

Relations between research into sentence processing and research into instructed SLA: Can we train the development of new processing routines?

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If we consider that online input processing can drive learning, and if we wish to inform pedagogy, then stronger relations between research into sentence processing and research into ‘manipulated input’ in instructed SLA is required. This talk considers how each of these areas has operationalised knowledge and learning, and then presents new data about the potential for investigating an interface between these areas.

Sentence processing research has informed us about processing routines, anticipation, sensitivity to violations, disambiguation, co-indexation, and processing cost. Using *online* psycholinguistic techniques, such research has informed our understanding of the integration of language features online and cross-linguistic influence. However, it has not considered the extent to which *explicit knowledge/awareness* may have a role in sentence processing.

On the other hand, research into ‘manipulated input’ in instructed SLA has documented the role of awareness, explicit knowledge and practice on changing knowledge over time. This body of research has used more ecologically valid, *offline* measures of knowledge, such as interpretation and production, and has informed our understanding about automatization of knowledge of form-meaning mappings (rather than processing routines).

There is very little research that investigates whether explicit knowledge and practice in rehearsing processing routines can influence online processing of form-meaning mappings, and, critically, whether this improves knowledge that is accessible under a range of conditions. Furthermore, no research has yet investigated this in relation to ‘meaningless’ syntax, i.e. whether explicit knowledge about the distribution of syntax and practice in processing routines can improve the interpretation and production.

Beginning to address these questions, I present two studies that investigate the extent to which learners’ processing routines may be changed. One study, with McManus, focused on the teaching of co-indexation routines for inter-clausal morphology and the effects on learning the different meanings of the French *imparfait* (ongoing and habitual). New data will then be presented about the training of processing abstract syntax: non-inversion in English wh- embedded questions (e.g. *Where is the ball?* versus *I don’t know where the ball is*). The intervention trained learners to routinize the fact that main clauses coerce non-inversion, and measured learning using a self-paced reading test (online) and an elicited oral production test (offline). It is proposed that new co-indexation routines may be teachable, even for abstract syntax, via a close consideration of the processing problem that learners face.