Ursula Stephany and Anastasia Christofidou. *The Acquisition of Greek Case, Number, and Gender: A Usage-Based Approach*. Allgemeine Sprachwissenschaft, Institut für Linguistik, Universität zu Köln, Arbeitspapier Nr. 55. August 2008. ISSN 1615-1496

1 Introduction

This brief but pithy monograph by Ursula Stephany and Anastasia Christofidou, both key contributors to the study of Greek child language acquisition over the years, appears as a dedicated issue of a Working Papers series. S & C have produced here a work that, despite its possibly provisional nature as a “working paper”, nonetheless deserves – because of both its content and its authors – the careful attention of those interested in the acquisition of language in general and of Greek in particular. In this review, I summarize the findings reported on here and offer an evaluation of the work.

2 Summary

Chapter 1 (p. 1-6) introduces the reader to the issues to be addressed in the monograph. The authors begin by presenting the theoretical framework adopted in section 1.1 (p. 1-5). A usage-based approach is used and the view that morphological paradigms are built – or *emerge* – through associations between inflected word forms is considered by the authors more suitable to account for the acquisition of Modern Greek nominal inflection. In section 1.2 (p. 5-6) the authors provide a short presentation of the pre- and protomorphology approach described in Voeikova and Dressler 2002, according to which the acquisition of morphology is completed in three phases before children develop an adult-like morphological system governed by symbolic morphological rules. The authors argue for the advantage of a usage-based approach as opposed to the pre-/protomorphology approach on account of the fact that the former assigns a gradual developmental nature to the acquisition process instead of identifying distinct developmental stages, as the latter does. Section 1.3 (p. 6) follows with a description of the research aims and goals and a brief preview of the quantitative approaches used in the analyses of the data. Four quantitative variables were taken into account in analysing the data: the *mean size of paradigm* (MSP), the emergence of grammatical contrasts within paradigms, and the *percentage of base forms* (PBF). These measurements were carried out both in child and child-directed speech (CS and CDS), so that the role of the input was also investigated.

Chapter 2 (p. 7-11) provides a thorough description of nominal inflection in Greek, where the two main theoretical approaches to noun classification (based on gender and declensional patterns) are presented. A description of the case system follows, with reference both to inflectional patterns and use. The chapter ends with a description of case distinctions of nouns and a reference to the disambiguating role of the definite article in instances of case syncretism.

Chapter 3 (p. 11-12) gives a description of the data that were analysed and provides detailed information on the five children that participated in the initial data collection, Mairi, Janna, Spiros, Maria and Christos. The speech samples analysed belong to two longitudinal corpora, namely the Stephany Corpus (1997) and the Christofidou Corpus, representing different phases of the children's language development.

Chapter 4 (p. 13-29) presents the analyses based on the three quantitative variables applied to the data: the grammatical types per noun (size of paradigm) (section 4.1), the paradigm formation (grammatical contrasts) (section 4.2), and the percentage of base forms (section 4.3). Comparisons between measurements of child speech (CS) and child-directed speech (CDS) are provided with reference to information on adult-directed speech (ADS) as well.

Chapter 5 (p. 29-52) provides a very detailed description of the emergence of case and number distinctions in the language of the five children studied. The authors begin by describing the development of case contrasts in masculine nouns (section 5.1.1) and move on to feminine nouns (section 5.1.2), while a summary of the development of case contrasts is provided in section 5.1.3. The development of number contrasts is given in section 5.2, first with reference to neuter nouns (5.2.1) followed by feminine and masculine nouns (in 5.2.2). A summary is available in section 5.2.3, including some preliminary observations and conclusions.

Chapter 6 (p. 53-57) discusses the findings with respect to the theoretical framework set in Chapter 1 and ends in stating theoretical claims in the light of the findings obtained.

3 Evaluation

The monograph constitutes a very interesting piece of work, providing valuable findings that contribute to the investigation of the acquisition of inflection in highly inflectional languages like Greek. The authors provide a very thorough and detailed analysis of the way nominal inflection emerges in child language based on longitudinal data, providing quantitative measurements that lead to insightful and interesting observations.

From a theoretical point of view, this work raises a number of issues. The authors adopt a usage-based approach, according to which the notion of *emergent schemas* of inflectional patterns is preferred over that of *symbolic morphological rules*, as the former apply to noun subclasses as opposed to the latter, which are claimed to refer to “entire classes of parts of speech”. Bybee’s (2001) claims are presented, according to which schemas are dependent on the specific lexical units they occur in and have no independent existence *outside* those, while word forms are not morphologically decomposed when processed since “stems and affixes are never extracted from the word in which they occur” (p.2, citing Bybee, 2001: 24). Crucially, notions such as morphological structure and morphological decomposition or analysis of word forms during language acquisition and processing are not recognised by this theoretical viewpoint, despite the considerable number of research findings and patterns seen in acquisition but also in language processing, language disorders and neurolinguistic data (such as instances of rule overuse and over-regularisations in typical and impaired language acquisition, morphological processing of pseudowords; see Clahsen, 2006 for a discussion).

Frequency of use is seen as the basic determining factor active in language acquisition; specifically, *token frequency* (how frequent an inflected word form is in the language input), leading to the independent storage of frequently used word forms in the lexicon (*entrenchment*), is valued over *type frequency* (how frequent an inflectional pattern or rule is) and is claimed to determine the way inflections emerge. In fact, it is also seen as responsible for instances of inappropriate word formation and over-generalisations, which are attributed to formation by analogy to frequent word forms, despite the fact that such instances are never present in the input. In other words, productivity and creativity of language are attributed to analogical formation based on statistical information available from language usage itself. In short, input-related factors such as frequency and exposure (experience) are greatly valued under this framework and have shaped the methodological approach used by the authors in analysing the data.

In the description of Greek nominal inflection provided in Chapter 2, two main theoretical approaches to noun classification are presented: proposals classifying nouns based on gender (such as that Holton, Mackridge and Philippaki-Warbuton, 1997, among others), and those that classify nouns based on form syncretism within inflectional paradigms (such as Klairis and Babiniotis 2005, among others). Yet, another, quite influential proposal made by Ralli (2000; 2005), dividing nouns into classes based on inflectional criteria of stem allomorphy and whole paradigm formation, is also available on Greek but is not mentioned in this work. Since Ralli provides a rather

robust critique of gender-based and form-syncretism-based classifications (1995, 2000, 2005), it might have been appropriate to include a reference to her views at this point.

An analysis of gender assignment processes in Greek is given next, stating that it primarily relies on semantic distinctions based on animacy and sex. Nouns that cannot be assigned a gender value based on semantic criteria are classified based on their inflectional type, which is seen as a strong classificatory criterion by the authors also due to the fact that there are no nouns of the same inflectional class that belong to different genders. Yet, the authors seem to have overlooked Ralli's account on gender assignment in Greek, which describes this process as primary lexical, since gender is seen as a lexical, intrinsic feature carried by the noun stem, while semantic criteria (like animacy and sex) are only used in cases of *persisting underspecification* of the gender feature of the stem (see Ralli, 2002, 2003 and 2005 for a detailed description). Again, reference to Ralli's work would have contributed greatly to this point of the monograph.

Apart from the theoretical issues mentioned so far, some practical issues related to presentational and methodological aspects of the piece are also worth noting. To begin with, the presentation of analyses with respect to the three quantitative variables applied is given in great detail with the use of tables and graphs throughout Chapter 4. However, although the presentation is clear most of the time, there are instances where the reader feels confused, often due to organisational anomalies of the presentation: for instance, Mairi's speech (CS) and input (CDS) are analysed in p. 17 in two tables (Tables 3a and 4a), Christos' data is presented next (Tables 3b and 4b), after which the authors go back to Mairi with no reference to the other three children and no clear reason given for that. This emphasis on Christos' and Mairi's data is noticeable in a number of instances in the chapter, while a description of the other children's data is mostly given in text (rarely are they included in graphs). The reader can assume that this imbalance in the presentation of the findings is probably owed to the lack of available data from all developmental phases from the rest of the children (although data from all phases are available for Janna, so it is not quite clear why she is not presented in as much detail as Christos and Mairi), but an explicit statement of this or a slightly different organisation of the findings (perhaps with a separate section emphasising on the two children in greater detail than the rest) might have been appropriate.

The presentation of the findings in Chapter 5 is even more detailed and thorough. However, it seems that too much emphasis is placed on a detailed description of the use of specific word forms and distinctions, so that general

patterns are not easily recognised. As a result, it is not easy for the reader to see the broader picture behind the detail. Some measurements (numbers or percentages of forms used) are given in the text, although the use of tables or figures might have contributed to a visual identification of similarities and/or differences among the children studied. The two summary sections (5.1.3 and 5.2.3) are quite useful in this respect as insightful observations and comments are provided, but even these include more than enough detail and a more general pattern is not easily identifiable.

The final chapter of the work (Chapter 6) provides a discussion of the findings, where the authors claim that there is no evidence of a pre-morphological stage in the data analysed. Indeed, all children studied seemed to have used *marked* forms of nouns from the first phase recorded. However, as the authors also admit, available data do not capture the development of language from its onset for all of the children (for three of the children available data start at the age of 1;8-1;10, while data from Maria's speech start at the age of 2;3). In fact, not all developmental phases studied were represented by available data for all the children included in the analyses: one phase was available on Spiros, two on Maria, while three phases were available on Christos, Mairi and Janna. In my view, the fact that there is no consistency in that respect, in combination with the relatively high individual variation in the patterns observed across the children studied, reduces the validity of the assumptions drawn.

Despite this fact, the authors make some insightful comments on the findings and attempt to interpret them in the light of the theoretical basis set at the beginning of the monograph. Their initial goals, as these were described in section 1.3, were to investigate the development of nominal inflections during the early stages of language acquisition, aiming to address mainly the role of gender in the development of case distinctions on Greek nouns, but also to contribute to the question whether "gender determines inflection class or vice versa". By the discussion provided in Chapter 6, the primary goal seems to have been successfully met. It is not, however, clear how the findings contribute to the issue of the relation between gender and inflectional class.

As far as the theoretical claims made at the beginning are concerned, it seems that the two main assumptions the present findings point to are the following: (1) that inflection does not develop across the board within the grammatical class of nouns, and (2) that there do not seem to be clear, identifiable stages of acquisition but rather a more gradual emergence of inflection in the children's language. However, these assumptions might be attributable to the methodological approach adopted in the analysis of the data: analyses focus on the presence of individual word forms in the children's speech while target versus incorrect or inappropriate use is not addressed in adequate detail.

At the same time, the role of the underlying – morphosyntactic or lexical – nature of the three morphological features investigated, i.e., gender, number and case (differences that are usually manifested in the different patterns of acquisition they exhibit even in this study), is overlooked. Finally, limitations with respect to the data available along with the high individual variation observed could have made the identification of any stages of acquisition difficult.

To conclude, although this monograph represents a piece of work of very high quality and value, I am not fully convinced that the specific findings provide indisputable evidence against processes such as representation of morphological structure or rule over-generalisation during language acquisition. Even so, the contribution of longitudinal data as well as the value of the findings presented here in the general context of language acquisition and specifically the acquisition of the Greek inflectional system is undeniable.

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