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Is there anything there when there is not there? Null expletives and second language data
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This article explores the issue of the psychological reality of null expletives, i.e., the silent counterparts of the so-called dummy subjects such as English it and there. Following Jackendoff’s (1997; 2002) notion of ‘defective’ lexical item, I define null expletives as extremely ‘defective’ words with syntactic properties but no semantic or phonological content. By comparing native speakers of pro-drop languages and those of topic-drop languages in terms of their grammatical judgement of and productive use of English, I argue that null expletives are very likely psychologically real to speakers of pro-drop languages but not to those of topic-drop languages. This conclusion is based on observations made in previous second language (L2) studies and the analysis of data obtained from a large corpus of nonnative English. The question of the unaccusative—unergative distinction in L2 grammar and the linguistic characterization of so-called free subject—verb inversion in pro-drop languages are also discussed in relation to the issue of the psychological reality of null expletives.

I Introduction

Over the years, many researchers have advocated and defended the position that formal and typological linguistic approaches are essential for a comprehensive understanding of nonprimary language acquisition (e.g., Rutherford, 1986; White, 1989; Juffs, 2002). Moreover, second language (L2) data are argued to make unique and potentially significant contributions to theoretical

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linguistics as well as to first language (L1) acquisition research (Foster-Cohen, 1993; Gass, 1993; Davies, 1996; White, 1996). These claims have been supported by many recent studies, particularly those that investigated nonnative languages from crosslinguistic perspectives based on formal linguistic theory (e.g., Montrul, 1997; Liceras et al., 1999; Roebuck et al., 1999; O’Grady, 2002). The current article follows this tradition of research and explores the issue of the psychological reality of null expletives by looking closely at various L2 English data obtained from speakers of two types of null-subject languages, i.e., pro-drop languages such as Spanish and Italian and topic-drop languages such as Japanese and Korean.

Null expletives are silent counterparts of the so-called dummy subjects in English: it and there. Within Chomskyan generative grammar, from the principles-and-parameters approach to the recent minimalist program, the existence of such lexical items has been commonly assumed by many syntacticians in their analyses of pro-drop languages (e.g., Burzio, 1986; Chomsky, 1995), although the same has not usually been the case for topic-drop languages for which the theoretical necessity of expletives has rarely been discussed. Still, the issue of the psychological reality of null expletives is a contentious one. First, the notion of lexical items without sound or meaning requires justification. Secondly, if some previous analyses of syntactic phenomena of topic-drop languages are adopted, theoretical coherence seems to necessitate the existence of null expletives in these languages as well. Finally, there are researchers working within the minimalist framework who regard such a theoretical construct as undesirable and propose its elimination from syntactic analysis.

The rest of the article is organized as follows. In Section II, I review theoretical reasons to hypothesize null expletives in the syntactic analysis of pro-drop languages. The Case-theoretic analysis in the principles-and-parameters approach (Chomsky, 1981; 1986) is introduced first, but the feature-checking theory in the minimalist approach (Chomsky, 1995: Chapter 4) is adopted as the theoretical basis for data analysis in the current article. In Section III, I argue that null expletives are examples of what Jackendoff (1997; 2002) calls ‘defective’ lexical items and that, as such, their
psychological existence can be investigated profitably by analysing L2 data. In Section IV, I look closely at data from previous L2 studies (both observational and experimental) which have potential relevance to the psychological status of null expletives for native speakers of pro-drop languages. The few generalizations drawn from the discussion of these data are critically evaluated and revised later based on the analysis of additional data from L2 English by native speakers of topic-drop languages. Section V presents data obtained from a large computerized corpus of L2 English and compares pro-drop and topic-drop language speakers with respect to their use of verb–subject order in sentences containing an unaccusative verb. Section VI discusses the psychological reality of the unaccusative–unergative distinction for L2 learners and the so-called free subject–verb inversion widely observed in pro-drop languages. The last section, which briefly summarizes the current article, mentions recent proposals within the minimalist approach to eliminate null expletives from syntactic theory. In the end, I hope to demonstrate the following five points:

1) The unaccusative–unergative distinction can be made by L2 speakers.
2) Evidence suggests that null expletives are likely to be psychologically real to native speakers of pro-drop languages.
3) In contrast, there is little evidence to indicate that null expletives have psychological reality for native speakers of topic-drop languages.
4) So-called free inversion in pro-drop languages may not be a psychologically (or even linguistically) uniform phenomenon.
5) Despite recent proposals, the assumption of null expletives is still very attractive both theoretically and empirically.

II Overt and null expletives

Arguments are semantic elements required by predicates to complete their propositional meaning. In syntactic structure, they appear as a DP/NP\(^1\) within the maximal projection of a lexical

\(^1\)Following Fukui (1987; 1995a; 1995b), I assume that syntactic arguments are DPs in English, French, Italian and Spanish whereas they are NPs (or projections of N) in Japanese and Korean.
head. For instance, a DP/NP in the complement position of transitive and unaccusative verbs is their internal argument whereas one in the specifier position of transitive and unergative verbs is their external argument (Fukui and Speas, 1986; Kuroda, 1988). For its propositional meaning to be expressed in a sentence, VP needs to receive a temporal interpretation by merging with a functional category, Tense (Haegeman and Guéron, 1999; Hasegawa, 1999).

In languages such as English and French, Spec of TP has to be filled by an overt lexical item in finite clauses. This requirement can be satisfied by overt movement of a DP, typically, the one in Spec of VP. When the internal argument of the verb is the only DP available for movement, however, it is this DP that moves. The examples in (1) illustrate the latter scenario with the English unaccusative verb *arrive* and its French counterpart *arriver*.

1) a. \[[\text{TP}\rightarrow\text{AGR}]\text{Three men}_i\ [\text{VP} \text{arrived}_t \text{at the station}].\]
   b. \[[\text{TP}\rightarrow\text{AGR}]\text{Trois hommes}_i\ [\text{VP} \text{sont arrivés}\_t \text{à la gare}].\]

In the principles-and-parameters approach (Chomsky, 1981; 1986), DP movement was Case-theoretic, and it was thought that the moved element itself needed to move for its self-interest. For example, in (1), *three men* would be Caseless in its base position and violate the Case Filter, which requires every DP with phonetic content to have Case. This is because the unaccusative verb does not assign Accusative Case to its internal argument (Burzio, 1986). The Case Filter violation is avoided by the DP’s movement to Spec of AGRP where it receives Nominative Case. In contrast, the minimalist approach (Chomsky, 1995: Chapter 4) has abandoned the functional category AGR for conceptual reasons and accounts for the movement in terms of the feature-checking requirement of T. It is T that attracts the DP to its specifier position before Spell-Out in order to have its strong D-feature checked. Otherwise, an unchecked strong feature would cause the derivation to crash at PF.

When the main verb is an unaccusative verb of existence or appearance, its internal argument may stay *in situ* if the surface subject position is filled by an expletive as in (2). Such a sentence is grammatical if the internal argument is indefinite.
Here again, the pre-minimalist analysis of the structure was motivated by Case theory considerations. Chomsky (1986) and Burzio (1986), for example, argued that the potential violation of the Case Filter is avoided by a mechanism of Case transfer through CHAIN from the expletive to its associate DP. In contrast, Chomsky (1995: Chapter 4) accounts for the grammaticality of (2a—b) by assuming the checking of a strong D-feature of T by an expletive in its Spec position. In this way, the Extended Projection Principle (Chomsky, 1982) is reduced to the feature-checking requirement of T in the minimalist approach and the raison d'être of expletives is explained accordingly.

The existence of null expletives (also known as expletive pro) was first assumed to extend the Case-theoretic analysis to similar structural patterns in the so-called pro-drop languages such as Spanish and Italian.

Null expletives are also assumed in the minimalist approach and are argued to check a strong D-feature of T by merging into its Spec position before Spell-Out.

Incidentally, sentences with unaccusative verbs are not the only structural pattern in which the sentential subject position is occupied by an overt expletive in non-null-subject languages but appears to remain empty in pro-drop languages. Following are examples of other sentence types for which the existence of null expletives is commonly assumed.

The first type involves raising verbs such as English seem and appear, which take a clausal complement but no external argument.

4) a. John seems to me to be hungry.
   b. It seems to me that John is hungry.

2 The Case-feature of the associate DP is considered to be weak and checked by covert movement at LF following covert movement of V to T.
In (4a), a strong D-feature of T in the root clause is checked by John moved out of the embedded clause. In (4b), the feature is checked by an overt expletive. The Spanish sentence in (4c) is analysed in the same way by assuming a covert expletive in Spec of TP (Haegeman, 1994: 23).

Similarly, the grammaticality of (5b), in which an adjectival predicate appears with an extraposed propositional argument, can be accounted for on a par with (5a), by assuming a null expletive in the empty subject position (Haegeman, 1994: 21).

A null expletive subject is also assumed for the so-called weather verbs in pro-drop languages (Haegeman and Guéron, 1999: 599).3

Finally, the examples in (7) show that the internal argument of a past participle of a transitive verb can remain in situ in the structure sometimes called the ‘impersonal passive’.4

Here, again, a null expletive is assumed to exist in the phonetically empty subject position in pro-drop languages such as Italian.

Incidentally, Haegeman & Guéron (1999: 600) argue that a principle of economy explains why expletives in pro-drop languages do

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3 The English pronoun it used in this way is called ‘weather it’ and ‘atmospheric it’ (Haegeman and Guéron, 1999: 122). It is also known as ‘quasi-argument’ because of its ambivalent syntactic behaviour (Chomsky, 1981: 323ff).

4 Not to be confused with a similar but different structure (which is also called ‘impersonal passive’) involving a past participle of an unergative verb observed in languages like German.

5 Unlike in French, the impersonal passive structure even with an overt expletive comes out outright ungrammatical or stylistically marked. See examples from L2 English in (13).
not manifest phonetically. According to them, overt referential subject pronouns in these languages (i.e., counterparts of English I, you, he, she, etc.) are not usually pronounced unless they are stressed for reasons such as contrast and focus. Since expletives can never be stressed due to the lack of semantic content, they are covert in languages with the \[ +pro\text{-}drop \] parameter value.\(^6\)

In summary, there is a consistent tendency for pro-drop languages to leave the surface subject position empty in some sentence patterns when the same position is occupied by an overt expletive in non-null-subject languages. By assuming the existence of null expletives, whose syntactic function corresponds to that of their overt counterparts in non-null-subject languages, a systematic account becomes possible crosslinguistically as well as structurally.

### III Psychological status of null expletives

Jackendoff (1997, 2002) has pointed out that although prototypical lexical items such as dog and swim can be thought of as bundles of phonological, semantic and syntactic features, not all linguistic expressions are complete sets of these three properties.\(^7\) For example, expressions like ouch and hello have no syntactic properties and the do of the English do-support has no semantics. When it comes to expressions like fiddle-dee-dee and tra-la-la, they have neither syntactic nor semantic content. Still, Jackendoff insists, these expressions must be listed in the mental lexicon despite their ‘deficiency’. I argue that because expletives such as it and there seem to have no reason for existence other than their syntactic role as meaningless elements that check the strong specifier features of T, they too must be considered as ‘defective’ lexical items.\(^8\) Furthermore, lacking phonological properties as well, null expletives must be thought of as just a set of syntactic features, extremely

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\(^6\)Chomsky’s (1995: 288-89) discussion on overt and null expletives in German seems to show that he also regards phonetically empty expletives as more basic in natural languages.

\(^7\)See Chomsky (1995: 230-31) for his view on the types of features carried by lexical items.

\(^8\)Chomsky (1995) distinguishes ‘pure expletives’ like there with only categorial feature of D and others like it which also carry phi-features. The distinction should apply to null expletives as well.
‘defective’ lexical items, indeed. An interesting question is whether words without sound or meaning can be listed in the mental lexicon of a natural language user. Now, I believe, if null expletives are to be taken as more than mere theoretical constructs (convenient only to syntacticians), the assumption of their existence in the analysis of pro-drop languages inevitably amounts to a claim that they are in fact psychologically real for the speakers of those languages.

The psychological reality of theoretical constructs has always been a central concern in generative linguistics since its inception. When a researcher in this tradition resorts to the intuition of native speakers to investigate linguistic phenomena, his or her ultimate goal is to describe what constitutes their implicit grammatical knowledge. Therefore, unless stated otherwise, theoretical analyses expounded in the literature are usually taken as claims about the psychology of native speakers. A good example of this is the way a set of sentences like (8) are presented in introductory linguistics courses to argue for the existence of ‘trace’ in syntactic structure.

8) a. Which prize do you want to/wanna win?
b. Which contestant do you want to/wanna win the prize?

For most native speakers, the ‘wanna contraction’ is possible in (8a) but not in (8b). The difference is normally attributed to the presumed existence of a trace between want and to left by which contestant in (8b). Thus, the psychological reality of ‘trace’ for native speakers of English is supported by its potential effect on the phonetic output of a sentence such as (8b).

The issue of the psychological status of theoretical constructs has also been addressed by psycholinguists from the perspective of language processing. For example, the psychological reality of empty categories such as DP-trace and controlled PRO has been investigated with the priming technique (e.g., Bever and McElree, 1988; MacDonald, 1988; Bever and Sanz, 1997). MacDonald (1988), for instance, provided psycholinguistic evidence for Bresnan’s (1982) claim that the verbal passive is syntactically derived whereas the adjectival passive is lexically formed. Based on previous research that had found overt pronouns’ positive effects...
on the speed of word recognition, MacDonald hypothesized that the recognition of the derived subject of a verbal passive sentence would be facilitated by its trace in the object position whereas such effects were not expected for the subject of an adjectival passive sentence, which is base-generated in its surface position. This prediction was borne out by the results of her experiment, which showed that the subjects’ response was in fact significantly faster in the verbal passive condition than in the adjectival passive condition. Similarly, Bever and Sanz (1997) investigated the processing of Spanish sentences with intransitive verbs, hypothesizing that post-reading recall of an adjective contained in the preverbal subject would be faster with sentences containing an unaccusative verb than with those containing an unergative verb because the former, but not the latter, contain a trace of the subject DP in the object position. This prediction was also supported by the results of their experiments.

Although these psycholinguistic studies are quite interesting, the priming technique itself does not appear to be useful for investigating the psychological status of null expletives. This is because, unlike DP-trace and controlled PRO, whose referential identity must be established in relation to their antecedent, expletives do not (and cannot) have a referential meaning. In other words, whether they are overt or null, expletives cannot be semantically primed and thus will not facilitate recognition of probe words.

In fact, due to their extreme ‘deficiency’ as lexical items, the existence of null expletives in the mental lexicon appears hard to prove (or disprove) by any conventional method of investigation. Without some sort of evidence, however, ‘null expletives’ may be seen by those outside formal syntax as mere theoretical gimmicks or might be abused by those inside to shore up otherwise indefensible analyses. This is where, I believe, L2 data could come in as a source of potentially useful information, because of the possibility of regarding L1 transfer as evidence for the psychological reality of the transferred item.

However, it is not the case that any kind of L2 data could provide valuable information for our purpose. Consider the following
combinations of native language (NL) and target language (TL) with respect to the parametric difference between pro-drop (PD) and non-pro-drop (NPD).

NL: native language TL: target language
1) NPD (e.g., English/French) → NPD (e.g., French/English)
2) NPD (e.g., English/French) → PD (e.g., Italian/Spanish)
3) PD (e.g., Italian/Spanish) → PD (e.g., Spanish/Italian)
4) PD (e.g., Italian/Spanish) → NPD (e.g., English/French)

The first combination is of course irrelevant for us because when both NL and TL are non-pro-drop languages, an Interlanguage is not expected to produce null expletives. There is no positive evidence in TL to lead the learner to assume their existence, nor is there the possibility of L1 transfer. The second combination is not useful, either. In this case, even if the learner uses TL structures such as (3a–b) without overt expletives, it is not clear whether the non-use of overt expletives in L2 means use of covert expletives. For example, the learner may simply be missing or ignoring the strong D-feature of T in TL, rather than checking it with a null expletive. The third combination is also useless for our purpose. In this case, a learner may indeed exhibit a masterful non-use of overt expletives and we may want to regard it as evidence for the psychological reality of a null expletive in his or her NL, which was revealed through positive transfer to L2. Such an interpretation of the data, however, confuses the assumption and the evidence because the psychological reality of null expletives in NL is what we need to prove, not to assume. This leaves the fourth combination – i.e., the acquisition of a non-pro-drop language by native speakers of a pro-drop language – as the only L2 data source potentially useful in exploring the status of null expletives in the mental lexicon. In such a case, the TL is full of positive evidence for the existence of overt expletives and no evidence whatsoever exists that may mislead the learner to assume the existence of non-expletives.

9This should be uncontroversial because otherwise children born in a non-pro-drop language would end up speaking a pro-drop language as their native tongue. Such a possibility, in fact, was proposed by Hyams (1986) to account for an early null-subject stage of L1 English acquisition. Her analysis, however, has been refuted by more recent studies (e.g., Rizzi, 1997; Haegeman and Guéron, 1999).
null expletives. If, under this circumstance, sentences that require an overt expletive in the TL such as (2a–b) should be produced or judged as grammatical without an overt subject, we would have good reason to suspect that null expletives have been transferred from NL. This, in turn, makes a strong case that null expletives are in fact psychologically real to speakers of pro-drop languages because learners should not be able to transfer what does not exist in their native languages in the first place.

IV Null expletives in previous L2 studies

For the reasons stated above, let us focus on the L2 acquisition of English by speakers of pro-drop languages. Although the pro-drop phenomenon has been extensively researched in the field of second language acquisition (e.g., White, 1985; 1986; 1989; Hilles, 1986; 1991; Phinney; 1987; Liceras, 1988; 1989; Register, 1990; Davies, 1996; Yuan, 1997; Al-Kasey and Pérez-Leroux, 1998; Liceras and Diaz, 1999; Roebuck et al., 1999), to my knowledge, no previous study has looked at L2 data specifically to explore the issue of the psychological reality of null expletives. Therefore, my discussion will, of necessity, be eclectic, drawing evidence from a few experimental studies which presented both methods and results in detail and from papers with a large volume of learners’ production data in L2 English. Although the available data suggest that null expletives are indeed psychologically real to native speakers of pro-drop languages, this survey also highlights potential problems as well in the interpretation of these data. The problems are addressed in the second half of this section by considering the L2 English of native speakers of topic-drop languages.

1 L2 English by speakers of pro-drop languages

White (1985; 1986) investigated the potential transfer of the [+pro-drop] parameter value in Spanish\(^{10}\) to L2 English. One of her research questions was whether the L2 English of Spanish speakers permits three syntactic phenomena theoretically associated with the [+pro-drop] parameter value, i.e., (1) subject pronoun omis-

\(^{10}\)Two Italian speakers were included as experimental subjects in White (1986).
sion, (2) *that trace* sequences and (3) free subject–verb inversion (Chomsky, 1981). In data obtained from grammaticality judgement and production tasks, she found strong evidence for subject pronoun omission, weaker evidence for *that trace* violations but no clear evidence for free subject–verb inversion. Although a reanalysis of the data from the 1986 study (White, 1989: 88-90) revealed somewhat clearer evidence for *that trace* violations, the picture on free inversion remained the same: the verb–subject (V–S) order was correctly and overwhelmingly rejected in L2 English. This unexpected result led White to conclude that either (1) the subjects’ judgements were due to the selection of verbs used in the experiments or (2) subject–verb inversion may be unrelated to the pro-drop parameter after all (see also White, 1989: 90).

Subject–verb inversion is a very common phenomenon in pro-drop languages and can involve virtually any type of predicate, including transitive verbs (Burzio, 1986: 21). Therefore, it is not only natural but necessary, as White (1985; 1986) did, to include different types of verbs in a test designed to investigate this phenomenon in L2 English. However, as Liceras (1988: 78) pointed out, V–S order sounds better with unaccusative verbs than with other verb classes. Therefore, for our purpose, it is quite important to see how verb classes might have affected White’s subjects in her studies. A look at the data in the 1985 study reveals an interesting fact: among five V–S sentences in the study, what turned out to be the least difficult for Spanish-speaking subjects to identify as ungrammatical English were the following two sentences with unergative verbs.

9) a. *Walked* the boy very far. (Item 15)
   b. *Slept* the baby for three hours. (Item 13)

Only 1 (2%) and 4 (7%) out of the total 54 subjects mistakenly regarded them as correct English. In contrast, the following sentences with unaccusative verbs were accepted as grammatical English by 18 subjects (33%) each.

10) a. The policemen didn’t know when *did escape* the prisoner. (Item 5)
    b. (The mailman came.) *Have arrived* three letters. (Item 27)

Similarly, in White (1986), in which V–S order was consistently rejected by the majority (85–94%) of the total 34 subjects, 4 out of
the 5 sentences contained unergatives (sleep and go on vacation) and transitives (take and visit).

Now, it is impossible to answer with certainty why White’s subjects did not accept V–S order more often. Clearly, such grammaticality judgement can be influenced by many factors other than the linear order of syntactic constituents. Yet, what White’s data show is that V–S order in English is less likely to be accepted with unergative and transitive verbs than with unaccusative verbs. This, of course, may not change the overall picture that subject–verb inversion is not as common as might be expected in the L2 English of pro-drop language speakers. It does, however, suggest that for those learners of English who regard V–S order as grammatical, unaccusativity is very likely to be an important factor in their judgement (see also, Zobl, 1989: 214–15, footnote 13).

This admittedly speculative conclusion, in fact, receives a great deal of support from production data obtained from native speakers of pro-drop languages. Rutherford (1989), for example, found many instances of V–S order in compositions written by native speakers of Arabic, another pro-drop language, as well as in those by speakers of Spanish. His data show not only that L2 English learners produce V–S order but also, and more importantly, that when they do, the verbs involved are rarely unergatives or transitives but unaccusatives, including the verb of existence be; see (3a–b) above. The examples in (11) and (12) are products of Spanish and Arabic speakers respectively.

11) a. . . but now are a many telephones in each department . . .
   b. On this particular place called G . . . happened a story which now appears
      on all Mexican history books . . .
   c. And then at last comes the great day.
   d. In the town lived a small Indian . . .

12) a. . . but lately happen some extra things or little changes on this custom . . .
   b. . . and with that comes the end of the wedding.
   c. The bride was very attractive, on her face appeared those two red cheeks
      and above them beautiful deep eyes.

11 The meaning of this verb phrase is clearly volitional and close to take a vacation.
12 Some potential factors are, for example, the existence of an overt expletive in preverbal position, where the V–S order is located (i.e., in the main clause or in a subordinate clause), whether or not the argument DP is definite, and so forth, all of which were attested in White’s test items.
These examples are important because they clearly show that what we suspected based on the judgement data from White (1985; 1986) is at work in learners’ productive use of the target language: i.e., the accepted V–S word order involves unaccusatives but neither unergatives nor transitives. In other words, subject–verb inversion in L2 English is not ‘free’ but appears to be limited to the case where the subject is base-generated after the verb as its internal argument.

This structural analysis is supported, in turn, by the fact that Rutherford’s subjects also produced what appears to be the impersonal passive structure, which in English is either ungrammatical or stylistically limited at best; see (7a–b) above.

13) a. In the lake Maracaibo was discovered the oil. (L1 Spanish) 
   b. In this one was placed the national school of engineering. (L1 Spanish)

The additional data such as (13) have strong implications for the question of the psychological reality of null expletives for native speakers of pro-drop languages. This is because (1) V–S order is rarely accepted or produced with unergative or transitive verbs in their L2 English, (2) it is, in comparison, far more accepted and more often produced with unaccusative verbs and in the impersonal passive structure, and (3) in both of these structural patterns, the existence of a null expletive is theoretically assumed in their native languages; see (3a–b) and (7b). Therefore, examples like (11)–(13) suggest that the subject positions are filled by null expletives transferred from the learners’ L1s. If this analysis is correct, then, null expletives must be listed in the mental lexicon of the speakers of pro-drop languages.

Another reason to suspect the psychological reality of null expletives for speakers of pro-drop languages is that they also tend to avoid using overt expletives in other English sentence patterns whose counterparts in their native languages are analysed to contain null expletives. For instance, sentences with a raising or weather verb were often accepted without an overt subject in White’s studies; see (4c) and (6b) above.

14) a. Seems that Fred is unhappy. (White, 1985) 
   b. Is raining very hard today. (White, 1985) 
   c. In winter, snows a lot in Canada. (White, 1986)
The examples (14a–c) were regarded as correct by a large number of subjects (39%, 57% and 59% respectively).

Still another type of subjectless sentence noted by Rutherford (1989) in compositions written by L1 Spanish speakers is:

15) a. In my country is very easy to choose a husband or wife . . .
b. . . , now is impossible for me to go there.
c. Second is necessary that all youngs in my country to know very well others cultures.

Examples (15a–c) represent a structural pattern with an adjectival predicate and its extraposed propositional argument, whose sentential subject position is assumed to be occupied by a null expletive in pro-drop languages; see (5b) above. Thus, the examples in (13a–b), (14a), (14b–c) and (15a–c) representing four different sentence types provide additional support to the psychological reality of null expletives.

Incidentally, there is suggestive evidence that for native speakers of pro-drop languages, null expletive subjects are actually harder to expunge from their L2 English than are null referential subjects. For instance, Phinney (1987), who analysed L2 English compositions written by Spanish speakers, reports that the omission of overt expletives (56% and 76% at the ‘high beginner’ and ‘low intermediate’ levels) was significantly higher than the omission of referential pronouns (13% and 6% at each level).13 Similarly, Tsimpli and Roussou (1991), who studied 13 (i.e., 6 ‘intermediate’ and 7 ‘post-intermediate’) English learners of L1 Greek, another pro-drop language, report that although the subjects were quite successful in detecting the ungrammaticality of sentences without a referential pronoun subject, almost 80% of them omitted an overt expletive subject with a raising verb; see (4c) above. This persistent non-use of overt expletives by L2 English learners of pro-drop languages seems to suggest that the learners are sensitive to a principle of economy in natural language that favours a null expletive over an overt one when it is available (Haegeman and

13Phinney (1987) did not mention the number of subjects but reported the data in the raw number and percentage of verb tokens. A calculation based on Table 1 (p. 233) reveals that there were 43 instances of null expletives in a total of 63 syntactic contexts where overt expletives were expected in the target English. Both it- and there-type expletives were omitted by her subjects.
Guéron, 1999: 600). In other words, grammaticality judgement errors on sentences like (10a–b) and (14a–c) and production errors such as (11), (12), (13) and (15) all can be taken as evidence that UG is at work in second language acquisition (also see Hawkins, 2001: 205).

To summarize the discussion so far, the data from the L2 English of pro-drop language speakers indicate the following:

16) V–S order and expletives in L2 English (to be revised as (19) below):
   a. Subject–verb inversion is lexically restricted: V–S order is accepted and produced with unaccusative verbs far more often than with other types of verbs.
   b. Besides V–S order with unaccusatives, other sentence patterns for which null expletives are hypothesized in learners’ L1s are also produced and judged as grammatical without an overt expletive.
   c. Non-use of overt expletives appears to persist longer than non-use of overt referential pronouns.

I have argued that these observations can be accounted for quite naturally if we assume that null expletives are psychologically real for speakers of pro-drop languages and can be transferred to their L2 English.

2 Comparing pro-drop and topic-drop languages

The argument and evidence I have presented for the psychological reality of null expletives, however, may be unconvincing to those who do not accept them as a theoretical construct necessary for the analysis of pro-drop languages. For them, all the data may show is that when subjectless sentences are mandatory or permitted in learners’ L1s, they are also likely to be accepted and produced in L2 English. In other words, they may say, the non-use of overt expletives does not necessarily mean the use of covert ones. The best way to counter such an objection is, of course, to show evidence, hopefully as dramatic as (8a–b), that there is something in the empty subject position. This, however, is difficult to do for the reasons mentioned in Section III. So, what I do instead is present data which collectively indicate that there must be something there psychologically for speakers of pro-drop languages because not all speakers of null-subject languages behave the same way in L2 English on those syntactic patterns critical to the issue.
In the rest of the article, therefore, I compare the findings made about *pro*-drop language speakers with additional data from speakers of *topic*-drop languages such as Chinese, Japanese and Korean, which syntacticians usually analyse without assuming null expletives. (However, see the paragraphs immediately after the Japanese and Korean examples in (17) below.)

The contrastive notions of *subject-prominent* and *topic-prominent* languages were proposed by Li and Thompson (1976) and brought into L2 acquisition research by Schachter and Rutherford (1979) and Rutherford (1983). Recent L2 studies carry on this line of research in the theoretical framework of Huang (1984), who proposed the *topic*-drop parameter for the syntactic analysis of Chinese and other *topic-prominent* languages. Despite Fuller and Gundel’s (1987) conclusion that L2 acquisition in general can be characterized by an early ‘*topic–comment*’ stage, more recent research indicates very strongly that the L1 parameter values of both [+/*pro-drop*] and [+/*topic-drop*] transfer to L2 and have a lasting influence on the course and outcome of the acquisition of the target language: see, for example, studies of L2 English by L1 Korean (Hahn, 1999), by L1 Chinese (Yuan, 1997) and by L1 Japanese (Sawasaki, 1996); of L2 Korean by L1 English (Jung, 1999a; 1999b); and of L2 Chinese by L1 English (Xie, 1992; Jin, 1994).

The acquisition of the overt subject requirement in L2 English has also been investigated, comparing *pro*-drop and *topic*-drop language speakers. The consensus, so far, appears to be that speakers of a *topic*-drop language generally intuit the obligatoriness of the overt subject pronoun much earlier than speakers of a *pro*-drop language (Lakshmanan, 1991) and outperform the latter group in disallowing null subjects (Register, 1990; Roebuck *et al.*, 1999). These findings have potential implications for the question of the psychological status of null expletives, but let us first review the linguistic issues involved in the question of the ‘*sentential subject*’ in *topic*-drop languages, focusing on Japanese and Korean.

Japanese and Korean are S(O)V languages without morphological agreement features. They, like *pro*-drop languages, have no overt expletives. The subject of an intransitive verb (both
unergative and unaccusative) appears preverbally with a Nominative case-marker. Although syntactic positions of nominal constituents are not easy to determine due to the canonical word order, a wide range of syntactic and semantic phenomena (e.g., case marker drop, floating numeral quantifier, indirect passive constructions, passive causative construction and the interpretation of arbitrary PRO) suggest that the argument of an unaccusative verb can remain in situ in overt syntax with the sentential subject position above VP left empty (e.g., Lee, 1989; Nakayama and Koizumi, 1991; Nishigauchi, 1992; Kageyama, 1993; Tsujimura, 1996; Yatsushiro, 1996). The relevant syntactic structure shown as (17a–b) corresponds to the English and French sentences in (2) and the Spanish and Italian sentences in (3).

17) a. [ [...VP eki-ni [...V[NP san-nin-no otoko-ga] tuita]]] (Japanese)
   b. [ [...VP yek-ey [...V[NP sery-salam-uy namja-ka] ilulesstta]]] (Korean)

‘Three men arrived at the station’.

The crucial question for us at this juncture is what is in the empty subject position in (17)? Theoretically, there are two possibilities, depending on the view one takes about the nature of IP in these languages.

Recall that in the principles-and-parameters approach, DP movement to the Spec of IP was explained in terms of Case theory: a Caseless DP in its base-generated position moves out of VP to receive Nominative Case from AGR under Spec-head agreement. Although Japanese and Korean lack subject–verb agreement based on phi-features, it has been proposed that the subject NP in these languages also receives Nominative case from a functional category, for instance, Agreement of subject honorification14 (Han, 1987; Ahn and Yoon, 1989; Kishimoto, 1996), Aspect (Miyagawa, 1990) or Tense (Terada, 1990; Ueda, 1993).15

Now, if NP movement is case-theoretic but the argument of an

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14For a very clear argument against a functional category of subject honorification, see Namai (2000).
15It is not important for our purpose to decide which of these proposed functional categories (or if any of them) actually assigns Nominative case to NP in Japanese and Korean. As long as such a category is assumed to exist, a null expletive is a conceptual necessity as discussed immediately below.
unaccusative verb can remain *in situ* as mentioned above, then, the empty subject position in (17) must contain a null expletive to transfer case to its associate NP through CHAIN as hypothesized by Burzio (1986) and Chomsky (1986). Or, in minimalist terms, because these languages have a functional head which overtly attracts NP, its strong specifier feature has to be checked by an expletive when no NP moves.\(^{16}\)

The other theoretical possibility is that the subject position in (17) is truly vacant, that is, there is really nothing there. (Of course, in this case, the outermost brackets in (17) are not even necessary.) This is a natural conclusion if one takes the lack of agreement features as an indication that functional categories potentially relevant for NP movement are completely nonexistent or defective in these languages (e.g., Fukui, 1987; 1995a; 1995b; Kim, 1988; Kuroda, 1988; Lee, 1990). In minimalist terms, this may mean that a functional head, most likely T, has a weak specifier feature in Japanese and Korean, which is checked by covert movement of NP at LF. If this kind of analysis is on the right track, it not only explains why Japanese and Korean lack an overt expletive but also precludes the theoretical necessity of null expletives in these languages.

Now, with this theoretical discussion in mind, let us consider how a comparison of *topic*-drop language speakers and *pro*-drop language speakers can inform us about the psychological reality of null expletives. On the one hand, if *topic*-drop language speakers accept and produce subjectless sentences in their L2 English as often as *pro*-drop language speakers do, we will not be able to argue for L1 transfer of null expletives for either group. We will simply be left with the same generalization as before that when subjectless sentences are permitted or mandatory in learners’ L1s, they are more likely to be accepted and produced in their L2 English. On the other hand, if the comparison reveals that *topic*-drop language speakers do not accept or produce subjectless sentences as often, the result can serve as suggestive evidence for (1) the nonexistence of null expletives in *topic*-drop languages and (2) L1

transfer of null expletives to L2 English by pro-drop language speakers. This is because the difference can be explained very naturally if we assume that native speakers of pro-drop languages can check the strong D-feature of T in English with a null expletive transferred from their L1s, whereas topic-drop language speakers, whose L1 lacks a null expletive, cannot. In the rest of the paper, we will see that available data in fact all point to this second scenario.

3 L2 English by speakers of topic-drop languages

Zobl (1989) analysed compositions written by college-age L2 learners of English in ESL programs in Canada and the USA (i.e., 90 Japanese, 10 Arabic, 10 Spanish, 1 Chinese, 1 Turkish, 1 Thai and 1 Indonesian). He noted three nontarget sentence patterns involving unaccusative verbs, one of which was the postverbal subject structure such as (18).

\[\begin{align*}
18) \text{a. Sometimes } & \text{comes a good regular wave.} \\
\text{b. I was just patient until } & \text{dried my clothes.} \\
\text{c. I think it } & \text{continue of today condition forever.}
\end{align*}\]

Zobl categorized this sentence pattern as \((\text{pro})V-S\) and counted 13 instances of it (10 of which were by Japanese speakers) among 80 tokens of 8 unaccusative verbs. He specifically reported that there was no instance of this structure involving unergative and transitive verbs, which is reminiscent of our observation about the postverbal subject sentences accepted or produced by pro-drop language speakers; see (16a) above.

It is notable that 10 of the 13 V-S sentences were produced by Japanese speakers, which is potentially important for the question of the existence of null expletives in Japanese. Unfortunately, Zobl’s paper does not state how many of them appeared with an overt expletive like (18c), although this is a critical piece of information because overt expletives can be learned or over-

\[\text{17Of course, logically, there is a third possibility that topic-drop language speakers may produce and accept far more subjectless sentences in their L2 English than pro-drop language speakers do, indicating that it is the former, not the latter, that have null expletives. This, however, is neither predicted by any theory I know of nor supported by available data.}\]
generalized based on available input but null expletives cannot. It is also unfortunate that the great majority of the subjects in Zobl’s study were Japanese, which might have given an unintended impression that this structure is common in the L2 English of topic-drop language speakers; compare Oshita (2000).

This suspicion is actually confirmed by the results of another study conducted by Zobl (1990). In this study, he analysed a 40,000-word corpus made up of compositions and journal entries produced by 72 college-age Japanese speakers studying in an intensive English program at the University of Hawaii. The subjects’ proficiency levels ranged from ‘high beginner’ to ‘advanced’. In nearly 3000 ‘subject and tensed verb’ contexts, Zobl found only 10 tokens of V–S word order, all of which involved an unaccusative verb. (Again, how many of these appeared with what kind of expletives is not clear in the article.) What is significant for our interests is that, as Zobl himself pointed out, there is an undeniable difference concerning omission of overt expletives between his Japanese subjects and Phinney’s (1987) Spanish subjects reviewed above. In contrast to Phinney’s ‘high beginner’ and ‘intermediate’ learners who omitted overt expletives in obligatory contexts in 56% and 76% of cases respectively, Zobl’s subjects did so only 7.7% in total.\(^{18}\) In fact, if anything, Zobl reports, his Japanese subjects tended to overproduce overt expletives, especially it.

Zobl’s observations on production data are corroborated by experimental data obtained by Register (1990), who examined L2 English learners’ grammaticality judgement on sentences without a subject or an object. Register’s subjects were native speakers of Spanish, Chinese and German (\(n = 20\) each).\(^{19}\) They were asked to judge 18 ungrammatical sentences without a referential pronominal subject, an expletive subject there, or a referential object pronoun (6 sentences each) mixed with the same number of grammatical sentences which roughly corresponded to the ungrammatical ones in meaning and length. The results showed that Chinese

\(^{18}\)As in Phinney (1987), it is not clear how many omissions involved it and how many involved there in Zobl’s data.

\(^{19}\)Register classified German as \([-\text{pro-drop}]/[-\text{topic-drop}\], but recent language acquisition studies consider this language as \([+\text{topic-drop}]\) (e.g., Roebuck et al., 1999)
and German subjects outperformed Spanish subjects at a statistically significant level ($\alpha < .05$) in identifying each of the three ungrammatical sentence patterns correctly. What is important for our interests is that Chinese subjects correctly rejected sentences without an overt expletive far better than the Spanish subjects did.

Essentially the same finding is reported by Yuan (1997), who also tested native Chinese speakers’ grammaticality judgement of English sentences without a subject or an object. Yuan’s subjects were 159 native Chinese speakers divided into 7 proficiency levels. His experimental items contained two types of expletives—i.e., the weather *it* and the dummy subject *it* for a raising-predicate construction in 3 pairs of grammatical and ungrammatical sentences each. What is significant for this discussion is that Yuan’s Chinese subjects showed no more difficulty in recognizing the ungrammaticality of null expletives in comparison to null referential subjects. These results clearly contrast with those obtained by Phinney (1987) and Tsimpili and Roussou (1991) reviewed above.

In lieu of a summary, let us revise the generalizations in (16) with additional data obtained from studies on L2 English by native speakers of Japanese and Chinese.

19) V–S order and expletives in L2 English (*pro*-drop vs. *topic*-drop L1s)
   a. Subject–verb inversion is lexically restricted: V–S order is accepted and produced with unaccusative verbs far more often than with other types of verbs. This appears to be the case with both *pro*-drop and *topic*-drop language speakers, although the former are more open to it than the latter.
   b. Besides V–S order with unaccusatives, other sentence patterns for which null expletives are hypothesized in learners’ L1s are also produced and judged as grammatical without an overt expletive by *pro*-drop language speakers. In contrast, speakers of *topic*-drop languages come to reject the ungrammaticality of subjectless sentences earlier and more consistently.
   c. Non-use of overt expletives appears to persist longer than non-use of overt referential pronouns for *pro*-drop language speakers. In comparison speakers of *topic*-drop languages are less likely to accept or produce sentences without an overt subject whether it is a referential pronoun or a nonreferential expletive. If anything, they appear to overproduce overt expletives, particularly *it*.

When Japanese and Chinese speakers’ production and judgement data in L2 English are contrasted in this way with those obtained from Spanish, Greek and Arabic speakers, it is very clear that these two groups of null-subject language speakers behave very
differently on structures that potentially involve expletives. Moreover, their difference strongly suggests that pro-drop language speakers transfer null expletives from their L1 in order to check the strong specifier feature of T in English whereas this option is not available to speakers of topic-drop languages because their L1 lexicon does not contain null expletives.

V V–S word order in a corpus of L2 English by speakers of pro-drop and topic-drop languages

I believe that the comparative analysis of native speakers of pro-drop and topic-drop languages has considerably strengthened my case for the existence of null expletives in pro-drop languages. However, one may still challenge this conclusion by arguing that learners are following a simple assumption that ‘subjectless verbs’ in their L1 are also ‘subjectless’ in English. According to this view, L2 learners are primarily sensitive to the surface linear order of constituents in their L1, e.g., $\emptyset-V$ (weather verb) and $\emptyset-BE-Adj.-Clause$ (adjective with an extraposed propositional argument), and transfer them to L2. Intuitively, this view seems to me too simplistic to account for the various syntactic patterns we have considered so far with respect to the psychological reality of null expletives. The problem, however, is that it cannot easily be dismissed at least as far as the omission of an overt expletive with a weather verb, a raising verb and an adjectival predicate with a propositional argument is concerned.

Therefore, in this section, I focus my attention on the postverbal subject structure, which, we already know, is not indiscriminately used in L2 English; see (19a). Comparing the L2 English of Italian and Spanish speakers on the one hand and that of Japanese and Korean speakers on the other, I demonstrate that the non-use of overt expletives is not just a reflection of a similar sentential pattern in L1 but is a consequence of transferring null expletives to L2 English. More specifically, I argue that the Spanish and Italian structures such as (3a–b) do indeed contain a null expletive subject whereas the Japanese and Korean sentences in (17a–b) do not.

The data for this analysis were obtained from the Longman Learners Corpus (version 1.1, March 1993, henceforth, LLC). For
the analysis, 941 token sentences on 10 common unaccusative verbs (i.e., *appear, arise, arrive, die, disappear, exist, fall, happen, occur* and *rise*) were gathered from the compositions written by native speakers of Italian (684), Spanish (1079), Japanese (1363) and Korean (236). At the same time, 640 token sentences of 10 unergative verbs (i.e., *cough, cry, dance, joke, laugh, shout, smile, speak, talk* and *walk*) were collected from the same corpus for comparison. Table 1 presents the five most frequent syntactic patterns in which the 10 unaccusative verbs were used by native speakers of the four languages.

The overwhelming majority of unaccusative verbs were found in the DP–V order and the second commonest pattern was the non-target passive unaccusative structure of DP–be–Ven. The V–DP order was also found with a marked difference between the Italian and Spanish (I/S) and the Japanese and Korean (J/K) data. In contrast, the analysis of 640 unergative sentences uncovered only one nontarget passive structure and absolutely no token of post-verbal subject sentence. Thus, the data from the LLC strongly support the generalization in (19a).

Three patterns of postverbal subject structure were noted, with *there, it* and no overt expletive. Among them, I focus my discussion on the last two patterns because the first with the expletive *there* reveals little about the psychological status of null expletives.

Table 1  Common syntactic patterns with unaccusative verbs by language group

<table>
<thead>
<tr>
<th>Structure</th>
<th>Italian</th>
<th>Spanish</th>
<th>Japanese</th>
<th>Korean</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>DP–V</td>
<td>216</td>
<td>327</td>
<td>269</td>
<td>39</td>
<td>851</td>
</tr>
<tr>
<td>DP–be–Ven</td>
<td>8</td>
<td>5</td>
<td>17</td>
<td>8</td>
<td>38</td>
</tr>
<tr>
<td>There–V–DP</td>
<td>2</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>It–V–DP</td>
<td>5</td>
<td>6</td>
<td>1</td>
<td>1</td>
<td>13</td>
</tr>
<tr>
<td>o–V–DP</td>
<td>7</td>
<td>8</td>
<td>1</td>
<td>0</td>
<td>16</td>
</tr>
<tr>
<td>Total</td>
<td>238</td>
<td>346</td>
<td>289</td>
<td>49</td>
<td>922</td>
</tr>
</tbody>
</table>

Part of these data were presented in Oshita (2000) in a discussion of the ‘passive’ unaccusative structure. The numbers in the parentheses indicate the number of essays. Although the LLC contains information about the learner’s proficiency level as well as other variables, it is not totally reliable because the judgement is made and reported by individuals who contributed the data. Therefore, the learners’ proficiency levels are not taken into account in this study. For more information about the LLC as well as the collection of data and their syntactic classification, see Oshita, 2000.
This pattern is grammatical in English and can be learned based on positive evidence alone. In fact, the four tokens from the LLC contained *exist* and *arise*, verbs compatible with the *there*-insertion structure. What is interesting, however, is that this pattern was rarely used despite its potential grammaticality by either I/S or J/K speakers.

When the DP–V and *there*–V–DP patterns are set aside, a striking contrast becomes apparent between the I/S and the J/K data on the use of nontarget structures (in the shaded areas of Table 1). The *pro*-drop language speakers produced far more postverbal subject sentences (26 tokens) than the *topic*-drop language speakers (3 tokens) but the latter used twice as many passive unaccusative sentences (25 tokens) as the former (13 tokens). The difference was statistically significant ($\chi^2 = 23.127$ with Yate’s correction applied, $\alpha < .001$).

There were 13 postverbal subject sentences that contained an overt pronoun *it*, 11 of which were produced by *pro*-drop language speakers. The context of each example indicates that the preverbal *it* is not a referential pronoun but an expletive. Examples (20a–b) were produced by Italian speakers and (20c–e) by Spanish speakers.

20) a. . . . *it* existed a lot of restrictions . . .  
   b. . . . *it* happened a tragic event . . .  
   c. . . . *it* arrived the day of his departure . . .  
   d. . . . *it* will *happen* something exciting . . .  
   e. Now that I have left school, and I am at University, *it* happens something funny . . .

The following examples in (21) are essentially the same in this respect except they may additionally involve null operator movement from the object position to the Spec of the embedded CP. Examples (21a–b) and (21c–d) are products of Italian and Spanish speakers respectively.

21) a. I’m writing to you in order to make you aware of what *it* has *happened* to me in your hotel.  
   b. I would be very glad if we could have a meeting to speak about the school times and what *it*’s happened after it.  
   c. . . . asking me for what *it* happened to me . . .  
   d. . . . talking about what would it *happen* with our relationship . . .

There were 16 postverbal subject sentences without an overt expletive, of which 15 were products of *pro*-drop language speakers.
(22a–c) were produced by Italian speakers and (22d–g) by Spanish speakers.

22) a. ... like a mirage appeared the large expanse of the sea ...
   b. There is no doubt that does exist a big difference between ...
   c. Once happened something no very good for her.
   d. ... a wonderful blue sky where still appeared a round white spot.
   e. ... because in our century have appeared the car and the plane ...
   f. In every country exist criminals.

In sum, the nontarget postverbal subject structures exemplified in (20)–(22) were used predominantly by pro-drop language speakers (i.e., 26 out of 29 tokens), again confirming the generalization in (19a).

Let us consider how the V–S order comes into the L2 English of pro-drop language speakers almost exclusively. First, it is clear that the DPs in this structure are all in the verbs’ complement position because they always appear following unaccusative verbs, never after unergatives. If this is so, how can they remain in this position despite the feature-checking requirement of T in English? This question can be answered very naturally if we regard the phonetically empty subject position in sentences such as (22) to be filled by an expletive pro transferred from the speakers’ L1s and consider the non-target expletive it to be a preferred substitute for the target there. After all, unlike there, whose primary usage is adverbial, the pronoun it is always nominal. So, it is quite natural if pro-drop language speakers associate the categorial feature [D] of an overt expletive with it more readily than with there.21

The other way to check the strong D-feature of T in sentences with an unaccusative verb is to raise DP arguments to Spec of TP, an option apparently adopted by both I/S and J/K speakers, which is evidenced by the overwhelming number of instances of the DP–V structure found in the LLC data.22 In fact, considering

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21 The scarcity of the there-insertion structure in the J/K data of the LLC probably has a reason of its own. Japanese and Koreans, who lack expletives in their native language, first learn the dummy subject as part of the prefabricated structure of ‘there-BE-DP-(PP)’ taught in school and may not be able to use it as a pure expletive unless they reach a very advanced level in their English.

22 However, I do not believe that all the observed DP–V tokens are necessarily consequences of target-like DP movement. For this issue, see Oshita (2001).
that it is virtually limited to unaccusative verbs, the nontarget passive error of DP–be–Ven committed by both L1 groups is one clear piece of evidence for object-to-subject movement in L2 English (see also Zobl, 1989; Oshita, 2000).

If this analysis is on the right track, the scarcity of (it)–V–DP structure in the J/K data must be attributed to the lack of null expletives in these languages. That is, the option of keeping DPs in situ is simply unavailable to J/K speakers (unless they master there-insertion, which they do not seem to so easily). For them, there is no way to fulfill the checking requirement of T other than to move argument DPs out of VP. This account explains why 25 passive unaccusative errors were found in the J/K data while only 3 nontarget postverbal subject errors were recorded.

In sum, I take the examples in (20)–(22) as strong evidence for the transfer of null expletives to L2 English by speakers of pro-drop languages. In contrast, the extreme scarcity of such examples produced by topic-drop language speakers combined with the high frequency of ‘passive’ unaccusative errors committed by them can be seen as evidence for the lack of null expletives in their native languages.

VI The unaccusative–unergative contrast in L2 English and free inversion in pro-drop languages

One thing that we have repeatedly encountered in our pursuit of null expletives is the remarkably consistent pattern in which unaccusatives and unergatives receive differential treatment, so to speak, in nonnative grammars of English. This has become increasingly clear as we moved from White (1985; 1986), to Rutherford (1989), to Zobl (1989; 1990), and finally to the data from the LLC. V–S word order is accepted and produced almost exclusively with unaccusative verbs. This consistent observation serves, therefore, as additional evidence for the claim that the unaccusative–unergative contrast can be psychologically real in L2 acquisition, which has been demonstrated by learners’ selection of auxiliary verbs in the target language (Sorace, 1993; 1995), their production of passive unaccusative errors (e.g., Zobl, 1989; Hirakawa, 1995; Oshita, 2000), and their reluc-
tance to accept the S–V order with unaccusative verbs (Oshita, 2002) and so on.

The fact that V–S order is limited to sentences with an unaccusative verb in the L2 English of pro-drop language speakers may have potentially important implications for the structural analysis of so-called free inversion in these languages. See the Italian examples from Haegeman (1991: 300).

23) a. pro arrivano molti studenti. (unaccusative)
arrive many students
‘Many students arrive.’

b. pro telefonano molti studenti. (unergative)
telephone many students
‘Many students telephone.’

Syntactic tests such as ne-cliticization indicate that the argument of arrivare is in the verb’s complement position in (23a) but the argument of telefonare in (23b) is not. Still, in the literature, both types of V–S sentences are often accounted for by assuming the existence of a null expletive in the surface subject position, which satisfies the EPP requirement.

24) a. [IP pro [VP UNACC V DP ]]

b. [IP pro [VP [V’ UNERG V ] DP ]]

c. [IP pro [VP [VPt UNERG V ] DP ]]

Example (24a) is the standard analysis and straightforward; (24b) is Rizzi’s (1997) analysis, according to which the external argument of an unergative is base-generated in the postverbal Spec of VP; (24c) is Belletti’s (1988) analysis, which VP-adjoins the external argument to the right of the verb (see also Haegeman, 1991: 300ff; Roberts, 1997).

How do these structural analyses accord with the fact that V–S order is restricted to unaccusative verbs in L2 English? The current article has shown repeatedly that (24a) can account for the available data very well. So, what has to be explained is why unergatives do not appear in L2 English in structures like (24b–c). I have no plausible answer for the question, but there seem to be two possibilities. One is that either (24b) or (24c) is correct but (whichever the correct one is) it is a syntactically marked operation. The markedness may be very subtle within pro-drop language systems but may still be significant enough to block the
A transfer of null expletives to L2. In other words, L1 free inversion is still a consequence of the \([+\text{pro-drop}]\) parameter value, though it does not manifest in L2 English as freely because the postverbal generation of an external argument or its VP-adjunction is a marked option even within pro-drop languages. The other possibility, of course, is that free inversion is not related to the pro-drop parameter, i.e., to the availability of an expletive pro. In this case, both (24b) and (24c) turn out to be wrong syntactic representations, and the \(\text{UNACC}V\text{-DP}\) and the \(\text{UNERG}V\text{-DP}\) may share very little structurally other than the surface order of constituents. In short, L2 English data suggest that free inversion in pro-drop languages may not be a psychologically (or even linguistically) uniform phenomenon.

VII Conclusions

Null expletives are unique among empty categories because they lack not only phonological content but also semantic properties. Their psychological reality is a very important question to investigate, considering the significant role they play in current syntactic theory. However, their extreme ‘deficiency’ as lexical items makes it very hard to prove or disprove their existence in the mental lexicon of a natural language user. The current article has explored this challenging issue by using nonnative grammars of English as valuable data sources. That is, in contrast to the standard practice of looking for explanations of L2 phenomena in the learners’ native languages, I have examined nonprimary language data for clues that may resolve a linguistic question about primary languages which is otherwise difficult to investigate. Based on a careful comparison of two groups of null-subject language speakers with respect to their grammatical judgement on and productive use of English, I have concluded that null expletives are very likely psychologically real to speakers of pro-drop languages but not to speakers of topic-drop languages.

Finally, I would like to add a few words about recent proposals, within the minimalist approach, to eliminate null expletives from syntactic theory (e.g., Speas, 1994; Picallo, 1998; Yusa, 2002). These proposals are different in detail but all are motivated
by a principle of economy stated by Chomsky (1995: 294) as follows:

25) $\alpha$ enters the numeration only if it has an effect on output.

Given (25), the proponents argue, null expletives must be banned because they have no PF or LF effects. Here, an ‘effect’ is read as $\alpha$'s own interpretation at PF or LF. Notice, however, that there is another way of reading an ‘effect’, namely, as $\alpha$'s contribution to the whole derivation it is part of. If (25) is read this way, a null expletive does have an effect at PF, i.e., on the linear order of the constituents. In fact, when Chomsky (1995: 288–89) discusses two forms of German expletives (overt and null) in relation to the V-second property of the language, he seems to have this wider sense of ‘effect’ in mind.

Elimination of null expletives, of course, is not a simple matter theoretically and requires alternative ways to explain phenomena that have been accounted for based on the assumption of covert expletives. Proposed alternatives are not always attractive and sometimes even appear counter-intuitive. For example, Picallo (1998) argues that the [EPP] feature of Infl has to be weak in pro-drop languages\(^{23}\) and introduces a discourse-driven operation to account for the preposing of DP subjects. Yusa (2002), after correctly pointing out that the V–S order in L2 English often appears with a preceding overt element, proposes to account for this pattern by hypothesizing the Spec of TP can be occupied by any overt element (X or XP) in L2 English. These and other alternative theories must be studied carefully with more extensive data for potential implications and consequences.

My personal view, however, is that once the definition of ‘lexical item’ along the lines of Jackendoff (1997; 2002) is adopted, there is a lot to gain but little to lose by retaining null expletives in syntactic theory. First, by assuming their existence, similarities and differences among linguistic forms are very naturally accounted for from both crosslinguistic and structural perspectives. Secondly, they are good candidates for empty categories anyway and meet a principle of economy, if it is understood as in Haegeman and

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\(^{23}\)Picallo (1998) discusses Catalan but her analysis is intended for other null subject Romance languages as well.
Guéron (1999). And, finally, they seem to arise in the mind as a natural consequence of a combination of the strong D-feature of T and the [+pro-drop] parameter value.

So, despite recent proposals within the minimalist approach, I think that the assumption of null expletives in natural languages is still very attractive for both conceptual and empirical reasons. Any alternative theory without them must be able to account for existing linguistic phenomena, including the L2 data examined in this article, at least as elegantly as does an analysis with them.

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VIII References


Miyagawa, S. 1990: Case realization and scrambling. Unpublished manuscript. Ohio State University, Columbus, OH.


