Mechanisms of Learning, Alignment and Routinization In Dialogue

Summary

The most natural and basic form of language use is dialogue, in which two or more interlocutors are engaged in both production and comprehension. Although researchers in many traditions have long recognised this, it is striking that the overwhelming majority of psycholinguistic research from the 1960s to the present day has studied the isolated comprehension or production of language, using paradigms such as reading, isolated speech comprehension, or picture naming. It is possible to argue that psycholinguistics has almost entirely lost sight of the fact that language is used to communicate. Yet there is no reason why we cannot investigate people’s mental mechanisms while they engage in dialogue. Such an understanding will help integrate traditional linguistics and cognitive psychology with social-scientific approaches to language use.

We propose a series of experiments aimed at elucidating the mechanisms underlying successful dialogue that draws on the interactive-alignment model (Pickering and Garrod, 2004, Behavioral and Brain Sciences). On this account, interlocutors come to a common understanding by aligning their linguistic representations at many levels, including levels concerned with words, grammar and meaning. Most of this alignment takes place unconsciously as a consequence of low-level priming.

It is known that there are both short- and long-term aspects of repetition of linguistic form, but little is known about how these are related, or how they are affected by dialogue. Additionally, the evidence for the links between different linguistic levels with respect to alignment is limited. In our experiments, a confederate and an experimental participant take turns to describe pictures to each other and determine whether the descriptions match their pictures. We manipulate the linguistic form and content of the confederate’s description and investigate its effects on the participant’s subsequent descriptions. For example, participants are much more likely to use a particular grammatical form (e.g., a passive) immediately after the confederate has used that form rather than an alternative form (e.g., an active).

Specifically, we shall manipulate such factors as whether the participant’s description immediately follows the confederate’s description or not; whether both descriptions involve some of the same words (e.g., the verb) or not; whether those words have the same meaning or not; and whether the participant makes a choice about words, grammar or meaning. These results will be used to determine the mechanisms that underlie alignment and the development of novel routines. These results will be informative about the relationship between learning and language use during dialogue.
Objectives

1. To determine how interlocutors align their linguistic representations during dialogue.

2. To elucidate the relationship between structural priming (the tendency to repeat linguistic form) and interactive alignment during dialogue.

3. To determine the relationship between short-term alignment of linguistic representations and long-term convergence on routinized expressions.

4. To understand the architecture of language production that underlies dialogue by determining the pervasiveness of alignment across different linguistic levels and between those levels (e.g., how lexical repetition affects syntactic alignment).