M. Vulchanova, et al

U-shaped trajectories in L2 learning: Testing the dual processing hypothesis

Abstract:

U-shaped trajectories are well-established in the acquisition of first languages. A U-shaped curve presupposes that some behaviors appear, disappear, and then apparently reappear over time. In first language acquisition the U-shaped curve is best illustrated on the developmental trajectory of regular and irregular verb morphology, as e.g., in the English past tense forms. Children acquiring English as a first language would typically initially produce correct past tense forms of certain frequent verbs (most often these are irregular forms), after which correct past tense production dramatically declines (with a mix of errors in both regular and irregular forms), eventually to accelerate and become correct again. This phenomenon has, among other grammar facts, given rise to Pinker’s dual processing account regarding two parallel mechanisms which might underlie grammar competence: associative memory and symbol manipulating rules (Pinker, 1998; 1999).

While initially there has been an interest in the possibility of U-shaped curves in L2 acquisition, primarily based on observations (Kellerman, 1985; Shirai, 1990; Sjoholm, 1989), almost no study has approached this experimentally. Furthermore, U-shaped trajectories have primarily been addressed concerning lexical development, and mostly as the result of transfer from the L1. We report the results of a study addressing the acquisition of past tense forms in English as an L2 in native speakers of Norwegian. We employed a cross-sectional design recruiting students at different levels of proficiency in 8th grade (N=20), 9th grade (N=20) and 10th grade (N=20). They were tested using an on-line form on regular and irregular past tense forms of verbs and plural forms of nouns implementing verb morphology elicitation modelled on the classical Wug-test design (Berko-Gleason, 1958). In addition, we collected data on the students’ English proficiency, both in grammar and vocabulary to seek underlying concurrent predictive relationships with performance on the experimental task. We hypothesized that, if the U-shaped curve can be documented in the acquisition of English morphology, we would observe significant differences between the 3 groups of L2 language learners in accuracy of performance. In the talk, we present preliminary data from the ongoing study and discuss it form the point of view of the suggested universality of U-shaped learning, rather than simply the result of L1 transfer. Such evidence will also speak in favour of the dual processing mechanism as underlying both L1 and L2 acquisition.