

## **Epistemology and Indexicality in Navajo, Tibetan and English**

Languages differ in the way they express mental processes and epistemological attitude. Some languages (such as English) use syntactic embedding under a verb such as ‘think’, ‘know’, ‘infer’ ‘conjecture’, etc. to express mental processes or attitudes, while other languages (such as Tibetan and Navajo) use non-embedding particles or verbal suffixes. Regardless of the syntactic mechanisms used, understanding expressions denoting mental processes and attitudes requires an understanding of switches in perspective and other minds. Recent advances in the study of linguistic embedding provide an exciting new window into the triggers for the development of the understanding of other minds. This project will explore the relationship between syntactic embedding and the understanding of mental processes by developing a new synthesis of field work and language acquisition studies.

In our field work on Navajo and Tibetan, we will study Navajo constructions that involve perspective switches and deixis and Tibetan constructions that mark epistemological attitudes without syntactic embedding. We find that the study of Navajo pronouns illuminates the stages that all children go through to acquire deictic expressions, and the study of Tibetan evidentials similarly bears on our questions about the acquisition the understanding of false belief. Thus, the field work will feed the goal of our work in language acquisition, which is to illuminate the path of development of children's knowledge of language expressing mental processes and their understanding of false beliefs and other minds.

The language acquisition experiments will begin with basic experiments on deixis in simple and embedded sentences in English, and will then adapt these experiments and explore the acquisition of parallel structures in child Tibetan. In conjunction with our field work on evidentials in adult Tibetan, we will carry out experiments on parallel constructions in child English.

Field workers and language acquisition researchers encounter many of the same obstacles in trying to learn about complex structures and subtle judgments. The data we are interested in involve complex interactions and perspective switches, which are extremely difficult to present verbally. We plan to develop scenarios that portray false beliefs and varying perspectives, which can be used for either child language experiments or field work. In addition, we will be creating video material that can be adapted to any language, or can be used for nonverbal tests. These materials will allow us to elicit judgments not only about grammaticality, but also about ambiguity and appropriateness in a given context.

Research on the relationship between syntax and Theory of Mind gives us new ways of distinguishing linguistic disorders from other cognitive difficulties. Our research will also contribute to our understanding of 2 languages spoken by underrepresented minority populations. The materials that we develop will have the potential to be used in a variety of settings outside of academia, including language classrooms, testing for communication disorders and dialect-neutral language assessment.