received significant empirical support from various studies from different fields. For example, in the experiments of Bransford and Franks (1971) participants were given a set of short sentences expressing simple concepts, and they were asked to identify which of the sentences they had seen before. Responses of the participants suggest that they automatically integrate familiar concepts into schemata that integrate these concepts. Studies on novice versus expert performance indicate that the nature of expertise largely depends on the possession of schemata that guide perception and problem-solving (Chi et al., 1988). From the viewpoint of language, schema is considered as “a stereotypic pattern derived from instances of past experience which organizes language in preparation for use” Widdowson (1983:27). Utilization of schema theory in the field of
language generally focuses on reading and while reading, readers develop a coherent interpretation of text through the interactive process of “combining textual information with the information that reader brings to a text” (Grabe 1988:56). Readers’ mental stores, which are schemata, are divided into two main types; content schemata [background knowledge of the world] and formal schemata [background knowledge of rhetorical structure] (Carrell 1983). In connection with reading, Halliday and Hassan (1989) note that schemata are important not just in interpreting information, but also in decoding how that information is presented, that is, readers use their schematic representations of text (whether it is narrative, compare and contrast, or cause and effect, etc.) to help them interpret the information in the text.

Schema application can involve different types of reasoning (Ericsson and Smith, 1991). Linguistic analysis of the utterance formation process reveals that, in language production, speakers seem to follow some procedures as a result of some reasoning consistent with their schemata.

II. Roots of the schemata underpinning language production

Among others, two aspects of language need to be highlighted in relation to the formation of schemata that play an important role in the language production process.

1) The most widely recognized function of human language is to communicate ideas (Crystal 1987:10), and roughly this communication takes place via utterances [that are complete units of talks bounded by the speaker’s silence] and in most cases (not always) these utterances correspond with sentences. Principally, the piece of language that fulfils our communicational needs by expressing statements, questions, exclamations, commands etc. is the sentence. For these reasons, the sentence can be considered as the basic unit in communication, therefore, from the viewpoint of language organization, the schemata on the sentence base seem to have the eminence among other possible schemata relevant to language production.

2) Dixon (1991:9) claims that the “verb is the centre of the sentence” because structure of the sentence (especially, the number and the relative order of the constituents that form the sentence) is mostly determined by the eventuality expressed by the verb. This evidence affects the way we look at the sentence structure. For example, Little (1994:106) argues that “whether we are concerned with explicit or implicit grammatical knowledge, words
inevitably come before structures”, because, as he adds, “explicit knowledge of grammatical rules is useless unless we know some of the words whose behavior the rules describe”. In the same line, Levelt (1989:181) states that “the lexicon [words] is the driving force in sentence production”, and adds that “this means that grammatical encoding is mediated by lexical entries”. Consequently, while forming schemata relevant to language production, either native speakers or language learners consider the relationships established by the interactions of semantics and syntax within the sentence structure.

III. Organizational patterns of the sentence on which schemata are based

Development of each sentence begins with a kernel sentence [which is the smallest, simplest, grammatical unit that still retains the properties of what a user of the language will accept as a complete sentence]. For example, “In the morning John saw a black cat escaping from a terrible dog” is a complete sentence, but its simplest acceptable [kernel sentence] form is “John saw cat”. In other words, a sentence with its minimal (or obligatory only) arguments is called a kernel sentence. From the semantic viewpoint, each (kernel) sentence looks like a performance or an act whose scenario is written by the verb. For example, considering any (kernel) sentence with the verb read, it is clearly seen that, the eventuality indicated (i.e., the scenario written) by the verb “read” logically requires at least two obligatory arguments;

a) a body who can perform the action reading (most probably a human being who is literate)

b) something that can be read (a book, a letter, a newspaper, an advertisement etc.)

The fact that eventuality indicated by the verb “read” requires two obligatory arguments [namely, (1) a body who is able to read and (2) something that can be read] is an ordinary conclusion that can be reached easily, and that conclusion is both shared across individuals and it reflects their experience, that is, it can serve as understructure for schemata.

If the formation of the kernel sentence is traced back to its roots in the mind, it is seen that it originates in relation to the obligatory arguments that can be
expressed in terms of semantic roles\(^2\) that these arguments bear from the viewpoint of the involvement of them in the situation expressed by the sentence. In the kernel sentence [John read advertisement], it is seen that the eventuality reading holds two arguments that are associated with two semantic roles respectively the role of agent (the role that the performer of reading bears) and the role of patient (or theme) (the role that the entity that undergoes the process of reading bears).

In the following stage, these arguments need to be encoded into (either spoken or written) a transmittable message in a linguistic form in which basic syntactic units are arranged in a predetermined order specific to the language spoken. The most important part of schemata formation on language production seems to take place in this stage where associations between semantic roles (agent, patient) and grammatical functions (subject, object etc.) are mapped. It is this canonical mapping that enables people to comprehend abstract ideas [originated in the mind] that are encoded into linguistic units in the form of messages, afterwards expressed in spoken or written form.

The following are the illustrations of this mapping within different sentences with various verbs that require different type and number of semantic roles.

**EXAMPLE 1:** The encoded message: The man walks

The scenario written by the verb “walk” requires only one obligatory actor or actress. In other words, the eventuality indicated by the verb “walk” requires only one obligatory argument that bears the semantic role agent.

\[\text{IN MIND}\]

[Figure 1: An utterance with one obligatory argument]

\[\text{AS AN UTTERANCE}\]

\[\text{The man walks.}\]

\[^2\] Semantic role is any of several semantic relations that an argument may bear from the viewpoint of its involvement in the situation expressed by the sentence. (Cook and Newson 1996:49).
The single argument that bears the semantic role “agent” is reflected as the grammatical function “subject” in the sentence. Usual mapping between semantic roles and grammatical functions on which the schema is based is:

Agent $\rightarrow$ Subject

EXAMPLE 2: The encoded message: The girl drinks coffee

In this case, the scenario written by the verb “drink” requires two obligatory complements. In other words, the eventuality indicated by the verb “drink” requires two obligatory arguments that bear the following semantic roles.

1. An agent (somebody who can perform the action drinking)
2. A patient (something [suitable for drinking] that undergoes the effect of the action [drinking] indicated by the verb[‘s scenario]

<table>
<thead>
<tr>
<th>IN MIND</th>
<th>Argument 1. Semantic role is agent. Refers to someone who can perform drinking.</th>
</tr>
</thead>
<tbody>
<tr>
<td>AS AN UTTERANCE</td>
<td>The girl drinks coffee</td>
</tr>
<tr>
<td></td>
<td>Argument 2. Semantic role is patient. Refers to something that can be drunk. (Here, it is coffee)</td>
</tr>
</tbody>
</table>

Figure 2: An utterance with two obligatory arguments.

The two arguments that bear the semantic roles “agent” and “patient” are reflected as the grammatical functions “subject” and “direct object” respectively in the sentence. Usual mapping between semantic roles and grammatical functions on which the schema is based is:

Agent $\rightarrow$ Subject
Patient $\rightarrow$ Direct Object
EXAMPLE 3: The encoded message: The man gives the girl a present.

In this case, the scenario written by the verb “give” requires at least three obligatory arguments that bear the following semantic roles.

1. An agent (somebody who can perform the action giving)
2. A patient (something that undergoes the effect of the action [giving] indicated by the verb[’s scenario] Here, it is something that can be given as a present.
3. A goal, (somebody to whom something can be given, or entity towards which something moves) Here, the one who receives the present.

The three arguments that bear the semantic roles “agent”, “goal” and “patient” are reflected as the grammatical functions “subject”, "indirect object" and “direct object” in the sentence. Usual mapping between semantic roles and grammatical functions on which the schema is based is:

Agent → Subject
Goal → Indirect Object
Patient → Direct Object
IV. The group of special verbs that pose problems in sentence production

In English, it is assumed that there is a sub-class of intransitive verbs, namely *ergative verbs* which have distinctive properties. Behaviour of these verbs in sentence formation is not consistent with existing knowledge and memory structure that encode the grammatical organization of a prototypical sentence. As stated by Yip (1994:126), “they look like active intransitive verbs in that they subcategorize for a single Noun Phrase” but, the usual relationship between semantic roles and grammatical functions is not observed in this type.

As seen in the following sentences (1), and (2), grammatical subject in such structures originates as the underlying object of a transitive structure (Radford 1988:446).


(2) Your report *reads* well. (Swan, 1980:457).

In recent years a number of studies indicated that this sub-class of intransitive verbs poses acquisition problems for learners. Studies on the issue (Burt and Kiparsky, 1972; Richards, 1973; Kellerman, 1978; Rutherford, 1989; Hubbard and Hix, 1988; Zobl, 1989; Abdullayeva, 1993; Yip, 1994; Hubbard 1994; Hirakawa, 1995; Ingham, 1996; Oshita, 1997; Montrul, 1999) have revealed that learners usually misuse such verbs. Among other problems, non-target *passivisation of these verbs* seems to be the most remarkable problem (Oshita, 2000; Ju, 2000) and a few of these

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3 The linguistic classification now often referred to as “ergative verbs” is first identified by Perlmutter in 1978 in the context of “Unaccusative Hypothesis”. This hypothesis proposes that “the class of intransitive verbs is not homogenous, but consists of two subclasses, each associated with a distinct syntactic configuration” (Levin and Rappaport Hovav, 1995:2). In 1981, Luigi Burzio integrated what Perlmutter had named “unaccusatives” into Government & Binding Theory and relabelled them “ergatives”. Among others, Keyser and Roeper (cited in Yip, 1994:126); Sinclair et al. (1990:155); Halliday (1994:163) and Radford (1988:446) followed Burzio in using the term ergative in this sense. However, the terminology for this phenomenon is a matter of academic debate. Pullum (1988:585) and Dixon (1994:20) oppose the term for some reasons. In fact, ergative verbs have some sub-types and the type mentioned in this work is termed as “middles” by Keyser and Roeper (1984 :384) or “verbs of promotion to subject” by Dixon (1991:322).
verbs, claimed to be grammatical according to grammar books, seem to be problematic for native speakers also (Can, 2000).

V. Grammaticality and acceptability of the structure

The body of literature which indicates the remarkableness of the problem makes it necessary to review the “grammaticality” of the structure along with its “acceptability”.


Dixon (1991:322) argues that “the semantic role which is most likely to be relevant for the success of an activity is placed in syntactic subject relation”. For example, in sentence (3) below, it is Mary (placed in subject position of the sentence) who is responsible for the lack of success.

(3) Mary didn’t pour the custard properly.

In the context above, the lack of success might be because of weak arms of Mary or her clumsiness or incompetence. As Dixon (1991:322) adds, in some particular instance of an activity, it is possible for the success or lack of success of an activity to be due not to the subject, but to some role in non-subject relation. Consider the following cases in sentences (4a) and (4b).

(4) a. The custard doesn’t pour properly.


In (4a), it might be due to the fact that the custard has too many lumps in it. In (4b) one cannot pour whatever the jug contains because the jug has a crooked spout. In both cases, subjects are not responsible for the lack of the success of the activity. In this case, the non-subject cause is promoted into subject slot and the original subject is omitted from the sentence. Likewise, it might be interpreted that “Sports cars sell quickly” since it is inherent in the nature of the vehicle that people want to buy them, or “The shirt washes easily” because of the material it is made of.

Additional examples listed below are claimed to be grammatical by the authors of the grammar books.

(5) a. The woollens washed well in the Hoovermatic.

b. I am afraid that this scene does not photograph well.
c. Porcelain sinks clean easily.
d. This boomerang throws well.
e. That box lifts easily.
f Your case carries easily.
g. This string won’t tie properly.
h. Top-floor apartments tend not to rent so easily as ground-floor ones.
i. These pills swallow easily.
j. This meat chews rather easily.
k. This kingdom governs easily with this social contract.
l. Shakespeare’s works translate well into French. (Dixon, 1991:322-34)

(6) a. The cloth tore.
b. The rice cooked.
c. My resolve weakened. (Halliday, 1994:163)

The ergative structure [called “promotion to subject” by Dixon (1991)] was introduced in some pedagogical grammar books under different headings mostly in relation to passive structure.

According to Palmer, the following examples in (7 a-b) were verbs that function as both transitive and intransitive.

(7) a. The bell rang.
b. The window broke. (Palmer, 1965:90)

Swan (1980:457) also considers “ergatives” as active verbs which can be used with passive meanings and lists the following sentences:

(8) a. Your report reads well.
b. The new Ford is selling badly.
c. It’s a pretty material, but it doesn’t wash. (Swan, 1980:457)

Eastwood (1994:142) introduces “ergatives” under the heading of “The Passive”. According to Eastwood, they are main verbs that can be used in
active form with a passive meaning. His examples are listed in the following sentences (9 a-c).

(9)  a. The singer’s latest record is selling like hot cakes.
    b. This sentence doesn’t read quite right.
    c. This sweater has washed OK. (Eastwood, 1994:142).

The following sentences (10-15) quoted from the British National Corpus 4 indicate that the structure is not only grammatical but also acceptable 5 since the corpus including such structures is the collection of examples of authentic language produced for communicational purposes. (Parentheses at the end of the sentences include corpus references (henceforth CR) listed in the references section.)

(10) The translation reads well (CR-01)
(11) This one washes well and feels soft to touch. (CR-02)
(12) The glass breaks easily along the line. (CR-03)
(13) It [sheet] tears easily in one direction (CR-04)
(14) It cooks well and is useful for children (CR-05)
(15) Sinclair’s Zike [electric bike] sells well. (CR-06)

Acceptability of the structure to some extent is also supported by some native speakers’ views as well;

According to Peltier 6 (p.c., 2000), ergative structure is mostly used in advertisements where the agent is left out to make it look like the buyer (or

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4 Sentences were taken via British National Corpus Online Service managed by Oxford University Computing Services and available at http://sara.natcorp.ox.ac.uk/lookup.html

5 Acceptability vs. grammaticality comparison reveals that the grammaticality of the structure is well debated and supported enough, but the infrequent instances in the corpus indicate that, with the exception of few verbs (i.e. read, sell, and break), acceptability is highly questionable. The acceptability issue shows that, although consistent with grammar, in the structure there is something unusual (that does not fit the mental framework of the speakers) which seems to prevent them from using the structure.

6 Casey Peltier is an Adjunct Instructor at English Language Institute, George Mason University, Fairfax, Virginia, USA. She holds a Masters of Arts in English Linguistics and a Graduate Certificate in TESOL from George Mason University. (p.c. via e-mail Date 15 May 2000)
receiver) is doing the action. She supports her claim with the following sentences: “Blouses that wash easily”, “A car that drives like a dream”, “Tools that sharpen quickly”, “Paint that goes on in a flash”, “Milk pitchers that pour neatly”, “Computer components that connect easily”. As seen in the examples, the structure emphasizes that the buyer can perform the action well and easily owing to the quality of the product rather than his or her performance.

Another native speaker (p.c., 2000), who tends to see the ergative use as a type of jargon (a type of variation), supports her claim stating that “The book reads easily is often used by writers, editors and reviewers, but in conversation a person would be more likely to say The book is easy to read.”

Considering the structure grammatical, Elliott (p.c., 2000) explains the distinction as a type of structural variation just like a regional variation or an idiolect which seems, at first, an uncommon [emphasis is mine] way of expression but each is correct.

VI. Problematic nature of ergative verbs and relevant studies

The problematic nature of the type of ergative verbs mentioned in this work is first documented by Kellerman in 1978 (cited in Oshita 1997:143). In the study, Kellerman used a grammaticality judgement task including 9 sample sentences containing English translations of nine different meanings of the Dutch word “breken”, where “broken” could actually be translated and transferred into English as the verb “break”.

Among his findings, what concerns us is the tendency of more advanced Dutch speakers to reject the typical English sentence (16) with the verb “break”.

(16) The cup broke.

While beginners generally accept the sentence (16) as grammatical, advanced learners favored either causative sentence (17) or the agentless passive sentence (18).

(17) Someone broke the cup
(18) The cup was broken

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7 A native speaker from, Texas, USA (did not permit her name to appear) (p.c. via e-mail Date 9 June 2000).
8 Don Elliott from Texas, USA (p.c. via e-mail Date 22 June 2000).
In another study on the topic, Abdullayeva (1993) researched “whether Turkish learners will treat both structures with ergatives and passive constructions as grammatically correct or they will show a preference for one of them”. Subjects of the study were 73 volunteer EFL [English as a Foreign Language] students who were grouped into three proficiency levels as low, mid and high according to the results of Michigan Test of English Language Proficiency. As a research instrument, a grammaticality judgement task [including sentences such as “Detective stories read quickly”] was used. Abdullayeva’s research showed that learners avoided structures with ergatives and preferred passive structures. It is remarkable within this research that the rate of avoidance increases as the proficiency level of the learners increases.

The avoidance of the sentence structure with ergative verbs is also observed by Yip (1994). In her contextualized questionnaire, she asked the subjects to judge the grammaticality of sentences including such verbs. Besides, subjects were also asked to make corrections if a given sentence was judged to be ungrammatical.

The following sentences (19a-c) are from Yip’s judgement task, and include participants’ corrections:

(19) a. The mirror shattered during the earthquake
   Correction → was shattered

b. My car has broken down
   Correction → has been broken / was broken down

c. What cooks most quickly?
   Correction → can be cooked (Yip 1994:129 (12-14))

The judgments showed that even the most advanced learners are unable to accept all of the ergatives in expected word order. Even the highest scoring informant, a linguistics graduate student, judged the sentences including ergatives as probably grammatical (Yip 1994:128).

In 1995 Hirakawa investigated Japanese speakers’ acquisition of syntactic NP-movement\(^9\) in English with respect to constructions that involve a group

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\(^9\) Movement is “any operation by which a word or phrase is moved from one position in a structure to another” (Radford 1997:265). According to this movement rule, an NP occupying a surface subject position in a passive construction is moved to this position from an underlying object position. For
of verbs including ergatives. (cited in Oshita 1997:142). Among the results that she obtained, Hirakawa reported that subjects inappropriately passivised the ergative verbs.

Ingham (1996) examined how L2 [Second Language] learners of English acquire ergative verbs using a grammaticality judgement task including 20 test sentences containing verbs in ergative constructions and 19 distracter sentences. A total of 147 subjects, who were learners of English in secondary schools in Hungary and Hong Kong, participated in Ingham’s research, and they were grouped according to their L1 [mother language] backgrounds as Cantonese group, Hungarian Group and mixed group. Subjects were instructed to accept or reject the grammaticality of the sentences. As Ingham stated, especially Cantonese speakers rejected grammatical sentences including ergative verbs in mentioned structure. Their erroneous rejections were 197 out of 381 occasions [51.70 %] (Ingham 1996:42).

Montrul (1997) carried out an experiment to see whether learners know different verb classes in terms of their transitivity. Participants were 17 native speakers of Turkish, 29 Spanish-speaking learners of English and a control group of 19 native speakers of English. Montrul (1997:36) reported that “these results replicate Kellerman’s (1978, 1983) findings with Dutch learners of English and Yip’s (1995) findings with Chinese learners of English.

As an attempt to diagnose the problems of Turkish learners with ‘ergative’ verbs in English, Karacaer (1998:168) conducted a study based on Yip (1994). Participants of the study were 40 EFL [English Foreign Language] University students at intermediate level. As a research instrument, a grammaticality judgement task was adopted from Yip’s (1994) study. Karacaer’s findings indicated that the number of erroneous judgements on ergative verbs was greater than double the number of erroneous judgements on the other verbs. Another interesting finding of the study was the fact that second year students were more successful than the fourth year students.

The following (20a) and (20b) are experimental sentences which were regarded as ungrammatical by the students, and the students’ corrections for example, The sentence, “Janet was arrested e” is derived from “e arrested Janet.” [Here “e” represents an empty category, that is, any abstract element which has no overt realisation but which is posited as occupying NP position (Trask 1993:90)] In the same way, ergative “The cup broke e” is derived from underlying “e broke the cup” by means of NP movement.
these sentences. Results indicate that the problem is *passivisation of ergative verbs* by learners.

(20) a. On the halfway to the cinema, our car *broke down.*  
(Correction → *was broken down*)  
b. While we were.... and the window *shattered.*  
(Correction → *is shattered*)  
(Karacaer 1998:173 (1),(2))

To see “how Turkish learners of English use ergative verbs and what type of errors they encounter in using these verbs” another study was conducted with the participation of 50 1st year university students [teacher candidates from English Language Teaching Department] and a total of 50 native speakers of English [who served as a control group] (Can 2000). In order to assess the participants’ perception of ergative verbs, a sentence completion task was administrated. In this task, for each ergative verb, a passage including vital contextual information 10 that requires ergative structure was written, and each passage was ended with an incomplete sentence, where the predicate 11 was missing. Almost all learners favoured passive structure in the task instead of ergative ones yet the necessary contextual information is supplied. The experiment also revealed that some of the verbs expected to be in ergative structure were used in passive structure by some of the native speakers as well. Especially passivisation rates of the verbs, *swallow* (by 66% of them), *carry* (by 54% of them) and *cook* (by 24% of them) are remarkable (Can 2000:103). In conformity with the results of the previous studies, although not statistically significant, negative correlation between scores of learners and their proficiency levels was observed (Can 2000:109).

Considering the literature review on the problematic nature of ergative verbs, the following remarks can be made;

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10 This contextual information is based on the cases in which ergative NP-V structure in active voice is claimed to be necessary by Dixon (1991:322) and Thewlis (1997:57). Briefly, contexts in which success (or lack of success) of the activity is not due to the Subject are created, and in some instances this aspect of the context is emphasised. A number of minor issues related to distinctions between British English and US English (e.g. *To swallow a pill* and *Swallowing a pill*, or *ready meals* or *ready-made meals*) were not taken into consideration since the control group includes native speakers from both UK and the USA.

11 Verb of the sentence from the viewpoint of its function.
1) Studies with participants from various first (mother) language backgrounds (and with some native speakers as well) indicate that the problem is not language specific, that is, it is irrelevant to the mother languages of the learners. Moreover it can be generalised to the ways in which humans construct logical formulations consistent with the grammar of English.

2) With the exception of the structure that is the preference of few native speakers’ [i.e., *Skirt is easy to wash* instead of *Skirt washes easily*], typical preference is non-target passivisation of the ergative structure, which seems to be the result of the same type of conventional reasoning rather than an erroneous production.

3) A considerable body of research (Kellerman 1978; Abdullayeva 1993; Yip 1994; Karacaer 1998; Can 2000) indicates that, quite interestingly, passivisation rate of learners increases as their proficiency level increases. This tendency might be due to the increasing effect of an internalised and reinforced rule underpinning the relevant schemata, i.e., the cause for passivisation, as the result of the development in proficiency.

**VII. An account for the problem from the viewpoint of schema theory**

As has been discussed previously, production of a sentence occurs in two phases. The first phase takes place in the mind where the speaker figures out the arguments that are necessitated by the eventuality expressed by the verb and then assigns the plausible semantic roles for the arguments. From the viewpoint of schemata, this phase is not problematic for native speakers and learners of the language, since the process in this stage is free from the type of language spoken and is based on the common reasons serving as an account for most things happening around us. Specification of the arguments required by the eventuality expressed by the verbs and the types of semantic roles that these arguments bear always agree with the everyday experience. For example, one who imagines the eventuality “reading” realises that this eventuality cannot take place without somebody who is literate and without something that is read. This knowledge is part of world knowledge rather than linguistic knowledge. For that reason, conventions of this stage can be regarded as universal facts on which schemata are formed, since they are created through experience with people, objects, and events in the world. For example, one can run alone, but cannot read without *something that can be read*, or one can read *something*, but cannot give a present without *something that can be given as a present* and somebody to whom that present
is given. These details can be considered place holders of the images of events in our minds filled in by contexts.

On the other hand, either in mother tongue acquisition or during long periods of language instruction, people seem to reach some generalizations unconsciously about the associations between the arguments in their minds and reflections of these arguments as grammatical functions (i.e., subject, object) of the sentence structure considering the semantic roles of these arguments (i.e., agent, patient) and relative positions of the grammatical functions. This generalization seems to be a must, because in order to interpret the meaning of the sentences it is necessary for people to have conventions about the structures of a string of sounds or written symbols. In other words, behaving as a key to decipher a code, it is this convention that enables different people to reach the same conclusion on the meaning of the same utterance or the same written sentence.

It is the set of these conventions about the sentence structure on which various schemata relevant to different aspects of the sentence construction are formed.

For example, the reason why the sentence “*The girl beautiful is” looks odd is the unconventional word order of the grammatical functions. The word order in the above sentence does not fit the expected word order of the grammatical functions of sentences that have default positions for their grammatical functions. Consequently, this sentence cannot be interpreted easily because the order of the grammatical functions does not fit into the schema relevant to the prototype sentence structure where grammatical functions have usual positions.

Although Chomsky’s famous sentence “Colourless green ideas sleep furiously” (1975:15) has the usual word order, but it still sounds odd. This time what violate our schema are the unusual semantic roles that syntactic functions bear. The situation stated by this sentence cannot be comprehended because, according to schema theory, a situation can only be defined and understood through a comprehension of the full schema into which the new situation could fit properly. In this new situation stated by the sentence, it is contrary to our generic set of expectations that “an idea sleeps”, that “an idea is green”, and although it is nonsense for an idea having color, that “an idea is both green and colorless” and “sleeps in a furious manner”.

In English the usual relation between semantic roles and grammatical functions is AGENT- SUBJECT and PATIENT- OBJECT as seen in the following sentence.
Margaret reads the report.

Semantic Roles
AGENT
PATIENT

Syntactic Functions
SUBJECT
OBJECT

As Anderson (1977) remarks “this correlation [agent-subject and patient-object] is overwhelmingly regular and should therefore form ‘part of the semantic component’ of a grammar of English” (cited in Zobl 1989:205).

On the other hand, in an English sentence with an ergative verb, contrary to the generalization above, and contrary to the schema relevant to this relationship as well, the relation between thematic roles and syntactic functions appears to be SUBJECT-PATIENT as seen in the following sentence;

This report reads well.

Semantic Roles
PATIENT

Syntactic Functions
SUBJECT

Besides, the English language makes no grammatical distinction between the “subject” and “object” especially from the viewpoint of morphological marking no matter what type of semantic role they bear. For example, the noun phrase “the window” is “subject” in sentence (23) and “object” in (24) respectively, but its form never changes according to the syntactic function it undertook.

The window broke suddenly.

The child broke the window.

This property of the language does not provide the speakers with any additional clue that helps them with distinguishing the structure of a sentence with ergative verb. For that reason, when they are noun phrases, grammatical

More specifically, it has been proposed that semantic roles are hierarchically organised. For example, according to semantic hierarchy assumed by Larson (1988:328) semantic roles form an ordered list and there are rules that link arguments bearing certain semantic roles to certain positions in syntax. Given the semantic roles $\alpha$ and $\beta$, if $\alpha > \beta$ on the semantic hierarchy, then the element $\alpha$ will be projected at a “higher” position in phrase structure than the element $\beta$ (Juffs 1996:179).

Pronouns are an exception to this generalisation since they are marked morphologically when they are Subject or Object as in She is a beautiful girl, but Joe doesn’t love her.
functions of the ergative structures remain morphologically indistinguishable. Therefore, the way the speaker processes them remains under the effect of the previous schemata based on the associations with the conventional positions and semantic roles required by these positions.

For example, let us imagine a learner who reads (or hears) the following sentence;

(25) Margaret reads the report.

Considering the usual positions of the grammatical functions of a prototype sentence (according to the schema on which sentence structure is based), the learner regards the report as the object and Margaret as the subject. Then, the same learner, who formed the schema that the verb of a sentence assigns the semantic role Agent to the Subject and the role Patient to the Object, interprets the argument report (even without knowing its dictionary meaning) something that can be subjected to the action reading, that is, something written which can be read. Likewise the argument “Margaret” is interpreted as the person who reads the report.

When a native speaker (of English) who has internalized the grammar of the language, or a learner at a certain proficiency level (where he or she is able to associate semantic roles with syntactic functions) confronts a grammatical function which is not in harmony with the semantic role it bears, more specifically, a subject bearing the semantic role patient contrary to the generalisation stated previously, he or she has difficulty in comprehending the structure since the new information does not fit into the existing schema about the usual relationship between grammatical functions and semantic roles.

This case is observed in Sentence (26)

(26) These clothes wash well (Dixon, 1991:327)

Such a sentence poses an unusual and interesting case for a learner who has acquired syntactic positions of sentence constituents and possible semantic roles for them, since according to the generalization stated above, “These clothes” is interpreted as the entity that performs the action, because, according to the relevant schema, the position implies that it is the grammatical subject, and the same schema assigns the agent role to this subject function. In this stage, referring to mental lexicon, the learner realizes that “cloth” is not something that can perform the action, and this case poses a conflicting situation. There is empirical evidence in the following quotations that supports the above claims. The following in (27) are the first item of a sentence completion task designed to assess how
learners interpret ergative verbs including the learners’ comments on how they reason while doing the first item. It should be noted that, as the terminology they use reveals, participants [who are English Teacher candidates] are aware of the syntactic structure of English.

ITEM 1: Mary always washes her skirt until it is clean. We know that the skirt is made of material capable of being washed without fading or other damage. We can say that Mary’s skirt …………….well. (to wash)

(Can 2000 :141 [Appendix D])

“Mary’s skirt must be washed”, because “skirt” is the “object” of the sentence. Since the sentence starts with “the skirt” (which is the object of the sentence), the structure must be in passive. (Participant 07)

“Mary’s skirt is washed”, because the subject “skirt” cannot perform the action. (Participant 13)

“Skirt can be washed”, because the subject of the sentence is “Mary’s skirt”. Since the “skirt” is not able to wash itself, verb of the sentence should be used in passive voice. (Participant 20)

“Skirt is washed”, we cannot say “Mary’s skirt washes”, we have no way of saying this without using passive. (Participant 22)

“Skirt is washed”, because Mary’s skirt is washed by Mary. (Participant26)

Since the skirt cannot wash itself, “skirt can be washed”. Sentence must be in passive. (Participant 27)

Since Mary’s skirt cannot wash itself, it must be washed by somebody. So, “is washed well”. (Participant 29)

In the sentence “Mary’s skirt ….” there is no genuine subject. Consequently, it is necessary to use passive. (Participant37)

(Can 2000:119, 120).

From the constructivist viewpoint, learning is an active process in which learners construct new ideas or concepts based upon their current or past knowledge. In such cases, the learner transforms the information, constructs
hypotheses, and makes decisions relying on previous cognitive structures. These cognitive structures (i.e., schemata) provide meaningful grounds on which learners can construct and produce.

Speakers’ tendency to form passive structures (or avoidance of ergative structures) can also be accounted by “constructivism” since what they produce is a new structure different from what is expected, and this new structure is based upon their current or past knowledge. The passive structure seems to be an outlet that goes along with the current and past knowledge when they avoid ergative structure since the passive is another configurational mapping which can assign the semantic role patient to the position of grammatical subject but, in this case, with a morphological marking of the verb phrase. For a learner who has acquired the schema relevant to the passive structure and who can make associations between syntactic functions and semantic roles, this alternative schema induces a common hypothesis; whenever the argument in subject position bears the semantic role patient (instead of agent), the verb should be marked with passive morphology. Consequently, in order to fit the new structure into the existing schema, learners apply the passive rule to ergative verbs which assign the semantic role patient to the argument in subject position.

If the schemata are formed through repeated exposure, then repetitions or mastery should reinforce the schemata itself and its effect as well. If the problems of language production in ergative structure stem from conflicts between new information and existing schemata, then those who have reinforced existing schemata should encounter the ergative problem more. As stated in section 6, a number of studies have confirmed that there is correlation between erroneous use of ergative verbs and proficiency level of the learners. This is the case that the more learners know about syntactic positions of grammatical units and the semantic roles that they can bear, the more they avoid the ergative structure and favor the passive. This result is in conformity with the reasoning that reinforced schemata formed by proficient learners affect the way they produce sentences with ergative verbs more. In other words, the more they have reinforced their schemata, the more they prefer the passive structure.

VIII. Conclusion

Although grammatical and -to some extent- acceptable, a sentence structure with some special intransitive verbs, namely ergatives, is problematic for learners of English and, concerning few verbs, for some native speakers as well. A considerable body of literature on the topic indicates that learners
from different mother language backgrounds encounter the problem and their non-target preference is the same for all. This evidence reveals that the problem is not language specific from the viewpoint of the mother tongues of the learners. Besides, agreement of the learners from various languages on non-target passivisation demonstrates that the non-target passivisation might be the result of some cognitive mechanisms rather than a mere error.

This study, based on the review of the literature on the topic, intended to account for the reasons for the problem within the framework of schema theory. The evidence revealed by the previous studies indicates that the problem stems from the fact that the structure of the sentences with ergative verbs is different from usual sentence structure and the new structure cannot be related to previous schema relevant to the sentence structure already known. In this case learners, following the way proposed by the constructionist view, construct a new structure that fits best their current or past knowledge.

This study also emphasizes the importance of the claim made by Carrell and Floyd (1987), that the ESL teacher must provide the student with appropriate schemata she or he is lacking, and must also teach the student how to build bridges between existing knowledge and new knowledge.

A native speaker ¹⁴ (p.c., 2000) using the verbs “wash”, “break”, “cook” and “read” in ergative structure, but raising an objection against the grammaticality of the structure with the verb “swallow” by claiming that “pills can’t swallow” is later asked if “a skirt can wash itself” in ergative structure with the verb “wash” (p.c., 2001)¹⁵. The following are direct quotations from her reply which explains the reason why she uses the verb “wash” in ergative structure, but not the verb “swallow”: “I think it’s because I’ve heard other examples, e.g., that something ‘washes easily,’ before, but never that ‘a pill swallows easily’ ” (p.c., 2001)¹⁶

As the above communication hints, lack of exposure seems to be the cause of the problem and exposure to the new structure might be the first step towards the solution. On the other hand, referring to a number of research findings, Yip (1994:125) states that comprehensible input is certainly necessary, but not sufficient for successful acquisition. From that viewpoint,

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¹⁴ Janis van Zante (writer and editor of English language teaching materials and teacher trainer). From Boulder, Colorado, USA (p.c. via e-mail Date 23 June 2000).
¹⁵ via e-mail (Date 04 March 2001)
¹⁶ via e-mail (Date 06 March 2001)
the input itself might be insufficient in providing learners with the appropriate evidence to form relevant schemata in which ergative structure is embedded.

The issue of “learnability” of a second language proposed by Zobl (1988), Rutherford (1989, cited in Yip 1994:125) and White (1989) involves the mechanism of progression from one state of knowledge to the next, and according to this issue, what seems to compensate the inadequacy of the sole input in acquisition of second language is the negative evidence, that is the information that a structure is ungrammatical or inappropriate in the given context. As White (1988:3) claims, in some situations it is necessary to draw the learners’ attention to the fact that certain forms are non-occurring, or ungrammatical in the target language. Considering the general preference for the passive structure instead of ergatives, Yip makes the following remarks:

There is no positive evidence in the English input for the nonoccurrence of these forms: They simply do not occur in the input. Hearing positive evidence exemplifying the ergative construction containing these verbs could not reliably lead the learner to the conclusion that they do not undergo passive (1994: 131).

Finally, the best way to form schemata consistent with ergative structure seems to be exposure to the new structure since most of the language conventions are a result of exposure to the language through communication. In the next stage, regarding the proficiency levels of the learners, relevant schemata might be elaborated via structural analysis of the utterances with ergative verbs directing the learner’s attention to the nature of the structure that does not fit into the current schema instead of leaving it up to chance for the learner to notice.

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Şemaya Uymadığı Zaman

Özet

Kişilerin herhangi bir konuya ilişkin bütün bildiklerinin birbiriyile ilişkilendirildiği bilişsel yapı ya da çerçeve şema olarak adlandırılır. İçinde dil öğreniminin de bulunduğu değişik alanlarda, şemalara ilişkin görgülü çalışmalar yapılmış, dile ilişkin olarak, geçmiş deneyimlerin oluşturduğu ve var olan dil kullanımı üzerinde etkileri olan klişeleşmiş örnekler ya da yapılar şema olarak adlandırılmıştır. Bu çalışmalarda,
şemaların, sadece dil ile kodlanan bilgiyi anlamlandırmada değiş aynı zamanda bilgiyi dilsel olarak kodlamada da önemli bir rol oynadığı görülmuştur. Gerçekten de, kişilerin dilsel ifadelerini üretme süreçlerini dilbilimsel analizleri incelediğinde, bunların kişilerin var olan şemaları ile uyumlu bazı akıl yürütmeallerinin sonucu olarak ortaya çıktığı görülülmektedir.

Kişiler dili, iletişim gereksinimlerini karşılamak için kullanırlar ve dil üretim sürecinde, herhangi bir iletişim işlemini yerine getiren ifadeler çoğu kez bir cümle ya da cümlede işlevindeki dilsel formlar şeklinde ortaya çıkar. Bu cümlelerin sözdizimsel ve anlamsal yaplara da yüklenmekte. Yüklemünün sözdizimsel ögelere ve bu ögelere yüklenen anlamsal rollerini belirlediği cümleler içinde, sözdizimi ve anlam arası ilişkiler şemalarına göre yapılandırılır.


İngiliz dilinde, sözdizimsel olarak etken yapıda görünen cümlelerde kullanılan, geçişli bir forma günümüzlerine rağmen, içinde yer aldığı çekirdek cümle kurgulanırken nesne ögesi ile kodlanabileceği anlamsal bir rol gerektiren bir dizi fiil vardır. “Kiличıșiz geçişli eylemler” olarak Türkçe alanyazına geçen fiillerle oluşturulan cümlelerde, anlamsal roller ile bu
anlamsal rollerin karşılığı olan cümle öğeleri arası ilişkiler, kliğeleşmiş ilişkilerden farklı bir biçimdedir.

Bu tür fiillerin kullanıldığı cümlelerdeki dilbilgisel yapının doğru olduğu İngilizce Dilbilgisi kitaplarında yer almaktadır. Ayrıca, kullanınlık açısından yapılan taramada da benzer cümlelerin British National Corpus (İngiliz Ulusal Derlemi) içinde yer aldığı görülmektedir.

Alanyazında farklı anadillerden gelen öğrencilerle yapılan pek çok çalışmada, kılıçsız geçişsiz eylemlerin, gerekli olduğu bağlam larda, doğru olmayan bir biçimde, edilgen yapıda kullanılmasının dil öğretiminde belirgin bir sorun olduğu ifade edilmektedir. Bu çalışmalarında, İngilizce öğrencilerin, kılıçsız geçişsiz eylemleri edilgen yapıda kullanma eğilimleri ile genel İngilizce yeterlik düzeyleri arasında pozitif bir ilişki olduğu görülmektedir. Başka bir ifadeyle, kişilerin İngilizce yeterlik düzeyleri arttıkça, edilgen yapıda kullanma eğilimleri de artmaktadır. Bu bulgular da, mevcut yapının, dil yeterliği artışça belirginleşen genel şemalar akyıri olduğunu desteklemektedir.
