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The acquisition of interlanguage morphology

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Chapter 1

Introduction

1.1 Morphology and second language learning

If Dutch learners of English encounter a word like *undoable*, they may recognise it because they have seen it before and have remembered it. They may also fail to recognise it and guess the meaning of the word on the basis of the context. A third possibility is that they do not recognise the word and attempt to guess the meaning by decomposing the word into parts they do recognise and arrive at its meaning on the basis of these parts. In doing so, they may use the knowledge of word analysis they have gained in their mother tongue. The strategy a learner will employ in this situation will depend on a range of interrelated factors. Is the word used frequently? Is the word decomposable? Are the parts of the word used frequently? Does the learner know these parts? Are the parts similar to parts in the learner's native language? Does the combined meaning of the parts make sense? All these questions are related to the acquisition and use of morphology in a second language, which is the subject of this study. Many of the questions raised here are related to questions that go beyond this specific subject. The first question that has to be answered is how do adult native speakers of a language store and retrieve (parts of) words? Secondly, how do people acquire knowledge and skills to produce and recognise words? Thirdly, how can this be explained by theories of language learning and theories of morphological structure? Furthermore, are the processes underlying the acquisition of morphological skills different for L1 learners and L2 learners? What, for instance, is the role of the second language learner's first language? All of these questions and many more will be addressed here, as they constitute essential parts of the central research question of this study: What are the mechanisms and processes underlying the acquisition and use of morphological complexity in the production and comprehension of polymorphemic words by learners of a second language? More specifically, the current study will focus on the acquisition of these mechanisms and processes for Dutch learners of English. In this dissertation, an integrated multi-disciplinary model will be proposed to account for the acquisition and use of second-language morphology.

The acquisition of second language morphology is a relatively new area of research, which means that there is little material to draw on. Previous studies of L2 morphology have mainly concentrated on the order of acquisition of morphemes as a function of the learner's L1 background (the "morpheme order studies"). These studies provide ample -though contradictory- information about the order of acquisition of several specific morphemes and may contribute to the overall picture of

foreign language morphological acquisition. These studies, however, have hardly paid attention to the underlying strategies applied by the learner in acquiring, processing and producing morphologically complex words and the general organisation and development of the foreign language learner's lexicon. As studies in this particular area have been sparse, clues for the strategies and processes of L2 learners in the production and comprehension of morphologically complex words must be obtained from other sources. One of these sources is morphological theory. This area has seen the introduction of many concepts and ideas that could solve part of the puzzle. Another major source is the psycholinguistic study of the (adult native speaker's) mental lexicon. Many such models of the mental lexicon address the problem exemplified in the opening lines of this chapter: does the mental lexicon consist of whole words, parts of words, or a combination of the two? And in case of the latter situation, how is it determined which mechanisms the speaker or listener employs to produce or comprehend morphologically complex words? Out of the many approaches to this problem, one particular model will be selected that serves as the sound basis for a model of the acquisition of L2 morphology. A third source is found in case studies describing the acquisition of L1 morphology. Studies of children's lexical innovations reveal that children make use of morphological generalisations on a large scale. These data provide invaluable insights into the mechanisms and processes of the acquisition of morphology, which can partly be generalised to the acquisition of L2 morphology. This also holds for studies of the bilingual mental lexicon. Although these studies do not have anything to say about the acquisition of morphology explicitly, models of the bilingual mental lexicon provide useful insights into the differences between the monolingual and the bilingual lexicon. These insights can be utilised to define the role of morphology in the acquisition of the L2 mental lexicon. For example, an obvious question that is amply addressed in this field is whether the bilingual mental lexicon consists of discrete lexicons for each language or of one unified lexicon. If morphology is regarded as part of the lexicon, the question of the discreteness of L1 and L2 morphology will largely depend on the model of the bilingual lexicon adhered to. A final source of information is found in theories of second language acquisition. This field provides an insight into the importance of the second language learner's native language and into the role of the learner's input. Furthermore, this area addresses developmental issues and supplies data to complete the interdisciplinary model of the acquisition of L2 morphology.

1.1.1 Relevance of morphology for second language learning

Many words in a language are morphologically related, at different levels and with different strengths. The verb "to learn", for example, is not only linked to inflectional forms like "learns", "learned" and "learning", but also to the noun "learner" and the adjective "learnable". It would not be very economical if all these related forms had to be learned and stored separately. This would be unlikely considering the impressive number of words that can be composed using morphology. For purely agglutinative languages like Turkish, impressive absolute figures have been calculated to this effect. Hankamer (1989) computed that a typical educated speaker

of Turkish, with a lexicon size of approximately 20.000 noun roots and 10.000 verb roots could dispose of more than 200 billion entries based on this lexicon. These figures demonstrate the power of morphological relations and show the relevance of morphology for learners of a language: with a limited knowledge of morphological regularities, the learner can achieve a tremendous expansion of her[1] vocabulary.

Secondly, morphology can be a helpful tool to facilitate the acquisition and use of words. Recent research into the acquisition and retention of foreign and second language vocabulary has shown that newly acquired words are better retained if they were initially inferred through linguistic cues rather than through context (see e.g. Haastrup, 1989)[2]. Drawing attention to the morphological structure of words in a second language may result in an increasing awareness of morphological complexity, which can be an important strategy of inferring and acquiring words. In "printed school English", 84 per cent of the prefixed words and 86 percent of the derivationally suffixed words are semantically transparent, i.e. their meaning can be inferred on the basis of their constituent morphemes (Nagy & Anderson, 1984). Obviously, morphological cues for the inference of words in a second or foreign language can be essential to vocabulary acquisition. This is confirmed by other studies, for instance Freyd and Baron (1982), which indicate that learners who are good at analysing words are the more successful word learners.

1.1.2   Relevance of the study of interlanguage morphology

The study of interlanguage morphology can provide insights into the relative importance of morphology teaching in SLA. Knowledge of processes underlying the learner's use of morphology may support teaching, as it will make clear on which areas of morphology language teaching should concentrate and will help determine the best way of teaching morphology.

Secondly, this line of study could support the work that is being done in the area of vocabulary acquisition. As many words are related by form and/or by meaning, studying the nature of these relations may shed new light on the processes and factors that are relevant to the acquisition of vocabulary.

Thirdly, the study of L2 morphology may contribute to general theories of second language acquisition. The role of the learner's native language, for instance, is one of the factors that will play a major role in the study of both L2 morphology and other areas of SLA research, and findings in the field of morphology could be generalised to the other fields.

Finally, insights in the field of interlanguage morphology may contribute to models of morphological processing in L1 and L2 and models of the bilingual mental lexicon.

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[1] I will try to be consistent in referring to learners as female human beings. Readers who feel offended by this may rest assured that I will use "he" and "him" in my next dissertation.

[2] For a complete overview of the effects of context on the acquisition of vocabulary, see Mondria (1996).

1.2 Focus, aim and structure of the present study

The primary focus of this study is to investigate the processes and principles underlying the acquisition of English morphology by Dutch learners. To this end, an interdisciplinary model of the acquisition of L2 morphology is proposed and tested. This model draws on different sources that are discussed in Chapter 2 and 3. Chapter 2 focuses on the role of morphology in the comprehension and production of polymorphemic words by adult native speakers. It first discusses some pertinent current theories of morphology that contribute to the model. Next, it surveys the most influential models of the mental lexicon and expresses a preference for one particular model. Then, the most relevant issues related to morphology and the lexicon are discussed thematically, focused on determining the most powerful model of morphology in the mental lexicon. It will be argued that a model of morphology should comply with a more general model of language processing, and requirements will be set for the adjustment of morphological models in this direction. In the conclusion of Chapter 2, additional support is provided for the model selected, and further adjustments are suggested. Chapter 3 concentrates on the role of morphology in first and second language learning and on the structure of the bilingual mental lexicon. After a detailed discussion of diary data describing children's lexical innovations, the main conclusions about the principles and processes of L1 acquisition are listed. These observations give rise to elaboration and adjustment of the model proposed in Chapter 2. Additional information about the L2 learner's lexicon is provided by models of the bilingual lexicon, which are predominantly based on speech error data. This culminates into further elaboration of the model. Finally, the model is checked against observations from the area of (general) second language acquisition research, in which particularly the role of the learner's first language will be highlighted. Chapter 3 concludes with a sketch of the overall picture as it emerges from Chapters 2 and 3. Aspects of the model thus proposed are tested in Chapter 4. This chapter describes three empirical studies (some of which consist of several experiments), all concentrating on testing the one aspect of the model that appears to be most crucial: the role of the learner's first language. The first study explores the relations between Dutch and English morphology in a series of three experiments. In the second study, an implication of the model is tested in a psycholinguistic priming experiment involving reaction time measurement. The third study includes a typological comparison of Dutch and English derivational morphology based on corpus data. Predictions originating from this comparison are tested in a production experiment in which learners from three levels of L2 proficiency participate. In Chapter 5, the model proposed in Chapter 2 and 3 is evaluated in terms of the results of the empirical studies in Chapter 4. Finally, some implications of the studies are mentioned and some suggestions are put forward for further research.