

Overview: The interaction of discourse particles with prosodic cues aids a listener’s interpretation of speaker attitudes in a discourse. Yet most work on discourse particles takes the prosodic environment for granted. This is due in part to two factors: (i) **prosodic tunes** contribute clear speaker attitudes and semantic meaning, but are difficult to extract from information given by syntactic position or the physical manifestation of a speech stream, and (ii) the meaning of **discourse particles** is difficult to pinpoint in general. Adding reference to syntactic and prosodic environments muddles the picture even more. The contributions of discourse particles and intonation are integral to understanding discourse navigation, yet both operate outside of the traditional approaches to syntactic, semantic or phonological investigation. This work experimentally investigates the semantic contribution of three particles (*oh*, *huh*, *what*) and one prosodic contour (*surprise-redundancy contour (SRC)*) as **mirative** strategies in English.

Particles and Mirativity: Miratives are a grammatical category that is often discussed in tandem with languages with overt evidential markings. miratives broadly encode a participant’s epistemic state at the time of utterance (DeLancey, 1997). Though many miratives go hand in hand with evidentials, mirativity is inherently distinct from evidentiality. Aikenvahld (2012) narrows the field in her survey, and proposes five meanings that are consistent with mirative interpretations that need not overlap with evidentials. Her defining features (surprise, sudden discovery/realization, new information, counterexpectation, and unprepared mind) need not reference the kind of evidence that a speaker has. Rather, they deal with how a speaker can react to an utterance. This paper fits English into the realm of mirativity, identifying the discourse particles *oh*, *huh* and *what* as mirative markers that give information about a speaker’s expectations in a discourse:

- (1) The discourse particles *oh*, *huh* and *what* are anaphoric to a proposition p salient in the discourse, and add the following to the speaker’s discourse commitments (DCs):
 - a. **oh**: $\text{Exp}_{\text{spkr}}(p) \leq \text{Exp}_{\text{spkr}}(\neg p)$
 - b. **huh**: $\text{Exp}_{\text{spkr}}(p) \leq \text{Exp}_{\text{spkr}}(\neg p) \wedge \text{Exp}_{\text{spkr}}(p) > 0$
 - c. **what**: $\text{Exp}_{\text{spkr}}(p) < 1$

Using a modified Tabletop model (Gunlogson, 2001, Farkas & Bruce, 2010), this approach assumes that discourse particles and prosodic contours contribute speaker-oriented commentary to a participant’s DCs. I assume that intonation is a way for the speaker to comment on her own expectations for how a conversation should be navigated. Thus, neutral, falling prosody puts a speaker’s expectations for p at approximately 1 in their DCs. The SRC also relies on speaker expectation. This contour consists of a high pitch on the primary sentential accent and contrasting low pitch on the utterance’s second most prominent syllable, giving a “scooped” rising to falling contour. The contour has the pragmatic effect of indicating a speaker’s surprise at a proposition or event, given their current expectations and beliefs about the world (Sag & Lieberman, 1975). The SRC is clearly a mirative strategy. Consider the difference in (2a-b):

- (2) a. Huh. Steven isn’t coming. b. Huh?! Steven isn’t coming!
H* H* -L% **L*** H* -L%

In (2a), the speaker uses *huh* to signal her realization of an unexpected event and she pairs it with neutral, falling intonation; she can utter this if she has been waiting for an hour at a cafe, and receives a message from Steven indicating his regrets. In (2b), if the speaker and the listener have previously established that Steven is out of town, when her partner indicates that Steven might meet them for lunch, the speaker can utter this sentence, paired with the SRC. This contributes a “should have known” inference, and is a reminder for her listener to either provide new information, or check the information that he already has access to. The contribution of the particle in (2a) with neutral, falling intonation betrays the speaker’s knowledge state at the time of utterance. But the particle and contour in (2b) adds another layer of pragmatic interpretation: the SRC provides the listener with an explanation of

