Chapter 3

Theoretical assumptions and empirical predictions

3.1 Overview of the chapter

The previous chapter reviewed a number of unresolved issues related to the Null Subject Parameter in the L2 context which the present study addresses. The aim of this chapter is to provide the conceptual background against which the empirical research in chapter 4 can be placed. Section 3.2 describes the theoretical account of the Null Subject Parameter (Speas 1995) that is assumed in this study. Section 3.2 also presents an extension of this proposal, which includes subject-verb inversion in the cluster of properties associated with the null subject value. Section 3.3 focuses on the relevant syntactic properties of the languages investigated in chapter 4: missing subjects, subject-verb inversion and adverb placement relative to the verb in the null subject languages Italian and Spanish and the non-null subject languages English, German and Swedish. Section 3.3 also presents the research hypotheses, which are based on Full Transfer and Full Access. A Full Access perspective, combined with the version of the Null Subject Parameter described in section 3.2, predicts clustered transfer of null subject properties. A Full Access perspective predicts clustered loss or absence of these properties.

3.2 The relation between rich inflection, missing subjects, subject-verb inversion and verb placement: proposals for a Null Subject Parameter

3.2.1 Morphological correlates to feature strength

The L2A studies reviewed in the previous chapter assumed different versions of the Null Subject Parameter, following the changing tides of generative syntax. The different Null Subject Parameters have often been tied to the complexity of morphological subject-verb agreement paradigms (e.g. Chomsky 1981; Rizzi 1982; Jaeggli and Hyams 1988; Jaegli and Safir 1989). One of the most influential attempts to formulate a morphological correlate to the possibility of null subjects is known as the Morphological Uniformity Principle (MUP) (Jaeggli and Safir 1989). The predictions of the MUP have been tested both in L1 acquisition (e.g. Jaeggli and Hyams 1988) and in L2 acquisition studies (e.g. Hilles 1991;
Lakshmanan 1991, see chapter 2). The MUP tried to capture the crosslinguistic generalization that null subjects are permitted in all and only languages with morphological uniform inflectional paradigms. Morphologically uniform languages have verbal paradigms in which either each form includes a stem and an affix (e.g. Italian) or all verbal forms lack agreement morphology (e.g. Japanese). Languages with so-called mixed inflectional paradigms (including forms homophonous with the stem) like English, do not allow null subjects.

A clear counterexample against the MUP is Swedish. Since Swedish is morphologically uniform in that it does not have agreement morphology, the MUP would predict that Swedish allows null subjects, contrary to fact.40 Thus the central idea of the MUP that all languages with morphologically uniform paradigms should have null subjects is clearly too strong. Another counterexample comes from a comparison between European and Brazilian Portuguese (1).

(1)

<table>
<thead>
<tr>
<th></th>
<th>European Portuguese</th>
<th>Brazilian Portuguese</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>indicative present</td>
<td></td>
</tr>
<tr>
<td>1st person</td>
<td>comprar (to buy)</td>
<td>falar (to speak)</td>
</tr>
<tr>
<td>singular</td>
<td>compra-ø</td>
<td>fal-ø</td>
</tr>
<tr>
<td>plural</td>
<td>compra-mos</td>
<td>fala-ø</td>
</tr>
<tr>
<td>2nd person</td>
<td>compra-s</td>
<td>fala-o</td>
</tr>
<tr>
<td></td>
<td>compra-ø</td>
<td>fala-m</td>
</tr>
<tr>
<td>3rd person</td>
<td>compra-ø</td>
<td>fala-ø</td>
</tr>
</tbody>
</table>

(Rohrbacher 1994, 225)

Neither of these languages is morphologically uniform.41 Therefore, the MUP predicts that neither of the languages permits referential null subjects. However, this prediction is incorrect in the case of European Portuguese, which does allow

40 Speas (1995:33) argues that Swedish does in fact have a residue of agreement, but that a description in terms of morphological uniformity fails to capture this. Note that if Swedish could be argued to lack agreement altogether, Speas’ theory would also wrongly predict Swedish to behave similar to Japanese in permitting null subjects. Evidence for agreement in Swedish comes from gender and number agreement between nouns, determiners and adjectives, as well as agreement on past participles. Thus, according to Speas Swedish is unlike Japanese in that it must project AGRP. Since there are no agreement morphemes to provide AGR with content, SpecAGRP must be filled with overt subjects and null subjects are correctly ruled out.

41 The root of the verb *falar* is *fal*. The vowel that follows the root in all forms (except 1st person singular *falo*) is traditionally called the theme vowel. Here the theme vowel is *a*. The root plus the theme vowel is often referred to as the "stem". Thus the forms in (1) consist of the root, followed by the theme vowel, followed by one of the person-number endings *o, s, ø, m*. What remains to be accounted for is the fact that the theme vowel does not appear phonetically in 1sg *falo*. I follow Harris (1980:67) in regularizing the paradigm by postulating for 1sg *falo* the systematic phonemic representation */fal+a+ø/*. Thematic *a* is then deleted.
referential null subjects. Therefore, the MUP also fails to capture languages like European Portuguese which do not meet the conditions of the MUP, yet permit null subjects.

In current generative linguistics, abstract functional categories and their features are presumed to be responsible for parametric variation between languages (cf. chapter 1). For instance, cross-linguistic variation in the possibility of null subjects and/or verb raising are now often linked with the feature strength of Agr. Some linguists adopt an approach which separates abstract morpho-syntactic features and their morpho-phonological reflexes, assuming that verbal inflection is abstractly featural, instead of phonetically spelled-out (e.g. Chomsky 1995: 381). Such separationist proposals thus altogether abandon the idea of a direct relationship between cross-linguistic variation and overt inflectional morphology. In this way, they side-step the problem of finding morphological correlates to feature strength.

However, the separationist view has implications for language acquisition, as it raises the question how children discover whether the abstract features are strong or weak in their native language. If the only way of setting the parameter (i.e. feature strength) to the TL value is by learning the syntactic properties typically associated with feature strength, the notion of parameters reducing the number of learning tasks for the child is lost. Assuming such a scenario for parameter setting clearly is not a theoretical improvement over assuming that children acquire construction-specific rules one by one. In order to set parameters, then, there must be an independent way for the child to determine feature strength via the primary linguistic data to which it is exposed.

Non-separationist proposals may offer a solution to this learnability problem, as they relate the abstract feature specifications of Agr with the verbal agreement paradigm: the presumed relationship between inflectional strength and overtly realised morphological form allows the child to set parameters on the basis of verbal affixal paradigms. This is not to say that there is consensus about the morphological distinctions that determine the strength of Agr (for examples of different proposals, see Rohrbacher 1994; Vikner 1995; Pollock 1997). Moreover, L1 acquisition studies suggest that the relationship between paradigmatic distinctions and Agr feature strength may not be as direct as claimed by the non-separationist proposals. Children exhibit knowledge of the extensive paradigmatic distinctions only after they have acquired knowledge of verb raising, for instance. Yet, there is also ample evidence that, although the production of agreement morphology is variable, it is structurally constrained: the presence and absence of agreement morphology correlates with the presence and absence of syntactic properties, such as verb raising and missing subjects (e.g. Poeppel and Wexler 1993). Therefore, it is still a matter of debate whether children set parameters on the basis of overt morphology, and if so, how the relationship between feature strength and morphological form must be defined (see e.g. Deprez and Pierce 1993; Phillips 1995; Poeppel and Wexler 1993; Roeper and Rohrbacher 1994).
3.2.2  Speas’ (1995) Economy of Projection account of null subjects

There may not be an absolute cross-linguistic morphological correlate to abstract Agr features. This is what Speas (1995) assumes in her account of null subjects. Nevertheless, she preserves the appealing intuition that null subjects are related to the complexity of agreement morphology. The way in which Speas defines this relationship does not suffer from the empirical problems faced by proposals like the MUP, for instance. As Speas herself points out, her account has two other advantages over most versions of the Null Subject Parameter. First, it dispenses with the need for special licensing conditions on null subjects (proposed by Rizzi 1986, among others). A problem with the licensing condition approach is that the class of designated heads which license pro is completely arbitrary, as any head could be a licensing head, in principle. Without independent criteria for what constitutes a licensing head, there are no independent triggers for setting the Null Subject Parameter, which is undesirable in terms of learnability considerations, as mentioned above. Second, the Extended Projection Principle (EPP) (cf. Safir 1985; Borer 1986), which states that all clauses must have subjects, does not have to be stipulated as a substantive principle in Speas’ account as its effects follow naturally from Speas’ general Economy of Projection Principle. This is advantageous because it is unclear whether the EPP holds in languages which allow null subjects. For these reasons, I adopt Speas’ (1995) work as a framework for the parametric variation related to missing subjects throughout the rest of this study.

Speas’ (1995) theory captures the crosslinguistic generalization (also known as Jaeggli and Safir’s Generalization, based on Jaeggli and Safir’s 1989 MUP) that subjects are found to be omitted in languages with rich agreement such as Italian and Spanish, and languages which completely lack agreement morphology such as Japanese, whereas subjects must be overt in languages with weak agreement morphology such as English. Speas proposes that this state of affairs is related to the intuition that a phrase is only projected when it is needed. She states this in a principle of Economy, reproduced in (2):

\[(2)\  \text{Economy of Projection Principle:} \]
\[
\text{Project XP only when XP has content}
\]

In other words, this principle requires that a maximal projection always contains more than its (independently motivated) complement.\(^{42}\) Therefore, the principle prohibits structures as in (3) in which both the specifier of XP and the head of XP

\[\]

\(^{42}\) The complement of XP is the maximal projection YP, which in turn is independently motivated if its own head and/or specifier has content.
lack content, as in this case XP would dominate only the content (lexical or semantic material) of its complement YP.

\[
\begin{array}{c}
\text{Spec} \\
\circ \\
\text{X} \\
\circ \\
\text{YP} \\
\end{array}
\]

In order for a maximal projection to have content, minimally its specifier or its head must be lexically (phonetically) or semantically filled. Naturally, both the specifier and the head may also have content at the same time. The idea central to the issue of null subjects is that a specifier position of a maximal projection may remain empty, provided the head of the same maximal projection contains phonetic or semantic material.\(^{43}\) Since subjects are related to specifier positions, this has consequences for the possibility of null subjects.\(^{44}\) Syntactically speaking, null subjects can occur wherever general principles of economy permit them to occur.\(^{45}\)

So, null subjects are possible in the specifier of any maximal projection whose head has independent content. At the VP level the verb provides the head of VP with content, hence no overt subject in SpecVP is needed to license VP. The maximal projection TP is also licensed by its head since TNS has independent semantic content, even when it does not contain phonetic material. Thus SpecTP may also remain empty. However, things are less straightforward in the case of AgrP. Since AGR is assumed to be a purely relational head it has no independent semantic content to license the projection of AgrP.\(^{46}\) Therefore, AGR requires lexical content in order to license AgrP. If the head of AgrP remains empty, the specAgrP must be filled, either by moving an NP to SpecAgrP or by inserting a pleonastic in that position. In other words, a surface subject in SpecAgrP is required to license the AgrP projection if Agr head does not contain lexical material. Whether or not the head of AgrP contains lexical

\(^{43}\) Traces count as contentful, as they mark a place which has been filled with a contentful item at some point in the derivation (Speas 1995:8).

\(^{44}\) As I will argue in section (3.2.4), the possibility of empty SpecAgrP also has consequences for the possibility of post-verbal subjects. Another property which seems to be related to the properties of null subjects and post-verbal subjects is V-to-Agr movement.

\(^{45}\) Even though the possibility of null subjects seems to be syntactically unconstrained, there are pragmatic constraints that regulate the use of overt subjects. These constraints require the subject pronoun to be overt for reasons of emphasis, contrast and disambiguation of the reference of the subject.

\(^{46}\) Various people (Fukui 1993 and Kayne 1994, among others) assume that Agreement, unlike Tense or Aspect, lacks independent interpretation.
material is assumed to vary crosslinguistically. The head of AgrP may be provided with lexical content by means of agreement morphology. Speas adopts a view on agreement morphology proposed by Rohrbacher (1992;1994) who claims that there are two ways in which agreement morphology may be generated. Rohrbacher suggests that languages with rich agreement, like Italian and Spanish, are languages in which each inflectional affix has its own listing in the lexicon. The rationale behind this idea is that the lexicon lists all and only the referential elements of a language. Since distinctively marked person and number affixes determine the referent of the subject, they are "referential" and thus listed individually in the lexicon as are substantive lexical elements like nouns and verbs. Because these agreement affixes have their own individual lexical entries, they are available to the computational component. Therefore, distinctively marked person and number affixes may head their own (AgrP) projections. Such referential agreement morphemes are thus assumed to be base-generated in Agr. In languages like English with poor agreement, however, agreement morphemes are not assumed to have independent lexical entries; instead, these "non-referential" morphemes are listed in the lexicon in verbal paradigms. In other words, Rohrbacher assumes that poor agreement affixes are generated directly on the verb.

47 Following Speas (1990:9), I assume that every lexical entry contains four types of information about the lexical item, namely, phonological representation (phonological form), morphological information (whether the lexical item is an affix, a stem or a word) semantic information (about the referential properties, or thematic relations) and syntactic information (about the type of category the lexical item belongs to in terms of a binary feature system as well as information on argument structure). In (i) there is an example of the information contained in a lexical entry of a Spanish 2nd person singular present tense agreement affix -s:

(i) -s: phonological form: /s/ morphological information: affix semantic information: 2sg syntactic information: [-N, +V]

48 Although Rohrbacher’s claim for languages with poor agreement is comparable to Chomsky’s (1992) proposal to inflect the verb already in the lexicon, there are crucial differences between the two proposals. Note that Chomsky proposes that all agreement morphology is added to the verb in the lexicon, not just poor morphology. Moreover, the functional nodes of AGR are not associated with phonologically overt agreement affixes, but serve only to carry abstract agreement features with no phonological content whatsoever. Differences between languages are suggested to follow from differences in the strength values of these unpronounced features. Whether the strength value is determined as "strong" or "weak" bears no relation to the concrete morphological properties of a language, but must be stipulated. This view contrasts with Rohrbacher’s attempt to define morphological correlates to weak and strong agreement.
According to Speas, the proposed two-fold distinction in the manner in which agreement morphology is base-generated, i.e. either separately from the verb in Agr or directly on the verb in the lexicon, crucially determines whether or not AgrP has lexical content. She suggests that individually listed agreement morphemes, being base-generated in Agr, give lexical content to Agr. This means that SpecAgrP may remain empty, resulting in the possibility of null subjects, like in Italian and Spanish. She calls this type of agreement "strong" agreement. If the agreement morpheme is base-generated on the verb, null subjects are impossible because SpecAgrP must be filled to give content to AgrP. This type of agreement is called "weak" agreement and is assumed for languages like English. Speas furthermore assumes that the AgrP projection is necessary if and only if a language has some sort of agreement, no matter how residual. So, both English and Italian must project AgrP, respecting the Economy of Projection Principle. As was said, this means that in English overt subjects in Spec-AgrP are obligatory, while in Italian null subjects are permitted because SpecAgrP may stay empty.

Now that the pertinent differences between languages with strong and weak agreement have been clarified, the question remains how languages without agreement allow for null subjects. The idea for languages like Japanese is that AgrP is not projected at all, since agreement is missing altogether. Given that AgrP does not have to be licensed if it is not projected, and the other maximal projections are licensed by their heads, the subject is not required to be overt in such languages. Speas suggests that in Japanese, SpecTP is the place for overt and null subjects. Recall that TP is independently licensed via its head and therefore does not require SpecTP to be filled.

The descriptive generalization in (4) summarizes the crosslinguistic differences, illustrated in (5).

a. A language has null subjects if Agr is base-generated with a morpheme in it (e.g. Italian and Spanish).
b. A language cannot have null subjects if Agr is base-generated on the verb (e.g. English, German and Swedish)
c. A language has null subjects if it has no Agr (e.g. Japanese).

49 There is no principle of Economy which requires subjects to be null. Principles of Economy permit the specifier and the head position of a particular maximal projection to be filled at the same time. In so-called null subject languages the occurrence of overt subject pronouns is constrained by discourse rules, not syntactic rules.
(5) a. (Italian, Spanish)

```
AGRP
  Spec
  pro/ NP
  AGR'
      AGR
          VP
              SpecVP
                  V'
                      V
                          verb
```

b. (English, German, Swedish)

```
AGRP
  Spec
  "pro/ NP
  AGR'
      AGR
          VP
              SpecVP
                  V'
                      V
                          verb+affix
```

c. (Japanese)

```
TP
  Spec
  pro/ NP
  T
  VP
  SpecVP
      V'
          V
              verb
```
Summarising, the constraints on null subjects follow from the independently needed Economy principle of Projection, combined with a parameter regulating the way in which agreement morphology is listed in the lexicon (if at all).

3.2.3 Rohrbacher's (1994) Full Paradigm Condition

Speas' assumptions about the different lexemic status of agreement affixes derive from Rohrbacher's (1994) attempt to formalise the relationship between rich agreement and null subjects, also known as The Full Paradigm Condition. Because such an essential part of Speas' account is based on Rohrbacher's work, I will outline the relevant aspects of his proposal here, assessing and relating it to Speas' account.

Unlike the MUP, the Full Paradigm system does not require every cell in a full paradigm to have an overt agreement affix. Instead, a Full Paradigm minimally distinctively marks the first and second person features in at least one number of one tense. In this way, the difference in the possibility of null subjects between European Portuguese and Brazilian Portuguese can be accommodated, for instance. Rohrbacher argues that Brazilian Portuguese lost the possibility of pro after a change which eradicated the distinctive marking of direct second person.

Rohrbacher assumes that only first and second person are referential features because the subject of the discourse context can be identified as either the speaker(s), the hearer(s), or other(s) on the basis of these features, provided they are overtly distinguished. Number and gender features are assumed to be of less importance with respect to identifying the subject. The crux of Rohrbacher's proposal is that in languages which meet the Full Paradigm Condition, the agreement affixes are referential and therefore may be listed individually in the lexicon. This property permits these affixes to project their own Agr phrase, thus providing the Agr head with content. Recall that according to Speas this allows the SpecAgrP to remain empty, leading to the possibility of null subjects.

Rohrbacher adopts Speas' (1993) theory which licenses null subjects if AgrP is headed by an agreement affix. However, Rohrbacher is not primarily concerned with the licensing of null subjects via overt agreement morphology. His aim is to capture the intuition that rich subject-verb agreement is responsible for V-to-Agr raising. He observes that languages with V-to-Agr movement always have minimal distinctive marking of the first and second person features, which is consistent with his requirement on Full Paradigms licensing null subjects. Therefore, he assumes that if a paradigm is sufficiently rich its referential agreement affixes are inserted under Agr, which gives content to AgrP, (leading
to referential pro subjects) and also triggers movement of the verbal stem to Agr in order to bind the stranded affix that is base-generated in Agr.

By thus coupling Speas’ economy principles with his own Full Paradigm Condition, Rohrbacher arrives at an agreement-based parameter which unifies V-to-Agr movement and null subjects. This parameter predicts the following crosslinguistic difference. If on the one hand a language meets the Full Paradigm Condition, its agreement affixes are lexically listed, resulting in pro-drop and verb raising. If on the other hand a language does not meet the Full Paradigm Condition, its affixes are base-generated on the verb and neither null subjects are licensed, nor is V-to-Agr raising triggered.

The proposed parameter assumes a bi-conditional relation between the presence of null subjects and V-to-Agr. In other words, if there are null subjects, by logical implication there must be verb movement and vice versa. I adopt the idea that V-to-Agr raising is a necessary condition for null subjects that are licensed via rich verbal morphology, but I reject Rohrbacher’s claim that V-to-Agr raising necessarily entails the option for null subjects. Although Rohrbacher's Full Paradigm Condition overcomes some of the fatal empirical flaws of the Morphological Uniformity Principle, there are a few problems with his approach as pointed out by Speas (1995). First, Rohrbacher's claim that all languages with a full paradigm necessarily have individually listed agreement affixes clearly does not hold crosslinguistically. For instance, German is distinctively marked for person features, hence meets Rohrbacher's criterion for a full paradigm, yet it does not permit referential pro subjects. For this reason, Speas argues that German agreement affixes are base generated on the verb and not in AGR. If a language has a full paradigm, it may list each agreement affix as an individual lexical item, but it need not. Sufficiently rich morphology is a sine qua non for individual listing of the agreement affixes in the lexicon, but it does not implicate such listing. In other words, rich morphology may lead to null subjects, but it need not. Whether or not agreement morphemes from a full paradigm are base-generated in AGR or on the verb instead, is argued by Speas to involve a language-specific lexical idiosyncrasy. She suggests that this idiosyncratic property of languages with full agreement paradigms must be learnt by the child acquiring its native language. Once the learner has found out how agreement is listed in the lexicon, the (im)possibility of null subjects follows automatically. Nevertheless, Speas does accept

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50 Rohrbacher adopts Speas’ account for null subjects in languages such as Japanese, which are permitted because AgrP is not projected at all. Since Rohrbacher's parameter is only concerned with languages which must project AgrP, the possibility of verb movement of absence thereof in AgrP-less languages does not pertain to Rohrbacher's generalization.

51 Rohrbacher's explanation for the German facts entails that German inflectional morphology is rich enough to license null subjects, but these null subjects cannot be identified. Speas argues against invoking an identification condition on pro subjects. For these arguments, see Speas (1995:42-51).
Rohrbacher's claim that languages which do not meet the Full Paradigm condition, always base-generate agreement morphology on the verb, ruling out the possibility of null subjects.

Furthermore, Speas contests that there is a logical equivalence between verb-raising and null subjects. She objects to Rohrbacher's prediction that languages with V-to-Agr movement necessarily permit null subjects. She notes that, although the generalization that languages which permit null subjects also have V-to-I movement seems to be correct, the reverse is not true. Speas contests that there is a logical equivalence between verb-raising and null subjects. She objects to Rohrbacher's prediction that languages with V-to-Agr movement necessarily permit null subjects. She notes that, although the generalization that languages which permit null subjects also have V-to-I movement seems to be correct, the reverse is not true. Yiddish and Kronoby Swedish are examples of languages which have verb movement but do not permit referential null subjects. Since neither of these languages is minimally distinctively marked for person in the way required by Rohrbacher's criterion, verb movement must be triggered by something else than rich agreement morphology. Even though Speas adopts Rohrbacher's morphological condition on the licensing of null subjects, she claims that the trigger for verb-movement must be kept separate from this condition.

This means that Speas maintains the position that referential pro subjects are possible if and only if the agreement morphology is sufficiently rich to be listed individually in the lexicon, whereby Agr is provided with content and AgrP is licensed. However, she dissociates verb movement from a rich agreement paradigm and the presence of lexical entries for each affix. More importantly, she dissociates verb movement from the licensing of null subjects. If verb movement to Agr were sufficient to provide the head of Agr with content,

52 Speas (1995:n4) remarks that there are null subject languages with agreement morphology but without verb movement, exemplified by Warlpiri. In this case agreement morphology does not consist of verbal affixes, but instead of free morphemes. Speas suggests that such free morphemes can be base-generated in AGR, but do not trigger verb movement because they do not have to be supported by the verb. However, Speas seems to agree with Rohrbacher that in languages such as Spanish, the verb must move up to join with the stranded agreement affix in AGR in order to be morphologically wellformed.

53 Rohrbacher (1994:355) himself notes that Kronoby Swedish is an exception to his generalization, and simply suggests that it should be dealt with differently. Speas (1995: 39) discusses French as a counterexample to Rohrbacher's account, but there is in fact some support for an analysis of French as a null subject language. Rohrbacher assumes that in French SpecAGRP may remain empty and referential null subjects do in fact occur. Since the French verbal paradigm is not distinctively marked for first and second person, an alternative manner of licensing these null subjects is required. To this effect, Rohrbacher analyzes French subject clitics as AGR morphemes heading the AGRP projection. The verb is assumed to cliticize to these AGR morphemes, which triggers verb movement. Roberge (1990) makes a similar suggestion for colloquial and Canadian French, as far as the reanalysis of subject clitics as agreement elements is concerned.

54 As a consequence of Speas' claim that verb movement does not provide content to Agr, Speas' Economy of Projection Principle must apply to derivations rather than representations at Spell out, because it must apply prior to verb movement.
null subjects in SpecAgrP would be predicted to occur in cases where they are disallowed in actual fact. One of the examples given by Speas is English auxiliaries, which move to AgrP, but which do not license referential pro in AgrP. For this reason the economy principles must be satisfied prior to verb movement, according to Speas. Because Speas’ concern is primarily with constructing a theory for null subjects, she does not address the question of what the trigger for verb movement might be.

There is another objection to Rohrbacher’s generalizations that verb movement is contingent on null subjects and that null subjects follow if the agreement paradigm is sufficiently rich. This objection is motivated by the existence of languages which have partial pro-drop. Although Speas discusses the possibility of partial pro-drop, she does not make explicit that such languages pose a problem for Rohrbacher’s ideas. In partial pro-drop languages, null subjects are possible with some members of the agreement paradigm, but not with others. Frisian exemplifies such a language, with second person singular null subjects only. The paradigm in (6) illustrates the indicative present of the Frisian verb *stappe* (to step).

<table>
<thead>
<tr>
<th></th>
<th>Indicative present of the Frisian verb <em>stappe</em> (to step)</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>singular</td>
</tr>
<tr>
<td>1st person</td>
<td>stap-ø</td>
</tr>
<tr>
<td>2nd person</td>
<td>stap-st</td>
</tr>
<tr>
<td>3rd person</td>
<td>stap-t</td>
</tr>
</tbody>
</table>

Frisian meets Rohrbacher’s condition since the 1st and 2nd person are distinctively marked. If this is taken to imply a positive setting of Rohrbacher’s proposed parameter, various false predictions for Frisian follow. First, under Rohrbacher’s account the richness of the verbal paradigm would cause the affixes to be base-generated in Agr, leading to null subjects across the board. However, referential pro subjects are only found in the second person singular. (7) a. Miskien moatst pro Pyt helpe
   ‘Maybe you must help Pyt.’

b. *Miskien moat pro Pyt helpe
   ‘Maybe he must help Pyt.’

Second, Rohrbacher assumes that verb raising is triggered by the presence of agreement affixes in Agr. Therefore, if the verb raises, this implies that agreement affixes are base-generated in Agr, providing Agr with content and licensing null subjects, according to Rohrbacher. However, the finite verb raises in Frisian main clauses, regardless of the person/number combination of the
agreeing subject, yet all but 2nd person singular null subjects are disallowed. To account for this problematic fact, Rohrbacher would probably assume -since this is the approach he takes to similar problems- that referential pro is licensed, but cannot be identified. He follows Jaeggli and Hyams' (1988) idea that:

(8) AGR can identify an empty category as thematic pro iff the category containing AGR case-governs the empty category.

Moreover, Rohrbacher assumes that in V2 languages, such as Frisian, the subject is case-governed by C instead of Agr. Since the complementiser does not generally agree with the subject, pro cannot be identified (9a). There is only complementiser agreement with 2nd person singular subjects, which therefore constitutes the only case in which pro is both licensed and identified, illustrated in (9b).

(9) a. Hy tinkt dat *(er) jûn komt
   *He thinks that he tonight come-3sg

b. Hy tinkt dat st (do) jûn komst
   He thinks that-2sg you tonight come-2sg

c. Miskien moat *(er) Pyt helpe
   Maybe must-3sg he-clitic Pyt help

d. Miskien moat st (-sto/-ste) Pyt helpe
   Maybe must-2sg you-clitic Pyt help

(examples from De Haan 1994)

However, the contrast between the Frisian utterances in (9c) and (9d) causes an empirical problem for such an account. Since there is no inflected complementiser involved here, there must be another reason for the contrast between 2sg subjects and subjects with other persons/number features. Both finite verbs are distinctively marked for person and number, as De Haan (1994) argues convincingly that the -st ending on the finite verb is not a contraction of the verb with a 2nd person singular subject clitic, but that it is genuine inflection.55 For this reason, I assume that a phonologically zero, but syntactically present null subject can occur in (9d). The asterisk in (9c) shows that in 3rd person singular, a null subject is not possible and the subject clitic is obligatory.

55Another account for referential pro-drop in Frisian is related to cliticisation (Van der Meer 1991). For critiques of this account see De Haan (1994) and Zwart (1993:166).
So, Frisian appears to be a true example of a partial pro-drop language. Its paradigm meets Rohrbacher’s criterion, but for some reason referential pro-drop is only permitted with one member of the paradigm, namely second person singular. Following Speas’ analysis for partial pro-drop languages, I assume that Frisian base-generates its agreement affixes on the verb, with the exception of the 2sg affix, which has its own lexical entry, heads Agr, and permits SpecAgr to remain empty. A representation in which an affix is both base-generated in Agr and at the same time base generated on the verb would be redundant, and thus not in keeping with general economy principles.

Assuming that the principles relevant to the licensing of null subjects must apply before verb movement has taken place, the Frisian facts can be accommodated easily in Speas’ framework, as illustrated in (10a) and (10b).

(10) a. Miskien moatst (do) Pyt helpe

(10) b. Miskien moat *(er) Pyt helpe
What is clear is that the finite verb moves regardless of the place in which agreement affixes are generated.

So there are reasons to assume that verb raising can be triggered by properties other than verbal morphology. However, the claim that there may be several other triggers for verb movement, does not exclude the possibility that in some cases the trigger for verb movement is indeed the presence of a stray affix in a functional head which must be supported by a verb in order to become morphologically well-formed. Belletti (1990) makes such a claim for Italian. In languages where the agreement affixes are base-generated in Agr, verb movement seems to be a straightforward way in which to join the verb with its agreement affix. As such, it provides an explanation for the crosslinguistic observation that null subject languages with rich verbal agreement have verb raising to Agr.

What I want to preserve of Speas’ and Rohrbacher’s proposals is the Economy of Projection Principle (3.2.2.) and how it affects the possibility of null subjects as well as the idiosyncratic property of languages regarding the way in which affixes are listed in the lexicon. To summarise the claims made in the previous section with regard to null subjects, agreement morphology and verb raising, I assume that:

1. SpecAgrP may remain empty if and only if an individual lexical entry (containing agreement features that are base-generated in Agr) heads AgrP.
2. Agreement features are listed individually in the lexicon if and only if minimally 1st and 2nd person are distinctively marked.
3. If minimally 1st and 2nd person are distinctively marked, all or some members of the agreement paradigm may be base-generated in Agr, or on the verb in the head of VP, but never simultaneously in both positions.
4. If 1st and 2nd person are not distinctively marked, all agreement morphemes must be base-generated in the head of VP.
5. If an agreement affix is base-generated in Agr, the verb must at least move to this position to support the affix (but it may move to a higher position –C- after having picked up the agreement morphology).
6. If an agreement affix is base-generated on the verb, the verb need not raise to pick up a stray agreement affix as it is already on the verb, but the verb may still raise for various reasons.

---

56 Afrikaans, for instance, appears to have verb movement in the absence of verb morphology.
3.2.4 My extension of Speas’ Null Subject Parameter: subject-verb inversion

As we have seen, Speas’ version of the Null Subject Parameter, or rather, [Agr strength] parameter, thus accounts for missing referential and expletive subjects. In a less direct manner, it also accounts for V-to-Agr raising in null subject languages. Although Speas remarks that subject omission “[…] implies other properties in the language, such as the possibility of postposing the subject, the lack of overt pleonastics and the lack of that-t effects”, she fails to make explicit in what way subject postposing and that-trace effects are syntactically related to missing subjects. In the remainder of this section I will argue that the property of postposed subjects, also known as subject-verb inversion, can be accommodated into the cluster of properties that follow from Speas’ [+ strong] Agr value.57

The VP-internal subject hypothesis (cf. Zagona 1982, Kitagawa 1986; Koopman and Sportiche 1986; Contreras 1987; Sportiche 1988), according to which subjects are base-generated in SpecVP, permits an account for subject-verb inversion in which the subject remains in its VP-internal base position, while the verb moves to a higher inflectional projection. This is what Pinto (1997:134) proposes, following Kayne (1994) and Chomsky (1995) in assuming that the VS order in Italian indeed results from leftward movement of VP-internal material to the left of the subject which remains in the VP.58 This means that the subject does not overtly move to SpecAgr to check case. Instead, case checking is postponed until LF.59

An account of Italian and Spanish inverted subjects involving a VP-internal subject at PF can easily be brought in line with Speas’ economy of projection hypothesis that in such languages the subject is not forced to move to SpecAgrP at PF because independently listed agreement affixes suffice to license the AgrP projection. I propose to extend Speas’ assumption that the zero subject pronoun (pro) remains in its base-position in SpecVP at PF, (and only at

57 An attempt to accommodate that-trace effects into Speas’ version of the Null Subject Parameter lies beyond the scope of this text. Given that the empirical data described in chapter 4 are spontaneous production data, there is little chance that the relevant structures related to that-trace effects occur at all. Experimental elicitation tasks are better geared to investigating that-trace in IL grammars.

58 Pinto (1997) deals with inverted subjects in Italian, which has the order V(OS) but not VSO, unlike Spanish, which allows both (cf. (i) Hizo un gesto resignado Miguel, and (ii) Hizo Miguel un gesto resignado). However, Suñer (1994:339) points out that VOS in Spanish is less frequent in Spanish than VSO, and causes contrastive or exhaustive interpretation of the inverted subject. I assume that to derive the VOS order, the object must move out of the VP, whereas it remains there in the Spanish VSO sequence.

59 Pinto claims that the Italian Case feature on INFL (read Agr) is not strong enough to trigger raising of the subject in overt syntax. This is in line with Chomsky’s (1995, Ch 4) hypothesis that only categorial features are strong.
LF moves to SpecAgrP to check case and phi-features, to the overt NP subject in Italian and Spanish subject inversion contexts. It works as follows. At PF, the overt subject can remain in SpecVP, while the finite verb moves past the subject to Agr to support the agreement affixes that are base-generated there. At LF, the overt (or pro) subject moves to SpecAgrP to check case and phi-features in a specifier-head relation.\textsuperscript{60} The tree structures in (11a) and (11b) show the positions of the pro subject and the overt subject at PF and LF.

\begin{equation}
\text{(11) a. PF}
\end{equation}

\begin{center}
\begin{tikzpicture}
  \node (agr) at (0,0) {AgrP};
  \node (specagr) at (-1,-1) {SpecAgrP (NP subject)};\node (agr') at (1,-1) {Agr'};
  \node (vp) at (0,-2) {VP};\node (specvp) at (-1,-3) {SpecVP \textit{pro/NP subject}};
  \node (v) at (0,-4) {V'};\node (v') at (0,-5) {V};\node (\_1) at (0,-6) {$\_1$};

  \draw[->] (agr) -- (specagr);
  \draw[->] (specagr) -- (agr');
  \draw[->] (agr') -- (vp);
  \draw[->] (vp) -- (specvp);
  \draw[->] (specvp) -- (v);
  \draw[->] (v) -- (v');
  \draw[->] (v') -- (\_1);
\end{tikzpicture}
\end{center}

\textsuperscript{60} It must be noted here, that Pinto does not assume a radically empty SpecAgrP, but the presence of a covert extra internal argument LOC that satisfies the EPP (Pinto 1997:9). However, the EPP is not relevant in Speas' theory. Because I don't need the EPP to license empty SpecAgrP, I do not need to stipulate the presence of Pinto's loco-temporal covert argument LOC that satisfies the EPP either (A problem with LOC, as Pinto (1997:16) points out, is that it does not seem natural to suppose that all inversion verbs subcategorize for LOC, like \textit{mangiare/studiare}).
So, the assumption that in Italian and Spanish agreement affixes are base-generated in Agr not only allows for an empty SpecAgrP at PF, but at the same time triggers movement of the finite verb to Agr. In this way, a correlation between properties that have often been related in terms of a Null Subject Parameter can be captured. Italian and Spanish pro subjects and overt post-verbal NP subjects alike are thus the syntactic consequences of a [+ strong] Agr parameter value which entails individually listed agreement affixes in the lexicon. To put it less abstractly, under this adapted version of the Null Subject Parameter the [+ strong] Agr value accounts for the following surface properties:

1. rich agreement inflection
2. missing (referential and expletive) subjects in main and subordinate clauses
3. subject-verb inversion (V(O)S and VS(O) orders)
4. word order suggesting V-to-Agr movement (SVAO orders)

In chapters 4 and 5, I will use this cluster of properties to answer the research questions about clustered L1 transfer and clustered acquisition. Before turning to the actual data of Romance learners of Germanic languages, however, let us take a look at the hypotheses that will be tested in this study.
3.3 Research hypotheses: Full Transfer and Full Access

3.3.1 Introduction
The remainder of this chapter presents 6 predictions about the L2 initial state grammar and subsequent grammatical development in the interlanguages of native Spanish L2ers of Swedish, and native Italian L2ers of German and English. These hypotheses are the predicted answers to the research questions asked in section 1.5 (repeated here for ease of reference).

- Research question 1
  Is the L2 initial state defined by clustered transfer of properties that relate to L1 parameter values?

- Research question 2
  What are the implications of the empirical results of the present research for theories of Partial Transfer and Full Transfer?

- Research question 3
  Is L2 development characterised by clustered acquisition of properties that relate to TL (or non-L1) parameter values?

- Research question 4
  What are the implications of the empirical results of the present research for theories of No Access and Full Access?

The hypothetical answers to these questions are based on a Full Transfer position and a Full Access position, as these positions afford the clearest and hence best testable predictions with regard to the role of the L1 grammar and the role of UG, respectively (section 1.4). As far as L1 influence is concerned, the No Transfer position is defeated by findings of previous L2A research, as we have seen in chapters 1 and 2; Partial Transfer refers to any of various intermediate positions on the extent of transfer, leading to a variety of possible empirical predictions. However, clustered transfer of properties related to a functional parameter like the [Agr strength] parameter outlined above is only expected under Full Transfer. Similarly, the only position that predicts the possibility of clustered acquisition (parameter resetting) is a Full Access position. For clarity's sake, then, Full Transfer and Full Access are the departure points for analysis of the IL data presented in chapter 4.

The order in which the hypotheses are presented follows the order of the research questions. The first two research questions pertain to what extent transfer of the L1 parameter value defines the L2 initial state. Therefore, section 3.3.2 describes the relevant syntactic properties of the Romance source
languages Spanish and Italian that are hypothesised to make up the L2 initial state grammar.
The description of each syntactic property concludes with a hypothesis on the L2 initial state of this particular property. Spanish and Italian are only minimally different in the relevant areas, and therefore the effects of mother tongue influence are predicted to be quite similar.

The characteristics of the target languages enter the picture when the interlanguage development subsequent to the L2 initial state is described. Although it is important to provide analyses of the syntactic properties from which the surface structures of the target language derive, in order to understand how they differ or resemble those of the L1, it is essential to keep in mind that L2ers are exposed to surface structures which are amenable to different analyses, and not to the underlying syntactic properties of the target language (cf. also chapter 1, Bley-Vroman’s Comparative Fallacy). Nevertheless, section 3.3.3 of this chapter touches upon both the relevant surface structures and the underlying syntactic properties of the Germanic target languages Swedish, German and English. Several Full Access hypotheses are formulated as to which cluster of target language surface properties may evidence a change to the target language [- strong] Agr parameter value.

3.3.2 Relevant properties of the source languages: Italian and Spanish

3.3.2.1 Rich agreement inflection in Spanish and Italian

Both Italian and Spanish have rich systems of subject-verb agreement. The Italian verb ‘parlare’ (‘to talk’) and the Spanish verb ‘hablar’ (also ‘to talk’) inflect for the present tense indicative as is shown in the paradigms in (12)

(12)

<table>
<thead>
<tr>
<th>Present tense indicative</th>
<th>Italian (parlare)</th>
<th>Spanish (hablar)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st person singular</td>
<td>parl</td>
<td>habl</td>
</tr>
<tr>
<td>2nd person singular</td>
<td>parl</td>
<td>habla</td>
</tr>
<tr>
<td>3rd person singular</td>
<td>parla</td>
<td>habla</td>
</tr>
<tr>
<td>1st person plural</td>
<td>parlia</td>
<td>habla mos</td>
</tr>
<tr>
<td>2nd person plural</td>
<td>parlia</td>
<td>habla is</td>
</tr>
<tr>
<td>3rd person plural</td>
<td>parlia</td>
<td>habla n</td>
</tr>
</tbody>
</table>

Both languages meet Rohrbacher’s (1994) criterion of a Full Paradigm, since the first and second person singular features are different from one another, from the third person singular and from the infinitive. Under Rohrbacher’s analysis of the
abstract properties related to rich agreement inflection, the lexicon of native
speakers of languages like Italian and Spanish contains separate entries for the
members of the agreement paradigm (see section 3.1). The assumption that
these languages thus exhibit a [+ strong] Agr parameter value, captures the fact
that Spanish and Italian have null subjects, inverted subjects and word orders
that suggest V-to-Agr raising.

Combining the [+ strong] Agr value of Spanish and Italian with the Full
Transfer assumption that such properties transfer, I hypothesise that the L2
initial state lexicon of native Italian and Spanish L2ers contains individual entries
for each of the members of the agreement paradigm, although the agreement
morphology itself does not transfer. In other words, each of these L2 initial state
lexical entries contains all the (morphological, semantic and syntactic) information of its L1 counterpart, apart from the phonological form itself, which
does not transfer. The phonological representation of each individual agreement
affix is ‘ø’ in the L2 initial state lexicon. An illustration of this hypothetical L2 initial
state lexicon of a native Italian L2 learner is given in (13). I suggest that the
inflectional paradigm of the present tense indicative as it is listed in the L1 final
state lexicon of a native Italian speaker could be represented as (13a), while the
inflectional paradigm of the present tense in the L2 initial state lexicon of the
same native adult Italian L2 learner would look more like (13b).

(13)

a. Inflectional paradigm for the present tense indicative in the L1 final state
   lexicon of an adult native Italian speaker

<table>
<thead>
<tr>
<th></th>
<th>1st person</th>
<th>2nd person</th>
<th>3rd person</th>
</tr>
</thead>
<tbody>
<tr>
<td>Singular</td>
<td>-o</td>
<td>-i</td>
<td>-ø</td>
</tr>
<tr>
<td>Plural</td>
<td>-mo</td>
<td>-te</td>
<td>-no</td>
</tr>
</tbody>
</table>

b. Inflectional paradigm for the present tense indicative in the L2 initial
   state lexicon of an adult native Italian speaker (who has just begun
   learning a second language X)

<table>
<thead>
<tr>
<th></th>
<th>1st person</th>
<th>2nd person</th>
<th>3rd person</th>
</tr>
</thead>
<tbody>
<tr>
<td>singular</td>
<td>-ø</td>
<td>-ø</td>
<td>-ø</td>
</tr>
<tr>
<td>plural</td>
<td>-ø</td>
<td>-ø</td>
<td>-ø</td>
</tr>
</tbody>
</table>
Hypothesis 1 (Full Transfer)
The complete L1 syntax constitutes the L2 initial state. Therefore, the [+ strong] Agr value of the Agr strength parameter transfers into the L2 initial state grammar of native Italian and Spanish L2ers, but without the related overt L1 agreement morphology; consequently, their L2 initial state lexicons individually list phonologically empty agreement affixes, which are base-generated under Agr.

What follows from hypothesis 1 is that the cluster of syntactic properties that fall out from the [+ strong] Agr value transfers into the L2 initial state. This leads to the empirical prediction that the following surface features will be found in the early utterances of native Italian and Spanish L2ers:
1. missing subject pronouns and missing expletives in both root and embedded clauses (see section 3.3.2.2);
2. “free” subject inversion in declarative sentences (see section 3.3.2.3);
3. word orders that are compatible with V-to-Agr movement (see section 3.3.2.4)

Below, I will discuss each of these [+strong] Agr-related properties within the native language context.

3.3.2.2 Missing subject pronouns and expletives in Italian and Spanish
A well-known property of both Spanish and Italian is that pronominal subjects may remain unexpressed. The subject pronoun is only overtly expressed when it is emphasised for reasons of contrast or disambiguation, while non-arguments and quasi arguments are not overtly expressed (see e.g. Rizzi 1994; Haegeman 1991). However, in the area of expletive subjects Spanish and Italian are different. Spanish does not have any overt expletive subjects, while Italian does in certain constructions. On the one hand, Italian does not have an overt expletive pronoun in atmospheric and temporal predicates (14a), constructions with an extraposed clausal subject and with certain verbs (14c). On the other hand, Italian existential constructions with a form of copula ‘be’ require the presence of the expletive ci, which can be seen as the counterpart of English existential there (14d).
Italian and Spanish subject pronoun omission is possible in main and embedded clauses. In embedded clauses subject omission is even the favoured option if the zero pronoun is co-referential with the subject of the main clause, as in (15c).

(15)

a. ha parlato  
(he/she/it) has spoken  
(Haegeman 1991: 413)

b. So che cosa hai detto  
(I) know what you said

c. Gianni canta quando è contento  
Gianni sings when (he) is happy  
(Rizzi 1994: 154, 170, n4)

It deserves to be noted again that apart from grammatical constraints subject omission is also governed by pragmatic constraints in Spanish and Italian: A subject pronoun may only remain unexpressed if it refers to an established discourse topic. This means that first and second person subject pronouns can always be omitted without previous introduction, but third person subjects must have been mentioned before in the previous discourse context.

I assume that missing subjects in the L2 initial state result from the transfer of the possibility of missing subjects in the L1 grammar. This means that missing subjects in the L2 initial state are only expected if the L1 allows subject
omission. If the L1 does not permit missing subjects, subjects are predicted not to be omitted in the L2 initial state.\(^{61}\)

Hypothesis 2 (Full Transfer)
In the L2 initial state of Italian and Spanish L2ers, the SpecAgrP may remain empty at PF, as a syntactic consequence of the transfer of the [+ strong] Agr value, which licenses the AgrP projection.

The empirical consequence of hypothesis 2 is that the L2ers will permit subjectless main and subordinate clauses during the initial stages of L2A, in accordance with the facts reported in previous studies on missing subjects in the IL of native Romance L2ers (cf. chapter 2).

3.3.2.3 V-to-Agr movement in Italian and Spanish

Two well-known linguistic diagnostics which provide evidence for V-to-Agr raising in Italian and Spanish are the Mirror Principle, and finite verb placement relative to adverbs and quantifiers.

Baker's (1985) Mirror Principle holds that inflectional morphology must have a "mirror", a functional categorial correlate in the syntax: the respective order of tense and agreement morphology on the verb reflects the respective order of the inflectional projections TP and AgrP in the tree structure (cf. also Belletti 1990:28). The closest affix to the root of the verb reflects that the verb has passed through the related inflectional head first, which implies that this inflectional head is closest to the VP in the hierarchical tree structure. In Spanish, like in Italian, the tense affix is closer to the root of the verb than the agreement affix, as is shown in (16a). This means that in languages like Spanish and Italian, T must be lower in the hierarchical tree structure than Agr, as the simplified structure in (16b) depicts.

(16)

\[
a. \text{caminá-ba -mos} \quad \text{Spanish} \\
\text{walk -imperfect -1pl} \\
\text{we walked}
\]

\[
b. \quad [\text{AgrP}[\text{Agr-mos}][\text{TP}[\text{T-ba}]..[\text{V}^{\text{max}}..]
\]

(based on Suñer 1994:341)

\(^{61}\) This claim goes against approaches which assume that all L2ers go through an early developmental stage during which they omit subjects, regardless of their mother tongues (cf. e.g. Vainikka and Young-Scholten 1994, 1996, and Eubank 1996).
This way of reasoning suggests that in Spanish and Italian the finite verb raises as high as Agr to pick up its agreement affixes (see also Suñer 1994:341). This is in accordance with the assumption I have adopted that Spanish and Italian agreement affixes are base-generated in Agr, and that the finite verb moves to this position to support the affixes which would otherwise be left stranded in violation of a universal principle (Lasnik’s Filter) that requires bound morphemes to appear on a host.

Additional evidence for movement of the finite verb to Agr in Italian and Spanish comes from the relative positioning of the verb vis-à-vis other elements in a sentence. The cursory discussion below heavily relies on Belletti’s (1990) analysis of verb movement in Italian. Because the Spanish data parallel the Italian data, this analysis carries over to Spanish.

Belletti assumes that in Italian the finite verb raises to Agr, the highest inflectional head. Her account is based on the position of the finite verb relative to negative polarity adverbs, different types of adverbs, and floated quantifiers. Determining the occurrence of verb movement by fixing the positions of adverbs is a common diagnostic used by linguists since the seminal work of Emonds (1978) and Pollock (1989).

Belletti distinguishes different types of adverbs with different distributions in the sentence. I will limit myself to a cursory discussion of the relevant distributional facts, which are rather complex, and refer the interested reader to Belletti (1990) for a more detailed (and first-hand) account. Belletti captures the distribution of ‘lower’, or VP, adverbs by assuming that these adverbs can be both left-adjoined (17a) and right-adjoined to the VP (17b).

(17)

a. Quel medico risolverà completamente i tuoi problemi.  Italian
   That doctor will solve completely your problems.
b. Quel medico risolverà i tuoi problemi completamente.
   That doctor will solve your problems completely.
c. *Quel medico completamente risolverà i tuoi problemi.
   That doctor completely will solve your problems.

The clause-final adverb in (17b) is neutral with respect to verb movement. However, the clause-medial adverb in (17a) immediately follows the finite verb and precedes the object, suggesting that the finite verb has moved out of the VP. The ungrammaticality of the preverbal adverb in (17c) provides additional support for the assumption that the finite verb cannot stay in-situ. The order of the finite verb relative to adverbs is often used as a diagnostic for verb movement. The present study also uses adverbs as an indicator of verb raising to Agr (section 3.4).

Yet another diagnostic used by Belletti to demonstrate that the finite verb moves to Agr in Italian is based on Sportiche’s (1988) analysis of the
distribution of floating quantifiers. When a quantified subject moves to SpecAgrP, the quantifier may move to a higher specifier through which the subject has moved, like SpecTP. Belletti points out that if the finite verb would move no higher than T, a floated quantifier in SpecTP would precede the finite verb. However, preverbal floated quantifiers are not attested in Italian. The fact that the quantifier always follows the finite verb in Italian (cf. (18a) and (18b)) suggests that the finite verb moves as high as Agr.

(18)

a. Gli invitati salutarono tutti Maria.
the guests greeted all Maria

b. *Gli invitati tutti salutarono Maria.
the guests all greeted Maria

These facts endorse the independently made assumption that the finite verb moves to Agr in Italian tensed clauses.

Hypothesis 3 (Full Transfer)
In the L2 initial state of native Italian and Spanish L2ers, the verb continues to move to Agr at PF to amalgamate with the zero-affix that is base-generated there due to transfer of the [+strong] Agr value (cf. hypothesis 1).

The description of the Italian data given above aimed at providing support for the assumption that the finite verb moves to Agr in Italian (and Spanish). It should be stressed here that the data are more complex and that distributions of adverbs in Spanish and Italian do not always present a clear picture of verb movement. This is due to the fact that adverbs may be generated both to the right and the left of the VP. In addition to this, we have seen that some surface orders are derived via left or right-dislocation of elements.62 As a result, the distribution of these

62 Belletti (1990) proposes that ‘higher’ adverbs, or sentential adverbs, which typically appear clause-initially (cf. i-a), are left-adjoined to AgrP. This analysis accounts for the ungrammaticality of the order in (i-b), in which the higher adverb ‘probabilmente’ (‘probably’) immediately follows the finite verb; as the finite verb raises to Agr, it cannot precede the adverb which is generated under a position to the left of the AgrP projection. Due to their being left-adjoined to AgrP, sentential adverbs are not very revealing with respect to verb movement. Sentences like (i-c) in which a sentential adverb follows the subject involve a topicalised or left-dislocated subject, while sentences with a clause-final sentential adverb like (i-d) involve a right-dislocated adverb, according to Belletti.
elements relative to the finite verb is often neutral with respect to verb movement. Along with the application of V-to-Agr, Spanish and Italian L2ers are assumed to transfer these mechanisms into the L2 initial state. Consequently, the L2ers are predicted to accommodate the TL input containing adverbs in a way that follows most logically from the L1 grammar; this means that adverb placement in the TL may not signal to the L2ers what the verb movement properties of the TL are.

3.3.2.4 Inverted subjects in Italian and Spanish

Another property that belongs to the cluster of properties associated with a [+strong] Agr parameter value is the possibility of postposing the subject. Indeed, Spanish and Italian permit inverted subjects in declaratives, as is shown in (19).63

(19)

a. Ha telefonato Beatrice.  
   Italian
   has called Beatrice
   Beatrice has called.

b. Hizo Miguel un gesto resignado  
   Spanish
   made Miguel a gesture resigned
   Miguel made a resigned gesture
   (cf. Miguel hizo un gesto resignado)

Moreover, inverted orders are found in main and subordinate clauses alike, as the following examples in (20) reflect.

(i)

a. Probabilmente Gianni telefonerà alle 5.  
   Italian
   Probably Gianni will call at 5.

b. *Gianni telefonerà probabilmente alle 5.
   Gianni will probably call at 5.

c. Gianni probabilmente telefonerà alle 5.
   Gianni probably will call at 5.

d. Gianni telefonerà alle 5, probabilmente.
   Gianni will call at 5, probably.

(Belletti 1990:41-42, examples (30), (32))

63 Apart from subject-verb inversion in declaratives, Italian and Spanish also have post-verbal subjects in yes/no questions and (most) wh-questions. However, interrogative inversion is not discussed here as it is less revealing in terms of transfer, given that it is also found in the target languages English, Swedish and German.
The sentences (20b, and 20d) are ungrammatical because fronted objects require subject verb inversion in Spanish. Torrego (1984), and Suñer (1994) observe that SV inversion is only obligatory with fronted arguments in Spanish. This means that in argumental (non-subject) wh-questions the subject must occur post-verbally, but with adjuncts and embedded indirect questions beginning with *si* (whether) the subject may occur before or after the verb (21).

(21)  

a. Me pregunto por qué no firma el gobernador ese proyecto en ley.  
I wonder why the governor does not sign that project into law  
b. Me pregunto por qué el gobernador no firma ese proyecto en ley.  
I wonder why the governor does not sign that project into law  
c. Me preguntaron si habían comprado los Pérez la casa de la esquina  
They asked me whether the Pérezes had bought the corner house  
d. Me preguntaron si los Pérez habían comprado la casa de la esquina  
They asked me whether the Pérezes had bought the corner house  

Furthermore, when an object is left-dislocated (instead of topialised), the subject may occur in preverbal position, both in main (22a) and embedded (22b) clauses.

(22)  

a. Las acelgas, María las detesta  
Spinach, Maria detests  
(Hernanz and Brucart 1987, qtd in Suñer 1994:350)  
b. Briana me dijo que los libros de texto, Drea ya los había vendido  
Briana told me that the textbooks, Drea had already sold.  
(Suñer 1994:350)  

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See Suñer (1994) for an explanation of the argument/adjunct asymmetry in Spanish, which involves an adjacency requirement of the preposed object and the finite verb.
In section 3.2.4 above, I proposed an account for inverted subjects in Spanish and Italian, under which the property of post-verbal subjects in declarative sentences is part of the cluster of properties of the [+ strong] Agr value of the Agr strength parameter.\(^\text{65}\) The option of leaving the subject in the SpecVP at PF while the SpecAgrP is empty will be part of the L2 initial state of native Italian and Spanish L2ers, who are therefore predicted to display inverted subject orders in both main and embedded clauses during the early stages of L2A.

**Hypothesis 4 (Full Transfer)**

As a syntactic consequence of the transfer of the [+ strong] Agr value into the L2 initial state of Italian and Spanish L2ers, SpecAgrP may remain empty, and thus the overt subject may remain VP-internal at PF. Inverted subjects derive from this situation since the finite verb raises to Agr, past the subject in SpecVP.

\(^{65}\) If the assumption that pro-subjects and inverted subjects correlate due to the way in which agreement affixes are base-generated is correct, one might expect that languages in which agreement affixes are not base-generated in Agr would lack both pro-drop and SV inversion. This generalisation does not completely hold because some non-pro-drop languages, like English and French, show a (albeit limited) kind of subject inversion. The English and French examples in (i) have a post-verbal NP subject. However, the ungrammaticality of the English sentence (i-b) shows that the expletive cannot be omitted, unlike what is found in pro-drop and “free inversion” languages like Italian and Spanish.

(i)  
\begin{itemize}
  \item a. There came a student into the room  
  \item b. *Came a student into the room.
  \item c. Il est arrivé un étudiant.  
  \item d. E’ arrivato uno studente.
  \item e. *Demain partira Pierre.
\end{itemize}

These facts can be accommodated into the account presented above. The expletives ‘there’ and ‘il’ fill SpecAgrP to license the projection of AgrP, while the post-verbal NP subject remains in its VP-internal position at PF. At LF, according to Speas (1995:10), the NP subject adjoins to its associate expletive in SpecAgrP, and thus the phi-features of the NP subject percolate to the dominating node, and the phi-features and Case can be checked in a spec-head agreement relation. In English, sentences like (i-b) from which the expletive is missing are ruled out by economy constraints, because if SpecAgrP is not filled, neither the specifier position nor the head has content to license the AgrP projection.
3.3.2.5 Summary of hypotheses about the L2 initial state

Summing up the hypotheses on the L2 initial state of adult native Italians and Spanish L2ers that have been made so far: if the [+ strong] Agr parameter value transfers from the L1, its syntactic reflexes (missing subjects, inverted subjects and V-to-Agr) are expected to cluster during the early stages of native Italian and Spanish L2ers. If, however, the parameter does not transfer, no clustering is expected and the theory of Full Transfer is refuted.

3.3.3 Relevant properties of the target languages: English, German and Swedish

3.3.3.1 Introduction

Now that the hypotheses concerning the L2 initial state have been discussed, the issue of subsequent L2 development needs to be addressed. My hypotheses on what happens after the L2 initial state are grounded in Full Access. It is important to note here that I do not expect Full Access to be the most likely outcome of the present study. As we have seen in chapter 2, none of the previous L2A results on the Null Subject Parameter provides convincing evidence for Full Access. My reason for testing Full Access hypotheses is methodological: Full Access makes the strongest and hence most easily falsifiable predictions. It predicts parameter resetting of a limited cluster of properties. If the surface reflections of the relevant properties are found in the data, Full Access is confirmed; by contrast, if these do not occur, Full Access loses its case by default. The alternative position No Access has the methodological disadvantage of predicting a host possible outcomes. Therefore, No Access is perhaps best narrowly defined in terms of what it does not predict: parameter resetting. In other words, if parameter resetting occurs, No Access is refuted; if parameter resetting does not occur, No Access holds.

Clearly then, the focus of attention is on parameter resetting. What does this entail? For the [Agr strength] parameter under investigation, parameter resetting involves the following abstract properties.
Hypothesis 5 (Full Access)
L2ers reset the “Agr strength” parameter to the [-str] Agr value. This means that agreement affixes are listed in paradigms in the lexicon and are base-generated directly on the verb in V. Consequently, SpecAgr must be filled by a subject to license AgrP. The verb does not have to raise to Agr to support agreement affixes.66

We cannot observe the abstract properties of hypothesis 5 directly in the IL data. Instead, such underlying properties must be inferred from their surface reflections. There are two factors which complicate finding the pertinent evidence for parameter resetting in the surface data. Firstly, resetting the parameter to [-str] Agr involves complete absence of the cluster of surface properties associated with the [+str] Agr value. The reason for defining parameter resetting in terms of lacking properties is that [-str] Agr is the ‘subset value’; [+str] Agr has the superset of properties overlapping [-str] Agr properties (see chapter 2). For instance, [-str] Agr requires subjects in subordinate clauses to be overt, while [+str] Agr allows both overt and missing subjects in subordinate clauses. The [-str] Agr value is thus the narrower option. Therefore, we can only assume that the parameter has been reset to the [-str] Agr value if the typical properties of [+str] Agr are completely absent. Simplifying matters for just now, my interim (Full Access) predictions for parameter resetting to [-str] Agr value involve:

1. absence of missing subjects
2. absence of subject-verb inversion in declaratives
3. absence of word orders suggesting V-to-Agr movement

This list of predicted [-str] Agr surface properties must be refined. This is due to a second impediment to finding clear-cut evidence for parameter resetting to [-str] Agr: the TLs of the present study (English, German and Swedish) have surface properties which are not related to the parameter itself, yet seemingly overlap with some of the properties under investigation. For instance, all three TLs permit missing subjects under limited conditions (cf. 3.3.3.3). Moreover, German and Swedish have a so-called V2-requirement of placing the finite verb in second position in main clauses, which often results in subject-verb inversion (cf. 3.3.3.4). Even though such VS surface orders are unrelated to the [Agr strength] parameter in the TLs, it is difficult to tell them apart from VS orders resulting from the parameter, as Schwartz (1991) points out. The German and Italian sentences in (23) exemplify VS surface orders.

66 There may be other reasons for V to raise to Agr or C that extend beyond the properties of the [Agr strength] parameter. For instance, Swedish and German are [-str] Agr languages in which the verb raises to C.
Despite the similar surface orders, the syntactic analysis linguists commonly attach to the German sentence in (23a) differs from the analysis of the Italian sentence in (23b). This is natural since the analysis of a particular structure forms a logical part of the rest of the grammar of that language. As German is a V2 language, with movement of the finite verb to C in main clauses, a post-verbal subject in German is commonly analysed as occupying SpecAgr with the finite verb in C, illustrated in the tree structure of (24a). This analysis does not generally hold for Italian inverted subjects, as the Italian finite verb does not generally raise to C. Instead, the Italian sentence in (23b) derives from V-to-Agr movement and the subject in a VP-internal position, represented structurally in (24b).
In this context it is also important to stress again that L2ers perceive only surface structures in the TL input: sound strings that do not have a unique analysis attached to them. As examples (23a, 24a, 23b and 24b) illustrate, some surface structures are amenable to different analyses. Given the underlying structure of Italian, it seems plausible that a transferred Italian grammar could easily accommodate German input like (23a) into a tree structure like (24b).

In the remainder of this chapter, the relevant properties of the TLs English, German and Swedish are discussed. This discussion results in more refined hypotheses about parameter resetting to the [-strong] Agr value. It is imperative to bear in mind that the hypotheses focus exclusively on the properties related to the [-strong] Agr value. This means that the hypotheses say nothing about acquisition of TL properties that are not related to this value.

3.3.3.2 Agreement morphology in the target languages English, German and Swedish

The three Germanic languages under investigation differ considerably with respect to the richness of agreement inflection on the finite verb. As the present tense of (the equivalents of) the verb “to buy” in (25) illustrate, Swedish lacks overt subject verb agreement morphology, and English only marks the third person singular in the present tense (apart from the suppletive forms of ‘to be’), while German has much richer agreement morphology on the finite verb.
<table>
<thead>
<tr>
<th>Present indicative tense of main verb ‘to buy’</th>
<th>Swedish</th>
<th>English</th>
<th>German</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st person singular</td>
<td>köp-er</td>
<td>buy</td>
<td>kauf-e</td>
</tr>
<tr>
<td>2nd person singular</td>
<td>köp-er</td>
<td>buy</td>
<td>kauf-st</td>
</tr>
<tr>
<td>3rd person singular</td>
<td>köp-er</td>
<td>buy-s</td>
<td>kauf-t</td>
</tr>
<tr>
<td>1st person plural</td>
<td>köp-er</td>
<td>buy</td>
<td>kauf-en</td>
</tr>
<tr>
<td>2nd person plural</td>
<td>köp-er</td>
<td>buy</td>
<td>kauf-t</td>
</tr>
<tr>
<td>3rd person plural</td>
<td>köp-er</td>
<td>buy</td>
<td>kauf-en</td>
</tr>
</tbody>
</table>

I assume that each of these languages is required to project AgrP, given that they all have some sort of agreement inflection (and do not permit null subjects a la Japanese).\(^67\) At the same time, the agreement inflection of English and Swedish is clearly not rich enough to meet Rohrbacher’s Full Paradigm. Therefore, I also assume that these languages do not have separate lexical entries for each member (or indeed for any of the members) of the agreement paradigm, and that agreement is base-generated on the verb, instead of in Agr. Although German agreement inflection is fairly rich, and even meets Rohrbacher’s Full Paradigm (in that the first and second person differ from each other and the third person form, as well as from the infinitive) a similar analysis of German as a [- strong] Agr language seems justified because it does not

\(^67\) The lack of agreement morphology has led some linguists to the conclusion that Swedish does not have an Agr head with its own projection (cf. Holmberg and Platzack 1995:18-20). If this were the case, Swedish would provide a counterexample against Speas’ (1995) economy generalization that languages that lack Agr have null subjects, since Swedish does not generally permit null subjects. Speas (1995:33) argues that although Swedish does not have rich verbal agreement inflection, there is evidence for number and gender agreement between nouns, determiners and adjectives (i-a,i-b,i-c), as well as agreement on past participles (i-d) and (i-e).

(1) a. en fin lagenhet
    a fine flat (common gender)
    a fine museum (neuter gender)
    c. två fina museer
    two museums
    d. brevet var skrivet
    letter-the was written (‘the letter was written’)
    e. breven var skrivna
    letters was written-plural
    ‘the letters were written’

(examples based on Speas 1995:33 (17-18))

She claims that these data motivate the projection of AgrP in Swedish. I follow Speas in assuming that Swedish has an Agr head with its own projection.
permit referential null subjects. So the three TLs are classified as languages with a [-strong] Agr parameter value.

In chapter 2 I reviewed L2 studies, from which I concluded that inflectional morphology does not seem to correlate developmentally with other syntactic properties that are related (cross-linguistically and developmentally in L1A) to verbal inflection. In this respect, adult L2 acquisition seems to differ from child L1 acquisition in which clear correlations are found.\footnote{Vainikka and Young-Scholten (1996) propose that bound morphology does not function as a trigger of syntactic properties for adult learners, unlike what seems to hold for child L1 learners.} Therefore, I do not expect Spanish and Italian L2ers of Germanic languages to reset the parameter to [-strong] Agr on the basis of inflectional morphology of these languages. In other words, I do not anticipate a correlation between the acquisition of the TL inflectional paradigm and the absence of [+strong] Agr properties. Of course, this is not to say that these L2ers may not reset the parameter by means of a different trigger. Whether resetting takes place at all, is a matter of empirical research which logically precedes the question of triggers for resetting.

3.3.3.3 Subjects in the target languages Swedish, English, and German

The assumption that the TLs English, German and Swedish have [-strong] Agr and therefore require overt subjects to license the AgrP projection is compatible with the observational fact that these languages do not generally permit null subjects. The Germanic TLs differ crucially from Italian and Spanish in the sense that the former do not permit missing subjects in subordinate clauses while this is common in the null subject languages Italian and Spanish.

German permits subject omission under restricted conditions. In spoken German, either a subject or an object may be dropped.\footnote{There is an asymmetry between empty subject topics and empty object topics, as noted by Cardinaletti (1990). Subjects in all persons can be topic-dropped, but zero objects are restricted to third person singular.} Sentence (26a) has an overt subject and an overt object. In sentence (26b) the subject has been dropped, while in sentence (26c) the object has been dropped.

\begin{equation}
\begin{align*}
(26) & \quad a. \quad \text{Ich trage die schon.} \\
& \quad \text{I wear them already} \\
& \quad \text{‘I am wearing them already.’}
\end{align*}
\end{equation}

\begin{equation}
\begin{align*}
(i) & \quad a. \quad \text{Question: Siehst du mich?} & \quad \text{Answer: *Nein, ec seh ich nicht} \\
& \quad \text{see you me?} & \quad \text{No, (2sg) see I not} \\
& \quad \text{b. Question: Siehst du Anna?} & \quad \text{Answer: Nein, ec seh ich nicht} \\
& \quad \text{see you Anna?} & \quad \text{No, (3sg) see I not} \\
& & \text{(Hamann 1994:70)}
\end{align*}
\end{equation}
b. *E Trage die schon.
   wear them already
   ‘I am wearing them already’

   wear I already
   ‘I am wearing them already.’
   (Huang 1984:546)

In (26b) and (26c) the verb seems to be in sentence-initial position. Under the usual assumption that finite the verb is underlyingly V2, the missing NPs must have been dropped from the first position. Compare the sentences in (26) to the ungrammatical sentences in (27).

(27) a. *Die trage e schon.

b. *Ich trage e schon.
   (Huang 1984: 547)

In these sentences, the verb is in V2 (C0), but the first position (SpecCP) is already lexically filled and neither subject (27a), nor object (27b) may be dropped from any other than sentence initial position. The content of such empty elements is recovered from the discourse context. The observation that subjects and objects are dropped only from sentence-initial position has led to the conclusion that German zero pronouns are really zero topics (Huang 1984; Cardinaletti 1989). They must first be topicalised (moved to Spec-CP) before they can be deleted. This is especially apparent for object topics, since every fronted object must be a topic. Not every subject in initial position is a topic, however. Some are simple subjects.70

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70 Not all sentence-initial subjects are topics in German as expletives occur in this position, but cannot be topics.
An analysis of German topic-drop could be that there is some sort of null topic operator that occupies the specifier of CP. Although such an empty operator lacks phonological content, it can be argued to have semantic content, due to its scope-bearing features (Speas 1995:20). In this respect, null operators are different from pro which does not have any phonological or semantic content. Under the common assumption that German has only one topic position (the verb being in C), it follows that only one element can be deleted per sentence, hence the ungrammaticality of (28b).71

(28) a. Ich hab' ihn schon gekannt.
   "I have him already known."

b. *e hab' e schon gekannt.

Another consequence of the restriction that deletion may only take place from a topic position is that topic drop is not found in subordinate clauses or in wh-questions. Thus, in the distribution of null elements, there appears to be a sharp root/non-root asymmetry.72

71 The discussion of missing elements in German is limited the possibility of topic-drop here. However, the issue of missing elements is more complex, though. German also has null pleonastics in certain contexts (unlike Swedish and English) as the following examples show:

(i) a....daß getanzt wurde. b. *...daß es getanzt wurde. German
   that danced was that it danced was
   ‘...that there was dancing.’ (Speas 1995:46; Hamann 1994:69)

For possible explanations of these German facts see Speas 1995 or Tomaselli 1990.

72 In some varieties of spoken German this root/non-root contrast does not seem to obtain, exemplified in (ii).

(ii) a. Gestern hast das gekauft. b. Was hast gekauft?
    yesterday have-2sg that bought what have-2sg bought?
    ‘Yesterday you bought that’ ‘What have you bought?’

b. Was hast gekauft?
   what have-2sg bought?
   ‘Have you bought that?’

c. Hast das gekauft?
   have-2sg that bought?
   ‘Have you bought that?’

d. ?Ich weiss dass das gekauft hast.
   I know that bought have-2sg
   I know that you bought that
   (Hamann 1994:70)

However, the seeming absence of the 2sg pronoun is thus nothing but a phonetic illusion: the second person singular pronoun "du" is "te". This "te" in combination with the verb-ending -st seems to be schwa and often disappears completely. Therefore, these are cases of contracted forms, rather than of null subjects. L2ers of German
Swedish allows referential null subjects in imperatives (29a), in co-ordinated clauses (29b), and "contextually determined referential null subjects (topic drop) of the type found in dialogues" (29c) and (29d) (Holmberg and Platzack 1995; 99, fn3). Topics may only be dropped from clause-initial position (cf. 29e).

(29) a. Spring!  
   Kalle for till Västerås och (han) kom sen inte tillbaka.  
   Vad gör Peter i kväll? (Han) tittar på fotboll.  
   (Jag) sänder här ett foto som jag tog i somras.  
   (I) send here a photo that I took last summer  
   *Jag sänder här ett foto som tog i somras.  
   I send here a photo that took last summer

(29e) (examples from Hammarberg and Viberg (1977))

For Swedish topic-drop, I assume an analysis similar to the analysis for German topic-drop given above. Although English normally does not permit subject omission, it does occur under restricted circumstances, such as in diary contexts (e.g. 30a), some questions (e.g. 30b) and with non-thematic subjects (e.g. 29c).

(30) a. Had a wonderful day today.  
   b. Wanna leave?  
   c. Seems like it's gonna rain.

Haegeman (1990) adopts a topic-drop analysis for these understood subjects on the basis of the descriptive generalization that they can only be left out from sentence-initial position and their referents must be found in the discourse context. The phenomenon which has come to be known as "diary-drop", appears to be a heavily constrained version of topic-drop as it does not allow object-topics to be dropped and only occurs in particular registers of English.

may mistake such contractions in the input for evidence that subject pronouns may be omitted in German.

73 Imperatives usually do not have overt subjects in most languages.

74 Unlike German, Swedish does not permit omission of pleonastics with the exception of sentences beginning with an adverbial of place (cf. Stowell 1981; Falk 1987, 1993; Hoekstra and Mulder 1990):

(i) I gräset kan finnas ormar  
   in the-grass may be snakes

(Holmberg and Platzack 1995;100,fn5)
Haegeman concludes that this language internal variation is due to a parametric difference between the core grammar of English which does not allow null elements and the peripheral grammar, found in, for instance, the diary register.

Summarizing the facts concerning subjects in the three target languages, subjects may never be omitted from positions that are not sentence-initial. This means subjects are never omitted from wh-questions and subordinate clauses, contrary to what is found in the pro-drop languages Spanish and Italian.

Hypothesis 6 (Full Access)
If L2ers reset the parameter to [-strong] Agr, SpecAgr must be filled by a subject to license AgrP. As a consequence, L2ers’ subjects must always be overt in subordinate clauses, once the parameter has been reset.

3.3.3.4 Verb movement in the target languages: no VS in English declarative, subordinate clauses

The three target languages Swedish, German and English are assumed to have a [-strong] Agr value, which means that agreement affixes are not base-generated in Agr. Because of the absence of unbound agreement affixes in Agr, there are no stray affixes to force the verb to move to Agr at PF (by Lasnik’s filter) in any of the three languages. As mentioned before, however, this does not imply that none of these languages has any verb movement. There seems to be general consensus on the assumption that the main verb stays in-situ (VP-internally) in English. A similar lack of overt verb movement is assumed to hold for (most) Swedish subordinate clauses. However, both Swedish and German main clauses show clear V2 effects, which is commonly taken as evidence for verb movement to C. Furthermore, German subordinate clauses are often assumed to have V-to-Agr, (although operation of this movement is obscured by the fact that German subordinate word order is SOV). Let us take a closer look at the verb movement properties of the three TLs, before the last hypothesis is presented.

Like most other Germanic languages, Swedish is a verb second (V2) language. This means that the finite verb is required to surface in second position in declarative main clauses and direct complement questions. At a descriptive level, the second position is the position immediately to the right of a clause-initial constituent, such as the subject in (31a), or any other topicalised phrasal unit, such as the wh-element in (31b) or the adverb in (31c). The V2
constraint excludes matrix clause word orders with the finite verb in first or third position, as is illustrated by the ungrammaticality of 31d) and (31e).75

(31) a. Lena köpte en ny bok
    Lena bought a new book
b. Vad köpte Lena?
    What bought Lena?
c. Igår köpte Lena en ny bok
    Yesterday bought Lena a new book
d. *Köpte igår Lena en ny bok
    Bought yesterday Lena a new book
e. *Igår Lena köpte en ny bok
    Yesterday Lena bought a new book

I follow the standard analysis of the V2 phenomenon that the finite verb raises to C in root clauses (den Besten 1977; Thiersch 1978, but see Travis 1984, 1986, 1991; Zwart 1990, 1993 for alternative analyses). The V2 constraint requires the finite verb to move to C, the position immediately to the left of the subject in SpecAgrP. The subject may move on to SpecCP, leading to an SV order as in (31a). If, however, another constituent occupies SpecCP, the subject remains in SpecAgrP as only one constituent at a time may occupy SpecCP. In the latter case the finite verb moves across the subject, resulting in subject/verb inversion, that is, VS order, exemplified in (31b) and (31c).

Swedish also has cases of embedded V2. Especially in spoken Swedish, embedded clauses introduced by the complementisers att 'that', and för, för att, därför, and därför att 'because', often have main clause word order, with post-verbal positioning of sentence medial adverbs and negation (Teleman 1967; Andersson 1975:18; Platzack 1987; Roberts 1993:58).76

(32) a. ...att igår köpte Lena en ny bok
    ...that yesterday bought Lena a new book
b. *Att igår köpte Lena en ny bok, vet jag.
    That yesterday bought Lena a new book know I.

75 The term V2 as it is used here means that the finite verb occurs in C. It includes constructions such as Swedish yes/no questions in which the finite verb appears in clause initial position (V1) instead of in second position (Köpte Lena en ny bok?). By the same token, there are many non-V2 languages in which the finite verb often appears in second position, although it is not in C (e.g. English, French etc.).
76 Roberts (1993:58) suggests that such cases of embedded V2 are closely related to the phenomenon of embedded V2 that only occurs when the embedded clause is the complement of a certain kind of matrix verb. This class of verbs is sometimes referred to as 'bridge' verbs (e.g., know, say, believe, think, see). However, it is very difficult to define the exact properties of the matrix verbs that permit embedded V2.
It must be noted here that subordinate clauses introduced by these complementisers also permit non-V2 orders. In fact, embedded V2 is never possible when the subordinate clause precedes the main clause as in (31b). Vikner (1995:72) observes that the possibility of embedded V2 is subject to individual variation. What is clear, however, is that embedded V2 never occurs in embedded questions. Only subordinate clauses that express an assertion may have main clause word order (Andersson 1975).

The examples in (33) show that in German the finite verb follows the first constituent, just like in other Germanic V2 language like Swedish. As was said with respect to Swedish V2, movement of the finite verb to C obscures whether V-to-Agr movement takes place in V2 contexts.

(33)  
| a. | Hans ließ ein Buch. | German |
| b. | Welches Buch hat Hans gelesen? |
| c. | Dieses Buch hat Hans gelesen. |
| d. | Vielleicht hat Hans dieses Buch gelesen. |

In German subordinate clauses, the finite verb does not move to C. However, unlike in Swedish, it is difficult to determine whether the German finite verb moves to Agr or remains in situ in such non-V2 contexts. This is due to the basic order of the verb and its complements, which is SOV (subject-object-verb) in German (see e.g. Koster 1978; Thiersch 1978; Den Besten 1983; Koopman 1984).

Unlike other Germanic languages, English is not a V2 language. The ungrammaticality of the sentences in (34), indicates that neither finite main verbs, nor auxiliaries or modals move to C.

(34)  
| a. | *In actual fact reads John often this newspaper |
| b. | *In actual fact has John often read this newspaper |

(35)  
| a. | Which movies did Mary want to see? |
| b. | *Which movies wanted Mary to see? |
| c. | Under no circumstances would Mary watch artsy movies. |
| d. | *Under no circumstances watches Mary artsy movies. |

However, English does exhibit V2 with fronted wh-elements (35a) and topicalisation of affective elements (35c), for which it is sometimes referred to as a “residual V2 language” (cf. Rizzi 1990, 1991).

Questions and negative topicalisations just cause auxiliaries and modals (and dummy ‘do’) to move to C. As the ungrammaticality of (35b) and (35d) shows, it is never the main verb that moves up in “residual V2” contexts. The movement
behaviour of English main verbs differs also from that of auxiliaries and modals, in that only the latter show independent V-to-Agr movement (cf. (36a) and (36b)). While auxiliaries may precede medial adverbs, lexical verbs must follow these elements (cf. the ungrammaticality of (36c) and (36d)). This descriptive observation motivates many linguists to postulate that English lexical verbs stay in-situ, whether they are finite or not, and in main and subordinate clauses alike.

77 Vikner (1995:141) notes that “dare” and “need” sometimes behave like main verbs (cf. (vi-a) with finite inflection, accompanied by the infinitive marker “to”, and staying in-situ), and sometimes like modals (cf. (vi-b), without inflection, without “to”, but raising to Agr).

(v) a. He never needs to raise his voice at all
   b. He need never raise his voice at all

78 Adverbs in French and English can occur both to the left and to the right periphery of the sentence, but for the moment we are just concerned with the position of sentence-internal adverbs.

What are the implications of these verb movement properties for my last hypothesis? As was mentioned above, Swedish and German V2 obstructs detection of evidence that the parameter has been reset to [- strong] Agr: if VS surface orders are found in the IL data of Romance L2ers of Swedish and German, we cannot be certain whether these VS orders result from TL-like V2 effects, or from a failure to reset the parameter. If learners of Swedish or German produce TL-like word orders in subordinate clauses this not yield evidence for parameter resetting either, but for different reasons. German has SOV orders in declarative subordinate clauses and Swedish permits subject-verb inversion in declarative subordinate clauses. This leaves English as the only language to test my last hypothesis.

Hypothesis 7 (Full Access)
If L2ers reset the “Agr strength” parameter to the [- strong] Agr value, SpecAgrP must be filled by a subject to license AgrP and V can stay in situ since agreement affixes are generated directly on the verb in V. As a consequence, VS orders with the main verb preceding never occur in declarative sentences if the TL is English.
3.4 Summary of theoretical assumptions and empirical predictions

The version of the Null Subject Parameter adopted in this study is based on Speas (1995). The theoretical assumptions and empirical predictions that were made in this chapter are briefly reviewed here for ease of reference. Spanish and Italian are the native languages of the learners whose data are described in chapter 4. In Spanish and Italian, rich agreement affixes are base-generated in Agr instead of on the verb in V. This state of affairs represents the [+ strong] Agr value of the Null Subject Parameter. Speas' economy condition that minimally the head or the specifier of each maximal projection must have lexical or semantic content is thus fulfilled: VP gets content via the verb that is base-generated in V, while AgrP gets content via the base-generation of agreement affixes in Agr. The specifier positions of the maximal projections VP and AgrP may thus remain empty, although they may also be filled. The cluster of surface properties related to the [+ strong] Agr value of the parameter thus falls out from the interaction of the following underlying mechanisms.

1. Rich agreement inflection on the finite verb is the necessary condition for the [+ strong] Agr parameter setting under which agreement affixes are base-generated in Agr.

2. Given [+ strong] Agr, SpecVP and SpecAgrP remain empty unless the reference of the element that can occupy these structural positions (the subject) must be made explicit.
   a. Overt (pronominal) subjects are thus only used when the subject is first introduced, or disambiguated or emphasised (and with certain non-finite constructions).
   b. Overt expletive subjects are not used because expletives do not have referential content and are not needed to fill the structural position SpecAgrP and SpecVP either.
   c. ‘Missing subjects’ occur in main and subordinate clauses alike as there is no difference between the conditions on main or subordinate AgrPs and VPs.

3. Given [+ strong] Agr, the finite verb must move to Agr to support the agreement affixes that are base-generated there in accordance with the universal principle that requires bound morphemes to appear on a host.

4. The assumptions that SpecVP and SpecAgrP may remain empty at PF, and that V-to-Agr movement applies in finite clauses also account for Italian subject-verb inversion in declarative sentences. In VS constructions, the overt subject remains in its VP-internal base-position (in SpecVP with transitive and unergative verbs, and in the complement
of VP with unaccusative verbs). The overt subject does not move to SpecAgrP at PF since SpecAgrP may remain empty. The VS order derives from the assumption that the finite verb must move to Agr to support the agreement affixes that are base-generated there, thus structurally preceding the subject in SpecVP at PF.

Empirical evidence for Full Transfer of the L1 value of the Null Subject Parameter of native Spanish and Italian L2ers would involve the clustering of the following surface features during their early stages of acquiring Swedish, German or English. To illustrate which properties are hypothesised to co-occur in the learner data of chapter 4, relevant examples from chapter 3 are repeated below.

1. Subject omissions (see section 3.3.2.2, examples 14 a and b):
   a. Expletive subjects are generally missing:
      ▪ Rains
      ‘It rains’
      ▪ Seems that Gianni is ill
      ‘It seems that Gianni is ill’
   b. Subject omissions are found in both main clauses and subordinate clauses introduced by a complementiser (see section 3.3.2.2, examples 15b-c):
      ▪ Know what you said
      ‘I know what you said’
      ▪ Gianni sings when is happy
      ‘Gianni sings when he is happy’

2. VS constructions in declarative clauses (see section 3.3.2.4, examples 19a-b):
   ▪ Has telephoned Beatrice
      ‘Beatrice has telephoned’
   a. Only VOS (not VSO) orders may occur in declarative clauses of native Italian L2ers;
   b. Both VOS and VSO orders may occur in declarative clauses of native Spanish L2ers:
      ▪ Made Miguel a resigned gesture
      ‘Miguel made a resigned gesture’

3. Verb placement relative to adverbs (see section 3.3.2.3, example 17):
   a. SVAO: the adverb intervenes between the finite transitive verb and its complement;
b. SVVAO: the adverb follows the auxiliary and transitive verb, but precedes its complement:

- That doctor will solve completely your problems
  (That doctor will solve your problems completely).

In short, if Full Transfer holds, all features that are typical of the Spanish and Italian Null Subject Parameter value [+ strong] Agr are expected to occur in the IL data, with the important exception of rich verb inflections. This prediction is based on the well-attested fact that the L1 inflectional morphology does not carry over into the L2. Importantly, however, the absence of the morpho-phonological realizations of the underlying grammatical property [+ strong] Agr, is predicted not to affect the other surface properties (see chapter 5 for an explanation).

Evidence for Full Access (resetting of the parameter to the non-null subject, or [- strong] Agr value) involves the clustered unlearning of the null subject properties. In other words, the null subject properties listed above must be absent.

1. There are no cases of subject omission in subordinate clauses
2. There are no verb-subject orders in declarative English utterances
3. There are no SVAO orders in English

Unambiguous evidence for remnants of the null subject property of subject-verb inversion can only be found in the English learner data, given that both German and Swedish are verb second (V2) languages with VS orders in main clauses (and in some subordinate clauses in Swedish). A similar restriction holds for evidence of unlearning of Spanish-like and Italian-like SVAO orders: due to German and Swedish V2, we cannot be certain whether SVAO orders are cases of TL-like V2, or remnants of L1 orders. Of course, if learners of German and Swedish stop using SVAO orders altogether, this may mean that they have reset the Null Subject Parameter, but have not mastered the V2 property of the target languages. However, we are looking for clustered unlearning of the null subject properties. Since English does not permit SVAO orders at all, English learner data may afford more precise timing of the concerted loss of SVAO orders together with other null subject properties: if SVAO orders are found in the English data, while subject-verb inversion and subject omissions no longer occur, this can be taken as evidence against Full Access.