

## DOCTORAL THESIS

### Scope interaction between universal quantifiers and sentential negation in non-native English: the roles of UG and L1 grammar in L2 acquisition

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**Scope Interaction between Universal Quantifiers  
and Sentential Negation in Non-native English: the  
Roles of UG and L1 Grammar in L2 Acquisition**

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## Abstract

This dissertation is an investigation of the influence of native language (L1) grammar and innate linguistic knowledge (i.e., Universal Grammar(UG)) on the non-native (L2) English language acquisition by examining how these two sources of knowledge help L2 learners interpret scope interactions in sentences containing sentential negation (NEG) and a universal quantifier (*all*, *every* and *each*) (UQ) in the subject position (namely, subject-*all/every/each* sentences) in L2 English by adult native speakers of Chinese and German.

By adopting the analytical framework proposed by Schwartz & Sprouse (2000), this study examines the effect of L1 grammar and UG in two acquisition tasks: (i) the acquisition of the non-isomorphic interpretation for subject-*all/every* sentences, such as *all the farmers/every farmer didn't feed the horse*; and (ii) the acquisition of the lack of the non-isomorphic interpretation for subject-*each* sentences, such as *each farmer didn't feed the horse*. On the one hand, these two acquisition tasks can help us investigate the role of UG because they represent poverty-of-stimulus (POS) problems to Chinese-speaking and German-speaking learners of English as an L2 (Chinese ESL and German ESL learners), respectively. On the other hand, they can help discover the effect of L1 transfer since Chinese and German are typologically distinct in these two linguistic phenomena.

The current study adopts the feature-driven Target Landing Site (TLS) model within the Minimalist Program to analyze the NEG-UQ interaction in English, Chinese, and German. According to the TLS model, the grammar for scope phenomena is the result of the semantic quantificational features of the scope items and the universal requirement that scope quantificational features of the scope items must be checked.

The written version of the Truth Value Judgment Task (TVJT) is adopted to investigate the acquisition of the NEG-UQ interaction in English by Chinese ESL and German ESL learners. The findings of our study confirm the involvement of L1 grammar and UG in L2 acquisition of scope interaction and support Schwartz & Sprouse's (1994; 1996) Full Transfer/Full Access model of L2 acquisition. Thus, on the basis of these findings, both the L1 and UG are sources of knowledge in the L2 acquisition of phenomena at this syntax-semantics interpretive interface. The current study also explores how these two sources of knowledge are involved in L2 learners' scope knowledge. Based on the TLS model for scope interaction, our study argues that, in order to derive correct scope interpretations, language learners should both acquire the semantic quantificational features of scope items based on L1 transfer and L2 input and have access to the UG in the form of a universal requirement of feature-checking.

In addition, the current study provides significant contributions to both linguistic analysis and acquisitional research of scope interaction. First, our study contributes to the understanding of scope items by generalizing the semantic quantificational features of sentential negation and universal quantifiers in English, Chinese, and German. It also applies the feature-driven TLS model to analyse the NEG-UQ

interaction in these three languages to capture the cross-linguistic scope variations. Second, the current study contributes to our knowledge of how the POS problems in language acquisition are overcome by providing empirical data to support an acquisition model in which the POS problems can be overcome based on the indirect positive evidence in the language input.

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