

Imitation and Routinisation are Social Cognitive Linguistic Processes, from A Procedural Perspective

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Dynamic Syntax (DS, Kempson et al. 2001, Cann et al. 2005) is a thoroughly incremental account of the context-dependence of language. In DS, contextual information is reused, and thereby available for subsequent occasions of interaction. By modelling understanding and generation as both driven by an underlying parsing mechanism, DS presumes tight coupling of parsing and production (a strong model of parity): using grammatical resources, individual speakers are able to directly coordinate what they have construed to be another's semantic representation (during understanding) and their own representation (as employed in generation) (eg Kempson et al. 2007, Gargett et al. 2008).

Incremental modelling, plus the coupling of understanding and generation, enable a straightforward account of the context-dependence of both speaking and hearing. This is commensurate with interactive (vs. autonomous) language models: linguistic processing is accomplished via interaction between various cognitive domains (eg Pickering 2002). A broader cognitive perspective on linguistic phenomena (eg Cognitive Linguistics, Croft & Cruse 2004), provides clear advantages for any attempt to model highly context-dependent dialogue phenomena. In particular, combining incrementality and reuse provides a fine-grained model of linguistic interaction driven by grammatical resources, rather than via rich models of an interlocutors mental state.

We have developed within DS a model of various dialogue phenomena such as clarifications, reformulations and corrections. I will report results of an experiment testing this model, using a novel methodology (Purver et al. 2003). I am currently attempting to extend this model to examine the role of broader cognitive phenomena such as routinisation and imitation in constraining choice of interpretations. Imitation and routinisation are well studied social processes within Cognitive Psychology (Hurley & Chater 2005, Pickering & Garrod 2005). These processes each constrain the interpretive choices open to an interlocutor: either repeat an interlocutor's actions directly, or employ stored chunks of actions (complete with interpretations for such ad-hoc constructions). Within general linguistics, routinisations surface as idioms (eg 'kicked the bucket', 'take X to the cleaners'), although little work on imitation has been undertaken.

I am exploring the effect on language change of factoring in these social cog-

nitive processes of imitation and routinisation, in particular employing well-trying simulation methods. Whereas imitation has been well-researched (eg Perfors 2000), routinisation has seldom been looked at in such modelling. The attempt is to bridge this work to work in dialogue, by taking a more procedural approach.

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