Chapter 2
The Null Subject Parameter in second language acquisition research

2.1 Introduction

Chapter 1 introduced the four research questions. I will try to find the answers to the questions by looking at properties related to the Null Subject Parameter. This chapter reviews previous second language acquisition research on the Null Subject Parameter. Where possible, each study is placed into one of the six positions on transfer and UG Access introduced in section 1.3. Section 2.3 summarises the results of previous studies: there seems to be some evidence for transfer of the L1 parameter value. Section 2.4 identifies issues which remain unresolved and merit further investigation. For instance, previous studies yield no clear evidence for clustered transfer or clustered acquisition of properties related to the Null Subject Parameter. This means that the four research questions on transfer and UG Access are yet to be answered.

2.2 Review of L2A studies concerned with null subjects

Most of the research discussed here shares the assumption that cross-linguistic differences in the possibility of null subjects follow from a UG-sanctioned Null Subject Parameter. Most studies discussed here also share the assumption that there are two UG conditions on the null subject pro: licensing and identification (Rizzi 1986). Licensing involves an appropriate licensing head, which governs the subject position via specifier-head agreement. Whether a language has a licensing head for pro, is a parameterised property: Agr is assumed to be a licensing head in [+ null subject] languages like Italian, but not in [- null subject] languages like English. In other words, null subjects may occur in Italian, because I licenses pro in SpecAgrP. In English, there is no licensing head so null subjects are not permitted. The condition of identification refers to the recoverability of the content of pro. The content of pro is recovered through the grammatical specification of the features on the head coindexed with pro. In languages like Italian, the rich agreement features shared by SpecAgrP and Agr fulfill the identification requirement. Despite this common ground, the L2A studies reviewed in this chapter reflect the different versions of the Null Subject Parameter that were in vogue at a particular time: the details underlying their syntactic accounts differ from one another and have been replaced by other accounts. For instance, the Null Subject Parameter adopted in this dissertation (Speas 1995),
parameter with a cluster of associated properties that has motivated researchers to investigate null subjects in a L2A context.

Evidence for the existence of such a parameter depends crucially on the emergence of clusters of properties defined as the consequence of a particular parameter value. There is disagreement as to what properties cluster with the parameter, and this is reflected in the different linguistic features that are investigated along with null subjects.

White (1985, 1986), Phinney (1987), and Liceras (1989) adopt a version of the Null Subject Parameter which assumes that the null subject value clusters with null subjects, the absence of expletive pronouns, subject-verb inversion in declaratives, that-traces and rich agreement (Chomsky 1981; Jaeggli 1982; Rizzi 1982). Tsimpli and Roussou (1991) look at a subset of these properties, namely null subjects, subject-verb inversion and that-trace effects. Hilles (1986) investigates a version of the Null Subject Parameter that assumes that null subjects are incompatible with a distinct class of auxiliary verbs (Hyams 1986). Hilles (1991) and Lakshmanan (1991) explore an account for null subjects based on the Morphological Uniformity Principle (Jaeggli and Safir 1987) and both touch upon the role of (biological) age in resetting parameters. Similarly, Meisel (1991), Vainikka and Young-Scholten (1994), as well as Clahsen and Hong (1995) investigate whether the acquisition of TL subject pronouns and the TL subject-verb agreement paradigm coincide developmentally in L2A. Prévost (1999) assumes that null subjects and subject-verb inversion are part of the [+ null subject] value, while Liceras, Díaz and Maxwell (1999) just focus on the acquisition of null subjects.

The majority of these studies concentrate on the L2A acquisition of [- null subject] English by native speakers of [+ null subject] languages like Spanish, Italian and Greek; however, the reverse learning situation is also investigated: acquisition of [+ null subject] language Spanish by native speakers of English and various other [- null subject] languages. There are also some reports on the acquisition of German by learners with different L1s.

White (1985, 1986)
In her 1985 and 1986 studies, White assumes that L1 transfer plays a role, but she is indecisive about partial transfer or full transfer. Her position on UG Access is unclear. In two related experimental studies White (1985, 1986) investigated whether adult native speakers of [+ null subject] languages Spanish and Italian dispenses with the need for a special licensing condition (see section 3.2.2). Therefore, this chapter focusses on the empirical predictions and results these L2A null subject studies have yielded. Readers who are interested in the different versions of the Null Subject Parameter, are referred to the original texts.

28 Expletives fill up the subject position of a sentence. Expletive subjects do not contribute to the meaning of a sentence. Examples of expletives in English are existential there (there is a bank down the road) and pleonastic it (it surprised him that I turned up) (but see Vikner 1995, 167 for the view that it is not an expletive). Expletive subjects are generally missing in null subject languages.
transfer the cluster of properties of their L1 [+ null subject] parameter value to the [-null subject] L2 English. In addition to the Spanish/Italian learners, she included a group of adult native speakers of the [-null subject] language French as a control group. Both groups were assessed as intermediate learners according to McGill University placement tests. White used a grammaticality judgment task to determine whether the Spanish and Italian L2ers would reject ungrammatical English sentences with what she considered to be null subject properties, such as missing subjects, subject-verb inversion in declarative sentences or that-trace sequences (cf. Chomsky’s 1981 and Rizzi’s 1982 Null Subject Parameter).

She found evidence for retention of only one L1 property: with collective accuracy scores of 61% on ungrammatical subjectless sentences and 90% on grammatical sentences with subjects, Spanish and Italian L2ers were more likely than French L2ers (who had accuracy scores of 89% and 97%, respectively) to accept ungrammatical subjectless sentences in English. However, the predicted contrast between the Spanish/Italian group and the French control group failed to appear with respect to the two other properties. Both groups correctly rejected ungrammatical English sentences with subject-verb inversion, and incorrectly accepted ungrammatical sentences with that-trace sequences. In addition to the grammaticality judgment task, White used a written question formation task to test whether L2ers form that-trace sequences in questioning the subject of an embedded clause. On this task too, both groups showed evidence of ungrammatical that-trace sequences, although the Spanish/Italian group made more that-trace errors than the French control group.

White tentatively concludes that these results suggest transfer of the L1 Null Subject Parameter. She further concludes that loss of the transferred L1 properties may not be related, as most subjects rejected subject-verb inversion, but accepted missing subjects and that-trace sequences. However, White suggests two alternative explanations of the anomalous results on subject verb-inversion. First she acknowledges that her test sentences exemplifying subject-verb inversion may have been unfortunate. Second, she suggests that subject-verb inversion is perhaps not related to the Null Subject Parameter at all, which would explain the absence of clustering of this property with null subjects and that-trace sequences. Furthermore, White takes the results of the French control group as an indication that L2ers do not reset to a default, or unmarked, parameter-setting before acquiring the TL value, as the French L2ers of English did not accept subjectless sentences.

White’s (1985; 1986) studies have been criticised on the ground of methodological problems. For instance, Liceras (1988) observes that White failed to include ergative verbs in her judgment task on subject verb inversion, whereas verb type affects the acceptability of subject-verb inversion orders in Spanish and Italian. Discourse considerations also determine the interpretation of subject-verb inversion, but White’s choice to test subject-verb inversion sentences in isolation did not allow the learners to take discourse factors into consideration. Moreover, some of the sentences exemplifying missing subjects
were also flawed. For instance, in her 1985 study, two out of five subjectless
sentences (repeated in (1)) which White marked as ungrammatical in English are
in fact acceptable in TL English too.

(1)  
   a. Seems that Fred is unhappy.
   b. John is Greedy. Eats like a pig.

Therefore, we cannot automatically attribute White’s results to partial transfer of
the Spanish/Italian [+ null subject] value.

Phinney (1987)
Phinney seems to advocate a No Transfer/ Full Access position in her 1987 study.
She investigated the intuition that learning some languages is easier than others by
looking at the use of missing and overt subject pronouns and subject-verb
agreement in two directions: adult native speakers of Spanish learning English and
the reverse situation of adult native speakers of English learning Spanish. Both the
English learners of Spanish and the Spanish learners of English groups were
university students that were assessed as high beginners or low intermediate.

Phinney’s hypotheses about directional differences in the relative ease or
difficulty of L2A are theoretically grounded in the notion of markedness. She follows
Hyams (1983) in assuming that the [+ null subject] parameter value, as instantiated
by Spanish and Italian, is the unmarked setting, or default setting, because this is
assumed to be the value which all children initially assume in acquiring their L1 (an
assumption which since then has lost its credibility (de Haan and Tuynman 1988)).
In terms of markedness, English is the marked setting as it has the [- null subject]
value. Phinney adopts a version of the Null Subject Parameter involving missing
subjects, subject-verb inversion and verbal agreement (Chomsky 1981, 1982; Rizzi
1982).

To test her hypothesis that acquiring English is more difficult for Spanish
L2ers than the reverse learning situation, Phinney compared the written production
data of the Spanish learners of English and the English learners of Spanish. She
found that both groups were quite accurate in terms of TL-like use of verbal
agreement, which she attributes to the fact that most compositions were written in
1st person, “which may not be susceptible to error” (234). With respect to subject
pronoun usage she found, on the one hand, that the Spanish learners of English
continue to omit subjects, and that pleonastic subjects (or impersonals, as Phinney
calls constructions like it seems) were omitted more frequently (with average
omissions ranging between 56% and 76%) than referential subject pronouns (with
average omissions ranging between 6% and 13%). Moreover, in the data of the
Spanish learners of English, referential subjects were missing from both conjoined
and embedded clauses, but not from sentence-initial position. This distribution she
attributes to the application of Spanish discourse rules in IL English, which require
the subject to be omitted if their reference is clear from the context. The English
learners of Spanish, on the other hand, showed very high percentages of subject
omissions for referential subjects (65% - 83%) and 100% missing impersonals, in accordance with the TL Spanish and unlike the L1 English.

Phinney interprets these directionality differences as evidence for the operation of markedness in L2A and as support for the hypothesis that Spanish is indeed the unmarked value. She concludes that the data of the English learners of Spanish show that resetting the parameter from the marked value to the unmarked value is easy and fast, whereas the data of the Spanish learners of English prove that resetting the value from unmarked to marked is difficult and may take a long time. Interestingly, Phinney goes as far as saying that “[s]ome L2ers may never acquire the system fully” (236). This suggests that L2A is a deterministic process in some learning situations, but not in others, depending which language is the L1 and which the L2.

Phinney’s (1987) study has often been cited as evidence for directionality differences. Below, I will address this issue, as well as the notion of markedness. Although Phinney raises these interesting issues, there are some problems with her study. White (1991: 90) points out two methodological problems. First, Phinney’s learner groups are not really comparable, because her Spanish learners of English had received 12 years of English instruction, meaning that they had started learning English as adolescents or even as children, whereas the English learners of Spanish were adult learners. Second, White notes that the conditions on the composition tasks were not comparable either, as the composition was part of an exam for one group and a class assignment for the other group. Furthermore, there may be a problem with Phinney’s interpretation of her result that Spanish learners of English restricted their subject omissions to conjoined and embedded clauses. She suggests that in doing so the L2ers obeyed Spanish discourse rules. Although her explanation is plausible for missing subjects in these two non-initial contexts, it does not account for the finding that subjects were never omitted from sentence-initial position. After all, Spanish subjects can also be omitted from sentence-initial position, unless their reference is unclear from the context. Phinney herself reported that the first person was generally used in the compositions. Given then that these subjects refer to the writer, their reference would have been clear through deixis regardless of the position of the subject in the sentence. A more serious shortcoming of Phinney’s study is that it does not reveal whether the L2ers transfer or reset the entire cluster of properties associated with the Null Subject Parameter. Her discussion of the results focuses only on the use of subject pronouns. Unfortunately, she only mentions in passing that both the Spanish learners of English and English learners of Spanish generally used verbal agreement correctly. She is altogether silent about the use of subject-verb inversion, even though she considers both properties to be directly related to the Null Subject Parameter. Therefore, both her conclusions that the L1 parameter value transfers and is reset to the TL value remain speculative, until we have data proving that transfer and resetting affect the parameter’s entire cluster of properties.
Liceras (1989)
Like Phinney, Liceras assumes a No Transfer/Full Access position in her 1989 study. She studied the acquisition of [+ null subject] language Spanish by adult native speakers of [- null subject] languages (French and English) in search of L1 transfer effects and evidence for parameter resetting. She adopted the same version of the Null Subject Parameter as Phinney (1987) and White (1985, 1986), in which missing (non)-referential subjects, subject-verb inversion and that-trace sequences are integral to the [+ null subject] value. Moreover, like Phinney (1987), Liceras assumed that Spanish has the unmarked value. She assigned the adult French and English learners of Spanish to four different groups (beginners, intermediate, advanced, and high-advanced), according to their scores on the University of Ottawa placement test for Spanish. All learners had acquired Spanish in a classroom setting. Using a grammaticality judgment and correction task, she determined whether the learners accepted grammatical Spanish constructions related to the Spanish [+ null subject] value and rejected constructions which are ungrammatical in Spanish, but compatible with the French or English [–null subject] value.

Her results showed high acceptance rates of grammatical missing referential and pleonastic subjects for all learner groups, in accordance with the TL. However, between 6% and 25% of the beginning, intermediate and advanced learners also accepted ungrammatical sentences with overt pleonastic subjects. Liceras plays down this result by saying that her study “shows a very low acceptance of overt pleonastic pro, and then only in the early stages of acquisition” (119), contrary to fact. Learners also accepted grammatical inversion constructions, but the beginning and intermediate learner groups tended to reject grammatical inversion constructions with non-ergative verbs. Finally, the results obtained from the sentences testing that-trace sequences are not clear, which Liceras attributes to a misinterpretation of the sentences on the learners’ part.

Liceras concludes that most French and English learners of Spanish do not transfer their L1 parameter value, because they adopt the unmarked value Spanish [+ null subject] from the start. To explain the lack of clustering in her results, she further assumes that subject-verb inversion and that-trace effects are related to null subjects in an implicational hierarchy, which requires acquisition of null subjects before the other two properties.

However, the evidence that the L1 value does not transfer is not as compelling as Liceras would have us believe. The fact that post-verbal subjects were often rejected by beginning learners, as well as the rejections of that-trace sequences is actually perfectly compatible with L1 transfer of the [- null subject] value. Moreover, Liceras’ results show acceptance of overt pleonastics in Spanish. This contradicts her conclusion that the L1 property which requires overt pleonastic subjects does not transfer. Such constructions are ungrammatical in Spanish and should have been rejected, if these learners had indeed reset their parameter to the Spanish value. Liceras’ explanation of these
deviant data that learners simply may not know what to do with overt pleonastic subjects in Spanish is hardly convincing.

Tsimpli and Roussou (1991)
In their 1991 study, Tsimpli and Roussou take a stand that is best described in terms of Full Transfer/No Access: they assume that invariant UG principles remain accessible, but that parameter resetting is impossible. Using 13 adult Greek learners of English, Tsimpli and Roussou (1991) tested the predictions that L2ers initially transfer the L1 value when the L2 differs from the L1, and that parameter resetting does not take place. Greek, like Spanish and Italian, is a [+ null subject] language. Six of the Greek subjects were intermediate learners who had received one year of intensive training in English, while the other seven were ‘post-intermediate’ learners with two years of English training. Tsimpli and Roussou assumed that the Greek value of the Null Subject Parameter involves null subjects, and perhaps subject-verb inversion and that-trace sequences. They investigated the learners’ acceptance rates of these constructions in English, via a combined grammaticality judgment and correction task consisting of 30 sentences and a Greek-English translation task with 10 sentences.

All learners rejected subjectless test sentences in English and corrected them by using subject pronouns. They also translated subjectless Greek sentences into grammatical English sentences with overt subjects. However, about 80% of the learners accepted sentences like (2a) where the expletive subject it was lacking. Those who did not, changed the sentence into (2b), resulting in a construction which is still ungrammatical in English, but grammatical in Greek.

(2)

a. Seems that Mary is happy
b. Mary seems that is happy

Tsimpli and Roussou suggest that constructions like (2a and 2b) show that all learners continue to accept null subjects, as (2a) involves a missing expletive and (2b) has a null subject in the subordinate clause. Moreover, 95% of the learners accepted ungrammatical English sentences with that-trace violations, and all learners incorrectly failed to delete that in their English translations of Greek sentences with that-constructions. Nevertheless, 95% also accepted grammatical English sentences where that had been deleted, suggesting that they assumed that to be optional in English, unlike in Greek, where it is obligatory. However, all learners rejected ungrammatical English sentences with subject verb inversion and corrected them by placing the subject in preverbal position. Furthermore, English translations of Greek constructions with post-verbal subjects always had the subject before the verb, as English requires.
Before moving on to the analyses of the results which Tsimpli and Roussou propose, a word on their methodology is in order here. A first shortcoming of the study is that the test sentences were presented without context. This affects the generalisability of the learners’ grammaticality judgments, as contextual information is important for the interpretation and hence the acceptability of missing subjects and post-verbal subjects. Second, in their discussion of the results, Tsimpli and Roussou do not address the issue of subject-verb inversion at all. As far as the IL that-trace effects are concerned, they assume that these result from transfer of a Greek parameter value, which turns out to be unrelated to the null subject parameter. Discarding these two properties from the discussion of [+ null subject] related results considerably weakens the empirical basis for Tsimpli and Roussou’s claims in both a qualitative and quantitative way. The advantage of investigating a parameter value with a cluster of related properties is lost if two out of three of these properties are not taken into consideration. Moreover, it reduces the number of relevant test sentences of this study to an even smaller number.

Nevertheless, Tsimpli and Roussou focus on the property of null subjects only. They conclude that the Greek [+ null subject] value is transferred and is not reset to the English value, and that parametric values not instantiated in the L1 are inaccessible to adult learners. Their conclusion that the L1 value transfers is seemingly contradicted by the widespread acceptance and use of overt subject pronouns among the learners. However, they claim that in restructuring their IL grammar learners are guided by non-parameterised UG principles, which remain accessible. Assuming that null subjects must be licensed and identified (Rizzi 1986), they propose that licensing options are parameterised, whereas identification procedures are not. This affords the following account, which accommodates both the presence of overt subject pronouns and the absence of expletive subjects. The transferred Greek [+ null subject] value continues to license null subjects as in the L1, but in order to meet the UG requirement that referential null subjects must be identified, the IL grammar reanalyses English subject pronouns as agreement elements in the head of Agr.29

29 According to Tsimpli and Roussou Agr continues to be the licensing head, as it governs the null subject in SpecAgrP via Spec-Head agreement. The pronoun in Agr is reanalysed as an agreement element which fulfills the identification requirement on the null subject. They propose the following tree structure (p.160):

```
  Spec
    proi  Agr  Agr'  VP
       hei  V'   PP
        V  PP
     lives  with NP
           his mother
```
Since expletive subjects do not have to be identified due to their non-referential meaning, these elements do not have to be overtly realised as agreement elements, which according to Tsimpli and Roussou accounts for missing expletives in IL data. Apart from their own data, they also try to account for previous IL results exemplified in (3) in which not only expletive subjects but referential subjects are also missing.

(3) John is greedy. Eats like a pig.\textsuperscript{30}

Sentences like (3) which lack subject pronouns raise the question how these null subjects are identified under the proposed account. These subjectless sentences obviously require a different account, as agreement in terms of subject pronouns is lacking. Tsimpli and Roussou suggest that referential null subjects are cases of PRO instead of pro and are identified by a discourse antecedent instead of agreement.\textsuperscript{31} In other words, UG principles make available two alternative solutions to the problem of identifying referential null subjects in the absence of verbal agreement inflections. One is through independent agreement elements which look like subject pronouns, the other is via discourse identification.

A serious conceptual problem with this proposal is that it fails to provide a unified analysis. Instead, it gives two completely different and rather ad hoc solutions to the problem that subject pronouns are sometimes overt and sometimes are missing in the IL data. For instance, Tsimpli and Roussou do not explain why learners would not always use overt subject pronouns, once they have reanalysed them as agreement markers. Nor do they explain why learners would produce subjectless sentences with PRO, given that this option is not related to the Greek [+ null subject] value, and does not follow logically from the English input either. What is interesting about Tsimpli and Roussou’s perspective, however, is that they separate having access to UG principles and constraints from having access to parameterised options.

\textsuperscript{30} The original example comes from White’s (1985) null subject study, and is used as an example of a sentence without a subject pronoun by Tsimpli and Roussou (1991, 161).

\textsuperscript{31} According to Tsimpli and Roussou, the absence of subject pronouns in sentences like (3), means that agreement is lacking: consequently AGRP does not project and there is no Agr-head to govern and so license pro. Unlike pro, PRO must be un governed. Since T does not belong to the class of licensing heads, PRO can occupy the un governed position SpecTP as in the tree structure below (Tsimpli and Roussou, 1991, 161):

\[
\begin{array}{c}
\text{Spec} \\
\text{PRO} \\
\text{T} \\
\text{VP}
\end{array}
\]
Hilles (1986) advocates a Full Transfer/Full Access position: she tested the hypotheses that speakers of a [+ null subject] language learning a [- null subject] language first transfer their L1 value, but later reset it to the TL value. However, her study differs from the cross-sectional studies by White (1985, 1986), Phinney (1987) and Tsimpli and Roussou (1991) in that she conducted a longitudinal study of a twelve-year-old Spanish (Columbian) learner of English, whose IL development she probed for 10 months. She used three methods of data collection: spontaneous conversation, experimental tasks (eliciting the production of negative, passive and interrogative sentences, and imitation) and free speech production in pre-planned contexts. Moreover, unlike White and Phinney, and Tsimpli and Roussou, Hilles adopted Hyams’ (1986) version of the Null Subject Parameter, which assumes a mutually exclusive relationship between null subjects and auxiliary verbs. She investigated the interaction between the learner’s use of missing subjects and his development of auxiliary verbs as a distinct category. In accordance Hyams’ (1986) results for L1A of English and her prediction that these properties cluster, Hilles found a developmental correlation between the decline of missing subjects and the TL-like use of auxiliaries (e.g. auxiliaries before the negation). Therefore, Hilles concludes that the L1 cluster initially transfers and is later reset to the TL value. She also found a sharp decrease in null subjects, just after her learner had first used an expletive subject. This, she takes as tentative evidence that expletive subjects act as triggers for resetting the parameter to the [- null subject] value of English. She follows Hyams (1986) in assuming that, when learners realise that expletive subjects lack referential meaning, and hence are there for purely grammatical reasons, they conclude that missing subjects are ungrammatical and consequently reset the parameter to [- null subject].

Although Hilles’ results have the initial transfer of null subjects in common with White’s and Phinney’s results, her other observations are not strictly comparable with the two other studies. This is partly due to the different choice of properties that is assumed to cluster with the Null Subject Parameter: the important difference between them is that Hilles assumes the category of auxiliaries to be part of the cluster, whereas White and Phinney assume it is not. Hilles’ study is different is also different in that the use of non-referential subjects immediately precedes the decrease in missing referential subjects. As White (1991: 92) observes, this seems to be at odds with Phinney’s results of the Spanish learners of English whose use of non-referential subjects lags behind their use of referential subjects and hence cannot have been the cause of resetting the parameter to the [- null subject] value.
Hilles (1991)
In a later longitudinal study (1991), Hilles assumes No Transfer/Full Access for child second language learners, but she is inconclusive about adult learners. Hilles examined the developmental relationship between verbal inflection and the use of pronominal subjects in the IL data of six Spanish learners of English, to test the predictions of the Morphological Uniformity Principle (MUP) version of the Null Subject Parameter (Jaeggli and Safir 1988). According to the MUP, null subjects are possible only in ‘uniform’ languages, that is, either in languages with rich verbal agreement (e.g. Spanish, Italian) or no agreement at all (e.g. Japanese). In the former type of language, identification of the referent of the null subject is through rich agreement, whereas in the latter type, a (null) topic constituent identifies the null subject. Languages with a ‘non-uniform’ agreement paradigm, like English, do not permit null subjects. Assuming that the MUP was a principle of UG, Hilles wanted to determine whether her learners still had access to UG and, if so, whether this was related to their age.

Hilles’ learner data came from a previous study by Cazden, Cancino, Rosansky, and Schumann (1975) and consisted of transcribed production data that were recorded during the course of approximately nine months. The six learners were divided into three age-groups: 2 children (Marta, aged 4 and Cheo, aged 5), 2 adolescent brothers (Jorge, aged 10 and Juan, aged 12), and 2 adults (Dolores, aged 25 and Alberto, aged 33). Hilles found significant developmental correlations between use of tense and agreement morphology and the increase of overt pronominal subjects, but only for the two children and the younger of the adolescents. The other adolescent and the two adults did not give evidence for statistically significant correlations between the two phenomena, as none of the three older learners developed with respect to pronominal subjects or verbal inflection during the course of the study.

Because pronominal subjects and inflection did not coincide developmentally for the older L2 learners, Hilles felt that no decisive conclusions could be drawn as to whether or not these learners had access to UG. However, she did take the results for the two children and one adolescent as evidence for the operation of UG. Moreover, she tentatively concluded that during the early stages in which both pronominal subjects and agreement inflection are missing these learners adopted a default value of UG (à la Japanese, without agreement, and identification of the null subject via a topic constituent) rather than their L1 value (à la Spanish, with identification via rich agreement), since agreement cannot serve as the identifier in the absence of agreement inflections.

Interestingly, Lakshmanan (1989) also studied one of the Spanish children (Marta) in Hilles’ study, and analysed these data in terms of the MUP, but her conclusions run against the grain of Hilles’ conclusions (see the discussion of Lakshmanan 1991, 1994 below). Lakshmanan (1994) disagreed with Hilles’ interpretation that the developmental correlation between inflection and subject pronouns is caused by the MUP. According to Lakshmanan, the correlation may have been be coincidental, since even unrelated properties of the TL can emerge at
the same time in ILs which are developing across the board. Moreover, Lakshmanan objected against Hilles taking Spanish discourse factors into account in calculating the percentage of null subjects. In her formula, Hilles included only those null subjects that would be felicitous in Spanish. The reason of Lakshmanan’s criticism is that learners may not transfer their L1 discourse rules, and four and five-year-old child learners may not even have mastered the discourse rules of their native language yet. Unfortunately, Lakshmanan does not provide any independent evidence that supports her suggestion that discourse factors are not relevant for IL null subjects. In fact, I agree with Hyams and Safir (1991) in assuming that L1 discourse factors should indeed be taken into consideration in calculating the percentage of null subjects, and hence that Hilles was right in doing so. This issue will be addressed in more detail in the following discussion of Lakshmanan’s related studies.


It is unclear whether Lakshmanan (1991, 1994) prefers Partial Transfer to Full Transfer, but she clearly takes a No Access position. In her 1991 and 1994 publications, Lakshmanan reported on her 1989 PhD research in which she studied null subjects and tense and agreement inflection in three child L2ers of English from different language backgrounds (French, Spanish and Japanese). The data came from three previous studies of child L2A, and the Spanish child Marta was included in Hilles (1991) study too. Like Hilles, Lakshmanan adopted the MUP version of the Null Subject Parameter (Jaeggli and Safir 1988).

Lakshmanan found that the French child Muriel used null subjects throughout the recording period of eleven months, but only in specific constructions with the suppletive form “is” (and never over 10%). Since French does not permit null subjects, this cannot have been an effect of the L1. Lakshmanan argues that the omission of subjects is a direct consequence of morpho-phonological misanalysis of it’s into is and ist due to phonological interference from French. Although Muriel correctly inflected 3rd person singular verbs sometimes, she did not consistently do so. For the Spanish child Marta, Lakshmanan initially found high percentages of missing subjects (around 60%), but like Muriel’s null subjects, most of Marta’s null subjects occurred with copula or auxiliary “is”. After the first recording, Marta’s use of null subjects sharply declined, fluctuated for a while, and then stabilised around a percentage of about 3% after the 11th recording. However, Martha’s use of 3rd person singular –s inflection continued to fluctuate throughout the study. Finally, the

32 The data of the Spanish child L2er of English Martha were collected during about 7 months by Cazden, Cancino, Rosansky and Schumann (1975); Those of the French child L2er of English Muriel were collected by her mother Gerbault (1978) over the course of about 11 months; Hakuta (1975) collected the English data of the Japanese child Uguishu during a period which lasted about 15 months.
33 This may be a valid explanation, which is supported by Dulay, Burt and Krashen (1982) who also claim that null subjects with “is” may be phonological errors. However, the possibility of null subjects with a particular form cannot be excluded.
Japanese child Uguishu did not use any null subjects at any stage, while her use of agreement inflection remains very low.\textsuperscript{34}

On the basis of these results, Lakshmanan concludes that null subjects disappear from the IL of the three child L2ers before verbal inflection is acquired. Consequently, she argues that the use of null subjects is unrelated to the absence of inflection in child L2A, which falsifies the predictions of the MUP for child L2A.

Hyams and Safir (1991) have challenged Lakshmanan’s study on two grounds. First, they claim that Lakshmanan’s conclusions that the MUP and UG are inaccessible to child L2ers is conceptually flawed, as the data do not warrant her interpretation. They suggest that the children may have figured out that English is not uniform and hence disallows null subjects even though they do not productively master the English agreement paradigm. This alternative account would explain why Marta hardly uses null subjects after recording 11, even though her use of agreement inflection is still far removed from 100% accuracy at that stage.

Second, Hyams and Safir point out that Lakshmanan’s results are skewed by a methodological problem with the way in which she calculated the percentage of null subjects. The formula and criteria for calculating null subject percentages deserves to be discussed in some detail here, as they have an important effect on the resulting percentages of null subjects. Lakshmanan used the formula \(X/X+Y\), where \(X\) is the actual number of null subjects and \(Y\) the number of cases where null subjects could have occurred but did not. This is the same formula as Hilles used. The problem is with the criterion Lakshmanan used for \(Y\). As was observed by Hyams and Safir, her definition of \(Y\) cases is prone to underestimating the percentage of null subjects. She characterised the \(Y\) cases as all English sentences in which null subjects are ungrammatical. However, not all cases in which a null subject is impossible in English would be possible contexts for null subjects in null subject languages. This is due to discourse rules constraining the use of null subjects in null subject languages, which require the referent of the null subject to be clear from the context. So, in some cases where null subjects are impossible in English, they are impossible in null subject languages too. Therefore, Lakshmanan’s criterion for \(Y\) allows too many \(Y\) cases, and the resulting percentage of null subjects is correspondingly too low. Instead, taking discourse factors into consideration, \(Y\) should be defined as the number of cases where null subjects could have occurred in the L1, but did not occur. In fact, this is the criterion Hilles (1991) used.

\textsuperscript{34} However, Lakshmanan reported that Uguishu had gone through a silent period of three months during which she may have had a null subject grammar.
Meisel (1991)

Meisel (1991) takes a No Access stand. He reports on the longitudinal production data of six adult L2 learners of German from the ZISA corpus. These data covered a period of about two years. The native languages of these learners were Italian, Portuguese and Spanish, all of which are null subject languages. He compared the development of overt subjects in the ILs of these learners with the emergence of agreement inflection on the verb.

Meisel observed that the use of overt subjects and agreement inflections varied greatly both across learners and within learners and that the two phenomena were not developmentally related. He concluded that adult L2A is fundamentally different from child L1A in that L2A is not constrained by UG anymore.

Vainikka and Young-Scholten (1994, 1996)

Vainikka and Young-Scholten are without a doubt advocates of Partial Transfer/Full Access. In their 1994 and 1996 studies, they tested the hypothesis that adult L2ers, like children acquiring L1 German, set the Null Subject Parameter to its TL-value in connection with the acquisition of the agreement paradigm of the TL. Using a method of implicational scaling (cf. Meisel, Clahsen and Pienemann 1981), they divided a cross-sectional sample of spontaneous speech production data from 11 Turkish and 6 Korean adult learners of German into three developmental stages of acquisition. These learners had all learned German after the age of 20 and their length of residence in Germany varied from 1.5 to 24 years.

Those learners who omitted both pronominal subjects (50%) and agreement inflections, belonged to stage one, according to Vainikka and Young-Scholten. They assume that during this stage, the syntactic tree of the learners consists of a VP only and the specVP is optionally filled. Learners who were seen as belonging to the second stage, still omitted subjects, but less often than those in stage (30%) one and also used some agreement inflection. For this stage, Vainikka and Young-Scholten posit an underspecified functional projection FP, which is often filled by an overt subject. However, they concede that the first two stages are also compatible with analyses in which functional projections like IP and CP are present, in contrast with their claim that initially these projections are absent. Learners in stage three omitted the subject in less than 80% of the cases and seemed to have acquired the agreement paradigm of German. During the third stage, according to Vainikka and Young-Scholten, the parameter is set to the German value.

Both Korean and Turkish learners of German were represented in all three stages, even though the fact that these language differ with respect to subject-verb agreement. Turkish has a rich agreement paradigm in marking person and number, while Korean does have subject-verb agreement. Vainikka and Young-Scholten took these similar IL results as evidence against transfer of
the L1 parameter value. However, they acknowledge that transfer effects cannot be precluded as both Korean and Turkish permit null subjects. Nevertheless, they concluded that in accordance with their hypothesis the Null Subject Parameter is set to the German value through acquisition of the agreement paradigm, as in child L1A of German.

Clahsen and Hong’s (1995) give some critical comments on the methodology used by Vainikka and Young-Scholten. They point out that the cross-sectional data do show that acquisition of the German agreement paradigm and loss of null subject co-varies developmentally. The two properties may have been acquired separately from each other. For instance, these learners may have reached high levels of accuracy with respect to TL agreement inflection, before they learned to use overt subject pronouns consistently, during a stage perhaps not represented by the data. So, there is no evidence that acquisition of one property triggers acquisition of the other property, or that the two cluster in resetting. Moreover, Clahsen and Hong observe that the data of two learners contradict Vainikka and Young-Scholten’s claim that native-like use of subject pronouns patterns with native-like use of agreement inflections: the learners Changsu and Dosik actually have very high percentages of overt subject pronouns (90% and 92%), but they have not acquired the German agreement paradigm.


clahsen and Hong (1995)
Clahsen and Hong advocate Full Transfer/No Access. In their 1995 study, their central interest was also in the relationship between the emergence of agreement inflections on the verb and the decline of null subjects. They tried to replicate the results of Vainikka and Young-Scholten by conducting a reaction time experiment, based on cross-sectional data from 33 Korean learners of German. They also included a control group of 20 native speakers of German to establish validity of the test.

They found that a minority of the learners (n5) acquired agreement inflection before they acquired the L2 property regarding null subjects, while another subset of the learners (n13) acquired a TL-like behaviour regarding null subjects without acquiring the L2 subject-verb agreement paradigm. So, for these 18 learners, the use of overt subjects did not pattern with the use of agreement inflections. Hence the clustering effect that was observed in child L1A of German did not hold for these adult L2ers of German. The results of the remaining L2ers are inconclusive as they had either acquired both or neither of the properties at the time of the experiment and the relevant developmental information is thus missing.

Clahsen and Hong conclude that acquisition of the German agreement paradigm and acquisition of the German use of overt subjects are different task which do not involve parameter setting. They anticipate potential criticism by pointing out that their results are compatible with results of previous L2 studies.
Prévost (1999)
Prévost (1999) assumes Full Access, but his position on transfer is unclear. Although his central interest was not in determining whether adult Spanish learners of German reset the Null Subject Parameter, he made a few claims concerning this issue which warrant a discussion of his study. Leaving aside what he has to say about the finiteness operator parameter, which is the real focus of his study, I will address here only those parts that are relevant to the Null Subject Parameter. Prévost does not specify which theoretical account he adopted for the Null Subject Parameter, but he assumed the Spanish value to be associated with missing referential and pleonastic subject pronouns, as well as subject-verb inversion.

A grammaticality judgment task was administered to 15 adult Spanish L2ers of German, who had all learnt German in instructional settings in Spain after the age of 13. A control group of 15 adult native speakers was also included. The grammaticality judgment task contained 36 sentences which aimed at testing the learners’ judgments with respect to subject-verb inversion and null subject constructions in German. The Spanish learners showed very high accuracy scores on grammatical sentences which did not have subject verb inversion (99%) and grammatical sentences with an overt (NP) subject in subordinate clauses (98%). Their accuracy scores on rejecting the ungrammatical counterparts of these sentences with subject verb inversion and missing subjects were only slightly less high (96%) and (90%), respectively. These accuracy scores mirrored those of the German control group. Prévost took these results as evidence that the Spanish L2ers of German had reset the Null Subject Parameter to the German setting.

A number of problems with this study compromise its value. First, the learners had to judge isolated test sentences without any contextual information, whereas contextual information is crucial for the interpretation of both subjectless sentences and sentences with subject-verb inversion. Moreover, Prévost’s examples of test sentences which are repeated in (4) and (5) are unfortunate choices in different ways. Learners were asked to judge both the grammatical sentences (4a) and (5a) and their ungrammatical counterparts 4b) and (5b).

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35 Similar surface structures in Spanish and German make it difficult to establish whether IL word orders of Spanish learners of German are due to transfer of the L1 Spanish value, or to resetting of the finiteness operator parameter to the German value. Therefore, Prévost tries to address this issue indirectly by looking at evidence for transfer and resetting of other properties, like the Null Subject Parameter, IP headedness and scrambling. For more information, the reader is referred to Prévost (1999).
The sentences in (4b) and (5b) were designed to test whether learners would reject subject-verb inversion and subjectless embedded clauses in German where these constructions could occur in Spanish. According to Prévost, almost all learners rejected these sentences in English. However, it is not unlikely that these learners would have rejected sentences (4b) and (5b) in Spanish too. For instance, the verb *to study* in (4b) is not an inversion verb, and without contextual information which forces a special interpretation of this sentence, the inverted order is infelicitous in Spanish too. Instead, the sentences testing the acceptability of inversion in German should have contained ergative verbs like *come* and *arrive*, which are typical inversion verbs in Spanish and hence favour the subject-verb inversion order. Another example of a sub-optimal test sentence is (5b). In this sentence, the referent of the missing subject in the embedded clause is unclear. In Spanish, the only possible referent of the missing subject would be the subject of the matrix clause (*Hans*) as this is the only available referent in the context, that is, the isolated test sentence. Confusingly, however, learners were also given the counterpart in (5a) which has the NP *Monika* as its subject. As a result, *Monika* would be the preferred referent of the embedded missing subject of (5b). Therefore, test sentence (5b) is ambiguous, in which case Spanish speakers would have used an overt subject pronoun to disambiguate the embedded subject. I cannot judge whether all sentences of the grammaticality judgment task were equally unfortunate because Prévost does not provide further examples of the sentences he used. Nevertheless, the lack of context is a serious problem for any grammaticality judgment test that tries to tap the acceptability of constructions with subject-verb inversion and missing subjects.

Furthermore, since all Spanish learners had had at least two years of German instruction in Spain, one of the first things they will have been explicitly told by their teachers is that null subjects are ungrammatical in German. Prévost

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36 According to Grimshaw and Rosen (1990, 200-1), intrasentential antecedents are preferred in the absence of a discourse context (provided they do not violate subject verb agreement, for instance).
anticipates this criticism by suggesting that such instruction would just constitute TL input. However, this ignores the important difference between conscious knowledge of superficial rules, something a grammaticality judgment task is likely to tap, and unconscious ‘knowledge’ that follows from abstract parameterised features. Therefore, the results on the grammaticality judgment task do not justify Prévost’s conclusion that resetting of these parameterised features has taken place.

Liceras, Díaz and Maxwell (1999) seem to assume Partial Transfer/ No Access. Like Liceras (1989), Liceras et al (1999) looked at adult L2A of Spanish, but this time the learners came from a variety of language backgrounds. Their study involved, on the one hand, native speakers of Chinese, Japanese and Korean, languages which freely permit null subjects and lack agreement, and, on the other hand, native speakers of English, French and German, three languages which do not generally allow null subjects and possess various degrees of agreement inflection.37 Liceras et al cast the Null Subject Parameter in terms of the Minimalist Program (Chomsky 1992, 1995), which attributes parametric variation to the strength of functional features. However, they follow Tsimpli and Roussou (1991) in distinguishing parameterised licensing procedures from non-parameterised identification properties.

All 18 learners had studied Spanish in instructional settings and were assessed as advanced intermediate learners of Spanish. Their natural production data were elicited once, by means of a narrative task. The results show that Chinese, English, French, German, Japanese and Korean learners all used null subjects in matrix, embedded and conjoined clauses. Only the Japanese learners and one French learner used slightly more overt subject pronouns than native Spanish speakers would.

Liceras et al. propose that underlying these similar IL data are different IL grammars. They suggest that all learners license their IL null subjects via the default option of pro in SpecVP as the abstract features that determine the value of the parameter are no longer accessible. The identification procedures, however, are not related to inaccessible abstract features. Instead, learners can choose from a number of identifiers of null subjects, made available by UG: verbal agreement, subject pronouns or discourse procedures. Liceras et al. suggest that the different options for identification may account for individual differences among the learners.

The merit of this study by Liceras et al. is their conceptually interesting idea that L2ers approximate the TL without actually changing their abstract

7 Liceras et al (1999) assume that French is a [+ null subject] language, but that this is obscured as French identifies null subjects via pronominal subject clitics. For more detailed analyses of French as a [+ null subject] language, see Roberge (1990) and Rohrbacher (1993), who analyse French subject clitics as agreement markers.
parameterised properties. Unfortunately, however, they offer no empirical evidence to back up their proposal that learners resort to different identification mechanisms, since all learners produce similar subjectless sentences.

2.3 Summary of results on null subjects in L2A research

The above review of studies investigating null subjects in second language acquisition leads to a number of empirical generalisations. First, a summary will be given of the results based on learning situations in which the L1 is a null subject language ([+ null subject] like Spanish, Italian, Greek or Turkish, or a generalised topic drop language like Korean or Japanese) and the TL a language which generally does not permit null subjects, like English and German. Then, the results will be listed for the learning situations which share the null subject language Spanish as the TL. Section 2.4 addresses the issues that remain unresolved.

L1: Spanish, Italian, Greek, Turkish, Korean, Japanese, Chinese- L2: English, German

1. During early interlanguage stages, and often beyond, native speakers of null subject languages learning languages like English and German omit both referential and non-referential subjects. This can be taken as an indication of transfer of the L1 possibility of null subjects.

2. Missing subject rates vary greatly across individual L2 learners of English and German.

3. Despite individual variation, all these L2 learners produce subjectless sentences at lower rates in the IL than in their native languages, from an early stage. This suggests that these L2 learners are, to some extent, sensitive to TL input containing overt subject pronouns, and aware that null subjects are not used as freely in the TLs English and German as in their own L1s.

4. Spanish, Italian and Greek learners show evidence of IL that-trace sequences. This suggests transfer of a L1 property, but whether this property is part of the cluster of properties associated with the null-subject parameter remains controversial.

5. Spanish, Italian and Greek learners at best show very scant evidence of post-verbal subjects in declarative sentences. Therefore, it is unclear whether subject-verb inversion transfers, and whether it is related to the Null Subject Parameter.

6. In adult L2A of English and German, there is no developmental correspondence between the decrease in missing subject rates and the emergence of verbal agreement inflections. Therefore, there is a lack of parallelism between child L1A and adult L2A. The interaction between missing subjects and agreement inflections in child L2A is unclear.
L1: English, French, German, Korean, Japanese, Chinese – L2: Spanish

7. L2 learners of Spanish from both null subject and non-null subject L1s omit both referential and non-referential subjects from the early stages of L2A, but they sometimes use overt subject pronouns where the TL does not permit them. This suggests that there are directionality differences between L2 learning situations: it seems easier to learn to omit subjects if the TL requires this, than to unlearn to omit subjects if the L1 is a null subject language, but the TL does not generally have null subjects.

8. Beginning L2 learners of Spanish whose L1 does not have that-trace sequences, accept that-traces at chance rates in Spanish. This finding is neutral with respect to the issue of transfer, but suggests that acquisition of that-trace does not cluster with acquisition of null subjects. As was pointed out above, that-trace sequences may not belong to the cluster of properties associated with the Null Subject Parameter.

9. Beginning L2 learners of Spanish whose L1 does not have subject-verb inversion, do not accept post-verbal subjects in declarative sentences. This suggests transfer of the L1 and provides evidence against clustered resetting to the TL null subject value; however, subject-verb inversion may not belong to the cluster of properties associated with the Null Subject Parameter.

10. In L2A of Spanish, learners start using null subjects before they accurately produce agreement morphology on the verb. Thus, there are no clear null subject/agreement morphology interactions.

2.4 The Null Subject Parameter in L2A: unresolved empirical and conceptual issues

As is apparent from the review of L2 studies concerned with IL null subjects, only a restricted set of TLs has been investigated, namely the [- null subject] languages English and German and the [+ null subject] language Spanish. Despite the concerted efforts on studying L2A of these three languages, a number of empirical and conceptual issues related to the origin, status and development of IL null subjects still remains unresolved.

For instance, there is hardly any information on the structural positions in the sentence from which speakers of a [+ null subject] language acquiring English or German omit subjects. This is a serious shortcoming, as it leaves unanswered questions about the status and origin of missing subjects in ILs. Although many researchers have concluded that missing subjects in IL English or German result from transfer of the L1 [+ null subject] value, nobody has convincingly demonstrated that these missing elements are actual instances of pro. Nevertheless, it is possible to identify missing subjects in IL data as Spanish-like pro-subjects or as German-like null-topics, for example, by looking
at differences in the distribution of subject omissions across clause types and sentence positions. Recall that subjects are omitted from both main and subordinate clauses in [+ null subject] languages like Spanish, whereas German only allows null subjects in topic position, that is, sentence-initially, but never in subordinate clauses. However, what scant reports there are on the positions of IL null subjects are inconclusive as they point in different directions. Phinney (1987) found null subjects in embedded and conjoined clauses, but not sentence-initially in her Spanish-English data. Unfortunately, she did not present the frequencies or percentages of null subjects in embedded contexts. Moreover, as she studied only one sample of writing per learner, her data do not reveal whether there were any developmental changes with respect to the positions of null subjects. Tsimpli and Roussou (1991) reported some instances of null subjects in main and embedded clauses in the IL of Greek learners of English, but they did not provide any frequencies or percentages either. Contrary to these results, Lakshmanan (1989;1994) found a root/embedded clause asymmetry for null subjects in the longitudinal data of four child L2ers of English, who at no time during the period of observation produced null subjects in tensed embedded clauses, while they did use null subjects in main clauses. Her finding could be due to the fact that these were child L2ers, and children don’t seem to use many embedded clauses. Perhaps the root/embedded clause asymmetry which she observed is even due to a root/non-root asymmetry which is often found in child L1A. On the basis of these inconclusive and even contradictory results we cannot decide whether missing subjects in non-native English and German should be analysed as pro-subjects, null topics, or reflections of incomplete syntactic trees à la proposals for null subjects in child L1A. As long as we cannot rule out alternative analyses, we can only guess at whether they result from L1 transfer or some different source.

Likewise, it is unclear whether non-referential subjects pattern with referential subjects. Again, the results of different studies seem to contradict each other. For instance, Hilles (1986) observed that the emergence of non-referential subjects coincided with the decline of referential subject omissions in one learner and assumed that non-referential subjects acted as triggers for resetting the parameter value to [- null subject]. However, the results by Phinney (1987) and Tsimpli and Roussou (1991) suggest that omission of non-referential subjects is more persistent than the omission of referential subjects. If non-referential subjects emerge only after referential subjects have become obligatory, this would count as evidence against non-referential subjects triggering resetting. Moreover, even if the use of referential subjects does become TL-like at some point, the notion of parameter resetting is defeated as long as learners continue to omit non-referential subjects. Therefore, the IL use of both referential and non-referential subjects needs to be investigated further.

Another question that has not been answered conclusively by previous L2A studies is whether subject-verb inversion in declarative sentences does or does not transfer into the IL of native Spanish, Italian or Greek learners of
English and German. Despite the fact that these studies often sought to investigate L1 transfer effects, the IL data from these studies do not support the claim of clustered transfer of null subjects and post-verbal subjects, nor do they unequivocally refute this claim. This is partly due to methodological decisions. The majority of these L2 studies is cross-sectional whereas there are only a few longitudinal studies (i.e. Hilles 1986, 1991; Lakshmanan 1991, 1994) which trace the development of individual learners over a period of several months. Unfortunately, the longitudinal studies by Hilles and Lakshmanan investigated child L2ers and null subject/agreement inflection interactions. Their results are thus not comparable to those of the cross-sectional studies which focussed on adult L2A and different clusters of [+ null subject] properties, involving that-trace and subject-verb inversion. Therefore, there seems to be a lack of longitudinal data investigating developmental correlations between null subjects and post-verbal subjects. The learners involved in cross-sectional studies were often intermediate or even higher-level learners, who had already received a considerable amount of instruction in the TL at high-schools or universities. However, lack of evidence of transfer of the L1 property of subject-verb inversion in these learner groups does not exclude the possibility that post-verbal subjects occur during earlier stages of L2A. To rule out transfer of post-verbal subjects or any other L1 property confidently, additional research should also investigate the early L2A of true beginners.

Another methodological choice which reduces the usefulness of most of the cross-sectional studies described above is that the results are always presented as group averages. By collapsing the results in this way, individual differences between learners are obscured. Furthermore, many of the above-mentioned studies made use of grammaticality judgments and writing and translation tasks focussing on grammatical accuracy. Such tasks have several weaknesses. For instance, there is the problem that these tasks are prone to tapping conscious, meta-linguistic knowledge rather than unconscious, abstract knowledge generally thought to be the seat of UG-based constraints and parameter values. This problem is particularly likely to arise with learners who have acquired the TL in an instructional setting, as was the case for most of the learners described above. Moreover, the grammaticality judgments that were used in these studies are target-language oriented and thus evaluate L2ers answers only in terms of matches or mismatches with the target-language norm. Such tasks do not probe the IL system for the causes of the matches or – perhaps even more interesting- the mismatches. In other words, these experimental tasks do not investigate the properties of the IL grammars in their own right. Yet another problem with the grammaticality judgment tasks described above is that learners had to judge the acceptability of sentences presented in isolation. As was pointed out earlier, the acceptability of sentences without subjects or with post-verbal subject largely depends on how these sentences are interpreted. The usefulness of the results is limited, because contextual information, crucial for the interpretation of such sentences, was lacking.
For these reasons, the results of previous studies need to be complemented by longitudinal IL data from production tasks that are geared to communication rather than grammatical accuracy. Moreover, data collection should start as soon as possible after the learners have started to acquire a second language and continue for as long as possible.

Apart from broadening the empirical base, we also need to improve our understanding of some of the conceptual issues that cannot be decided on the basis of previous research. There is, for instance, the unresolved issue of what seem to be directionality differences in transfer effects. A superficial comparison of the IL data from different learning situations suggests that L1 transfer effects are attested in the data from Spanish learners of English, but not as clearly in the reverse situation where native speakers of English are learning Spanish. Such directionality differences are not predicted by a parameterised account with equipotent parameter values. For this reason L2A researchers explored the theoretically interesting possibility that some values of the null-subject parameter are marked and others unmarked. Confusingly, however, there is no agreement in the literature as to which value is the marked one and which the unmarked one.

Following Hyams' (1986) proposal for L1A, Phinney (1987) and Liceras (1989) claimed that [+ null subject] is the unmarked value and [- null subject] the marked value, and that it is easier to switch from a marked setting to an unmarked setting than vice versa in L2A. In other words, they predicted directionality differences on the basis of the assumption that it is easier for English learners of Spanish to reset their L1 marked value to the unmarked Spanish value than it is for the Spanish learners to learn the marked setting of English. Tsimpli and Roussou (1991) criticise this perspective on markedness:

[T]he notion of markedness is an "ad-hoc assumption given that the criteria for determining the "marked" or "unmarked" status of a parametric value are not clearly defined. With respect to the Null Subject Parameter in particular, there is no a priori reason to classify the positive value as the "default" one given that both parametric options have been accounted for in terms of different abstract properties of the AGR head in a given language (cf. Rizzi 1986). Moreover the assumption that the [+ null subject] value is the "unmarked" one seems to contradict the predictions made by the "Subset Principle" (cf. Wexler and Manzini, 1987) as has been convincingly argued by Smith (1988).
White’s (1985, 1988) notion of markedness, however, is compatible with the Subset Principle. She makes the opposite claim that [+ null subject] is the marked value and [- null subject] the unmarked value on learnability grounds. If [- null subject] is the initial, unmarked value of the parameter, it can be reset on the basis of positive evidence that null subjects are permitted. She predicts the relative difficulty Spanish learners of English have with abandoning their [+ null subject] L1 value in favor of the English [- null subject] value because there is no positive evidence that informs the learners that null subjects are not possible. The overtness of subject pronouns in the English input is not sufficient to trigger resetting as Spanish also allows overt subject pronouns, although the pragmatic conditions which govern their use is different.

Although the IL data are neutral with respect to these two radically different hypotheses, White’s proposal is preferable on conceptual grounds as it relates the learnability issue of markedness to the availability of input. However, contrary to what has been suggested in the literature, there is no compelling evidence that directionality differences actually exist with respect to L2A of the Null Subject Parameter. As a consequence, the notion of markedness loses much of its relevance for L2A. As was pointed out above, Liceras’ (1989) results of English learners of Spanish do not convincingly support early resetting to the target language value, because the learners reject two properties associated with the Spanish value, namely subject-verb inversion and that-trace sequences. Instead, these results, as well as learners’ acceptance of overt pleonastic subjects in Spanish, are suggestive of transfer of English in which post-verbal subjects and that-trace violations are ungrammatical, but pleonastic subjects are not. Given that parametric resetting implies clusters of properties by definition, and that the above-mentioned data conspire against a resetting account for these English learners of Spanish, the possibility that their early use of missing subjects does involve

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38 The discussion about markedness can be rephrased in terms of the Subset Principle (cf. chapter 1). For instance, with respect to the Null Subject Parameter, the [- null subject] value of English is responsible for a subset of phenomena: overt subject pronouns and declarative sentences with preverbal subjects; the [+ null subject] value of Spanish generates a superset with both overt pronouns and missing pronouns and sentences with preverbal as well as post-verbal subjects. The Subset Principle requires the learner to begin with the unmarked value, which is the subset generating the most restricted grammar. This default value can later be adapted easily to the marked or superset value if this is warranted by positive input. Therefore, the Subset Principle guarantees that learners do not wrongly assume a marked or superset grammar from which they cannot retract on the basis of positive evidence. However, experimental evidence concerned with other parameters suggests that the Subset Principle does not operate in L2A (for a discussion of these studies see White 1991).

39 See Al-Kasey, T. and A. Pérez-Leroux (1991) for additional evidence that English L2ers of Spanish transfer their L1 grammar: overuse of subject pronouns and “ungrammatical attempts at producing overt expletives” (6): * Es son las tres (is are three o’clock); *hay son tres personas aquí (there-are three persons here).
resetting is also excluded. Therefore, in early English-Spanish IL “null subjects cannot be plausibly taken to be structurally realised as pro, unless we make the ad hoc assumption that there is some other unspecified, non-parametric means of inducing the existence of pro”, as Tsimpli and Smith (1991: 180) point out. Determining what is the structural representation of learners of Spanish with a [-null subject] L1 lies beyond the scope of the present study. In the remaining chapters I will focus on the reverse learning situation of adult Spanish and Italian learners of [-null subject] TLs and investigate whether it is possible for these learners to unlearn the relevant L1 properties and those of the TL given the combination of their L1 and the TL.

A related issue that has not been solved is whether parameter resetting is possible in L2A. We have just seen that the IL Spanish data hard to reconcile with resetting, and results on IL English and German also fail to support resetting, at least in adult L2ers. As was said, the methodology of studies concerned with this issue can be much improved by investigating longitudinal data of individual L2 learners, for instance. Tracing individual IL development on different properties for a considerable period of time and from the earliest stages will shed more light on the question of how the TL input interacts with the IL grammar. Does the target language in question enhance or impede the loss of the IL possibility of null subjects and related properties? In previous L2 research, no difference was made between English as a L2 and German as a L2 since both were simply regarded as non-null subject languages. While the properties of initial state IL grammars may take shape regardless of the TL, subsequent stages and changes may crucially depend on the TL properties as evidenced in the input. In order to address the issue of input, it is vital to determine how different TL vary across the relevant properties related to null subjects.

However, a question which logically precedes investigation into the possibility of resetting parameters is whether parameters actually transfer. Assuming on the basis of previous results that resetting to the [-null subject] value is not instantaneous, if at all possible, it makes sense to look at what constitutes the L2 initial state first and whether it involves transfer. Despite the general consensus that transfer of the L1 Null Subject Parameter into the [-null subject] TLs takes place, this conclusion is not warranted by the IL data we have considered so far. At best, previous IL results suggest partial transfer of the properties linked to the L1 [+null subject] value.

2.5 Conclusion

Several issues have emerged from the review of L2 studies concerned with null subjects in IL English and German. In adult L2A of these languages, there is a lack of correspondence between the development of verbal inflection and the
setting to the TL value of null subjects. Also, there is no clear clustering of other properties traditionally associated with the Null Subject Parameter. There is some evidence for L1 transfer of the possibility of subject omission, but the nature of this transfer is unclear. Therefore, our understanding of IL null subjects in English and German can be improved in various ways, as was pointed out in section 2.4.

Much depends on the linguistic formulation of the Null Subject Parameter. If we accept the possibility that the [+ null subject] value consists only of the missing subject property, we frustrate evaluation of the role of parametric values in L2A. After all, the effects of such a parameter value cannot be distinguished from the consequences of a construction-specific rule. Only when the cluster of relevant properties has been established is it possible to control for the effects of variable instantiations of these properties in the target languages. Therefore, proposals for any parameter must involve a cluster of properties. In the next chapter, a version of the Null Subject Parameter is presented that is not construction-specific, but relates various properties, including missing referential and expletive subjects and post-verbal subjects in declarative sentences, as well as word orders resulting from V-to-Agr raising. This version of the parameter will serve as the theoretical background for the multiple longitudinal studies into the IL data of Spanish and Italian learners of Swedish, German and English which are described in chapter 4.