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# Native language attrition and developmental instability at the syntax-discourse interface: Data, interpretations and methods

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Montrul's study is an important contribution to a recently emerged research approach to the study of bilingualism and languages in contact, characterized by its sound theoretical basis and its reliance on data from different – and traditionally non-integrated – domains of language development: bilingual first language acquisition (Müller and Hulk, 2001; Paradis and Navarro, 2003; Serratrice, 2004; Serratrice, Sorace and Paoli, in press), adult second language acquisition (Filiaci, 2003; Sorace, 2003), and native language attrition (Gurel, 2002; Tsimpli, Sorace, Heycock and Filiaci, in press). The generalization that is emerging from this approach is that interfaces between syntax and other cognitive systems (i.e. discourse pragmatics, lexical-semantics) exhibit more developmental instability than narrow syntax. For L1 attrition, which is the specific focus of the paper, this means that aspects of grammar at the syntax–discourse interface are more vulnerable to attrition than purely syntactic aspects. The identification of restrictions on the domain of occurrence of attrition is consistent with much previous descriptive research on this topic (e.g. Seliger and Vago, 1991). More recently, the same conclusion has been reached by a study on individual language attrition by Tsimpli et al. (in press), who investigated knowledge of the referential pronominal system in Greek and Italian in very advanced speakers of English. In this paper, Montrul tests the generalization on second-generation speakers of Spanish – or "heritage speakers" – a bilingual group that presents different characteristics from the adult L2 speakers investigated in Tsimpli et al.'s study. In addition to referential subjects, she also focuses on a different interface area of grammar – direct objects – that had not been investigated before. In these respects, Montrul's study is a welcome development. In other respects, however, the data are less than convincing and do not allow a straightforward interpretation. My commentary focuses on three fundamental questions raised not only by this study, but also by this type of research in general. The main focus will be the expression of referential subjects since this aspect of grammar has been investigated in other studies and therefore offers the possibility of direct comparison among results.

The first and most important issue to be considered is the difference between attrition in individual speakers and attrition in language communities. In order to determine the effects of attrition, it is essential to ascertain what speakers knew when the attrition process began, since by definition attrition can only affect what was within the speaker's knowledge. As Montrul herself points out, there is a fundamental ambiguity with respect to heritage speakers, many of whom are "incomplete learners" who grew up in a situation of reduced or non-target input and therefore never completely learned Spanish. The ambiguity is further compounded by Montrul's distinction between speakers who have low proficiency in Spanish and those who have high proficiency. Her claim that the most marked evidence of attrition comes from the low-proficiency group reinforces the suspicion that the phenomena exhibited by these speakers stem from incomplete learning, rather than attrition. Research on monolingual and bilingual L1 language acquisition (Serratrice, 2004; Serratrice et al., in press) and L2 acquisition (Sorace, 2003) has in fact shown that the interface conditions governing the use of referential pronouns in null-subject languages are late acquired or may remain permanently indeterminate. Given that these are precisely the phenomena in focus in Montrul's study, it is plausible to wonder whether they were ever fully acquired by her low-proficiency group. On the other hand, the fact that high proficiency subjects "RARELY" show effects is consistent with the optionality found in Tsimpli et al.'s study: if the high-proficiency speakers had native-like knowledge of these aspects of grammar at the onset of the attrition process, it is legitimate to claim that in their case attrition – and not incomplete learning – is the cause of their performance. If, on the other hand, these speakers are advanced or even near-native speakers of Spanish, it is possible that full knowledge of these properties was never acquired. More information on the speakers' background and history of learning Spanish would be needed in order to determine what their actual state of competence was before the onset of attrition, and thus to decide between these competing explanations. Montrul does not attempt to differentiate

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between attrition and incomplete learning in this paper, probably because her data do not allow her to do so. However, it could be argued that for heritage speakers it would be difficult to draw a sharp dividing line between the two processes: viewed from the point of view of language communities, in fact, attrition IS incomplete acquisition from one generation to the next.

The second issue arising from this study is the question of whether the 'interface' difficulties observed by Montrul in heritage speakers (and by other researchers in other bilingual groups) are exclusively due to crosslinguistic influence. The heritage speakers in this study have knowledge of English, just like the speakers studied in other bilingual domains. One explanation of interface problems crucially relies on crosslinguistic influence. It assumes that emerging optionality caused by attrition primarily affects morphosyntactic features that are interpretable at the interface with conceptual systems (LF): so in this case attrition affects the distribution of referential pronouns because it is governed by features such as Focus and Topic Shift, which belong to the domain of pragmatics. The affected features may become unspecified as a result of the influence of English, giving rise to optionality. This is in fact the interpretation proposed by Tsimpli et al. and supported by Montrul: there may be a process of structural simplification (or "morphological convergence") at work whereby the English grammar 'wins out' because it is more economical than the Spanish grammar. Referential pronouns in Spanish qualify as complex, since they demand the simultaneous mastery of both morphosyntactic properties and discourse conditions. In contrast, referential subject pronouns in English are less complex because they are not conditioned by discourse factors. However, the DIRECTIONALITY OF INFLUENCE (from more economical language A to less economical language B) is to be kept distinct from LANGUAGE DOMINANCE. On this point Montrul is less than clear. English affects Spanish in this respect, but in the reverse case of English speakers under attrition from Spanish one would presumably NOT expect Spanish to exert influence on English (by leading, for instance, to the appearance of null subjects in English). Crosslinguistic influence may therefore be predicted to take place unidirectionally, from the less complex to the most complex grammar, and regardless of dominance, whenever two grammars coexisting in the bilingual competence are in conflict with respect to syntactic complexity. It is worth noting that the crosslinguistic influence explanation also predicts that the effect of attrition from exposure to English would be the extended scope of overt subjects at the expense of null subjects: this is indeed what was found in other studies on individual attrition and bilingual first language acquisition. However, Montrul's prediction was that attrition would affect overt and null subjects to similar extents. Misuse of null subjects (i.e. their extension to topic-shift or contrastive contexts) is not compatible with the 'morphosyntactic convergence' scenario and is therefore in need of an alternative (or at least an additional) explanation.

Furthermore, there is another potential account, considered neither by Montrul nor by Tsimpli et al., which puts the burden on the interface itself rather than on the differences between the bilingual's languages. The argument is that interfaces, precisely because they are more complex than narrow syntax, are inherently more difficult to acquire. Three pieces of evidence are suggestive – although far from conclusive – in this respect. A study by Serratrice (2004) shows that older monolingual Italian children (aged 8+) overproduce overt referential subjects, although not to the same extent as English-Italian bilingual children. Moreover, the adult native monolingual Italian controls in all the bilingual studies involving Italian occasionally use overt subjects when they should not, so their performance is not 'perfect'. Finally, and most intriguingly, Spanish learners of Italian up to an intermediate proficiency level use significantly more overt subjects than monolingual Italians and monolingual Spanish speakers, despite the fact that the two languages are essentially identical with respect to both the syntactic licensing of null subjects and the pragmatic conditions on the distribution of pronominal forms (Bini, 1993). These three strands of evidence, if confirmed, may significantly undermine the crosslinguistic explanation: it may be that knowledge of English in Spanish heritage speakers is not the primary but simply a reinforcing cause of the phenomena under scrutiny. More experimental data bearing on this issue are needed. Moreover, the question still remains open as to whether such phenomena derive from an emerging representational deficit at the level of the speakers' competence or from a processing deficit at the level of the speakers' ability to coordinate different types of knowledge (see Sorace, 2003 for discussion).

The third issue highlighted by this study is methodological. The data were collected through the exclusive use of a picture description task in which speakers had to describe a series of pictures depicting the Little Red Riding Hood story. It is doubtful whether such a task is the most suitable way of testing these interface properties, for three reasons. First, there are large differences in the amount of data produced by individual speakers; thus no common ground against which to compare speakers' performance. Second, the task encourages the use of null subjects because of the (potential) situation of shared knowledge with the experimenter. The exact details of the experimental setting are not provided and therefore we do not know whether the experimenter could also see the pictures, or whether they were hidden from view; in any case, the story is universally known in our society and therefore there is hardly any 'information gap' between subject and experimenter. As

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a result, almost none of the examples of "misuse of null subjects" appear particularly convincing. Third, there is no experimental control on the contextual variables that would favour one pronominal form over the other, or one subject position over the other. Given the complexity of the interface conditions governing the distribution of these forms, and the subtlety of the attrition effects, careful experimental manipulation of these variables is likely to be more revealing than simply counting the total number of overt subjects or preverbal subjects produced. For example, Tsimpli et al. found that factors such as specificity and definiteness interact with the verb's argument structure in determining subject position, and obtained their strongest results in controlled elicitation tasks that systematically varied these factors.

In conclusion, Montrul's study raises many questions that are of central concern for developmental research on interfaces and opens up the way for further applications of this approach to the investigation of attrition in bilingual communities.

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