Perceivable properties and inference to mental states
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Introduction Many languages have morphemes that mark the source of evidence (Aikhenvald 2004, 2014), but there is a growing understanding that evidentially can be marked via non-grammaticalized means as well. We investigate one such case, mental state adjectives (MSAs) as attributive modifiers, focusing on cases such as those in (1). In these cases, the MSA modifies a noun that describes a bodily gesture; these adjectives do not directly predicate of the referent of the noun per se (a smile itself is not sad), but indicate that the speaker, via direct perception of visual information, indirectly infers that an individual holds the state named by the adjective.

(1) a. She flashed <u>a sad smile</u>.   c. They made <u>angry gestures</u> at us.
     b. He gave <u>a friendly wave</u>.   d. An irritated <u>sigh</u> slipped past his lips.

Existing sketches of these adjectives (Bouillon 1996, Goy 2000) do not address their evidential-like character. We propose that ingredients found in grammatical evidentiality and other evidential-like contexts (*seem*, *look/sound like*) are also found in MSAs when modifying bodily gesture nouns.

Background MSAs have the following relevant characteristics: (i) they name properties that are directly perceivable, even though mental states themselves are not perceivable (2); (ii) the speaker is committed to the person holding the named mental state (3), showing that even though the inference is necessarily indirect, it is a non-defeasible as often noted with grammatical evidentiality. The evidence for the inference comes from the directly perceived property; (iii) like grammaticalized evidentials, these sentences show interrogative flip (4), where the evidence holder switches from speaker to addressee in a question (Murray 2010, 2017, Speas & Tenny 2003).

(2) a. I saw her make an angry gesture.
     b. #I saw her make a noisy gesture (because her bracelets rattled when her hand moved).

(3) a. #She made an angry gesture, but she was not angry.
     b. #An irritated sigh slipped past his lips, but he was not irritated.

(4) Did he give a friendly wave?   (evidence holder: addressee)

Proposal Bodily gesture nouns (*smile*) can be assumed to entail the existence of a smiling event and an event participant, with the referential argument of *smile* being a part of the participant.

(5) $[\![smile]\!] = \lambda x \exists y \exists e \left[y \leq \text{PARTICIPANTS}(e) \wedge x \leq y \wedge \textbf{smile}_{\text{event}}(e) \wedge \textbf{smile}_{\text{object}}(x) \right]$

MSAs assert the existence of a trope, a concrete manifestation of a property (Moltmann 2004, 2007). The trope manifests the mental state (sadness) and the bearer is the result of the gesture (the smile). This trope is perceived by the evidence holder (an experiencer) in a direct perception event, and is thus the stimulus for inferring the mental state. The evidence holder is captured via an indexical i that defaults to the speaker, but can shift in appropriate contexts.

(6) $[\![sad\ smile]\!] = \lambda x \exists t \exists y \exists e \left[\begin{array}{l} y \leq \text{PARTICIPANTS}(e) \wedge \textbf{smile}_{\text{event}}(e) \wedge \textbf{smile}_{\text{object}}(x) \wedge x \leq y \wedge \\ \textbf{sadness}(t) \wedge \text{BEARER}(t) = x \wedge \exists e' \left[\begin{array}{c} \textbf{witness}(e') \wedge \text{EXPER}(e') = i \wedge \\ \text{STIM}(e') = t \end{array} \right] \end{array} \right]$

Conclusion In investigating the logical structure of these adjectives, we demonstrate a need for an architecture of evidentiality that is divorced from grammaticalized evidentiality, such that the base components can be represented in disparate aspects of the linguistic system, as recently advocated by Asudeh & Toivonen (2017). Our approach represents a case study in how these components are found in one class of adnominal modifier.

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