

A Critical Review of the Unaccusative Trap Hypothesis: Theoretical, Conceptual and Empirical Issues

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Abstract—The Unaccusative Hypothesis (Perlmutter 1978; Burzio 1986) posits that intransitive verbs are not homogenous, but can be further divided into unaccusative verbs and unergative verbs. This distinction has ever since become a topic of heated discussion not only in the field of theoretical linguistics, but also in applied linguistics. Oshita (1997, 2001) proposes the Unaccusative Trap Hypothesis to delineate the mental representation and developmental path of L2 acquisition of unaccusatives. This hypothesis suggests that unaccusatives are first misanalysed by L2 learners as unergatives and L2 learners have to undergo a three-stage process before they can truly acquire the distinction between unaccusatives and unergatives. This hypothesis also predicts a U-shaped pattern in the non-target passivization and avoidance of unaccusatives by L2 learners of different levels. This study is focused on the Unaccusative Trap Hypothesis with L2 English as its main example. It first of all gives a lengthy account of this hypothesis by introducing its framework, foundations, content and predictions. Then it points out that the Unaccusative Trap Hypothesis is theoretically innovative, but conceptually inadequate and empirically controversial. Finally, this study calls for more studies to test and improve the Unaccusative Trap Hypothesis.

Index Terms—The Unaccusative Hypothesis, the Unaccusative Trap Hypothesis, critical review

I. INTRODUCTION

The Unaccusative Hypothesis (hence shortened as the UH) was first proposed by Perlmutter (1978) in the framework of the Relational Grammar and later integrated by Burzio (1986) into the Government and Binding theory. This hypothesis suggests that intransitives are not a homogenous group, but can be further divided into two subgroups: unaccusatives and unergatives. Semantically, the sole Noun Phrase (hence shortened as NP) of unaccusatives plays the role of theme, while that of unergatives acts as the agent. Syntactically, the sole NP of unaccusatives is mapped to the object position at the D-structure, whereas that of unergatives falls onto the subject position at the D-structure. Therefore, the surface subject of unaccusatives is derived from the underlying object through the NP movement, while that of unergatives is base-generated as the subject. The differences between unaccusatives and unergatives can be seen more clearly by comparing them with transitives, as shown in Table 1.

TABLE 1:
 THEMATIC AND STRUCTURAL DIFFERENCES BETWEEN UNACCUSATIVES, UNERGATIVES AND TRANSITIVES

	Unaccusatives	Unergatives	Transitives	
	The ball dropped.	The baby cried.	The baby dropped the ball.	
Thematic role	Theme	Agent	Agent	Theme
D-structure	Object	Subject	Subject	Object
S-structure	Subject	Subject	Subject	Object

With respect to the verb's argument structure, unaccusatives and unergatives are different from each other, despite the fact that both of them have only one argument. Again this difference between unaccusatives and unergatives becomes clearer when they are compared with transitives, as shown in Table 2.

TABLE 2:
 ARGUMENT STRUCTURE DIFFERENCE BETWEEN UNACCUSATIVES, UNERGATIVES AND TRANSITIVES

	Unaccusatives	Unergatives	Transitives
Argument structure	\emptyset (y)	x (\emptyset)	x (y)

In Table 2, X stands for the external argument, y the internal argument and \emptyset no argument. It can be seen that transitives have both an external argument and an internal argument. In contrast, unaccusatives have an internal argument but no external argument, whereas unergatives have an external argument but no internal argument.

According to Levin and Rappaport Hovav (1995), the distinction between unaccusatives and unergatives is semantically determined and syntactically represented. It is worth noting that the distinction between unaccusatives and unergatives is linguistically universal in that it exists not only in English, but also in other human languages such as Chinese. Of course, the specific syntactic manifestations of unaccusativity may vary with languages.

The distinction between unaccusatives and unergatives is not only a topic of heated discussion in theoretical linguistics, but also in the field of second language acquisition (hence shortened as SLA). As Deguchi and Oshita (2004) point out, the acquisition of unaccusatives is one of the most extensively studied L2 lexical issues. It is a topic that has been explored by many researchers in various combinations of L1 and L2, e.g., L2 English by L1 Chinese, Japanese, Korean, Italian, Spanish (Hirakawa, 2000; Hwang, 1999; Ju, 2000; Mo, 2012; Oshita 1997, 2000, 2001; Yip, 1995; Zobl, 1989), L2 Chinese by L1 English (Xue, 2007; Yuan, 1999), L2 Japanese by L1 English (Hirakawa, 2000), and L2 Spanish by L1 English and Turkish (Montrul, 1997, 2004, 2005).

As far as English as a second language (hence shortened as L2) is concerned, the distinction between unaccusatives and unergatives is not readily observable on the surface because both types of verbs canonically appear in the NP-V structure. Moreover, this distinction is not explicitly taught by L2 teachers. Therefore, it is of great importance to investigate whether L2 learners can acquire this distinction. Although it is generally agreed that L2 learners can acquire this distinction (Hirakawa, 2000; Oshita, 1997; Zobl, 1989), it is debatable when they can acquire it. Some researchers believe that L2 learners, guided by Universal Grammar (hence shortened as UG), are aware of this distinction from the very beginning of their L2 learning (Hirakawa, 2000; Mo, 2012; White, 2003). Others, however, argue that L2 learners are not aware of this distinction until they reach the intermediate stage of their L2 learning (Deguchi and Oshita, 2004; Oshita, 1997). They suggest that UG is not accessible in the initial stage of L2 acquisition of English unaccusatives.

II. UNACCUSATIVE-RELATED PHENOMENA IN L2 ENGLISH AND OTHER LANGUAGES

It is found that L2 learners tend to behave differently with English unaccusatives from unergatives. Oshita (2001) lists seven unaccusative-related phenomena in L2 English. Firstly, L2 learners tend to produce and accept ungrammatical and contextually inappropriate passive unaccusatives (e.g., **¹An accident was happened* or **The snow was melted*). This tendency is called passivization or overpassivization. It is the most conspicuous and most extensively studied unaccusative-related problem in SLA. Secondly, L2 learners are reluctant to accept unaccusatives presented in the canonical NP-V sentence (e.g., *A letter arrived* or *People's life expectancy has increased*). This tendency is called avoidance. It is much less observable than passivization, because it only surfaces in judgment tasks. Thirdly, L2 learners are more likely to produce or accept unaccusatives in the V+NP structures with or without an expletive (e.g., *There/*It/∅ happened an accident*). Fourthly, nontarget phenomena with unaccusatives are more noticeable among L2 learners at intermediate and even higher proficiency levels. Fifthly, unlike unaccusatives, unergatives are rarely passivized or used in postverbal NP structures, or judged as ungrammatical in the NP-V order. Sixthly, despite phenomena One to Five, most of the unaccusatives are used correctly in the target NP-V order. Seventhly, a U-shaped development is observed in the acquisition of unaccusatives, notably, with respect to the avoidance phenomenon.

It is also found that L2 learners tend to make the distinction between unaccusatives and unergatives in Chinese, Japanese, Spanish and other target languages. For example, L2 learners tend to associate the V-NP order more with Chinese unaccusatives than unergatives when the NP is indefinite.

III. OVERVIEW OF THE UNACCUSATIVE TRAP HYPOTHESIS

The Unaccusative Trap Hypothesis (hence shortened as the UTH) is important for two reasons. First, it attempts to bring several unaccusative-related interlanguage phenomena together. Second, it is the first hypothesis to address the developmental path of L2 acquisition of unaccusatives.

A. Framework

According to Sorace (2000), the Principles and Parameters Theory is still the most productive framework for the research on the syntax-semantics interface, despite the advent of the Minimalist Program (Chomsky, 1995). Since unaccusativity is a typical case of the semantics-syntax interface (Levin and Rappaport Hovav, 1995), Oshita (1997) situated the UTH within the framework of the Principles and Parameters Theory (Chomsky, 1981). The Principles and Parameters Theory assumes that the structure of natural language grammar has lexical and syntactic components. An overall outline of such a structure is schematized in Figure 1.

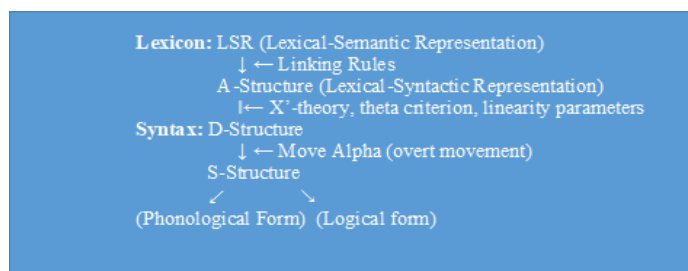


Figure 1. Structure of Grammar (Oshita, 1997)

¹ Note: The * symbol stands for an error.

Figure 1 shows that grammar consists of two major components: lexicon and syntax. The lexicon contains the semantic and syntactic information of lexical items. According to Pinker (1989) and Levin and Rappaport Hovav (1995), the Lexical-Semantic Representation (hence shortened as LSR), which encodes the syntactically relevant aspects of verb meaning, is a conflation of semantic primitive elements such as ACT, CAUSE, GO, and STATE. The Lexical-Syntactic Representation, which is typically called an argument structure (hence shortened as A-Structure), encodes the syntactically relevant argument-taking properties of a verb. It contains information such as the number of arguments required by the verb and their relationship with the verb as external or internal argument.

The LSR does not map to the A-structure directly, but through the mediation of linking rules. According to Pinker (1989), linking rules are “mechanisms that create the syntactic argument structures associated with a given thematic core” (p. 74). For example, agent is linked to subject and theme of a causative verb to object. Pinker suggests that linking rules are universal and can be applied to different languages. They form part of the innate knowledge of mankind.

The syntax contains information about how the arguments in the argument structure are represented at the syntactic level in terms of grammatical relations. There are two levels of syntactic representations: the D-structure and the S-structure. According to Oshita (1997), the D-structure is the initial syntactic representation to which arguments of A-Structure are projected, while the S-structure representation is obtained by movement of constituents from one syntactic position to another. Phonological form is the level at which representations include only phonetic features, while logical form is the level at which representations include only semantic features (Radford, 2000). They are enclosed in parentheses because they, according to Oshita (1997), are irrelevant to the issue of unaccusativity.

B. Foundations

The foundations of the UTH lie in linking rules, which are responsible for mapping the LSR to the A-structure. According to Levin and Rappaport Hovav (1995), there are four types of linking rules: the Immediate Cause Linking Rule, the Directed Change Linking Rule, the Existence Linking Rule, and the Default Linking Rule. These linking rules apply to verbs of different semantics.

The Immediate Cause Linking Rule posits that “the argument of a verb that denotes the immediate cause of the eventuality described by that verb is its external argument” (Levin and Rappaport Hovav, 1995, p. 135). This rule applies to unergatives such as *laugh*, as shown in Figure 2.

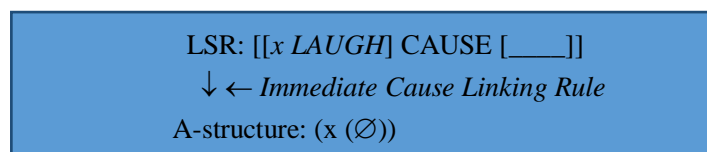


Figure 2. Lexicon of Unergatives Mediated by the Immediate Cause Linking Rule (Oshita, 1997)

In the LSR of the unergative verb *laugh*, the entity *x* is immediately responsible for the laughing event. Therefore, it is projected as the external argument (*x*) of the verb.

The Directed Change Linking Rule posits that “the argument of a verb that corresponds to the entity undergoing the directed change described by that verb is its internal argument” (Levin and Rappaport Hovav, 1995, p. 146). This rule applies to unaccusatives of directed motion such as *fall*, as shown Figure 3.

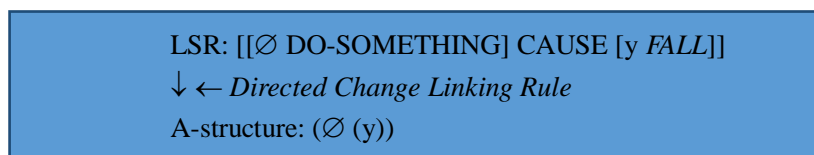


Figure 3. Lexicon of Unaccusatives Mediated by the Directed Change Linking Rule (Oshita, 1997)

In the LSR of the unaccusative verb *fall*, the entity *y* is not the causer of the falling event, but simply undergoes the directed motion. Therefore, it is projected as the internal argument (*y*) of the verb.

The Existence Linking Rule posits that “the argument of a verb whose existence is asserted or denied is its internal argument” (Levin and Rappaport Hovav, 1995, p. 153). This rule applies to unaccusative verbs of existence and appearance or disappearance, as shown in Figure 4 and Figure 5 respectively.

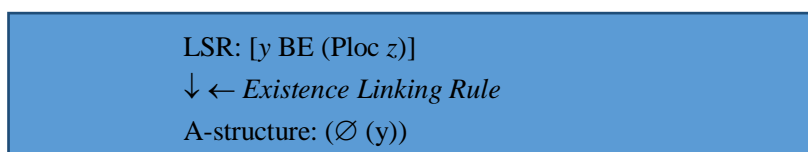


Figure 4. Lexicon of Unaccusatives (existence) Mediated by the Existence Linking Rule (Oshita, 1997)

LSR: [y COME TO (not) BE (Ploc z)]
 ↓ ← *Existence Linking Rule*
 A-structure: (∅ (y))

Figure 5. Lexicon of Unaccusatives (appearance/disappearance) Mediated by Existence Linking Rule (Oshita, 1997)

In both cases, *z* is a non-obligatory argument, which stands for a spatial or temporal location and normally appears with a preposition in syntactic structures. The entity *y* in the LSRs of both the existence verbs and the verbs of appearance or disappearance is projected as the internal argument (*y*) in their A-structures.

The Default Linking Rule posits that “[a]n argument of a verb that does not fall under the scope of any of the other linking rules is its direct internal argument” (Levin and Rappaport Hovav, 1995, p. 153). It applies to verbs that are not covered by any of the other three linking rules.

Levin and Rappaport Hovav suggest that these linking rules are universal and innate. They project all unergative verbs as (*x* (∅)) at the A-structure and all unaccusative verbs as (∅ (*y*)) at the A-structure, in spite of the great semantic differences within each verb class.

Oshita (1997) argues that the linking rules posited by Levin and Rappaport Hovav are effective for L1 acquisition, but are not fully applicable to L2 acquisition. He posits the Single Argument Linking Rule, which hypothesizes that “the single obligatory nominal argument of a verb is its external argument” (p. 220). Oshita notes that this linking rule is not innate or correct because it only takes notice of the number of arguments that a verb takes, but is insensitive to semantic notions such as immediate causation or directed change that the argument denotes.

Figure 6 and Figure 7 illustrate how the Single-Argument Linking Rule projects the A-structures of unergatives and unaccusatives, using *laugh* and *fall* as examples.

LSR: [[*x* LAUGH] CAUSE [____]]
 ↓ ← *Single Argument Linking Rule*
 A-structure: (*x* (∅))

Figure 6. Lexicon of Unergatives Mediated by the Single Argument Linking Rule (Oshita, 1997)

LSR: [[∅ DO-SOMETHING] CAUSE [*y* FALL]]
 ↓ ← *Single Argument Linking Rule*
 A-structure: (*y* (∅))

Figure 7. Lexicon of Unaccusatives Mediated by the Single Argument Linking Rule (Oshita, 1997)

The A-structure in Figure 6 is the same as the one in Figure 2. In contrast, the A-structure in Figure 7 is critically different from the one in Figure 3 because what should be projected as the verb’s internal argument is now in the external argument position. It is evident that the Single Argument Linking Rule does not affect the A-structure of unergatives negatively, but generates a wrong A-structure for unaccusatives. Specifically speaking, it subsumes unaccusatives under unergatives by projecting identical unergative A-structures for both.

Oshita attributes the occurrence of the non-target Single Argument Linking Rule to the fact that both types of intransitives, namely unaccusatives and unergatives, canonically appear in the NP-V word order in the input. He suggests that L2 learners might be deceived by the surface similarity between unaccusatives and unergatives, failing to perceive the semantic difference between the argument of unaccusatives and that of unergatives.

C. Contents

The UTH is a three-stage developmental model. At the first stage, L2 learners fail to distinguish unaccusatives from unergatives, due to the non-target Single Argument Linking Rule. Oshita calls it a stage of lexical confusion, because unaccusatives are misanalyzed and misrepresented as unergatives, as shown in Figure 8.

LSR Correct
 ↓ ← *Single Argument Linking Rule
 A-Structure Incorrect
 ||
 D-Structure Incorrect

Figure 8. First Stage of the UTH (Oshita, 1997)

The incorrect A-structure affects the subsequent syntactic derivations. The D-structure and S-structure are both incorrect, because what should be projected as the verb's object at the D-structure is represented as its subject, and there is no trace in the object position at the S-structure. Paradoxically, this misrepresentation of unaccusatives as unergatives enables the learners to use unaccusatives without any apparent difficulties, because it exclusively generates the superficially target-like NP-V word order. For this reason, the learners' grammar at this stage appears to be observationally adequate.

At the second stage, L2 learners become awakened to the natural linking rules such as the ones posited by Levin and Rappaport Hovav (1995). They replace the non-target Single Argument Linking Rule with the target ones and correctly reanalyze unaccusatives as verbs with an internal argument but no external argument. This reanalysis, however, presents them with a new challenge concerning syntactic derivations of sentences with unaccusative verbs. According to the Extended Projection Principle, every finite English sentence must have a subject at the S-structure (Chomsky, 1981). Therefore, the syntactic challenge facing L2 learners is to map a D-structure with an object but no subject onto a plausible S-structure. For this reason, Oshita calls this second stage a stage of syntactic confusion, as shown in Figure 9.

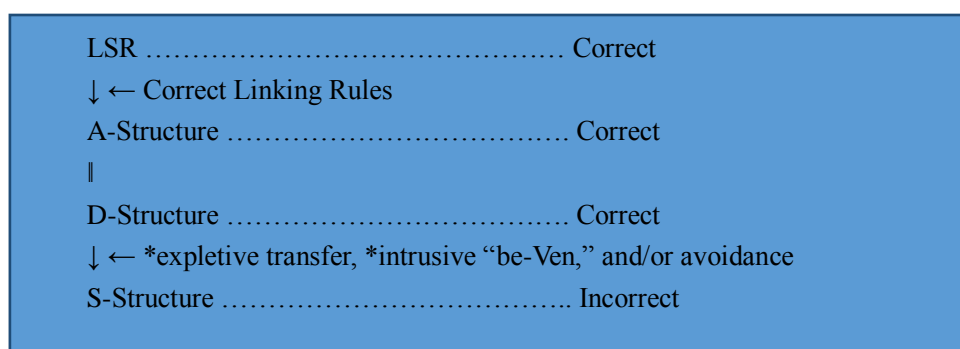


Figure 9. Second Stage of the UTH (Oshita, 1997)

Oshita suggests that there are three possible syntactic solutions for L2 learners. The first one is to transfer an expletive from the lexicon of L1 and insert it in the S-structure subject position (e.g., **Came a strange man* or **It came a strange man*). This transferred expletive may be null or overt. But this solution is only possible for L2 learners whose L1 contains such a lexical item. The second solution is to move the NP argument generated in the D-structure object position to the S-structure subject position. In doing so, however, some L2 learners overgeneralize the passive rule to overtly mark this NP movement. This results in the passivization of unaccusatives (e.g., **A strange man was arrived*). The third solution is to avoid unaccusatives in the canonical NP-V word order. The avoidance is caused by the learners' strong association a direct internal argument with the verb's object position.

Oshita suggests that when L2 learners unlearn these three non-target syntactic operations, they reach the third and final stage of grammatical development with respect to unaccusatives. That is, they are out of confusion both lexically and syntactically. They become native-like in the generation of unaccusative constructions, as shown in Figure 9.

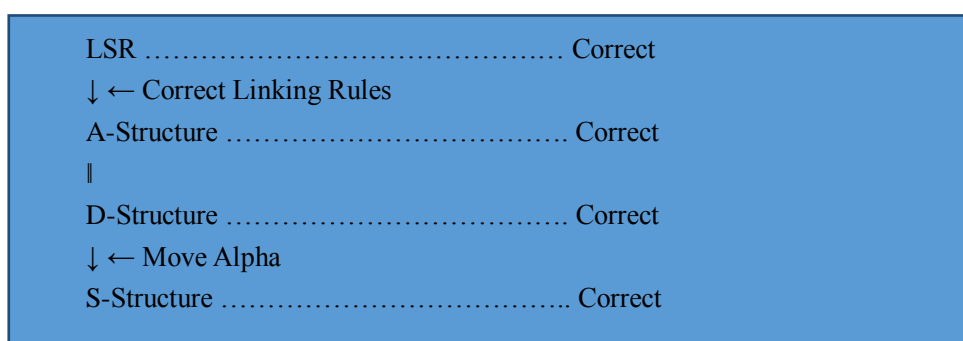


Figure 10. Third Stage of the UTH (Oshita, 1997)

To sum up, the UTH divides L2 acquisition of English unaccusatives into three stages. At the first stage, unaccusatives are misanalyzed by L2 learners as unergatives at both the lexical and syntactic levels. At the second stage, the lexical representations of the unaccusatives become correct, but the syntactic representations of these verbs are still wrong. At the third stage, unaccusatives are correctly analyzed and represented at both the lexical and syntactic levels. It must be noted that although the introduction of the UTH is exemplified with L2 English (Oshita, 1997), this hypothesis is also applicable to L2 acquisition of unaccusatives in other target languages (Oshita, 2001). As different target languages have different syntactic rules for unaccusatives, the non-target interlanguage phenomena in L2 Chinese or other languages won't be the same as those observed in L2 English. Such differences won't affect the validity of the UTH.

D. Predictions

Based on his UTH, Oshita (2001) made five general predictions on the grammatical development of interlanguage systems. Prediction One is summarized as common syntactic behaviors of unaccusatives and unergatives. It states that learners at low and even intermediate levels of L2 proficiency will use these two types of intransitives in the same syntactic environment. Prediction Two is summarized as unique syntactic errors with unaccusatives. It states that syntactic errors are more likely to afflict unaccusatives than unergatives, because the former is subject to initial misanalysis and later reorganization while the latter is not. Prediction Three is about the timing of the appearance of unique syntactic errors. It states that syntactic errors exclusively observed with unaccusatives should become apparent only after this verb class is correctly distinguished from the unergative class. Prediction Four is about the attainment of unaccusative-specific target syntactic structures. It states that the target syntactic structures possible only with unaccusatives can be fully acquired only after the two classes of intransitives are correctly differentiated from each other. Prediction Five is about the developmental patterns. It states that U-shaped developmental patterns may emerge with respect to particular target syntactic structures.

IV. CRITICAL REVIEW OF THE UTH

A. Theoretical Innovation

The UTH is an important theoretical endeavor in SLA in that it is the only theory that addresses the L2 representation and development of unaccusatives. The other two relevant theories are the Unaccusative Hypothesis, which posits the split between unaccusatives and unergatives, and the Unaccusative Hierarchy Hypothesis, which suggests that different unaccusatives have different strengths of unaccusativity. These two theories were first put forward in the field of theoretical linguistics and later proved to be psychologically real by the evidence of L2 learners (Oshita, 1997, 2001; Montrul, 2004, 2005). Therefore, they are not SLA theories in the strict sense. The UTH, however, is specially proposed to unveil the L2 acquisition process of unaccusatives. Given the fact that no SLA theories have done this before, it is safe to say that the UTH is a rare, precious theoretical effort.

The UTH is innovative in that it attempts to bring several unaccusative-related interlanguage phenomena together and explain them within one unified theory. That is, all the non-target interlanguage phenomena stem from the unique semantic and syntactic properties of unaccusatives, the L2 acquisition of which undergoes a three-stage process of semantic confusion, syntactic misrepresentation and full acquisition. The inclusiveness of the UTH is important because it shows that the seemingly separate issues are actually related to each other and have deep, intertwining reasons. Philosophically speaking, it is an attempt to move beyond the surface of the issues under investigation so as to reach the essence of theirs. Therefore, the UTH is a bold step in the right direction as far as the theoretical construction of the SLA is concerned.

B. Conceptual Inadequacy

According to Chomsky (1995), the grammar comprises a lexicon and a computational system which has independent modules such as syntax, phonology, morphology and semantics. However, the understanding of the human language also depends on the given context or grammatical situation. Based on the work of White (2009, 2011a, 2011b), Rothman and Slabakova (2011) provide a visual conceptualization of L2 knowledge and interfaces as shown in Figure 11.

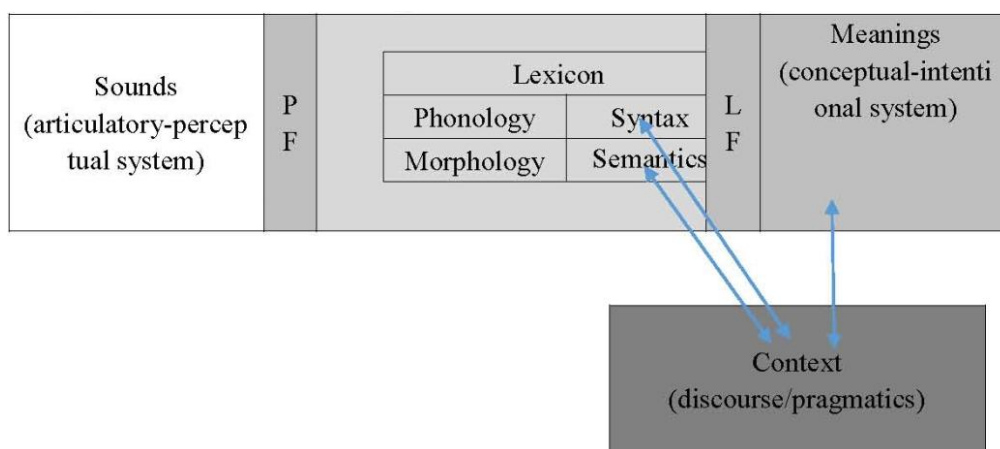


Figure 11. L2 Knowledge and Interfaces (Rothman and Slabakova, 2011)

The interfaces in grammar can be divided into grammar internal interface and grammar external interface. The former refers to the syntax-semantic interface and lexicon-syntax interface, while the latter involves syntax-discourse interface, semantics-discourse interface and others. The Interface Hypothesis (Sorace and Filiaci, 2006; Sorace and Serratrice, 2009) suggests that the interfaces are all problematic for L2 learners, but not in the same way. The grammar

external interface may pose a greater challenge to L2 learners than the grammar internal interface.

Situated in the framework of the Principles and Parameters Theory, the UTH views the L2 acquisition of unaccusatives as an issue at the lexicon-syntax interface. Therefore, it falls into the category of the grammar internal interface or narrow interface. It does not examine the issue at other interfaces. This may become the conceptual inadequacy of the UTH.

Since the UTH is only concerned with the grammar internal interface, it tends to view unaccusative-related interlanguage phenomena only as lexical confusions and syntactic difficulties, excluding the potential influence of other factors. Take the overpassivization of unaccusatives in L2 English for example. The UTH suggests that the passivization of English unaccusatives is caused by L2 learners' attempt to mark the NP from the D-structure to the S-structure with the English passive morphology *be+Ven*. However, many other studies have shown that the picture is much more complicated in that factors other than the syntax are also involved. The contributing factors to the overpassivization may include discourse context (external causation), semantics (subject animacy), L1 morphology (verb alternation), so on and so forth (Ju, 2000; Chung, 2016; No and Chung, 2006; Zhao and Ge, 2017).

C. Empirical Controversy

Although numerous studies have been conducted on L2 acquisition of unaccusatives, most of them are focused on overpassivization. Only a few of them attempted to test the validity of the UTH only to arrive at mixed results.

Deguchi and Oshita (2004) tested the validity of the UTH by focusing on avoidance and passivization in L2 English. They administered a grammaticality judgment task to four groups of Japanese learners: elementary, low-intermediate, intermediate and advanced. They found that the low-proficiency learners did not distinguish between unaccusatives and unergatives while mid-proficiency learners did. However, the mid-proficiency learners made the unaccusative/unergative distinction in passivization but not in avoidance. In other words, the acceptance of the passive structure emerged before the tendency to reject the active unaccusative sentence. This occurrence order was opposite to the UTH, which suggests that passivization is a subsequent development of avoidance. Deguchi and Oshita took this as evidence that the UTH needed to be revised. With respect to the developmental patterns, the prediction based on the UTH was disconfirmed because no U-shape was found. Deguchi and Oshita attributed the lack of U-shape to the poor composition of the low and low-intermediate learners and the wrong conceptualization of U-shape. They did not consider it as a serious challenge to the UTH. In short, Deguchi and Oshita concluded that the UTH was verified, but it needed to be revised with respect to the timing of appearance of avoidance and passivization. However, they did not suggest how to revise it.

Xue (2007) tested the UTH by seeking evidence from L2 Chinese. He investigated how native speakers of English acquired Chinese unaccusatives. He administered a written production task and a grammaticality judgment task to L2 learners of low, intermediate and advanced levels. Results of these tasks showed that most of the low- and even intermediate level L2 learners treated unaccusatives and unergatives in that they associate both types of verbs with the NP+V structure, but not with the V+NP structure. This suggests that these L2 learners did not syntactically distinguish unaccusatives from unergatives in that both types of intransitives are syntactically represented as unergatives. When reaching the final stage, not all, but only some advanced learners showed a native-like mastery of Chinese unaccusative usages. These findings supported the UTH's predictions that L2 learners tend to misanalyze unaccusatives as unergatives at the initial stage and the target-like grammar becomes attainable only after they correct this misanalysis. When it comes to the developmental patterns, however, Xue found that the overall performance of the intermediate learners was not significantly worse than that of the low-level learners. Therefore, a plough-shaped instead of a U-shaped developmental route is observed. In brief, Xue's study basically supported the UTH, but questioned the existence of the three-stage U-shaped developmental pattern.

Purdy (2010) sought evidence for the UTH by conducting an event-related potential (ERP) study to investigate whether neural responses changed with increasing proficiency. Three groups of Chinese learners of English, who were measured to low, intermediate and advanced in English, were shown grammatical sentences containing passive, unergative, or unaccusative verbs, and ungrammatical sentences containing incorrectly passivized unaccusative and unergative verbs. The low-level Chinese learner group responded similarly to violations of unaccusative grammaticality and violations of unergative grammaticality, suggesting that they, as predicted by the UTH, did not distinguish between unaccusative and unergative sentences. The intermediate group, however, showed no difference between processing streams for unergative versus unaccusative stimuli, which did not conform to the prediction of the UTH. The advanced group showed no difference in their response time to violations of unaccusative grammaticality and violations of unergative grammaticality, thus lending support to the prediction of the UTH. In addition, since the intermediate group did not perform any worse than the low-level group in the test, there did not exist a U-shaped curve across the three learner groups. The unexpected performance of the intermediate group and the non-existence of the U-shaped pattern led Purdy to conclude that the UTH was only partially supported.

Mo (2012) used a written production task and a grammaticality judgment task to investigate the passivization, avoidance, postverbal NP and transitivization issues among Chinese L2 learners of low, lower-intermediate, intermediate and advanced levels. He found that the low and lower-intermediate learners distinguished between unaccusative verbs and unergative verbs in terms of passivization, avoidance, postverbal NP and transitivization. The intermediate learners made the distinction in passivization, postverbal NP and transitivization, but not in avoidance,

whereas the advanced learners made the distinction in postverbal NP, but not in passivization, avoidance and transitivization. That is to say, the low and lower-intermediate learners can distinguish between unaccusatives and unergatives at the A-structure and the D-structure, but haven't established the correct S-structure for unaccusative verbs. The intermediate and advanced learners can not only establish the correct A-structure and the D-structure for unaccusative verbs, but also the correct S-structure. The intermediate learners lag behind the advanced learners in establishing the correct syntactic structures for unaccusative verbs. Mo concluded that Chinese learners started to acquire the distinction between English unaccusative verbs and unergative verbs at the low level. This finding runs counter to the first prediction of the UTH that low-level L2 learners can't make the distinction. In addition, Mo didn't find any U-shaped pattern in any non-target phenomenon among Chinese L2 learners.

V. CONCLUSION

This study is focused on the UTH, which is proposed by Oshita (1997, 2001) to describe and predict L2 acquisition of unaccusatives. After introducing the framework, foundations, content and predictions of the UTH, this study conducts a critical review of this hypothesis and arrives at three findings. First, the UTH marks a theoretical breakthrough in SLA in that it makes an initiative attempt to integrate several seemingly unrelated interlanguage phenomena of L2 unaccusatives in one framework and explain their mechanisms in a related way. Second, the UTH is conceptually narrow, because it limits the L2 acquisition of unaccusatives to syntactic difficulties. Now many researchers have begun to undertake a multi-factorial approach to investigate this issue. Third, the UTH has only received partial support from empirical studies. The elusiveness of the U-shaped development has caused a lot of controversies.

More studies are needed in the future to test the validity of the UTH or to revise it. Three suggestions can be made for them. First, more studies should focus on the low-level L2 learners to see if they, as claimed by the UTH, misanalyse unaccusatives as unergatives. As the low-level L2 learners are associated with the first stage of the UTH, their performance will be crucial to the verification or falsification of this hypothesis. The importance of the first stage to this hypothesis can be seen from the fact that three out of the five predictions made by the UTH are concerned with the first stage. Second, future studies should compare L2 learners of different levels to see if they follow a U-shaped developmental pattern in their acquisition of unaccusatives. Finally, future studies are advised to investigate the online processing of unaccusatives and unergatives by L2 learners. With the development of science and technologies, research methods should be updated so as to collect new types of data to examine the long-standing disputed issue in a more in-depth way.

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