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Spurious animacy in learner relative clauses: Employing underspecification and unification to model L1 effects

Based on learner production data, we show that Chinese, German and Russian learners of English exhibit a spurious animacy effect in their production of relative clauses. In particular, they resist animate heads in relatives introduced by the relative complementisor "that", thus avoiding relatives like "women that work in this office" while producing relatives like "the cars that this company makes". These learners contrast with Brazilian and Italian learners of English who regularly produce that-relatives with both animate and inanimate heads. This contrast accounts for the fact around 70% of relative clauses by Brazilians and Italians are introduced by "that" while for Russians, Chinese and Germans, that-relatives represent roughly a third of their production. In addition, the latter set of learners shows a very high production of headless "free" relatives like "who takes most points is winner" where a headed relative would be more natural ("the player who wins..."); see also Flynn et al. (2004).

While this animacy restriction is a clear L1 effect, it cannot be explained as direct transfer. We propose that learners lacking complementisor relatives in their L1s initially use "that" very conservatively, as a demonstrative rather than a relative clause complementisor, making their "that"-relatives more appropriately viewed as correlatives. In addition, they use an underspecified wh-construction, corresponding roughly to the syntax of constituent questions, but used very liberally for restrictive modification where it exhibits the syntactic trappings of free relatives.

We formalise these ideas within Sign Based Construction Grammar (SBCG). In this framework, the main linguistic object is the sign, an abstract entity that, in a Saussurean sense, is the locus of constraints on the interface between form and meaning. Signs are structured complexes with information on the sounds (phonology), form (morphology), combinatorial potential (syntax) and meaning (semantic content and context background) of a given utterance. We model L1 transfer or lack thereof through underspecified feature structures in the SYNTAX and FORM attributes of the learner sign. The intuitive notion of "similarity" or "positive" transfer is captured through the degree of unification between L1 and L2 feature structures. This approach allows a more flexible and fine grained account of transfer effects in comparison to the more standard parametric approach. Crucially, this approach allows us to formalise learner relative clauses in their own terms, with learner specific constraints, which can capture development and change gradually over time (e.g. the idea that "that" is not a complementisor initially).

The learner data are from EFCamDat (Geertzen et al., 2013), an open access L2 English database. We are currently developing a computational framework to model the specific effects found in the L2 acquisition of English relative clauses, building on the approach of Alishashi et. al. (2008).

Keywords: Theories and methods; L2 use; Grammar; Cross-linguistic influence

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