Spanish-speaking children's use of verbal inflection in comprehension

Karen Miller [a,*], Cristina Schmitt [b,1]

[a] *Penn State University, Department of Spanish, Italian, and Portuguese, 345 Burrowes Bldg., University Park, PA 16801, USA*
[b] *Michigan State University, Department of Linguistics & Germanic, Slavic, Asian, and African Languages, B-405 Wells Hall, East Lansing, MI 48823, USA*

Abstract

This paper examines children's use of verbal agreement in comprehension in two varieties of Spanish with the goal of determining how the input affects their behavior. Both dialects are identical in allowing null subjects and having rich verbal morphology in contrast to English. The dialects differ however in that in Chilean Spanish a phonological lenition process affects the realization of second person singular /-s/. In Mexican Spanish, no such variation is found for the second singular. The results indicate that children acquiring languages with rich verbal morphology use agreement in comprehension in much the same way as children acquiring a language with less robust agreement. Moreover, we find that variable input for the second singular marker affects acquisition.
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1. Introduction

Languages vary as to how much (if any at all) morphological agreement they display. Since agreement is not required in language (not all languages have it), it remains somewhat puzzling why 75% of the languages in the world do have some form of agreement (Corbett, 2006). Agreement patterns vary across languages, from relatively simple systems to quite complex systems. As agreement patterns are acquired, an important question is what is being acquired, besides the forms and their distribution. The answer to this question varies across frameworks and, even within the same framework, some domains of agreement are deemed more informative than others. For example, number and person morphology in subject–verb agreement has been considered more informative for parameter setting than number within the noun phrase. On the other hand, number information in the noun phrase has been thought to provide semantic import in a way that number agreement in the verbal paradigm does not.

In the eighties subject–verb agreement was considered an important way in which the learner could determine whether there was verb-raising in the language, and/or whether the language allowed null subjects or not. The empirical basis for such hypotheses was correlations between rich agreement and null subjects and rich agreement and head movement (see Rizzi, 1986; Baker, 1988; Alexiadou and Anagnostopoulou, 1998). Unfortunately, the correlations turned out to be not as strong as initially thought, and these strong hypotheses had to be substituted by weaker ones or dropped altogether

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* Corresponding author. Tel.: +1 814 865 1140.
   E-mail addresses: kxm80@psu.edu (K. Miller), schmit12@msu.edu (C. Schmitt).
[1] Tel.: +1 517 353 6762.

(see Holmberg, 2010). The combination of the minimalist program and powerful tools from Distributed Morphology (fusion and impoverishment mechanisms, for example) have cast further doubts on a transparent link between morphology and syntax. It is not unfair to say that today many linguists assume that morphology is not a very reliable source of information about particular parametric choices of a language (see Bobaljik, 2008; Holmberg and Hróarsdóttir, 2003; Holmberg, 2010).

Independently of how much syntax the learner can acquire based on the morphological forms of a particular language, if the language has morphological agreement, the child must learn not only its forms but also the underlying formal system that constrains the distribution and interpretation of those forms. In other words, the learner must be able to produce the relevant morphology and also determine in an agreement chain which features enter into the agreement relation and where they are interpreted (i.e. at which point in the derivation they are added to the interpretation).

There is a consensus that morphological agreement signals asymmetric grammatical relationships: one or more elements in an agreement chain copy/inherit features from the element that controls the agreement. Subjects control agreement on predicates, and modified elements control agreement on modifiers. The common assumption is that the features that enter an agreement relation are interpreted only once, and there is an expectation that the interpretability is related to the controller of agreement.

The acquisition task then involves establishing for each agreement relation which member carries the features independently (the controller of agreement) and at what point they are associated to an interpretation. To demonstrate this knowledge in both production and comprehension, the learner has to have stored morphological forms with enough feature information so that these forms can be inserted into the appropriate syntactic positions. Assuming Distributed Morphology, the forms are stored with a feature specification and no form can have more features than the terminal node where it is inserted.

The mapping is not a one-to-one mapping, and various factors may cause the link between a form or forms and a particular set of features to be more or less reliable, which may consequently affect the strength of the relation.

Recent results from acquisition of agreement have yielded a very complicated pattern. The production of agreement morphology starts early (Brown, 1973), even though in some languages children do not always reach adult-like levels until relatively late. In comprehension tasks, the research is much more recent and has yielded a series of results that point to an early awareness of agreement markers in on-line measures (Brandt-Kobele and Hohle, 2010; Legendre et al., 2010) but in general a difficulty to draw inferences from agreement that can lead to semantic decisions (Johnson et al., 2005; Miller, 2012; Pérez-Leroux, 2005).

This paper aims to contribute three experiments on children's ability to use number agreement in the noun phrase and subject–verb agreement in offline comprehension tasks. We focus on two dialects of Spanish that vary in the reliability of overt agreement: Mexico City Spanish (henceforth Mexican Spanish) and Punta Arenas, Chile Spanish (henceforth Chilean Spanish). There is a major difference between these two dialects. In Chilean Spanish a phonological process of lenition weakens syllable final -s to [h] or zero. Lenition affects both the realization of nominal plural morphology – realized as /-s/ – and the realization of second person singular (2sg) morphology, in the tenses where this form is realized as /-s/. In the Mexican dialect both plural /-s/ and second person singular /-s/ morphology are always realized, as there is no syllable-final /s/ lenition.

The immediate goal of this paper is to examine differences in performance across dialects of Spanish and within dialects we examine performance in cases in which number information is on the noun phrase and the verb phrase or only on the noun phrase or the verb phrase. The overarching goal is to contribute to the research that determines how different agreement systems are acquired under different input circumstances, which may help us understand properties of the learning function and how the mapping from form to syntax and semantics is accomplished.

The paper is laid out as follows: in section 2 we provide a review of previous research on the acquisition of subject verb agreement and the acquisition of grammatical morphology occurring variably in the input. In sections 3–5 we present two comprehension experiments that examine Spanish-speaking children's use of 3sg and 3pl verbal agreement in comprehension and one experiment that examines comprehension of the 2sg verbal affix /-s/ in Chilean and Mexican Spanish. Section 6 concludes with a discussion of the results.

2. Language acquisition background

Evidence for agreement varies across many dimensions. In some languages agreement is robust and in some languages very weak. Within the same language, agreement forms may be categorically realized or they could occur variably. In the latter case, the realization is probabilistic and depends on various different factors. In this section we briefly consider children's knowledge of agreement marking across different language types. First, we examine acquisition of agreement marking in languages with rich vs. weak verbal morphology (e.g. Spanish vs. English). Second, we investigate acquisition in two varieties of the same language, one in which the input shows variability due to extra-linguistic factors, and the other where no such variability exists. Our motivation for examining children's ability to use agreement marking in