Agreement and Null Subjects

To say that the relationship between verbal agreement and the possibility of null subjects in a language is not a new area of inquiry is something of an understatement. In the three and a half decades since Perlmutter (1971) first tackled the issue from a generative perspective, the Chomskyan tradition alone has produced a dauntingly vast literature devoted to the subject, to say nothing of treatments in other traditions. Yet for all this attention, the consensus on the nature of the relationship is no greater now than it was then and while it would be unfair to suggest that no progress has been made, it would be equally disingenuous to pretend that research has been consistently cumulative.

Although the object of inquiry has remained essentially the same (new data notwithstanding), the broader questions constituting the research context in which that object has been studied have not. For the generative linguist working in the Government and Binding Theory of the 1980s and early 1990s, the study of human language was concerned principally with the internal properties of a specific module of the mind/brain, as the following research questions illustrate:

(1) What constitutes knowledge of language?
   How is knowledge of language acquired?
   How is knowledge of language put to use? (Chomsky, 1986a:6)

Although related, there are important differences between these questions and the following, which arguably define Chomsky’s Minimalist Program.

(2) What are the general conditions that human language can be expected to satisfy?
   Which of these are imposed on the language faculty by virtue of
   (a) its place within the array of cognitive systems of the mind/brain?
   (b) general considerations of conceptual naturalness that have some independent plausibility, namely simplicity, economy, symmetry, nonredundancy, and the like?
   To what extent is the language faculty determined by these conditions, without special structure that lies beyond them? (after Chomsky, 1995:1)
Research in this paradigm is less concerned with the mechanisms of the language module for their own sake than for the extent to which they can shed light on whether the design of the language faculty is an ‘optimal solution’ to the design specification imposed upon it by its neighbouring cognitive systems. The remainder of this chapter will consider the implications of the shift of emphasis between Government and Binding Theory and the Minimalist Program for the study of null subjects.

1 PARAMETERS IN GENERATIVE GRAMMAR

1.1 The Advent of Parameters

One of the defining characteristics of generative grammar in the Chomskyan tradition has been the answer it proposes to the problem of the poverty of the stimulus (also known as Plato’s Problem). As Chomsky himself put it, the problem “for the child learning the language … is to determine from the data of performance the underlying system of rules that has been mastered by the speaker-hearer and that he puts to use in actual performance” (Chomsky, 1965:4). Given the incomplete and indeed often contradictory nature of the performance data, this task would be impossible, so it was argued, if the child were not genetically endowed with knowledge of “deep seated regularities which, being universal, are omitted from the grammar itself” (Chomsky, 1965:6). The task of the generative linguist was therefore “that of developing a hypothesis about initial structure that is sufficiently rich to account for acquisition of language, yet not so rich as to be inconsistent with the known diversity of language” (Chomsky, 1965:58). As study of individual languages proceeded, however, it became increasingly clear that there was a discrepancy between the truly universal and such properties as could reasonably be expected to be learned on the basis of the primary linguistic data alone\(^1\) and this led in the early 1980s to the proposal that universal grammar is parameterised, admitting of a range of mutually exclusive options in any given area of grammar, one of which was supposed to be selected by the child on the basis of salient triggers in the primary linguistic data.

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\(^1\) Given the importance of the move to the Principles and Parameters approach, it is perhaps surprising in retrospect that the question of what a child should be considered capable of learning without the help of universal grammar was never treated in any systematic way.
1.2 Pro-Drop as the Parameter *Par Excellence*

It was against the background of the search for parameters that the study of null subjects became a topic of central importance to the generative enterprise. As early as 1971, long before the concept of parameter had been espoused, Perlmutter noted that languages (such as Spanish) which allow null subjects (3) also allow extraction of subjects from embedded clauses headed by an overt complementiser (4), while languages with obligatorily overt subjects (such as English) do not allow such a transformation (5-6).

(3) (Nosotros) he-mos trabaja-do todo el dia
(we) have-1PL.PRES work-PTCP all the day
‘We have worked all day’ (Perlmutter, 1971:103)

(4) Quien diji-ste que sal-i-ó temprano
who say-2SG.PAST that leave-PAST-3SG early
‘Who did you say left early’ (Perlmutter, 1971:103)

(5) *(They) ate the soup without a spoon (Perlmutter, 1971:99)

(6) Who did he say (*that) fainted? (Perlmutter, 1971:102)

Furthermore, he observed that those languages which allow null thematic subjects also allow non-thematic subjects (7), which languages such as English do not (8).

(7) (*Él) es tarde
(*it) is late
‘It is late’ (Perlmutter, 1971:104)

(8) *(It) is late (Perlmutter, 1971:104)

Almost a decade later, Kayne (1980) suggested that the same class of languages as allow null subjects and extraction of this kind also allow free inversion of a subject and unaccusative verb in a way that the other class does not, as the following examples from Italian (9) and English (10) illustrate.
This cluster of superficially unrelated and intuitively intractable properties was a prime candidate for analysis as a parameter. If it could be shown that the possibility of free subject inversion and subject extraction of the kind described above necessarily followed from the availability of null subjects in a language, then the burden on the child learning a language would indeed be significantly reduced provided that (as was widely accepted at the time) null subjects are made available in a given language by the presence of rich agreement. All that was required of the child in order for him or her to set this parameter was to identify the presence or absence of rich agreement in the target language, this presumably being sufficiently salient a property as to be able to function as a trigger in the primary linguistic data. Rizzi (1982) showed that these correlations did indeed follow, if null-subject languages were assumed to have as part of their lexical inventory a null pronominal category \textit{pro} not available in languages of the English-type, an idea first advanced by Chomsky (1982). Under this analysis, it was not necessary to modify the claim that the \textit{that}-trace filter was a linguistic universal, since the element supposedly extracted from the subject position of the embedded clause could just as easily have been extracted from further down the structure. In these and in subject-inversion constructions, the subject position could be said to be occupied by an expletive \textit{pro} satisfying the Extended Projection Principle (also assumed at the time to be universal), an option not available in languages in which this category was not available.

\textbf{1.3 Empirical Problems}

For all the unparalleled elegance of Rizzi’s account, it could only ever be as good as the generalisations for which it accounted were true and given that these had been proposed on the basis of only a handful of languages, it was perhaps inevitable that they would prove to be too strong or even completely spurious. In a study of the null subject parameter covering a hundred languages, which put these correlations to the test, Gilligan (1987:Ch.2) found that none of the relationships between the phenomena under scrutiny were biconditional and that that the availability of null thematic subjects did not correlate at all with either free subject
inversion or the possibility of apparent violations of the *that*-trace filter. The following is a summary of his findings.

(11) A language with null thematic subjects also has null expletives

A language which allows free subject inversion also has null expletives

A language which allows free subject inversion also allows apparent violations of the *that*-trace filter

A language which allows apparent violations of the *that*-trace filter also has null expletives (after Gilligan, 1987:147)

One correlation in which null thematic subjects are implicated that did appear to be correct, however, was the relationship between rich agreement and null arguments that is the subject of this dissertation. Of course, it was already known from work by Huang (1984, 1989), that Chinese allowed null arguments of all kinds, despite these not being tracked by any visible agreement markers whatsoever on the verb and equally that there were languages such as Icelandic and German which have rich verbal agreement but do not allow null subjects. The thoroughness of Gilligan’s study, however, which included not only subject arguments of finite clauses but also infinitival and imperative subjects, direct and indirect objects, possessors and objects of adpositions, revealed an important difference between the two classes of language. The following table, summarising Gilligan’s findings, shows the number of languages with null arguments and agreement (Ø+A), null arguments and no agreement (Ø–A), obligatorily overt arguments and agreement (*Ø+A) and obligatorily overt arguments and no agreement (*Ø–A). It conflates information that Gilligan presents in two tables, the figure before the plus sign being the number of languages with a given property in Gilligan’s own survey and the figure after the plus sign being the number of languages already surveyed by other researchers with that same property.

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2 Since Icelandic constitutes a lone, albeit robust, counterexample to this correlation, Gilligan deems it to be only ‘statistical’. However, noting that an exceptionless implicational relationship is derivable from the third and fourth lines of (11) by transitivity, he suggests that Icelandic subject inversion is “ripe for reanalysis” (Gilligan, 1987:147).
While none of the columns is empty, it is striking that the only environments in which an overt argument must co-occur with an agreement marker are subject positions. Given the exceptional and cross-linguistically diverse nature of subject positions, it is entirely plausible that null subjects are in fact licensed in principle by the rich agreement in the languages represented in the *Ø+A column, but that independent constraints prevent this option from ever being realised. This view also accords with the fact that there are languages with defective agreement paradigms in which arguments may remain unexpressed only in those parts of the paradigm where agreement is marked. In São Tomé Creole, null subjects are possible only with first person arguments, which are also the only arguments to trigger agreement in the form of a prefix *i– on the tense marker (13-14). In Ecuadorian Quechua, on the other hand, subjects may be omitted in finite clauses in which verbs always agree with their subjects (15), but not in nominalised embedded clauses, in which they do not (16).

(12) | Ø+A | Ø–A | *Ø+A | *Ø–A | Not conclusive³ |
<table>
<thead>
<tr>
<th></th>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>Thematic subject</td>
<td>76+14</td>
<td>17+1</td>
<td>2+9</td>
<td>9+2</td>
</tr>
<tr>
<td>Infinitival subject</td>
<td>1+2</td>
<td>50+17</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Imperative subject</td>
<td>32+0</td>
<td>72+21</td>
<td>0</td>
<td>1+0</td>
</tr>
<tr>
<td>Expletive subject</td>
<td>12+11</td>
<td>21+3</td>
<td>2+5</td>
<td>0+6</td>
</tr>
<tr>
<td>Direct object</td>
<td>56+8</td>
<td>18+8</td>
<td>0</td>
<td>28+10</td>
</tr>
<tr>
<td>Indirect object</td>
<td>26+6</td>
<td>0</td>
<td>0</td>
<td>74+14</td>
</tr>
<tr>
<td>Possessive</td>
<td>55+6</td>
<td>3+1</td>
<td>0</td>
<td>42+14</td>
</tr>
<tr>
<td>Object of adposition</td>
<td>21+4</td>
<td>0+1</td>
<td>0</td>
<td>79+16</td>
</tr>
</tbody>
</table>

(13) (a’mi) i-ka ba dumí’ni
(I) 1SG-AOR go sleep
‘I will go to sleep’ (Ivens Ferraz (1978), quoted in Gilligan (1987:164))

³ The large numbers in this column are due to many languages having nominalised rather than infinitival forms and to the sources consulted not giving any information on the behaviour of expletives.
*(bo) ka ba dum'i'ni
*(you) AOR go sleep
‘You will go to sleep’ (Ivens Ferraz (1978), quoted in Gilligan (1987:164))

(Ñuka) Marya-ta juya-ni
(I.NOM) Mary-ACC love-1SG.PRES
‘I love Maria’ (Cole (1982), quoted in Gilligan (1987:165))

Juan-ka [*ñuka) Marya-ta juya-j-ta] ya-n
Juan-TOP [*I.NOM) Mary-ACC love-NMLZ-ACC] think-3SG.ACC
‘Juan thinks that I love Maria’ (Cole (1982), quoted in Gilligan (1987:165))

1.4 Limitations of Government and Binding Theory
The size of Gilligan’s sample and the care taken in selecting languages representative of the
genetic diversity of the languages of the world (based on Ruhlen, 1987) make this dissertation
the most comprehensive cross-linguistic study of the null subject parameter in the generative
tradition to date and as such his conclusions must be taken seriously. Yet for all its empirical
comprehensiveness, and in spite of extensive discussion of the matter in the opening chapter,
Gilligan’s work suffers from a failure to work through the full implications of the differences
between the essentially taxonomic goals of a Greenbergian survey and explanatory adequacy
as the raison d’être of generative grammar. Since the mid-1970s, linguists in the Chomskyan
tradition have taken particular constructions (such as the passive) to be no more than
epiphenomena, resulting from the interaction of general principles with the properties of
individual items drawn from the lexicon. One consequence of this approach (supplemented by
a theory of parameters to allow for variation) is that any two such epiphenomena found to
have the same distribution cross-linguistically are assumed to instantiate a single abstract
property of the language, Rizzi’s (1982) theory, as described above, being an example of this
kind. If it is abstract properties such as these that are to be surveyed and correlated, a paradox
emerges: since, in order to avoid circularity, the phenomena under investigation must be
defined independently of one another, any correlation found to obtain is evidence of the
failure of the definitions to capture the underlying property which they instantiate and hence
of their lack of explanatory adequacy. Contrary to what Gilligan seems to claim, simply
defining the surveyed phenomena in the terminology of Government and Binding Theory is
not sufficient for a felicitous integration of generative grammar into typological study.
This paradox will remain as long as no principled distinction is made between the level at which the objects of study are defined and that at which correlations between them are to be explained. While the distinction in Government and Binding Theory between the levels of D- and S-structure could potentially be exploited to this end, the fact that the properties of the surface representations are a direct product of their derivation makes it difficult to imagine how this could be achieved in any insightful way whilst still avoiding circularity. Gilligan opts instead to define the survey phenomena in as theory-neutral a way as possible, with the consequence that his definitions are rather *ad hoc*. A construction is considered to contain a null pronoun if:

(17) a) the construction is not coordinate, elliptical, or the answer to a question; and
b) either there is an E[mpty] C[ategory] … in a site which is predicted by the projection principles, e.g. subject, direct object, indirect object, object of adposition;
or there is a syntactically active gap, i.e. a possible controller, in a site which may be filled by a pronoun;
or there is an obligatorily non-generic pronominal interpretation without a corresponding syntactic argument; and
c) the EC does not obey binding conditions A or C, i.e. it is not obligatorily bound within the minimal sentence containing it nor bound by a non-thematic antecedent. (Gilligan, 1987:186)

And a form is considered to be an agreement marker if it:

(18) a) is a dependent form (either a clitic or an affix); and
b) minimally contains the pronominal feature of person; and
c) yields a pronominal interpretation in the absence of an overt argument with which it agrees; and
d) satisfies one of the following tests:
   i) dependency test: it must remain a dependent form under all varieties of speech; or
   ii) co-occurrence test: it must be able to co-occur with a lexical subject; or
   iii) suppletion test: in slow speech it must be distinct from ‘strong’ pronoun forms. (Gilligan, 1987:186-187)
While these definitions may in practice capture accurately the kinds of construction thought of as involving null arguments and the set of elements intuitively thought of as agreement markers respectively, their disjunct nature suggests that these sets do not denote a natural class, or if they do, that the defining feature has not been identified.

It would be easy to criticise Gilligan for settling for these superficial definitions rather than probing deeper into their common underlying properties, but the problem is in fact inherent in the theoretical framework within which he was working. Government and Binding Theory, being concerned solely with the internal architecture of the faculty of language rather than the way in which it interacts with other faculties of the mind/brain had no means of characterising the phenomena in pre-theoretical terms, a problem which will persist as long as no theory of possible surface forms, independent of the computational component, is available. The shift of emphasis in the goals of the Minimalist Program, however, and the claims it makes about the relationship of the language faculty to its neighbouring cognitive systems render such definitions possible. In construing LF and PF as interfaces with neighbouring conceptual-intentional and articulatory-perceptual systems respectively and acknowledging that these systems may determine certain properties of the language faculty, the Minimalist Program takes a first step towards just such a theory. Null arguments and agreement can now be defined in terms of relationships between the interface representations, the former being present when an element of the meaning of that structure (i.e. of the conceptual-intentional representation associated with it) does not correspond to any phonetic string (or strings) in the articulatory-perceptual representation and the latter being the reverse case, where an element of meaning corresponds to more than one phonetic string.

Interestingly, the canonical null-subject construction, in which overt verbal morphology allows a subject pronoun to remain phonetically unexpressed, does not fall under either of these definitions, since it represents a one-to-one correlation between a phonetic string (the agreement) and part of the semantic content (the referent of the suppressed pronoun). Whether this is treated as such (cf. Manzini and Savoia, 2002, Platzack, 2003, 2004) or as two zero-to-one relationships will depend on how thematic relations are taken to be encoded: adopting a strict version of the Uniformity of θ-Role Assignment Hypothesis (Baker, 1988) will force the latter analysis; a theory of the kind adopted by Manzini and Savoia (2002) that accords no special significance to the position in which an element is first merged may admit either possibility.
2 OVERVIEW OF THE DISSERTATION

The present study seeks to examine anew the relationship between agreement and null arguments, taking as its starting point the pre-theoretical definitions of the two phenomena facilitated by the model of the architecture of the language faculty as espoused in the Minimalist Program. Rather than replicate the scale of Gilligan’s survey, it concentrates on three genetically unrelated languages (Finnish, Modern Standard Arabic and Modern Irish), which despite their relative geographical proximity are also unlikely to have had contact with each other. This increases the likelihood of any generalisations that emerge being directly attributable to inherent properties of the language faculty.

The following chapters will examine the ways in which arguments (assumed throughout to be the element of meaning under consideration) might come to be associated with substrings of the phonetic representation associated with a given structure, arguing that there is no reason to suppose that they should be any more likely to be associated with phrasal constituents than with heads (or vice versa). Chapter two reviews existing literature on the nature of agreement and its relationship to argument structure and as such tackles the problem from a primarily theoretical perspective. Chapter three addresses the specific empirical problem of Finnish possessor agreement, concluding that the most elegant account of the data is that which allows uninterpretable features to be lexically valued, a possibility argued at the end of chapter two to require no more computational machinery (and hence to be no less conceptually appealing to the minimalist mindset) than the more widely propagated alternative where uninterpretable features always enter the syntax unvalued and the model thus developed is applied to Modern Standard Arabic and Modern Irish in chapters four and five respectively. Chapter six returns to Finnish, showing that while agreement morphemes in some pro-drop constructions are best construed as bound arguments, this is not universally true and that there are cases in which a phonetically null category must be postulated. It is argued that the existence of a null category pro with unvalued interpretable φ-features is not only conceptually preferable to deletion analyses of the same phenomena, but is in fact to be expected in a system in which interpretability and valuedness are not biconditionally related.