PRODROP THEN AND NOW:

CHANGING PERSPECTIVES ON NULL SUBJECTS IN SECOND LANGUAGE

ACQUISITION

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Abstract

This paper provides an overview and analysis of changing perspectives on null subjects in L2 research. Three phases of research are identified, focusing on: (i) the issue of parameter resetting, conceived in terms of the null subject parameter as originally formulated; (ii) the relationship of null subjects to properties of functional features and associated morphology; (iii) discourse constraints on the realization of null and overt subjects. Conflicting data and theories are discussed, touching on the extent of transfer of null subjects from the L1, whether a parameter is involved, and what other properties might explain the distribution of null subjects in L2 grammars. Despite the lack of consensus, investigation of null subjects has provided fruitful insights into the nature of interlanguage grammars.

Key Words

null subjects; pro-drop parameter; parameter resetting; morphological uniformity; features; optional infinitives; root infinitives; syntax-discourse interface.

Introduction

Research conducted from within the generative second language (L2) acquisition perspective is based on the assumption that linguistic theory provides an appropriate framework to address issues relating to the linguistic competence of L2 learners and speakers (henceforth L2ers). Some of the earliest research in this tradition (e.g. Liceras, 1988; White, 1985a) investigated null subjects in L2 acquisition, following proposals in the linguistic literature at that time for a prodrop or null subject parameter. In this paper, I give an overview of perspectives on null subjects in L2 research, past and present. In this context, it is important to consider the original 'access to UG' debate, with opposing claims about the availability or non-availability of UG in L2 acquisition (see White, 1989). On the whole, a consensus was reached that principles of UG in fact remain operative, the debate instead being formulated in terms of the possibility or impossibility of parameter resetting.

I will address three phases in L2 research on null subjects: (i) research which assumes the null subject parameter as originally conceived and which focuses on the question of whether this parameter can be reset in L2 acquisition; (ii) research which links properties of null subjects to properties of features of functional categories and associated morphology, investigating similarities and differences between first language (L1) acquisition and L2 acquisition in this domain; (iii) research which considers the syntax-discourse interface and related properties of null and overt subjects and investigates whether L2ers observe discourse constraints on realization of subjects.

Phase I: The parameter

The null subject parameter

The null subject or pro-drop parameter was probably the first parameter to be proposed in linguistic theory (Chomsky, 1981; Rizzi, 1982; Jaeggli, 1980). It was also

one of the earliest parameters to be investigated in the context of L1 acquisition (e.g.

Hyams, 1986) and L2 acquisition (Hilles, 1986; Liceras, 1988, 1989; Phinney, 1987;

White, 1985a, 1986). This parameter constituted what is now referred to as a

macroparameter (see Baker, 2008, and Camacho, 2013, for discussion), the idea being to

account for the crosslinguistic distribution of null versus overt subjects, and associated

syntactic properties. A major attraction of parameter theory for researchers working on

L2 acquisition at that time was that it offered a potential way to account both for

language transfer and for eventual L2 'success', on the assumption that: (i) L2ers initially

adopt L1 parameter settings and (ii) parameters can be reset to appropriate L2 values (e.g.

White, 1985a, 1986), which was subsequently formulated as the Full Transfer Full

Access (FTFA) Hypothesis (Schwartz & Sprouse, 1996). Even where evidence for

parameter resetting was not robust, insight was gained into the nature of the interlanguage

grammar and alternative linguistic analyses adopted by L2ers.

One of the original aims of early parameter theory was to account for

crosslinguistic variation by attributing clusters of superficially unrelated syntactic

phenomena to particular parameter settings, and to show that that there was some

underlying unifying reason for these properties to cluster together. In the case of the null

subject parameter, languages were divided into two types, [+null subject] and [–null

subject]; in addition to the possibility or impossibility of null subjects, other syntactic

properties were linked to this phenomenon. For example, Rizzi (1982) proposed the

cluster in Table 1.[1] Other properties were subsequently added to the list.

Table 1. Properties of null subject languages

[+null subject]	[–null subject]
Null subjects in tensed clauses:	Lexical subjects required:

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[1] Examples are from Rizzi (1982). *e* stands for empty category (or null subject).

e verrà 'He/she will come'	*e will come

Free subject inversion:
 	
  e verrà Gianni
 	
'Gianni will come'
	No subject inversion:
	
	  *e will come Gianni

that-trace sequences permitted:
 	
  Chi$_i$ credi che *e*$_i$ verrà?
 	
'Who do you think (that) will come?'
	that-trace effects:
	
	  *Who$_i$ do you think that *e*$_i$ will come?

From early on, it was assumed that richness of inflection in null subject languages allows the null subject to be identified or recovered, this idea being formalized in a variety of different ways (see Biberauer, Holmberg, Roberts & Sheehan, 2010, and Camacho, 2013, for recent overviews). In other words, the presence or absence of rich inflection was, at that time, an integral part of the explanation. Languages which permitted null subjects but lacked rich inflection (e.g. East Asian languages) could not be accommodated within the parameter as originally formulated.

A distinction between licensing and identification of null subjects was proposed (Rizzi, 1986). Licensing permits null subjects in principle; it is a necessary but not a sufficient condition for null subjects. In addition to being licensed, a null subject must be identified. In order to interpret a missing argument, one must be able to establish what it refers to; there must be some way of recovering the content of the null subject from other properties of the sentence. Various types of identification have been proposed in the literature. Rich verbal agreement allows null subjects to be identified in Romance languages such as Italian and Spanish, while in languages lacking agreement, such as Chinese, Japanese and Korean, a preceding NP or a topic in the discourse provides the means to identify a null element (Huang, 1984).

Research on the null subject parameter in L2

Most L2 research on the null subject parameter in the 1980s concentrated on its syntactic effects and the question of whether L2 learners can acquire new parameter values when the L1 and L2 differ in their settings (e.g. Liceras, 1988; Phinney, 1987; White, 1985a, 1986). Much of this research was limited to the L2 acquisition of English by speakers of Romance null subject languages, typically Spanish (e.g. Hilles, 1986; White, 1985a, 1986). A notable exception was the work of Liceras (1988) which looked at the opposite situation, namely the acquisition of a null subject language (Spanish) by speakers whose L1s were not null subject languages, such as English or French. See Phinney (1987) for an early example of a bidirectional approach involving a comparison of L2 English (L1 Spanish) and L2 Spanish (L1 English) and Montrul (2004) for an overview of research on null subjects in L1 and L2 Spanish.

Investigating whether or not parameters of UG can be reset in L2 acquisition, research focused on situations where the L1 and L2 exemplified different parameter settings, looking for evidence of initial transfer of the L1 setting, followed by resetting to the appropriate L2 value, and trying to determine whether all the syntactic effects attributable to a particular setting would cluster together in the interlanguage grammar (in other words, all of them initially transferring and subsequently being reset at the same time). As we shall see, evidence for clustering was not compelling as far as the null subject parameter was concerned.

White (1985a) was probably the first to look for evidence of transfer of L1 parameter settings in L2, as well as the question of whether parameters could appropriately be reset, in other words advancing a precursor to FTFA (Schwartz & Sprouse, 1996). White reports on an experiment (replicated in White, 1986) comparing L2 learners of English with Spanish and French as L1s (the former being a null subject language and the latter not), with respect to the three properties identified by Rizzi as part

of the cluster, namely null subjects, subject inversion and *that*-trace effects. Results from a grammaticality judgment task show that Spanish and French speakers at several different proficiency levels behave differently from each other in their assessment of the grammaticality of null subjects in L2 English. Spanish speakers, in contrast to French speakers, accept null subjects, suggesting transfer of the L1 setting. However, there was an absence of clustering effects: inversion was rejected by both groups and both groups had considerable difficulties with *that*-trace sequences. White concluded that the L1 setting of the parameter transfers (hence the difference between Spanish and French speakers), and that, with increasing L2 proficiency, there was some evidence for parameter resetting, in that null subjects are no longer accepted by learners at higher levels of proficiency; however, absence of clustering effects remained problematic for the theory.

Liceras (1989) reports one of the original investigations of the L2 acquisition of a null subject language, namely Spanish, by native speakers of French and English (both [–null subject] languages), at different levels of proficiency. Liceras investigated the same three properties as White (1985a, 1986), also using a grammaticality judgment task, and also found an absence of clustering in L2 Spanish. Null subjects were accepted by speakers of both L1s and overt pronouns largely rejected, inversion was increasingly accepted but never to the level of native speakers, while subjects generally performed poorly on sentences testing for (absence of) *that*-trace effects. Poorer performance on these two aspects is explained by her in terms of their dependence on other properties of Spanish. In contrast to White, Liceras concludes that L1 transfer is not implicated in the L2 acquisition of this parameter, given the success of both groups in recognizing that null subjects are required in the L2 despite their absence in the L1.

One debate at that time centred on the issue of the default value of the parameter and what effect this might have in L2 acquisition. White (1985b, 1989) argued, on learnability grounds, that [-null subject] must be the default setting, since this could be

disconfirmed on the basis of positive evidence for the child learning an L1 with null subjects, whereas if the child started out with [+null subject] as the default, there would be no evidence to disconfirm this, given that null subject languages allow both null and overt subjects. (For recent similar claims, see Judy & Rothman, 2010.) White's assumption for L2 was that initially learners would adopt the L1 parameter setting, regardless of its markedness status: in consequence, Spanish-speaking learners of English would transfer the [+null subject] setting into the interlanguage grammar. English-speaking learners of Spanish would transfer the [–null subject] setting but would get ample positive evidence for null subjects. Liceras (1989), in contrast, assumed that [+null subject] is the default, based on proposals by Hyams (1986) for L1 acquisition, and that L2ers revert to the default setting regardless of the L1 setting (see Phinney, 1987, for similar assumptions). According to Liceras, this explains the success of the French and English speakers in her study with respect to null subjects. In other words, at this time, Liceras assumed parameter resetting to be possible in principle, based on markedness considerations, without an initial stage of L1 transfer, a position she later came to abandon in favour of the no parameter resetting approach. As discussed by White (1985b, 1989), testing the claims of transfer and markedness against each other requires a situation where the L1 exemplifies the marked setting and the L2 requires the unmarked. This, of course, is what Liceras assumed with respect to null subjects in L2 Spanish. But it is not, in fact, possible to determine the effects of markedness versus transfer when there is disagreement about which is the unmarked value of a parameter, as is the case here.[2]

Arguing against the possibility of parameter resetting in adult L2, Clahsen and Hong (1995) adopt a later version of the null subject parameter, whereby null subjects are identified by AGR with pronominal properties. Clahsen and Hong look at adult L2

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[2] In subsequent work on null subjects in L2, Liceras and colleagues argue that L2ers do not resort to default options (e.g. Liceras & Diáz, 1999).

acquisition of German, a [– null subject], by speakers of Korean, a [+ null subject] language. Korean speakers have to reset the parameter that determines how null subjects are identified, establishing that, while German has agreement, AGR is nonpronominal, so null subjects are not permitted. Clahsen and Hong expect these properties (presence of agreement, nonpronominal AGR) to cluster together on the basis of data from child L1 acquirers of German; they claim, based on a sentence-matching task, that there is no such clustering in L2, hence that their subjects were not able to reset the parameter. White (2003) suggests that at least some of these learners had reset the parameter, but to the Italian value rather than the German value.

Recently, Ortifelli and Grüter (2013) have claimed that adult L2 learners of English with Spanish L1 in fact show no evidence of transfer of the [+null subject] setting, despite accepting null subjects in a grammaticality judgment task (based on the task in White,1986). In two other tasks, one a production task and the other a modified truth-value judgment task, null subjects were never produced and sentences were not interpreted as if a null subject had been present. Rather sentences without subjects were interpreted as imperatives. Ortifelli and Grüter note that other researchers have found discrepancies between production data (suggesting little or no inappropriate production of null subjects in L2 English) and grammaticality judgment data, suggesting considerable acceptance of null subjects. They argue that acceptance of null subjects in judgment tasks does not reflect underlying linguistic competence but rather reflects processing problems which are task specific. If they are right, this means that many of the conclusions drawn by researchers in the past as to whether or not parameter settings transfer are now in doubt. However, as they note, if their account is correct, it predicts that L2ers will make incorrect judgments regardless of whether the L1 is a null subject language. But White (1985a, 1986) found that French-speaking learners of English did not accept null subjects in the same GJ task, in contrast to Spanish speakers.

In summary, investigation of the null subject parameter in L2 has yielded mixed results, with disagreement as to whether transfer of the L1 setting takes place and whether the parameter can be set to the L2 value. In part, the differences in interpretation of results reflect problems relating to the original formulation of the parameter. We turn now to subsequent developments in accounts of null subjects.

Phase II: Morphological licencing of null subjects

As we have seen, the earliest phase of investigation of null subjects, from both a theoretical and an acquisition perspective, focused on languages with rich agreement, such as Spanish and Italian. Indeed, the presence of rich agreement was implicated in the explanations of the parameter itself. However, early on, Huang (1984, 1989) pointed out that languages like Chinese also permit null arguments; consequently, a different account was necessary. Huang proposed that null subjects in languages with no agreement are identified by an NP occurring in a higher clause or by a discourse topic.

Morphological Uniformity

One approach that took account of the fact that very different types of languages allow null subjects was the Morphological Uniformity Principle (MUP) proposed by Jaeggli and Hyams (1988) and Jaeggli and Safir (1989) (see Speas, 2006, for a more recent development of this proposal). On this account, emphasis is shifted from rich agreement as such to uniformity in realization of agreement (either fully present or fully absent). Null subjects are licensed in languages with uniform morphological paradigms (which may involve rich inflection for agreement, number and gender, as in Spanish and Italian, or no such inflection, as in Chinese or Japanese). Identification of null subjects is achieved via properties of AGR or via discourse topics.[3]

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[3] Some languages with uniform rich agreement (e.g. German) do not permit (referential) null subjects – this is due to lack of certain properties of AGR. In other words, German licenses null subjects in principle but these are not found (with certain very limited exceptions) because they cannot be identified.

Lakshmanan (1991, 1994) investigated whether the MUP holds for child L2 acquisition. She argued that, according to the MUP, one should expect to see the following linguistic properties clustering together in child L2 acquisition of English: assumption of morphological uniformity, with consequent absence of inflection and presence of null subjects; null subjects will be given up once learners work out that English is not morphologically uniform. In fact, given those criteria, she found little support for operation of MUP in child L2 English. Rather, in data from four children learning English naturalistically, production from only one child showed evidence of a correlation between development of verbal inflection and loss of null subjects. This could be taken as evidence against parameters in L2 or it could mean that there is something wrong about the MUP proposal or with Lakshmanan's assumptions about how MUP operates (see Hyams and Safir, 1991, who suggest that children may have knowledge of morphology which is not yet realized in their production).

Another L2 study that assumes the MUP and investigates whether this is operative in L2 is Hilles (1991). She examined spontaneous production data from 6 native speakers of Spanish learning L2 English, two children, two adolescents and two adults. Somewhat differently from Lakshmanan, data from two child subjects and one adolescent showed a correlation between the emergence of (non-uniform) inflection and presence of overt pronominal subjects. For the other adolescent and the two adults, there was no such relationship, suggesting the possibility of resetting the MUP only in the case of younger learners.

Finally, Davies (1996) studied a much larger group of learners of English (n=48), who were adults from a variety of null subject L1s, with rich inflection (Spanish, Italian) or not (Chinese, Japanese, Korean). Results from a grammaticality judgment task suggest that just over half the subjects have grammars that are consistent with the MUP (recognizing that English has non-uniform agreement and does not permit null subjects or treating English as if it had no agreement and allowing null subjects). Problematic for the

MUP were almost half the subjects whose scores on agreement and subjects did not fit the expected pattern (agreement was much more accurate than recognition of the impossibility of null subjects or vice versa). Davies suggests that the MUP as a construct should be abandoned and that further revisions to the null subject parameter are required. This argument, of course, depends on the assumption that interlanguage grammars are natural language grammars, subject to UG constraints, and hence providing evidence in support of or against prevailing linguistic theories. An alternative interpretation might be that the MUP holds and that the results suggest that interlanguage grammars are not UG-constrained.

Features

The MUP was a broad parameter (in the spirit of macroparameters). Another way of dealing with the problems that arose with the original conception of the null subject parameter (as well as other parameters) involved a move towards expressing parametric differences in terms of more localized features on lexical items, particularly heads of functional categories (e.g. Borer, 1984). Such parameters came, in due course, to be known as *microparameters*. Investigation of L2 grammars turned to a consideration of the role and status of functional categories and their associated features in interlanguage grammars. Parameter setting and resetting were reconceived in terms of the possibility or impossibility for L2ers to acquire features not represented in the L1. The possibility of parameter resetting was understood as claim that the full UG inventory of features remains accessible in L2, while the no-parameter resetting approach maintained that (adult) L2 learners are restricted to certain categories and features represented in the L1 (e.g. Hawkins, 2001).

Initiating this kind of approach, Tsimpli and Roussou (1991) argued that there is a functional module of UG which is subject to a critical period, becoming inaccessible in adult L2 acquisition. In consequence, parameters associated with features of functional

categories cannot be reset and transfer of L1 parameter settings is expected, not just initially but permanently. In the case of null subjects, the relevant category is AGR, which licenses *pro*. Tsimpli and Roussou look at intermediate proficiency Greek-speaking learners of English, Greek being a null subject language. In a grammaticality judgment and correction task, these learners in fact recognized that null subjects are impossible, with the exception of expletive contexts, and they corrected the sentences by inserting lexical pronouns. On the face of it, then, at least for referential pronouns, it looks as if the parameter had been reset. However, Tsimpli and Roussou argue these superficial English-like properties are misleading. According to them, the L2ers were unable to lose the licensing properties of AGR, thus permitting null subjects in principle, explaining the acceptance of null expletives (as well as the acceptances of null subjects reported by White, 1985a, 1986). Why, then, do the L2ers produce so many overt subjects in their corrections? Tsimpli and Roussou argue that the L2ers come up with a different – UG-constrained – analysis, whereby they treat English subject pronouns as agreement markers, appearing in AGR. Effectively, they are subject clitics, as argued for French by Roberge (1990). Problematic for this account is the fact that it makes a number of predictions for L2 English, such as for clitic doubling, which do not appear to be borne out.

Null subjects and root infinitives

Other accounts of null subjects did not specifically address the parameter but nevertheless had implications for the realization of null subjects in L1 and L2 acquisition. These include proposals for an optional infinitive (OI) (Wexler, 1994) or root infinitive (RI) (Rizzi, 1994) stage in L1 acquisition, a period during which the child's main (or root) clauses may contain a main verb which is nonfinite in form rather than finite.

According to such accounts, abstract morphosyntactic features are represented in the child's grammar from the beginning. To account for non-adult performance on

morphology, abstract features such as Tense (Wexler, 1994) or Number (Hoekstra, Hyams & Becker, 1999) can be underspecified in child grammars, such that they are not always realized, with morphological and syntactic consequences. According to Rizzi (1994), the child does not yet know that a root clause must be a CP, instead truncating the structure, such that root VPs are sometimes projected. A consequence of underspecified Tense or Number or of a structure consisting only of a VP is that verbs will necessarily be non-finite in the absence of AGR or T and that subjects will be accusative (given the absence of nominative case assignment, a property of T). Regardless of whether the OI or RI account is adopted, there is general agreement that variation between finite and nonfinite main clauses in young children's speech is structurally determined: inflected forms show properties and positions typical of finite verbs, while uninflected forms show characteristics associated with nonfinite verbs. Both the underspecification account and the truncation account allow for null subjects at this stage (Hoekstra, Hyams & Becker, 1997, 1999; Rizzi, 1994).

Considerable L2 research has addressed the question of whether or not L2ers, child or adult, go through an OI or RI stage. While such proposals are not related directly to the null subject parameter and have focused more on the issue of morphological variability, null subjects are nevertheless relevant, given that these are observed in the OI or RI stage in L1 acquisition.

Haznedar and Schwartz (1997) examined spontaneous production from Erdem, a Turkish child learning English, over an 18 month period, beginning at age of 4. Assuming Wexler's (1994) criteria for an OI stage, they found no evidence for such a stage in Erdem's early English. While he did frequently omit inflection, he consistently produced overt subjects and nominative pronoun subjects, regardless of the form of the verb (inflected or uninflected), in contrast to child L1 acquirers of English. Suppliance of overt subjects was high from the beginning, even though the L1, Turkish, was a null subject language, whereas suppliance of agreement and tense inflection on lexical verbs

remained variable. Other researchers who have found accurate production of overt subjects in L2 English at the same time as variable performance on inflectional morphology include Ionin and Wexler (2002) who report on production data from 20 child L2 learners of English, with L1 Russian.

Prévost and White (2000) examine production data from child and adult L2 learners of French and German. In contrast to Haznedar and Schwartz, they report evidence for an RI stage (based on the criteria advanced by Rizzi, 1994), but only in the child data. Child learners show behaviour consistent with truncation: the children's null subject stage coincided with their root infinitive stage and they rarely produced null subjects in CPs, consistent with the claim that null subjects are null constants for these children, which disappear when the child establishes that root clauses must be CPs. In contrast, the adults showed no contingency between presence of null subjects and verb form (finite versus nonfinite) or clause type.

Lardiere (1998) provides a detailed case-study of an adult Chinese-speaker's L2 English (L1s: Mandarin and Hokkien) and shows that the dissociation between verb form and subject type continues into the endstate. The subject, Patty, is a fluent user of English with a number of non-native characteristics in her spoken language. Incidence of tense and agreement morphology is low. At the same time, Patty has full command of a variety of syntactic phenomena implicating Tense and Agreement, including correct nominative case assignment, and a negligible number of null subjects.

To summarize, there is considerable data on the L2 acquisition of [–null subject] languages (such as English, French and German) showing accuracy in the production of overt subjects along with problems with inflectional morphology, suggesting that what is going on in L2 differs from what is found in L1 acquisition. Such variability has been interpreted as reflecting difficulties in identifying the appropriate morphological realization of functional categories or features (Haznedar & Schwartz, 1997; Lardiere, 1998, 2000; Prévost & White, 2000) rather than an OI or RI stage. In other words, L2ers

have problems in mapping from abstract categories to their particular surface morphological manifestations; features of L2ers' functional categories are fully specified. The problem, rather, is determining which lexical items realize what.

Turning now to L2 Spanish, Liceras, Díaz and Maxwell (1999) investigate whether there is an RI stage in L2 Spanish, with null subjects being null constants, in the sense of Rizzi (1994), or whether other things might be going on (such as topic drop instead of pro-drop). Indeed, it would seem that null constants should not be anticipated: (i) given the claim that RIs do not occur in the L1 acquisition of languages like Spanish (e.g. Hoekstra, Hyams & Becker, 1999, p. 258), one would not expect them even on the assumption that L1 and L2 acquisition are alike, with similar stages;[4] (ii) transfer of RIs would not be a possibility given that this is a stage reported for L1 acquisition rather than for adult grammars (though with some adult effects, such as so-called diary drop). A prediction of the null constant account is that null subjects will only be found in root clauses when these are not CPs; embedded clauses are necessarily CPs and hence do not permit null constants. Liceras et al. report that, regardless of L1 (French, English, German, Chinese, Japanese, Korean), their subjects used null subjects in main and embedded clauses, suggesting that null constants were not implicated.

Liceras and Díaz (1998) pursue the implications of a number of the accounts described above, including the underspecification account of Hoekstra, Hyams and Becker (1999). They compare L2 learners of Spanish who are speakers of null argument languages like Chinese with speakers of [-null subject] languages like English. Following Hoekstra, Hyams and Becker, they divide languages into 3 types in terms of which functional heads determine how finiteness is realized morphologically: Type A languages (Spanish, Italian, etc.) use Person; Type B (English, Dutch, etc.) use Number; Type C

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[4] While the OI/RI phenomenon is claimed not to occur in the L1 acquisition of null subject languages, Liceras, Valenzuela and Díaz (1998) do find evidence for some root infinitives in their data from L1 acquirers of Spanish.

(Japanese, etc.) use Tense. According to Hoekstra, Hyams and Becker, Number is the only functional head that can be left unspecified in the child grammar. Consequently, only Type B languages show an OI phenomenon. When the main verb is an infinitive, only subjects unspecified for Number may occur; these include null subjects, as well as bare Ns (unspecified for definiteness or Number); finite verbs occur with full DP subjects as well as null subjects.

Liceras and Díaz suggest that L2 learners whose L1 is Type B (e.g. English) or Type C (e.g. Japanese) will have to acquire the fact that Spanish is Type A, in other words that Person rather than Number or Tense is the crucial functional head. Looking at spontaneous production data from a small group of adult learners of Spanish from Type B and Type C L1s, they predict that the Type B learners should not have null subjects initially, contrary to fact, since these learners (n=3) produced null subjects, mostly 3rd person. They also found some instances of RIs, a result that is somewhat puzzling if these are indeed RIs, rather than cases of missing surface inflection as argued by Prévost and White (2000) for L2 French and German. Liceras and Díaz report that there were agreement mismatches, particularly with null subjects, which suggests to them that the crucial status of Person had not been acquired. Beginners with Type C as their L1 produced null subjects with all verbal forms and the authors claim that there is evidence for identification via null topics (although it is not clear what the evidence is for this, since these learners used null subjects not only to refer to a topic in the previous discourse but also when there had been a change of topic). For the beginners of Type B and Type C L1s, then, there is evidence of partial transfer from the L1, at least initially.[5]

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[5] However, L2 research on the acquisition of English by speakers of null argument languages without rich agreement (such as Chinese, Japanese and Korean) has, in general, found much less evidence of transfer of the possibility of null subjects than is the case for speakers of languages like Spanish (Park, 2004; Yuan, 1997; Wakabayashi, 2002; Zobl, 1990).

Spontaneous production data from a small group of advanced Spanish L2ers was also examined. Learners with Type B L1s continue to produce null subjects, while agreement mismatches disappeared. This looks like successful acquisition of Person as the crucial feature (i.e. parameter resetting), although the authors do not make this assumption, in part, presumably, because of the behaviour of the Type C group, who, they claim, continue to identify null subjects via topic chains (although we are not told what the evidence is for this claim). The advanced Japanese speakers, like the English speakers, do not produce agreement mismatches, again suggesting (to me) that they may in fact have acquired the relevant feature, though this is not the interpretation given by the authors.

As with earlier proposals for the null subject parameter, the alternative formulations described here have led to differences of opinion as to which theory provides the best account of the L2 data and how the L2 data should in fact be interpreted.

Liceras and colleagues adopt the no parameter resetting claim of Tsimpli and Roussou (1991), with modifications. However, the data reported in their studies (and others) exhibits a 'fuzziness' (their term) which makes it hard to determine whether or not parameter resetting has in fact taken place.

Phase III: Null subjects and discourse

More recent approaches address the issue of null subjects by looking beyond the grammar itself. In earlier generative L2 research, there was relatively little consideration of how syntactic knowledge might interact with other components of the grammar. In the past decade or so, however, a considerable body of L2 research has addressed this question, focusing on how different modules of the grammar (phonology, syntax, semantics, morphology, lexicon) interface with each other, as well as how the grammar interfaces with other cognitive domains (see White, 2009, 2011, for an overview).

Explanations of L2ers' difficulties have focused on problems they have with integrating material at the interfaces, especially where the L1 and L2 differ in how interface phenomena play out.

One such interface is the syntax/discourse interface, particularly relevant as far as the realization of subjects is concerned. Sorace and Filiaci (2006) advance the Interface Hypothesis (IH), according to which L2ers, even near native speakers, are never fully native-like as far as phenomena relating to the syntax discourse interface are concerned, particularly with respect to overt pronoun use. In other words, according to these authors, there is a dissociation between syntactic knowledge (native-like, at least in principle) and discourse phenomena in the near native grammar.

In this context, there has been extensive investigation of how the discourse notion of topic interacts with the syntax of subjects, particularly the choice of overt versus null pronouns. In null subject languages, while null subjects are licensed and identified syntactically, discourse constraints are also implicated in determining whether or nor not a pronoun has to be realised overtly in any particular context. What turns out to be crucial is whether or not there is a change in the discourse topic, overt pronouns being required when there is a change to a new topic, whereas null subjects are preferred when there is no change in topic (what Sorace and colleagues refer to by a feature [± topic shift]). In languages like English, given the impossibility of null subjects, overt subject pronouns convey either old or new information (i.e., same topic or different topic).

As White (2011) reminds us, Liceras (1988) was probably the first to consider the relationship between discourse and the syntax of null subjects. She pointed out that the distribution of null and overt subjects in languages like Spanish is governed by stylistic constraints and that the latter are not necessarily mastered by L2 Spanish speakers. Her data at that time revealed exactly the same problem that has since been investigated in more detail by Sorace and colleagues, namely overuse of overt subjects in discourse contexts where a null pronoun would be appropriate.

Along these lines, Sorace and colleagues have demonstrated that even near-native speakers of Italian fail to fully master discourse constraints on realization of topics. For example, Belletti, Bennati and Sorace (2007), using a variety of production tasks, show that near-native speakers of L2 Italian who have acquired the [+null subject] setting of the parameter nevertheless produce overt subjects in contexts where null subjects would be preferred by native speakers. Similar findings have been reported by Sorace and Filiaci (2006) and by Tsimpli and Sorace (2006) for Russian-speaking learners of Greek.[6] Other researchers have reported overuse of overt pronouns at lower levels of proficiency for L2 Italian (Belletti & Leonini, 2004).

While originally assuming that problems with overuse of overt subjects reflected properties of the L1 (Sorace, 2003) since English uses overt pronouns both in contexts where there has been a topic change as well as in contexts where there has not, more recently it has been reported that, even if both the L1 and the L2 are null subject languages, overuse of overt pronouns nevertheless occurs (e.g. Margaza & Bel, 2006), suggesting that some more general processing problems must be implicated (Sorace, 2011).

Other relevant work that predates work by Sorace and colleagues is that of Pérez-Leroux and Glass (1999), who also find problems related to the discourse requirements on pronouns; however, their findings are the opposite of Sorace and colleagues. Pérez-Leroux and Glass (1999) examine the extent to which L2 learners of Spanish understand that null subjects encode continuity of discourse topic whereas overt pronouns encode new information (or focus).[7] Elementary, intermediate and advanced subjects were tested via an elicited production task, set up with contexts where either a null subject or an overt subject would be expected, depending on the discourse provided. They found that all

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[6] Overuse of overt subjects is also reported in cases of L1 attrition where the L2 is a not a null subject language while the L1 is (e.g. Tsimpli et al., 2004) and in cases of bilingual acquisition where one of the languages is a null subject language and the other is not (Serratrice, Sorace & Paoli, 2004).
[7] They also look at the Overt Pronoun Constraint (Montalbetti, 1984), which will not be discussed here.

groups appropriately used more null subjects than overt in contexts where there was no change in discourse topic. On the other hand, where there was a change in topic, such that the native speakers showed a strong preference for overt subjects (while not using them exclusively), only the advanced L2 group did the same. The elementary and intermediate groups used null and overt pronouns equally often, suggesting overuse of null subjects in discourse contexts where overt is expected. Other studies have also reported overuse of null pronouns in L2 Spanish in contexts where overt pronouns would be expected (Montrul & Louro, 2006; Rothman, 2009). Overuse of null subjects when there has been a topic change nevertheless indicates a problem at the syntax/discourse interface, namely failure to realize constraints on focus, since a focused subject must be overt.

To summarize, it does appear to be the case that accounting for L2 knowledge and use of null (and overt) subjects requires a consideration not just of properties of the grammar (or narrow syntax) but also of discourse contexts. Determination of the appropriate form of the subject requires appreciation of the relationship between syntax and discourse, as well as a consideration of the extent to which processing problems might be implicated in subject use.

Conclusion

While there has been a move away from a macroparameter accounting for the crosslinguistic distribution of null subjects, the null subject phenomenon continues to attract considerable interest both in theoretical terms as well as in acquisition research. Different analyses have been proposed over time, some involving other parametric accounts. As far as L2 research is concerned, there has been disagreement as to the findings (to what extent is there evidence that null or overt subjects transfer), as well as the analyses (whether a parameter is involved, what other kinds of properties might explain the distribution of null subjects in L2 grammars). Investigation of null subjects remains a fruitful line of research which can help us to understand the nature of

interlanguage grammars. In particular, the current interest in the relationship between processing and grammatical knowledge may provide new insights in this domain.

References

Ackema, P., Brandt, P. , Schoorlemmer, M., & Werman, F. (Eds.). (2006). *Arguments and agreement*. Oxford: Oxford University Press.

Baker, M. (2008). The macroparameter in a microparametric world. In T. Biberauer (Ed.), *The limits of syntactic variation* (pp. 351-374). Amsterdam: John Benjamins.

Belletti, A., Bennati, E., & Sorace, A. (2007). Theoretical and developmental issues in the syntax of subjects: Evidence from near-native Italian. *Natural Language and Linguistic Theory, 25,* 657-689.

Belletti, A., & Leonini, C. (2004). Subject inversion in L2 Italian. In S. Foster-Cohen, M. Sharwood Smith, A. Sorace, & M. Ota (Eds.), *Eurosla Yearbook Vol 4* (pp. 95-118). Amsterdam: John Benjamins.

Biberauer, T., Holmberg, A, Roberts, I, & Sheehan, M. (2010). *Parametric variation: Null subjects in Minimalist theory*. Cambridge: Cambridge University Press.

Borer, H. (1984). *Parametric syntax*. Dordrecht: Foris.

Camacho, J. A. (2013). *Null subjects*. Cambridge: Cambridge University Press.

Clahsen, H., & Hong, U. (1995). Agreement and null subjects in German L2 development: new evidence from reaction-time experiments. *Second Language Research*, 11, 57-87.

Davies, W. (1996). Morphological uniformity and the null subject parameter in adult SLA. *Studies in Second Language Acquisition*, 18, 475-493.

Hawkins, R. (2001). *Second language syntax: A generative introduction*. Oxford: Blackwell.

Haznedar, B., & Schwartz, B. D. (1997). Are there optional infinitives in child L2

    acquisition? In E. Hughes, M. Hughes, & A. Greenhill (Eds.), *Proceedings of the*

    21st Annual Boston University Conference on Language Development (pp. 257-

    268). Somerville, MA: Cascadilla Press.

Hilles, S. (1986). Interlanguage and the pro-drop parameter. *Second Language Research*,

    2, 33-52.

Hilles, S. (1991). Access to Universal Grammar in second language acquisition. In L.

    Eubank (Ed.), *Point counterpoint: Universal Grammar in the second language*

    (pp. 305-338). Amsterdam: John Benjamins.

Hoekstra, T., Hyams, N., & Becker, M. (1997). The underspecification of number and the

    licensing of root infinitives. In E. Hughes, M. Hughes, & A. Greenhill (Eds.),

    Proceedings of the 21st Annual Boston University Conference on Language

    Development (pp. 293-306). Somerville, MA: Cascadilla Press.

Hoekstra, T., Hyams, N., & Becker, M. (1999). The role of the specifier and finiteness in

    early grammar. In D. Adger, S. Pintzuk, B. Plunkett, & G. Tsoulas (Eds.),

    Specifiers: Minimalist approaches (pp. 251-270). Oxford: Oxford University

    Press.

Huang, C.-T. J. (1984). On the distribution and reference of empty pronouns. *Linguistic*

    Inquiry, 15, 531-574.

Huang, C.-T. J. (1989). Pro-drop in Chinese: A generalised Control theory. In O. Jaeggli,

    & K. Safir (Eds.), *The null subject parameter* (pp. 185-214). Dordrecht: Kluwer.

Hyams, N. (1986). *Language acquisition and the theory of parameters*. Dordrecht:

    Reidel.

Hyams, N. (1994). V2, null arguments and COMP projections. In T. Hoekstra, & B. D. Schwartz (Eds.), *Language acquisition studies in generative grammar* (pp. 21-55). Amsterdam: John Benjamins.

Hyams, N. (1996). The underspecification of functional categories in early grammar. In H. Clahsen (Ed.), *Generative perspectives on language acquisition: Empirical findings, theoretical considerations, crosslinguistic comparisons* (pp. 91-127). Amsterdam: John Benjamins.

Hyams, N., & Safir, K. (1991). Evidence, analogy and passive knowledge: Comments on Lakshmanan. In L. Eubank (Ed.), *Point Counterpoint*: *Universal Grammar in the second language* (pp. 411-418). Amsterdam: John Benjamins.

Ionin, T., & Wexler, K. (2002). Why is 'is' easier than '-s'? Acquisition of tense/agreement morphology by child second language learners of English. *Second Language Research*, 18, 95-136.

Jaeggli, O. (1982). *Topics in Romance syntax*. Dordrecht: Foris.

Jaeggli, O., & Hyams, N. (1988). Morphological uniformity and the setting of the null subject parameter. In J. Blevins, & J. Carter (Eds.), *Proceedings of NELS 18* (pp. 238-253). University of Massachusetts at Amherst: Graduate Linguistics Students Association.

Jaeggli, O., & Safir, K. (Eds.). (1989). *The null subject parameter*. Dordrecht: Kluwer.

Judy, T., & Rothman, J. (2010). From a superset to a subsetgrammar and the Semantic Compensation Hypothesis: Subject pronouns and anaphora resolution in L2 English. In K. Franich, K. Iserman, & L. Keil (Eds.), *Proceedings of the 34th*

Annual Boston University Conference on Language Development (pp. 197-208).

Somerville, MA: Cascadilla Press.

Lakshmanan, U. (1991). Morphological uniformity and null subjects in child second

language acquisition. In L. Eubank (Ed.), *Point counterpoint: Universal*

Grammar in the second language (pp. 389-410). Amsterdam: John Benjamins.

Lakshmanan, U. (1994). *Universal Grammar in child second language acquisition*.

Amsterdam: John Benjamins.

Lardiere, D. (1998). Case and tense in the 'fossilized' steady state. *Second Language*

Research, 14, 1-26.

Lardiere, D. (2000). Mapping features to forms in second language acquisition. In J.

Archibald (Ed.), *Second language acquisition and linguistic theory* (pp. 102-129).

Oxford: Blackwell.

Liceras, J. (1988). Syntax and stylistics: more on the pro-drop parameter. In J. Pankhurst,

M. Sharwood Smith, & P. Van Buren (Eds.), *Learnability and second languages:*

A book of readings (pp. 71-93). Dordrecht: Foris.

Liceras, J. (1989). On some properties of the "pro-drop" parameter: Looking for missing

subjects in non-native Spanish. In S. Gass & J. Schachter (Eds.), *Linguistic*

perspectives on second language acquisition (pp. 109-133). Cambridge:

Cambridge University Press.

Liceras, J. & Díaz, L. (1998). On the nature of the relationship between morphology and

syntax: Inflectional typology, *f*-features and null/overt pronouns in Spanish

interlanguage. In M.-L. Beck (Ed.), *Morphology and its interfaces in second*

language knowledge (pp. 307-338). Amsterdam: John Benjamins.

Liceras, J., & Díaz, L. (1999). Topic-drop versus pro-drop: Null subjects and pronominal subjects in the Spanish L2 of Chinese, English, French, German, Japanese and Korean speakers. *Second Language Research*, 15, 1-40.

Liceras, J., Díaz, L., & Maxwell, D. (1999). Null subjects in non-native grammars: The Spanish L2 of Chinese, English, French, German, Japanese and Korean speakers. In G. Martohardjono, & E. Klein (Eds.), *The development of second language grammars: A generative approach* (pp. 109-145). Amsterdam: John Benjamins.

Liceras, J., Valenzuela, E., & Diáz, L. (1998). Morphological paradigms and syntax: Null and overt arguments in L1 and L2 acquisition of Spanish. In S. Montrul, & R. Slabakova (Eds.), *Proceedings of the 1997 Generative Approaches to Second Language Acquisition Conference* (pp. 112-121). Montreal: McGill Working Papers in Linguistics.

Margaza, P., &. Bel, A. (2006). Null subjects at the syntax-pragmatics interface: Evidence from Spanish interlanguage of Greek speakers. In M. O'Brien, C. Shea & J. Archibald (Eds.), *Proceedings of the 8th Generative Approaches to Second Language Acquisition Conference (GASLA 2006): The Banff Conference*. Somerville, MA: Cascadilla Proceedings Project.

Montalbetti, M. (1984). *After binding: On the interpretation of pronouns*. Unpublished Ph.D. thesis, M.I.T.

Montrul, S. (2004). *The acquisition of Spanish: Morphosyntactic development in monolingual and bilingual L1 acquisition and adult L2 acquisition*. Amsterdam: John Benjamins.

Montrul, S., & Louro, C. (2006). Beyond the syntax of the null subject parameter: A look

    at the discourse-pragmatic distribution of null and overt subjects by L2 learners of

    Spanish. In V. Torrens, & L. Escobar (Eds.), *The acquisition of syntax in*

    Romance languages. Amsterdam: John Benjamins.

Ortifelli, R., & Grüter, T. (2013). Do null subjects really transfer? In J. Cabrelli Amaro,

    T. Judy, & D. Pascual y Cabo (Eds.), *Proceedings of the 12th Generative*

    Approaches to Second Language Acquisition Conference (GASLA 2013) (pp. 145-

    154). Somerville, MA: Cascadilla Proceedings Project.

Park, H. (2004). A minimalist approach to null subjects and objects in second language

    acquisition. *Second Language Research*, 20, 1-32.

Pérez-Leroux, A. T., & Glass, W. (1999). Null anaphora in Spanish second language

    acquisition: Probabilistic versus generative approaches. *Second Language*

    Research, 15, 220-249.

Phinney, M. (1987). The pro-drop parameter in second language acquisition. In T.

    Roeper, & E. Williams (Eds.), *Parameter setting* (pp. 221-238). Dordrecht:

    Reidel.

Prévost, P., & White, L. (2000). Accounting for morphological variation in L2

    acquisition: Truncation or missing inflection? In M. A. Friedemann, & L. Rizzi

    (Eds.), *The acquisition of syntax*: *Issues in comparative developmental linguistics*

    (pp. 202-234). Longman.

Rizzi, L. (1982). *Issues in Italian syntax*. Dordrecht: Foris.

Rizzi, L. (1986). Null objects in Italian and the theory of pro. *Linguistic Inquiry*, 17, 501-

    557.

Rizzi, L. (1994). Early null subjects and root null subjects. In T. Hoekstra, & B. D. Schwartz (Eds.), *Language acquisition studies in generative grammar* (pp. 151-176). Amsterdam: John Benjamins.

Roberge, Y. (1990). *The syntactic recoverability of null arguments*. Kingston & Montreal: McGill-Queen's University Press.

Schwartz, B. D., & Sprouse, R. (1996). L2 cognitive states and the full transfer/full access model. *Second Language Research*, 12, 40-72.

Serratrice, L., Sorace, A., & Paoli, S. (2004). Crosslinguistic influence at the syntax-pragmatics interface: Subjects and objects in English Italian bilingual and monolingual acquisition. *Bilingualism: Language and Cognition*, 7, 183-205.

Sorace, A. (2003). Near-nativeness. In C. Doughty, & M. Long (Eds.), *Handbook of second language acquisition* (pp. 130-151). Oxford: Blackwell.

Sorace, A. (2011). Pinning down the concept of 'interface' in bilingualism. *Linguistic Approaches to Bilingualism*, 1, 1-33.

Sorace, A. & Filiaci, F. (2006). Anaphora resolution in near-native speakers of Italian. *Second Language Research*, 22, 339-368.

Speas, M. (2006). Economy, agreement and the representation of null arguments. In P. Ackema, P. Brandt, M. Schoorlemmer, & F. Werman (Eds.), *Arguments and agreement*. Oxford: Oxford University Press.

Tsimpli, I.-M., & Roussou, A. (1991). Parameter resetting in L2? *UCL Working Papers in Linguistics*, 3, 149-169.

Tsimpli, I.-M., & Sorace, A. (2006). Differentiating interfaces: L2 performance in syntax-semantics and syntax-discourse phenomena. In D. Bamman, T.

Magnitskaia, & C. Zaller (Eds.), *Proceedings of the 30th Annual Boston University Conference on Language Development (BU)* (pp. 653-664). Somerville, MA: Cascadilla Press.

Tsimpli, I., Sorace, A., Heycock, C., & Filiaci, F. (2004). First language attrition and syntactic subjects: A study of Greek and Italian near-native speakers of English. *International Journal of Bilingualism*, 8, 257-277.

Wakabayashi, S. (2002). The acquisition of non-null subjects in English: A minimalist account. *Second Language Research*, 18, 28-71.

Wexler, K. (1994). Optional infinitives, head movement and the economy of derivations. In D. Lightfoot, & N. Hornstein (Eds.), *Verb Movement* (pp. 305-350). Cambridge: Cambridge University Press.

White, L. (1985a). The "pro-drop" parameter in adult second language learning. *Language Learning*, 35, 47-62.

White, L. (1985b). Universal grammar as a source of explanation in second language acquisition. In B. Wheatley, A. Hastings, F. Eckman, L. Bell, G. Krukar, & R. Rutkowski (Eds.), *Current Approaches to Second Language Acquisition: Proceedings of the 1984 University of Wisconsin-Milwaukee Linguistics Symposium* (pp.43-68). Bloomington: Indiana University Linguistics Club.

White, L. (1986). Implications of parametric variation for adult second language acquisition: An investigation of the pro-drop parameter. In V. Cook (Ed), *Experimental approaches to second language learning* (pp. 55-72). Oxford: Pergamon Press.

White, L. (1989). *Universal Grammar and second language acquisition*. Amsterdam: John Benjamins.

White, L. (2003). *Second language acquisition and Universal Grammar*. Cambridge: Cambridge University Press.

White, L. (2009). Grammatical theory: interfaces and L2 knowledge. In W. Ritchie, & T. Bhatia (Eds.), *The new handbook of second language acquisition* (pp. 49-68). Leeds, UK: Emerald Group Publishing Limited.

White, L. (2011). Second language acquisition at the interfaces. *Lingua*, 121, 577-590.

Yuan, B. (1997). Asymmetry of null subjects and null objects in Chinese-speakers's L2 English. *Studies in Second Language Acquisition*, 19, 467-497.

Zobl, H. (1990). Evidence for parameter-sensitive acquisition: A contribution to the domain-specific versus central processes debate. *Second Language Research*, 6, 39-59.