

6 Near-Nativeness

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1 Introduction

One of the central questions in contemporary adult second language acquisition theory is whether, and to what extent, Universal Grammar (UG) still constrains the acquisition process: given that adults can rely on general cognitive abilities, it is at least conceivable that they may use them, instead of UG, in the task of learning a second language, particularly if UG, for maturational reasons, ceases to operate after a certain age. Indeed, this may appear intuitively plausible, given two obvious differences between first (L1) and second (L2) language acquisition: first, adult learners already know (at least) one other language: the *initial state* of the child and of the adult are not the same (e.g., Schwartz, 1998; Schwartz and Eubank, 1996; Schwartz and Sprouse, 1994); second, unlike children, who reach perfect mastery of whatever language they are exposed to, many adults after long periods of exposure to a second language display varying degrees of “imperfection” (by monolingual native standards), and even those who are capable of nativelike performance often have knowledge representations that differ considerably from those of native speakers (Sorace, 1993). So not only the initial state but also the *final state* of the child and of the adult learner are different.

But how different can the final state be? Research specifically focused on ultimate attainment can tell us what kind of “steady state” can be reached in non-primary language acquisition, whether such a state is quantitatively and/or qualitatively different from the monolingual steady state, and whether it is UG-constrained. The characteristics of the best attainable final state – that is, the competence of near-native speakers – are, in a sense, more revealing of UG constraints on L2 acquisition than those of other stages (see Borer, 1996, on this point). If it is found, for example, that intermediate grammars appear to violate UG, the argument can always be made that, given more input, or more time, or a better learning environment, the non-native grammar may in due course converge on the target. However, if adult learners have become virtually

undistinguishable from native speakers, and continue to benefit from full exposure to the L2, they can be assumed to have progressed to the furthest attainable competence level: any differences between their grammar and the target grammar may be considered permanent, and any difference that embodies a UG violation may likewise be regarded as a permanent feature of this grammar.

The evidence from second language acquisition research is rather contradictory. On the one hand, adult second language acquisition is regarded as (i) incomplete, (ii) variable, and (iii) non-equipotential in comparison with L1 acquisition (see Bley-Vroman, 1990). We know that there are some age-related effects: generally speaking, starting young seems to confer some advantages, although it is by no means clear what the reasons are (Johnson and Newport, 1989; Long, 1990). On the other hand, we also know that there is a “logical problem” of second language acquisition; that properties that are not instantiated in the L1 and are not explicitly taught may be successfully acquired; and that interlanguages are, by and large, natural languages (i.e., they present no violations of Universal Grammar), although they may also be shaped by other cognitive principles (White, 1989, this volume).

Most research to date adopts as points of reference the monolingual native speaker and L1 acquisition by monolinguals. In addition, knowledge of the L1 is regarded as a factor that can have a determinant influence on L2 attainment but is itself unaffected by it. It will be suggested in this chapter that the majority of non-native speakers may develop a competence – *in both the L2 and the L1* – which differs, often in non-obvious ways, from the monolingual native’s (Sorace, 1999, 2000a, 2000b). The phenomenon of optionality, which is the central focus of this chapter, is one such non-obvious difference that characterizes near-native grammars.

The chapter is structured as follows. Section 2 provides a short overview of research on ultimate attainment. Section 3 examines the phenomenon of optionality, exploring some of its implications for theories of generative grammar and comparing its manifestations in the development of child grammars and adult interlanguage grammars. Section 4 deals with constraints on optionality. Section 5 sketches out the effects of L2 ultimate attainment on the L1 grammar of the near-native speaker in terms of emerging optionality. Finally, section 6 draws some general conclusions.

2 Perspectives on Near-Nativeness and Empirical Evidence

Empirical studies of near-nativeness to date have focused on the “completeness vs. incompleteness” issue (see, e.g., Schachter, 1990). The reasoning guiding this research has been that if near-natives have the same knowledge as that exhibited by natives, the existence of UG constraints on L2 acquisition is confirmed; if, on the other hand, near-natives do not possess this knowledge, their

competence is missing particular properties because it is not UG-constrained. This line of argument is fundamentally flawed because it does not consider the possibility of other UG-constrained final outcomes (see Sorace, 1996a; White, 1996). Furthermore, the assessment of near-nativeness has targeted isolated grammatical properties, rather than clusters of properties related to particular parameters. As Neeleman and Weerman (1997) maintain, success in the acquisition of what they call “construction-specific” parameters (i.e., parameters that are manifested only in one construction) is compatible both with a general learning strategies model and with a UG model, thus making it difficult to distinguish between the two. In contrast, success in the acquisition of parameters that are tied to a number of different constructions is unambiguously due to UG constraints, since such parameters entail a range of empirical consequences beyond the input to which the learner is exposed.

More generally, existing studies of near-nativeness support a variety of (often contradictory) conclusions, reflecting a lack of consensus over what counts as “UG-constrained behavior” and ultimately about what counts as “near-native.” The following brief summary of the main studies carried out to date will highlight this multiplicity of views in the field.

2.1 *Studies of ultimate attainment*

The pioneering study by Coppieters (1987) tested near-native speakers of French from a variety of language backgrounds. The variables investigated included both semantic contrasts (e.g., tense/aspect distinctions) and syntactic conditions (cliticization and raising). The method used was a grammaticality judgment test. The results indicated significant differences between native and non-native norms. Interestingly, the most dramatic differences involved not so much syntactic as subtle semantic or interpretive knowledge.¹ This discrepancy is suggestive of crucial differences in near-native representations between purely syntactic aspects of the L2 grammar, which are nativelike, and syntax–semantics interface aspects, which may not be. As will be seen in section 4, recent research confirms the importance of this distinction. Inspiring as it was, however, Coppieters’s study was criticized on methodological grounds, particularly because of the impressionistic criteria employed in the selection of near-native speakers.

Birdsong’s (1992) study was a methodologically more rigorous replication of Coppieters’s work. It also tested near-native speakers of French on various syntactic and semantic properties, including some of those investigated by Coppieters. Methods used ranged from grammaticality judgments to think-aloud procedures. Birdsong’s results pointed to the opposite conclusion to Coppieters’s: there are no significant differences between native and non-native norms in a number of individual near-natives, although such differences are there when natives and near-natives are compared as groups.

White and Genesee (1996) studied 42 near-native speakers of English from various language backgrounds (though the majority were Francophones). To

counterbalance the frequent criticism of arbitrariness and subjectiveness in the criteria used to identify near-native speakers, they used more rigorous selection procedures (interviews, psychological tests, ratings by two native speakers). The area of grammar tested was island constraints on movement, particularly the Empty Category Principle and the Subjacency Principle, which prohibit extraction out of complex NPs, adjuncts, and subjects. The tests employed included grammaticality judgments and question formation, and reaction times were also recorded. Their results supported Birdsong's conclusion: no differences were found between the performance of natives and that of near-natives, but reaction times were shorter for native speakers. White and Genesee's suggestion is that near-native competence is (or can be) the same as native competence. However, their study is open to the objection that, at least for the majority of Francophone subjects, responses were due to a combination of L1 knowledge and metalinguistic awareness (Eubank and Gregg, 1999).

Johnson et al. (1996), arguing against Sorace (1988), suggested that one could in principle expect consistent results from two successive replications of the same test with L2 advanced learners because their competence is unlikely to have changed substantially in the meantime. Johnson et al. studied very advanced Chinese speakers of English in order to assess the degree of consistency between two successive administrations of the same (aural) acceptability judgment test. Results suggested that natives are consistent, but non-natives are not; their knowledge is indeterminate. However, these findings may have been affected by the uneven proficiency level of the learners tested (whose average length of residence in the US ranged from 5 to 12 years), and by the choice of an aural acceptability judgment test, which, because of its demands on on-line comprehension, may have imposed an additional burden on the subjects, creating a confounding effect.

In contrast with the other studies, Sorace (1993) demonstrates that final states may be incomplete, but may also be complete *and* systematically different from the target (see box 6.1). Her study targeted English and French near-native

Box 6.1 Clitic-climbing and auxiliary selection (Sorace, 1993)

Research question:

- i Do near-native speakers of Italian acquire the constraints on auxiliary selection in restructuring constructions, specifically constructions with and without clitic-climbing?
- ii Does the difference between L1 French (which has auxiliary choice in compound tenses and clitic pronouns, but no clitic-climbing) and L1 English (which has no auxiliary choice and no clitics) affect the knowledge attainable by near-native speakers of Italian with respect to these phenomena?

Restructuring constructions in Italian: In a complex predicate consisting of a main modal or aspectual verb followed by an embedded infinitive, a main verb generally

taking *avere* 'have' can optionally take *essere* 'be' when the embedded verb requires *essere*.

Clitic-climbing (Rizzi, 1982; Burzio, 1986): In complex predicates consisting of a main modal or aspectual verb followed by an embedded infinitive, an unstressed clitic pronoun can be attached to the embedded verb or it can "climb" to the main verb. If the clitic remains attached to the embedded verb, the main verb can take either auxiliary *essere* or *avere*; if the clitic climbs to the main verb, auxiliary *essere* is obligatory.

Methodology:

Subjects: 24 L1 English near-native speakers of Italian; 20 L1 French near-native speakers of Italian; a control group of 36 adult native speakers of Italian.

Task: Timed grammaticality judgments of 48 sentences, collected by means of Magnitude Estimation (ME). With the ME technique, subjects assign numerical ratings to sentences presented in isolation. They are instructed to assign numbers so as to reflect their perception of the proportional acceptability of each sentence compared to the previous one.

Results: French-speaking subjects do not differ from the Italian controls with respect to clitic-climbing: their judgments on obligatory *essere* with clitic-climbing are nativelike. Their judgments on the optionality of auxiliary selection in the absence of clitic-climbing are different from those of Italians: they have a significant preference for *avere* both in sentences without clitics and in sentences where the clitic remains attached to the embedded verb. English subjects have indeterminate judgments (i.e., no pattern of clear acceptances or rejections) on both obligatory *essere*-selection with clitic-climbing and optional auxiliary selection in sentences without clitics/clitic-climbing. See table 6.1.

Conclusions: The learners' L1 affects ultimate attainment in L2 acquisition. French near-native speakers of Italian exhibit *divergence*, that is, determinate grammatical representations that are systematically different from those of native speakers. English near-natives show *incompleteness*, that is, the absence of representations for properties required by the L2.

Table 6.1 Mean acceptability scores on auxiliary choice in restructuring constructions

<i>Auxiliary choice</i>	<i>Italians</i>	<i>French near-natives</i>	<i>English near-natives</i>
No clitics:			
<i>essere</i>	9.260	3.824	7.231
<i>avere</i>	9.749	9.420	6.977
Clitic attached to embedded verb:			
<i>essere</i>	8.159	4.065	6.784
<i>avere</i>	8.779	7.841	6.211
Clitic-climbing:			
<i>essere</i>	8.587	8.525	6.286
* <i>avere</i>	3.143	4.285	6.623

speakers of Italian, testing knowledge of (i) auxiliary choice with different semantic types of unaccusative verbs,² and (ii) auxiliary choice in syntactic phenomena related to restructuring (i.e., change of auxiliary, clitic-climbing).³ Grammaticality judgments were elicited by means of magnitude-estimation techniques (Bard, Robertson, and Sorace, 1996; Sorace, 1996b). The results point not only to significant differences between natives and near-natives, but also to significant differences between English and French near-natives. Specifically, the English near-natives display *incompleteness*, that is, the absence of properties required by the L2, whereas the French near-natives exhibit *divergence*, namely representations of L2 properties that are consistently different from native representations. Both incomplete and divergent representations are affected by the L1 grammar, and both are UG-constrained (see White, 1996).

The interim conclusion to be drawn from this brief overview of research on near-nativeness is that an *overall* state of competence *identical* to that of monolingual speakers is difficult to attain in adult second language acquisition. However, what looks like incompleteness may on closer scrutiny turn out to be systematic divergence (Papp, 2000). The empirical question facing L2 research is exactly what constitutes divergence, what forms divergence can take, and which of these forms can or cannot be part of the make-up of a natural language grammar.

3 A Different Perspective on Near-Nativeness: Optionality

One type of divergence that has emerged from recent research on L2 final states is optionality. Pre-theoretically, optionality can be defined as the existence of two or more variants of a given construction that are identical in meaning and have a clear correspondence in form (Müller, 1999). Two examples from English are PP extraposition from NP, as in (1), and complementizer-drop, shown in (2):

- (1) a. An article on second language acquisition came out last week
b. An article came out last week on second language acquisition
- (2) a. I think that Paul is very clever
b. I think Paul is very clever

Optionality is well attested in both the mature and the developing grammatical competence. The question of interest is whether “stable” and “developmental” optionality are the same phenomenon; a related question is whether second language developmental optionality is a phenomenon of a different nature from that of developmental optionality in a first language. A positive answer to the first question would indicate that near-native grammars that exhibit optionality are natural language grammars.

The following two assumptions will be made:

- i “Optionality” refers to a state of grammatical competence. It is, therefore, not the same as variation. Variation is not necessarily a manifestation of optionality; optionality at the level of underlying knowledge is neither a necessary nor a sufficient condition for variable performance. The optionality in auxiliary choice discussed in Sorace (1993), for example, often does not give rise to any variation in performance, probably because native Italian speakers have well-established routines that lead to access of only one option in production: so they may produce only *Maria ha voluto tornare a casa* ‘Mary has wanted to go home,’ even though they know that *Maria è voluta tornare a casa* is equally acceptable (see n. 3).
- ii Alternating forms are almost never in free variation, but are acceptable/determinate to different degrees (i.e., the *strength of preference* for one variant over the other may change over time, particularly in the course of language development).

3.1 *Optionality in mature grammars*

The existence of (stable) optionality in native grammars is well documented. Examples analysed in the literature are scrambling in West Germanic, multiple *wh*-movement in Hungarian, *wh*-questions in French, auxiliary alternations under restructuring in Italian, singular concord in Belfast English, and phonologically overt agreement with object shift in French, among others (Henry, 1997; Müller, 1999). However, optionality is problematic for formal grammatical theory. The problems it poses are not just theory-internal: to the extent to which theories of generative grammar are assumed to account for the representation and acquisition of grammatical knowledge in the speaker’s mind, their solutions will impinge on our understanding of optionality in language acquisition. It is, therefore, worth considering them in some detail.

There are two types of problems that optionality creates for grammatical theory: (i) economy and cost for the grammar, and (ii) learnability. Two solutions have been proposed:

- *Solution 1*: optional variants express the same meaning but belong to different grammars.
- *Solution 2*: optional variants belong to the same grammar but express different meanings.

Let us examine each problem, and the relevant possible solutions, in turn.

First, optionality is “costly” for the grammar. Contemporary formal models of grammars (e.g., Minimalism, Optimality Theory) are in fact essentially comparative: they assume a set of candidates competing for well-formedness and an evaluation metric based on economy principles. Only one candidate in each set emerges as the “optimal” winner: the others are assigned no grammatical

status. Optionality, however, involves the coexistence of two (or more) optimal forms, one of which is usually “more grammatical” than the other, in a sense to be made precise.

All theories of generative grammar make some restricted allowance for optionality when the alternatives are equal in terms of economy of derivation. This is the way Fukui (1993), for example, analyses certain types of movement, such as rightward movement in English and scrambling in Japanese. The Minimalist framework (Chomsky, 1995) eliminates some of the mechanisms that could account for optionality in previous models: for example, the possibility of optional transformations.⁴ All syntactic operations are obligatory. Solution 1 therefore becomes the only possible one: optional forms belong to different grammars. In this vein, Roeper (1999) suggests that “grammar” should receive a narrower, more local interpretation. Such a redefinition has profound implications for optionality, because it entails that speakers may have an indefinite number of mutually incompatible grammars as part of their competence, that is, every speaker, native or non-native, is “multilingual” (see also Cook’s, 1991, proposal for “multi-competence”). This idea bears an obvious resemblance to the “double base” hypothesis (Kroch, 1989), according to which more than one grammar may underlie a single language. Optional forms belong to different grammars; therefore, optionality, as a visible manifestation of a state of diglossia, is not internal to the grammar. However, there is a difference: while the double base hypothesis has been proposed to account for optionality in diachronic change (see Lightfoot, 1999), Roeper regards the coexistence of multiple grammars, or “Universal Bilingualism,” as an ordinary feature of grammatical competence.

Second, optionality poses a learnability problem. If language acquirers were free to entertain optional rules *x* and *y*, generating constructions *a* and *b*, where the target language has an obligatory rule *x* that generates *a*, they would need negative evidence to learn that *y* is incorrect. This is in fact the kind of problem that the Subset Principle addressed in the early literature (see Hyams, 2000; White, 1989).

Solution 2 involves attributing subtle semantic differences to the optional variants. Given that optionality is dependent on whether two or more alternatives are perfectly equivalent in terms of meaning, it is possible to show that optionality is more apparent than real (Adger, 1996; Grimshaw and Samek-Lodovici, 1995; Müller, 1999) if there are constraints on the distribution of optional forms, or if optional forms involve different semantic representations, and thus are not in competition with one another. The differences that are invoked to distinguish between optional variants are often related to pragmatic or functional notions, rather than truth conditions. Under this account, each optional form is the optimal derivation in its own candidate set.

Neither solution is wholly satisfactory. As for Universal Bilingualism, or the double base hypothesis, it is difficult to see how it could possibly be falsified. What evidence would unambiguously indicate that the speaker is using different grammars? As for “pseudo-optionality,” the interpretive differences

suggested are often so subtle that native speakers could not agree on them. However, both solutions to the optionality problems have been adopted to explain optionality that arises in the course of language development.

3.2 *Developmental optionality*

3.2.1 *Optionality in child grammars*

In first language acquisition, children go through stages of temporary optionality which allow for the coexistence of forms that are mutually exclusive in adult grammars. Optionality is attributed to different causes, depending on the theory of grammatical development adopted. There are essentially two views within generative grammar on the nature of developmental optionality: the “structure-building” approach and the “underspecification” approach.

Within the “structure-building” account proposed by, for example, Radford (1995, 1996), optionality arises because of maturational constraints that delay the appearance of functional categories in child grammars until the third year of age: during periods of transition between stages (i.e., from a VP grammar to an IP grammar, or from an IP grammar to a CP grammar), the child will often exhibit features of both the old and the new grammar, alternating between the two until the new grammar becomes categorical. At the same stage of development, children may produce both the sentence types in (3):

- (3) a. Where did Daddy go?
b. Where Daddy go?

There are different versions of the “underspecification” scenario. Under the “Continuity approach,” the whole phrase structure characterizes child grammars from the beginning, but features may be temporarily underspecified: it is this underspecification that generates optionality (Hyams, 1996; Wexler, 1994). However, the term “underspecification” does not receive a uniform interpretation in current research. For Wexler (1994, 1998), it means the optional absence of a particular functional head (Tense or Agr). Underspecification in this sense is viewed as responsible for the alternation between finite and non-finite verbal forms that characterizes child grammars in a well-represented set of languages, including English, Dutch, German, and French. In a similar vein, Rizzi’s (1994) “Truncation Hypothesis” assumes that child grammars may lack the principle “CP = root,” so that the starting point of the child’s projection is sometimes VP, sometimes IP, and sometimes CP. Hyams (1996), on the other hand, argues that functional nodes, in both the clausal and nominal domains, may be underspecified in the sense of “unindexed” – not part of syntactic chains that anchor the event or the referent. In recent work, Hoekstra and Hyams (1998) develop this analysis further, arguing that the lack of anchoring can be traced back specifically to the underspecification of the Number feature. In these underspecification scenarios, the child can, for example, optionally project either Agr

or Tense, optionally choose CP as the root node (Rizzi, 1994), or optionally project Number. All these accounts of optionality are compatible with the idea that children's grammars are diglossic: that is, their developing grammatical competence consists of different grammars, each instantiating different UG options. In this sense "underspecification" could be interpreted as a general term to refer to the child's temporary inability to eliminate non-target grammars.

Whatever its cause, children in due course abandon optionality and retain the option allowed by the target grammar (unless the optionality is in the target grammar, in which case children acquire both options *and* the same pattern of distribution: see Henry, 1997). This process involves a gradual decrease in the use of the non-target option and a gradual increase in the use of the target option. For example, the abandonment of optionality of Tense or Agr involves a gradual increase in the proportion of finite sentences. The observed pattern of systematic changes in the preferences for one option over the other in the course of development is left unexplained by underspecification accounts (see Sorace, Heycock, and Shillcock, 1998, for discussion).

The general picture suggests that optionality tends to occur because of misunderstanding of interpretive conditions, which govern the interface between syntax and other domains. For normal L1 acquisition, Wexler (1998) explains the alternation of finite and non-finite forms by assuming an optional developmental constraint which prohibits the simultaneous presence of both Agreement and Tense; he hypothesizes that such a constraint is ultimately due to the child's temporary misunderstanding of the syntax-pragmatics interface conditions that – in the adult grammar – require the specification of both functional heads. Hoekstra and Hyams (1998) identify the lack of temporal anchoring in the child's grammar as a consequence of missing interface principles. A similar split between syntactic and interface features has been shown to be relevant for impaired acquisition. Tsimpli and Stavrakaki (1999) demonstrate the existence of a specific language impairment in the Determiner system which affects functional categories differentially, depending on whether they include "interpretable" (i.e., at the syntax-semantics interface) or "non-interpretable" (i.e., purely morphosyntactic) formal features: only the latter are impaired, but the former are spared. As will be shown in section 4, there is evidence that interpretive conditions are at the root of much L2 residual optionality in end-state grammars.

3.2.2 *Optionality in L2 acquisition*

In L2 acquisition, learners go through stages characterized by optionality; these have been particularly well documented for a range of phenomena related to X^0 movement (see Beck, 1998; Robertson and Sorace, 1999, for review). But L2 optionality is different from L1 optionality in at least three respects:

- i L2 learners have the L1 as an additional source of optionality.
- ii L2 optionality tends to persist at advanced competence levels.
- iii Residual optionality is found at ultimate L2 attainment.

The persistence of optionality at advanced stages of development, including L2 end state, is a consequence of the fact that L2 learners may not be exposed to data that are robust and/or frequent enough to expunge one of the optional variants from the grammar. In the typical L2 end state characterized by optionality, optional variants are not in free variation: a steady state is reached in which the target option is strongly but not categorically preferred and the non-target option surfaces in some circumstances. L2 grammars exhibit a greater tolerance for optionality than native grammars.

Most examples of optionality discussed in the literature to date are related to optional verb movement. A substantial body of research has tried to provide an explanation for the long-lived alternations in adverb placement that characterize the second language production of French learners of English (Eubank, 1996; Schwartz and Gubala-Ryzak, 1992; Schwartz and Sprouse, 1996; White, 1990/1, 1992; etc.):

- (4) a. Mary speaks very well English
b. Mary speaks English very well

Robertson and Sorace (1999) show that advanced German learners of English retain a residual V2 constraint, occasionally producing sentences like (5a) instead of (5b):

- (5) a. For many kids is living with their parents a nightmare
b. For many kids living with their parents is a nightmare

A different example of end-state residual optionality, discussed in Sorace (1999), concerns the overproduction of overt referential subjects in the near-native Italian grammar of English-speaking learners, as in (6), and the placement of focused subjects in pre-verbal position, as in (7). Near-native speakers of L2 Italian optionally produce (6b) and (7b) in response to (6a) and (7a), whereas native Italian speakers would produce (6c) and (7c), respectively:

- (6) a. *Perchè Lucia non ha preso le chiavi?*
why Lucia not has taken the keys
'Why didn't Lucia take her keys?'
b. *Perchè lei pensava di trovarti a casa*
because she thought of find-you at home
'Because she thought she would find you at home'
c. *Perchè pensava di trovarti a casa*
because thought of find-you at home

- (7) a. *Che cosa è successo?*
what is happened
'What happened?'
b. *Paola ha telefonato*
Paola has telephoned

- c. Ha telefonato Paola
has telephoned Paola

In contrast, there is no corresponding optionality in the L2 grammar of Italian near-native speakers of English, that is, no tendency to use null subjects when an overt subject is required. Errors such as the one in (8b) are unattested:

- (8) a. Why didn't Mary come to the party?
b. *Because ___ fell ill

It is worth stressing again that examples (4) to (7) are exceptions to a pattern of strong preference for the target variant, which, however, never reaches categorical status. The typical developmental pattern of optionality (see Robertson and Sorace, 1999, for detailed examples and discussion) is that, as in L1 acquisition, preferences for one option over the other change over time. Unlike child grammars, however, L2 grammars present a potentially permanent stage at which the target option is strongly, but not categorically, preferred, and the dispreferred non-target option is never completely expunged, but still surfaces in some circumstances. This stage may be difficult to capture without appropriate elicitation techniques, since advanced non-native speakers' metalinguistic knowledge would in most cases successfully prevent the expression of the non-target option (Sorace and Robertson, 2001).

The nature of optionality and the timing of its appearance can be interpreted differently, depending on the scope attributed to L1 transfer and on the cognitive mechanisms assumed to shape L2 development (see, e.g., Beck, 1998; Eubank, 1994, 1996). However, residual optionality in end-state grammars poses a conceptual problem for most current theories of L2 development.

As in the L1 acquisition literature, one can distinguish between the "structure-building" view of L2 development and the "underspecification" model. An example of the former is "Minimal Trees" (Vainikka and Young-Scholten, 1996), which predicts two kinds of optionality. In the early stages of L2 development, when learners are assumed to operate with a grammar devoid of functional categories, optionality should not occur. At a later stage, the acquisition of the underspecified functional projection FP causes unconstrained optionality of verb raising. As other functional projections are acquired, developmental optionality arises as a partial overlap of developmental stages; this prediction parallels that of the "structure-building" model of L1 acquisition; no optionality should arise at advanced stages.

In contrast with Minimal Trees (Eubank, 1996), the kind of optionality predicted by the "Valueless Features" position is a phenomenon characterizing only L2 acquisition. Optionality results from the fact that functional categories are transferred from the L1 and are therefore part of the initial state, but the features associated with functional heads are initially "inert." Optionality thus manifests itself from the very beginning of L2 development as unconstrained wavering between two options, and is predicted to disappear once learners

have acquired the L2 morphological paradigm and therefore established the strong or weak value of the L2 features. Once again, optionality at ultimate attainment remains unexplained within this model.

Recently, a variant of this view has been proposed that assumes that adult L2 acquisition is characterized by a specific impairment affecting X^0 movement, specifically “that part of the feature matrix indicating the strength of inflection” (Beck, 1998, p. 317). This view, unlike Valueless Features, predicts that optionality never disappears because it is not a (L2-specific) developmental phenomenon, but rather the consequence of a permanent property of the interlanguage grammar. However, optionality is predicted to be unsystematic at all stages, including ultimate attainment. It is not clear what the etiology of this particular maturational change would be. Lardiere (1998), Prévost and White (2000), and Sprouse (1998) provide evidence for a dissociation between mastery of inflection, which can be poor, and mastery of the syntactic consequences of verb raising, which can be target-like. These findings lend support to the view that morphology and verb raising are not necessarily related, and that optionality may result from a “surface” difficulty with the morphological instantiation of syntactic features, rather than with the acquisition of abstract features themselves.

The position known as Full Transfer/Full Access (Schwartz, 1998; Schwartz and Sprouse, 1994) is the one that most naturally accounts for residual optionality. On the assumption that a copy of the L1 final state is the L2 initial state, developmental optionality is predicted as a result of the learner’s wavering between the native and the target setting of the same syntactic parameter. Advanced optionality is the consequence of unsuccessful restructuring of the L2 grammar (and the related failure to expunge the L1 setting), most likely due to the absence of robust evidence. Protracted optionality is more likely to arise when the coexistence of the L1 and the L2 analyses is congruent with a natural language grammar (see, e.g., Hulk, 1991; for relevant arguments, see Schwartz, 1998); it is not clear, however, how the coexistence of optional variants is accounted for if such a correspondence is not satisfied.

4 Constraints on Optionality

The arguments reviewed so far suggest that optionality exists in both native and non-native grammars, but the cognitive mechanisms responsible for optionality are poorly understood. No model of grammar or language acquisition is able to predict precisely when optionality is likely to arise and when it becomes potentially permanent. Clearly there are constraints on optionality: it is a restricted phenomenon not only in native grammars, but also in non-native grammars, since many aspects of the L2 can be learned categorically. Moreover, optionality effects are often asymmetric: for example, the L2 grammar of Italian near-native speakers of English does not exhibit optional null subjects, as was shown in (8).

While only further empirical data specifically bearing on this question will provide an answer, some recent studies are suggestive. For L2 acquisition, it has been proposed that a test-bed for the existence of UG constraints on the learner's hypothesis space is knowledge of the interpretive conditions that operate at the syntax–semantics/pragmatics interface. Many such conditions are underdetermined by the input, and not amenable to classroom instruction: their presence in interlanguage grammars would therefore constitute evidence for UG. Some of these constraints can be successfully acquired by L2 learners. Dekydtspotter, Sprouse, and Anderson (1997), for example, argue that English learners of French are sensitive to the semantic distinctions governing the licensing of multiple postnominal genitives. It is likely, however, that knowledge of interface conditions is a primary candidate for advanced or emerging optionality.

Let us again consider the optionality exhibited by English near-native speakers of Italian with respect to null vs. overt subject pronouns. Recall that, overall, the distribution of overt pronominal subjects in the near-native Italian grammar is broader than in native Italian, while the distribution of null subjects is correspondingly more restricted. This asymmetry needs to be explained.

Let us assume that the existence of null subjects in a particular language is licensed by a purely syntactic feature.⁵ Early descriptive research showed that the acquisition of the syntactic properties of null-subject grammars by speakers of a non-null-subject language is relatively unproblematic (Phinney, 1987; White, 1989). This is supported by the data in (5); null subjects, when they are produced, appear in the appropriate contexts, but overt subjects are sometimes produced in the wrong contexts.

However, it is syntax–semantics interface conditions which determine the distribution of null and overt subjects (Cardinaletti and Starke, 1994; Grimshaw and Samek-Lodovici, 1998; Montalbetti, 1984). In other work (Sorace, 2000a), I have argued that null pronouns are characterized by the absence of a feature that the corresponding overt pronoun has. The precise characterization of such a feature is a matter of debate: while at least in some cases it can be defined as Focus (see Cardinaletti and Starke, 1994, for arguments in favor of and against this assumption), in a broader sense it may be regarded as Topic Shift (for proposals in this direction, see Dimitriadis, 1996; Grimshaw and Samek-Lodovici, 1998). The important point that all proposals agree on is that the recoverability of null pronouns is dependent on the presence of an antecedent with topic status. Whenever this coreferentiality condition obtains, that is, when the feature [Topic Shift] is absent, null pronouns are chosen over overt pronouns: this is what happens in the native Italian grammar. In English, on the other hand, there are no pronouns that are obligatorily specified for [+Topic Shift]: all pronouns that can occur in [+Topic Shift] context can also occur in contexts without this feature.

This proposal predicts two effects in the near-native grammar of Italian. First, since the option of having null subjects is the result of the specification

of purely syntactic features, this is acquired by L2 learners: the near-native grammar is, in all relevant respects, a null-subject grammar. Null subjects are possible, and occur in all (and only) the contexts in which they occur in the speech of native Italian speakers, that is, in [-Topic Shift] contexts.

Second, since the distribution of null and overt subjects is governed by interpretive conditions, it is vulnerable to optionality. Native proficiency in English involves mastery of a system in which there is no obligatory occurrence of [+Topic Shift] with any pronominal form. As a result, this possibility may never be completely acquired in the null subject L2 grammar: that is, the interpretive feature obligatorily associated with an overt subject pronoun remains optionally unspecified. The existing evidence (see Herschensohn, 2000; Licerias, 1989) is consistent with this prediction.

A similar argument can be made with regard to the distribution of pre-verbal and post-verbal subjects. It has been argued (see, e.g., Pinto, 1997) that so called "subject-verb inversion" in wide-focus clauses in Italian depends on the possibility of interpreting the verb as denoting a deictic event (with reference to the speaker). Such a deictic feature may be lexical (as in 9a), implicit (as in 9b), or explicit in the context (as in 9c); when the deictic interpretation is not possible, post-verbal subjects are ungrammatical (as shown in 9d-f):

- | | |
|--|--------------------------------------|
| (9) Che cosa e' successo? 'What happened?' | |
| a. E' entrato Paolo | <i>interpreted as 'here'</i> |
| <i>is come in Paolo</i> | <i>(where the speaker is)</i> |
| b. Ha telefonato Mario | <i>interpreted as meaning</i> |
| <i>has telephoned Mario</i> | <i>that the telephone call</i> |
| | <i>came here</i> |
| c. In questa casa ha vissuto un poeta famoso | <i>deictic reference explicit</i> |
| <i>in this house has lived a poet famous</i> | |
| d. *E' impallidito Fabio | <i>no deictic reference possible</i> |
| <i>is gone pale Fabio</i> | |
| e. *Ha vissuto un poeta famoso | <i>no deictic reference present</i> |
| <i>has lived a poet famous</i> | |
| f. *Ha starnutito Gianni | <i>no deictic reference possible</i> |
| <i>has sneezed Gianni</i> | |

The prediction is that these interpretive constraints on post-verbal indefinite subjects are not completely acquired in the near-native grammar. Because of the protracted influence of English, in which subjects obligatorily occupy the pre-verbal position regardless of the nature of the verb, there are asymmetric optionality effects in the grammar of near-native speakers of Italian: specifically, pre-verbal subjects will occasionally be overgeneralized in wide-focus contexts, regardless of whether the verb has a hidden or overt deictic component.

5 L1 Optionality as a Consequence of L2 Near-Nativeness

Recent research (Sorace, 1998, 1999) has begun to consider the effects of ultimate attainment on native syntactic competence. While a full discussion of attrition effects falls outside the scope of this chapter, it is worth mentioning some parallels between residual L2 optionality and optionality that emerges in the L1 as a result of prolonged exposure to a second language. There is evidence that native Italian speakers who have near-native competence in English display a similar pattern to that of near-native speakers of Italian: namely, they optionally extend overt subject pronouns and pre-verbal subjects to contexts that would require the use of a null pronoun or a post-verbal subject (see Sorace, 1998, 1999, for further evidence and discussion).

The cause of emerging L1 optionality is the same as that for L2 optionality: insufficient input (because of diminished exposure to the L1) and conflicting evidence (because of continued exposure to the L2). What this suggests is that *all* grammars, native or non-native, need continued exposure to *robust* input in order to be not only acquired, but also maintained.

Are L1 and L2 optionality related? This is ultimately an empirical question. There is at least preliminary evidence from experimental phonology that optionality in both the L1 and the L2 characterizes the grammatical competence of most, but not all, very advanced non-native speakers. In a series of experiments on the acquisition of intonation, Mennen (1998) discovered two possible types of ultimate attainment in Dutch near-native speakers of Greek: most of the subjects in this group do not establish the target Greek category for peak alignment, and also exhibit different Dutch alignment categories from Dutch monolinguals (although not a truly intermediate system as, e.g., Flege's, 1995, model would predict for L2 phonology). Only two subjects exhibit evidence of target-like attainment of Greek peak alignment, and at the same time evidence of essentially unaffected native Dutch alignment.

While it remains to be ascertained (beyond anecdotal evidence) whether this dual pattern of ultimate attainment also occurs in the acquisition of L2 syntax, we could hypothesize that the truly successful L2 learners are the minority who manage to maximally differentiate the L1 rankings from the L2 rankings, so that there are no overlaps between them: these learners acquire native L2 competence and at the same time preserve their L1 intact. This outcome, while rare in adult language acquisition, is normal in bilingual first language acquisition (cf. Paradis and Genesee, 1996, 1997).

6 Conclusions

This chapter has focused on optionality as a phenomenon that tends to occur in L2 end-state grammars, and has characterized it as follows:

- Residual optionality is a type of divergence that characterizes non-native grammars at the ultimate attainment stage.
- Optionality is selective: it tends to affect interpretive interface aspects of grammar, or interface conditions on syntax.
- Optionality may involve a more widespread use of a mechanism that is found in mature grammars.
- Residual L2 optionality might be related to states of emerging optionality in the L1 grammar of near-native speakers.

Although the examples of residual optionality discussed in this chapter involve L1–L2 contrasts, and, therefore, suggest that transfer effects are present at all stages in L2 development, optionality may be caused by other factors: one is the input itself (see Papp, 2000), and the other is the relative markedness of features within the grammar (see Sorace, 1998, for examples). Further research is needed to deepen our understanding of optionality in native and non-native grammars. The elements at our disposal already confirm, however, that near-native grammars are different from monolingual grammars, but still fall within the range of options allowed by Universal Grammar.

NOTES

- 1 For example, near-native speakers gave idiosyncratic judgments on the difference between prenominal and postnominal adjectives in French (as in *une histoire triste* vs. *une triste histoire*), whereas the native speakers' judgments were remarkably uniform and stable.
- 2 Unaccusative and unergative verbs are sub-classes of intransitive verbs that have different syntactic and semantic properties. There is a vast literature on this topic: see Perlmutter (1978) for the original "Unaccusative Hypothesis" (UH) that posited the distinction; Burzio (1986) for a reformulation of the UH in Government-Binding terms; Van Valin (1990) and Dowty (1991) for a treatment of split intransitivity in purely semantic terms; and Levin and Rappaport Hovav (1995) for an analysis of the UH at the interface between syntax and semantics.
- 3 The term "restructuring" was introduced by Rizzi (1982) within a Government-Binding theoretical framework to account for a set of syntactic processes in Italian that apply to some verbs taking infinitival complements. For example, some verbs which normally select auxiliary *avere* 'have' in perfective tenses can optionally take *essere* 'be' when the embedded verb selects *essere*, as shown in (i-b); with some verbs, an Auxiliary selection is considered as one of the main diagnostics of the distinction: in languages that have a choice of perfective auxiliary, unaccusative verbs tend to select 'be' and unergative verbs tend to select 'have' (but see Sorace, 2000, for a demonstration that auxiliary selection is affected by the aspectual characteristics of verbs).

unstressed pronoun that originates in the infinitival complement can be cliticized either to the main verb, as in (ii-b) or to the embedded verb, as in (ii-a). The former option is known as “clitic-climbing”:

- (i) a. Maria ha voluto tornare
Mary has wanted to go back
a casa
home
b. Maria è voluta tornare
Mary is wanted to go back
a casa
home
- (ii) a. Paolo ha voluto venire a
Paolo has wanted to come to
salutarmi
greet me-CL
b. Paolo mi è /*ha voluto
Paolo me-CL is /has wanted
venire a salutare
to come to greet

Notice that the auxiliary selection under clitic-climbing is obligatorily *essere*. The “restructuring” rule posited by Rizzi, governed by a restricted class of main verbs, changes the structure of the phrase marker without changing its terminal string (see Burzio, 1986, for further refinements).

- 4 There are recent proposals within a Minimalist framework (e.g., Pettiward, 1997) that allow for optionality within the grammar, by associating it not with the possibility of occurrence of optional constructions, but rather with the timing of movement that generates them.
- 5 This feature can be identified as the phonological realization of phi-features (agreement features) and the strong D[eterminer] feature on the T[ense] head (see Alexiadou and Anagnostopoulou, 1998; Rizzi, 1986).

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