

## Perspectival discourse referents for indexicals

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Indexicals are linguistic expressions whose reference depends on the context of use. For pure indexicals, the utterance context in English and most other languages fully determines the referent—for example, in (1)–(3), *I* refers to the speaker, *you*, to the addressee, and *tomorrow*, to the day after the day of the relevant speech act.

- (1) *I will see you tomorrow.*
- (2) *Yesterday you told me that I would see you tomorrow.*
- (3) *Yesterday you said to me: “I will see you tomorrow.”*

However, in some languages, even pure indexicals can take the perspective of another person. A case in point is Slavey (Athapaskan). Rice (1986, 1989) describes a complex pattern of referential shifts for certain indexical pronouns in the complements of certain attitude verbs. Some verbs shift both the first and the second person (e.g. *-di* ‘tell’ in (4)), whereas others shift the first and third, but not the second person (e.g. *hadi* ‘say’ (5)–(6), *-udeli* ‘want’ in (7)–(8)). When the reference does shift, the shifted indexical takes the perspective of the verb’s subject:

- (4) *Segha ráwqdi séd̥j̥di yilé*  
[1SG.for 2SG.OPT.buy.3] 2SG.tell.1SG past  


You told me to buy it for you.

- (5) *Simon rásereyineht’u hadi.*  
Simon [2SG.hit.1SG] 3SG.say  

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 Simon<sub>i</sub> said you hit him<sub>i</sub> (his<sub>i</sub> ‘1SG’)

- (6) *Neji hadi.*  
[3SG.scared] 3SG.say  
He<sub>i</sub> said that I/she<sub>j</sub> (his<sub>i</sub> ‘3SG’) was scared.

- (7) *Neghayuhda nudeli.*  
[1SG.OPT.see.2SG] 3SG.want.2SG  

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 He wants to (his<sub>i</sub> ‘1SG’) see you.

- (8) *bets’ę ráwqdi sudeli.*  
[3SG.to 2SG.OPT.help] 3SG.want.1SG  

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 He wants you to help me (his<sub>i</sub> ‘3SG’).

Such complex patterns of interactions between certain attitude verbs and selected indexicals are difficult to understand in the light of existing theories of indexicality. These either predict shifted indexicals to be impossible (e.g. Kaplan 1977) or only consider simple cases (e.g. Schlenker 2003, Anand and Nevins 2004).

Bittner (2007, 2011) develops an alternative approach based on the “commonplace effect” of Stalnaker (1968). In Stalnaker’s own words (p. 323), “when I speak, I presuppose that others know I am speaking....This fact, too, can be exploited in the conversation, as when Daniels says *I am bald*, taking it for granted that his audience can figure out who is being said to be bald.” In Bittner (2007, 2011), I implemented this idea in *Update with Centering*, a dynamic update system that explicitly represents changing states of information and attention in discourse. In this system, discourse objects are introduced into the center of attention (*top tier*) or periphery (*bottom tier*), licensing subsequent discourse reference by typed prominence-guided anaphors. The very act of speaking up focuses attention on the speech act—that is, it introduces this very event on the top tier. It thereby licenses discourse reference to the speech act by a typed top-tier anaphor,  $\top\epsilon$ , which refers to the top-ranked event on the top tier. Other eventualities, introduced by verbs, go on the bottom tier. This makes them available for discourse reference by bottom-tier anaphors (e.g.  $\perp\epsilon$  for the top-ranked event on the bottom tier,  $\perp\sigma$  for the top-ranked state), all the while the speech act maintains its status as the top-ranked event on the top tier ( $\top\epsilon$ ). In English discourse (e.g. (1)–(2)), indexical pronouns *I* and *you* refer to individual-valued functions of the speech act—to wit, the *central participant* ( $\uparrow\top\epsilon$ ), and the *background participant* ( $\downarrow\top\epsilon$ ), respectively. Direct quotes after a verb of communication (e.g. *say* in (3)) temporarily promote the bottom-tier event of that verb to top-ranked top-tier status for the duration of the direct quote. Therefore, indexicals outside of the quote are anchored to the speech act, whereas indexicals within the quote are anchored to the communication event of the verb (see Bittner 2007, 2011).

The present paper further develops this discourse-referential approach to indexicality. First of all, I present empirical support from grammatical obviation in Kalaallisut (Eskimo-Aleut). This language explicitly marks top-ranked third persons on the top and bottom tier ( $\top\delta$  and  $\perp\delta$ ). Crucially, first and second persons are always marked as top-tier and do not compete for prominence with third persons. Our analysis accounts for both facts, because first and second persons refer to individual-valued functions of the *top-ranked top-tier event* ( $\uparrow\top\epsilon$  or  $\downarrow\top\epsilon$ ). This empirically supports the view that the speech act—the central perspective point—goes on the top tier, along with other types of discourse referents in the center of attention.

Assuming that, we then re-examine indexical shifts in Slavey. I propose that Slavey differs from languages that do not allow such shifts (e.g. English and Kalaallisut) in two respects. For one thing, Slavey indexical pronouns are more flexible, allowing anchoring to any top-ranked top-tier *eventuality*, either *event* ( $\top\epsilon$ ) or *state* ( $\top\sigma$ ). In general, a first or second pronoun in Slavey is anchored to the highest ranking perspectival referent for which the relevant individual-valued function ( $\uparrow(\cdot)$  or  $\downarrow(\cdot)$ ) is defined. Secondly, Slavey attitude verbs that control indexical shifts introduce not only the usual eventualities on the bottom tier but also related *top-ranked top-tier states* ( $\top\sigma$ ). Each verb also lexically specifies which individual-valued functions are defined for its topic state—i.e. whether this stative perspectival referent is narrowly centered just on the verb’s subject ( $\uparrow\top\sigma$  defined) or, if the verb is transitive, whether it also includes the object in the background ( $\downarrow\top\sigma$  defined). Given these two assumptions, the complex pattern of verb-controlled indexical shifts exemplified in (4)–(8) can then be derived in a principled way.