From pitch to purpose: The prosodic–pragmatic mapping of [I + verb] belief constructions in English and Mandarin

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Abstract

Prosody has often been considered a universal cue of prominence across languages. This paper presents the results of a study that aimed to provide congruent data on the question of universality vs. cross-linguistic variability of pragmatic–prosodic mappings (prosodic variation as a cue to pragmatic interpretation) in a specific linguistic construction, namely, [I + verb] belief constructs before an opinion. Specifically, this study presents a perception test implemented to investigate the phenomenon of cross-linguistic pragmatic-prosodic mapping in [I + verb] belief constructs. Since opinions carry inherent notions of speaker belief, these constructions may initially appear superfluous. However, [I + verb] forms may actually fulfill various pragmatic functions depending on prosodic variation. Usage of various pragmatic functions of this construct was analyzed and compared between native Mandarin and English speakers using the most common belief verb, "think" ('juede' in Mandarin). Results illustrated that confidence rating of prosodic–syntactic [I + verb] variations were linked to pragmatic implicatures generated via alternative semantics theory. Furthermore, the same confidence rating trends appeared across both Mandarin and English, exhibiting a similar pragmatic-prosodic mapping for [I + verb] across these typologically different languages. This study thereby provides validity of prosody as a cross-linguistic pragmatic tool to express speaker attitude.
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1. Introduction

This paper explores how prosodic variation via focus-marking acts as a pragmatic tool to create conversational implicatures. A cross-linguistic study in Mandarin and English was conducted to investigate this prosodic–pragmatic link through a particular pragmatically ambiguous construct: [I + verb] preceding an opinion. Given that opinions inherently express speaker belief, the addition of [I + verb] belief constructs (i.e. "I think," "I feel," "I believe") appears semantically redundant. Pragmatically, however, different prosodic variations of [I + verb] may perform either boosting (Main Clause) or hedging (Epistemic marker, Discourse marker) functions. Following an overview of the prosodic–pragmatic interface and alternative semantics theory, the cross-linguistic use of pitch as a cue for prominence[1]

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[1] Whilst there are various types of prominence, in the context of this paper we refer to pragmatic prominence via prosodic focus-marking (specifically, prosodic variation of focus placement).

will be discussed, leading to a developed conceptual framework for the pragmatic–prosodic mapping of [I + verb].[2]

2. The prosody–pragmatics interface

As pragmatic communication is considered a cognitive process, various theories of how this process functions have been posited (see Grice, 1975/1989; Sperber and Wilson, 1995). Grice's (1975/1989) inferential model of communication focuses not just on what is said but also on how information is interpreted by the listener (Sperber and Wilson, 1995). That is, communication consists less of what is said but more of what is *meant*. A communicative act constitutes a speaker saying something with the intention for the addressee to recognize what is said; the speaker's communicative goal is not satisfied unless the addressee recognizes this intent (Grice, 1989).

A speaker draws upon their pragmatic knowledge to create pragmatic markers, or tools, called ''inference triggers'' (Fetzer, 2011:258), which indicate that the speaker intends to create a conversational implicature; these conversational implicatures are used to guide the listener toward the correct inference for an utterance (Grice, 1989). Such pragmatic tools are used by speakers not only to direct listener interpretation, but also to express speaker attitude toward one's statement. How these pragmatic tools are used is explored in the next section.

Given that an utterance's meaning lies not only in *what* is said, but also in *how* it is said (Grice, 1989), speakers alter how they utter statements in order to direct a listener to an intended interpretation. The manner in which an utterance, or speech signal, is presented relies heavily on prosody (Wilson and Wharton, 2006; Pierrehumbert, 1980/1990). Prosody refers to how elements of the speech signal are grouped (syntactically parsed based on pragmatic interpretation) and given prominence (Pierrehumbert, 1980). Wilson and Wharton (2006) purport the notion of prosody as the ''packaging'' rather than ''content'' of an utterance; this analogy parallels with Grice's (1989) comparison of *how* it is said vs. *what* is said, stressing the importance of *how* an utterance's ''packaging'' is prosodically presented.

Focus-marking by placing pragmatic prominence within a prosodic grouping of syllables allows speakers to pragmatically guide the inferred meaning of their utterance. Viewing pragmatic discourse as a cognitive tool, prosody is used to create conversational implicatures and direct speaker interpretation (Calhoun, 2007). Hence, focus-marking functions pragmatically to reduce the number of possible interpretations, whilst simultaneously making the speaker's intended interpretation more psychologically salient (Wilson and Wharton, 2006; Wichmann and Blakemore, 2005). This manipulation may be viewed through the perspective of Information Structure (see Jackendoff, 1972), which explores how each lexical item refers back to, alters, or updates the existing discourse (Calhoun, 2007:54). New, and thus more semantically significant, information is accented as the focus of an utterance, while non-accented items in spoken language are considered given, or background information (Tench, 1990, 1996).

2.1. Alternative semantics theory

Within information structure, focus-marking may be explicated via alternative semantics (see Rooth, 1992/1996). Alternative semantics states that all non-focal lexical items maintain their original semantic values, whereas focus-marked items take on a different semantic value than their original lexico-semantic identities (Rooth, 1992). That is, whilst some lexical items do not function pragmatically to transform discourse, focus-marked items under the lens of alternative semantics redirect or update the conversational implicature.

Focus-marked items possess a set containing all semantic objects of the same semantic type, known as the ''focus semantic value'' (Zimmermann and Onea, 2011). For example, a speaker utters a proposition (p): ''I think cats are nice.'' If the speaker had placed prosodic prominence on the word, ''*I*,'' then an alternative set would be created:

X think(s) cats are nice,
where *X* is any object of the same semantic type, including:
[I, you, Mary, John, etc. . ..]

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[2] Definition of abbreviations:

CR = Confidence rating
DIR = Direct sentence (no [I + verb] construct)
MC = ''Main clause'' variation of [I + verb] with focus-marking on the pronoun (PRN)
EM = ''Epistemic marker'' variation of [I + verb] with focus-marking on the verb (V)
DM = ''Discourse marker'' variation of [I + verb] with no focus-marking
  DMF = DM with sentence-initial syntactic position (FRONT)
  DMM = DM with sentence-medial syntactic position (MID)
  DME = DM with sentence-final syntactic position (END)