

Challenging Speech Acts

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Challenges. Unexpectedness is typically seen as a property of propositions. In this talk, we will be concerned with unexpectedness of speech acts, as in the following examples:

- (1) [S₂ to S₁: *John will get the job.*] S₁ to S₂: *JOHN will get the job?!*
- (2) [S₂ to S₁: *What a generous man!*] S₁ to S₂: *What a GENEROUS man?!*
- (3) [S₂ to S₁: *Come on, dude!*] S₂ to S₁: *Come on, DUDE?!*

These examples have a final rise, just like questions, yet clearly differ from regular questions in both their prosody and their meaning. They are uttered with the incredulity contour (cf. Pierrehumbert & Hirschberg 1990, who analyze this contour as L* H- H%). In this talk we address two questions: (1) What do such utterances mean? (2) How is this meaning conveyed by the form of the utterance?

We argue that such utterances indicate a **challenge** to the addressee to perform a particular speech act, where a challenge is a move in a conversational game that indicates that the speaker considers the act to be difficult or unjustified. In (1) – (3), the speech act in question actually has been performed by S₂; the challenge by S₁ then is understood as an attempt to make S₂ reconsider things, and perhaps retract the speech act. Challenges can be applied to a wide range of speech acts, e.g. assertions, exclamatives, and addressations. In (1) S₁ challenges S₂ to perform the assertion *John will get the job*, indicating that this will be difficult or impossible for S₂. With assertions, the obvious reason is that the asserted proposition is considered unlikely; with exclamations (2), that the exclamation is unjustified; and with addressations (3), that the form of address violates a social norm. If a subexpression in the challenge is highlighted by L* accent, then the challenge contrasts this utterance with alternatives; for example, (1) with focus on *John* indicates that there are alternatives to John, x, such that S₁ would not challenge the assertion of ‘x will get the job’.

A formal theory of speech acts. We express this analysis within the framework of Commitment Spaces (cf. Cohen & Krifka 2014, Krifka 2015). The information that is presumed to be shared at the current point in a conversation is modeled by a set c of propositions, a **commitment state**. The commitment state is updated in conversation; for

example, if a speaker S asserts a proposition φ , the proposition that S is committed to the truth of φ (written $S \vdash \varphi$) is added. If the addressee does not object, this will lead to adding φ itself to c by a conversational implicature. But there are conversational moves that cannot be captured by commitment states, like denegations (e.g. *I don't promise to come* is refraining from making a promise, cf. Hare 1970) or questions as requests by the speaker that the addressee perform an assertion of a particular type. For such moves we also have to incorporate the possible continuations from a commitment state into other commitment states. This leads to the notion of a **commitment space** C as a set of commitment states, a root commitment state \sqrt{C} and possible continuations c with $\sqrt{C} \subset c$.

With an assertion that φ , a speaker S_1 changes a commitment space C to $C' = \{c \in C \mid \sqrt{C} \cup \{S_1 \vdash \varphi\} \subseteq c\}$, where $S_1 \vdash \varphi$ is established in all commitment states. The typical intent is to make φ part of the CS as well (by a conversational implicature), to $C'' = \{c \in C' \mid \sqrt{C} \cup \{\varphi\} \subseteq c\}$; the addressee S_2 can accept this or **reject** this move, e.g. by *no*, which involves a return to the previous commitment space C' and adding $S_2 \vdash \neg\varphi$. With a polarity question *whether* φ uttered to an addressee S_2 the speaker S_1 changes an input commitment space C to $C' = \{\sqrt{C}\} \cup \{c \in C \mid \sqrt{C} \cup \{S_2 \vdash \varphi\} \subseteq c\}$, which has the same root as C but restricts the continuations to the assertion of φ by the addressee; such acts that only change the possible continuations are called **meta speech acts** in Cohen & Krifka 2014. The addressee S_2 can perform the requested assertion, or again can reject it and return to the previous commitment space C , e.g. to prepare a negative answer in which S_2 commits to $\neg\varphi$. (Alternative questions like *Did John come or didn't he?*, *Did John or Mary come?*, or constituent questions like *Who came?* present a disjunction of possible continuations that also can be rejected to prepare reactions like by *I don't know* or *I won't tell you*). One formal model that allows for such rejections is to integrate the concept of a negotiating table (cf. Wolf & Cohen 2009; Farkas & Bruce 2010; Wolf 2015). Another is to model things with a sequence of conversational states (cf. Krifka 2015). In the second framework, the conversational development is represented by a sequence $\langle \dots C', C \rangle$; rejection of the last move C will lead to $\langle \dots C', C, C' \rangle$, where the last commitment space C' can be input for a new move, resulting in $\langle \dots C', C, C', C'' \rangle$.

Explaining Challenges. Exchanges like (1) – (3) are reactions by S_1 to the most recent conversational move performed or implied by S_2 . They consist in a linguistic form that can be used as a speech act but do not perform that act; rather, they test whether the other speaker would perform that act. In (1) S_1 does not assert that John will get the job, but tests whether S_2 really would perform this action; in (2) S_1 does not express appreciation for the man's generosity, but tests whether S_2 really would do so; similarly in (3), S_1 tests whether S_2 really would use this form of addressation. We propose that these moves involve rejection of S_2 's original move followed by a meta speech act that restricts the possible continuation to performing the expressed speech acts, as in questions in general; this is indicated by question prosody. The incredulity contour, in addition, indicates that S_1 expresses amazement or disbelief that S_2 actually will go along with performing this speech act, by introducing alternative possible worlds and implying that there is no world where the speech act is performed (cf. Cohen 2009). If S_2 accepts the challenge, some additional backing up might be necessary to achieve acceptance of the intended result. If S_2 rejects the challenge, then S_2 implicitly takes back the original speech act.

Focus plays a similar role in challenges as in other speech acts, namely that it indicates alternative speech acts that are not made. In assertions like *JOHN got the job*, focus indicates alternative continuations proposed by an alternative or constituent question like *Who got the job?* that are not asserted; in regular polarity questions as in *Did JOHN get the job?*, focus indicates alternative questions of the form *Did x get the job?* that are not made (they correspond to a situation in which *Who got the job?* is asked). Similarly, focus in challenges indicates alternative challenges that are not made; for example, focus on *John* in (1), indicates that assertions of the type *x got the job* could be expected, and the challenge that is expressed concerns the choice of *John* for x in these assertions.

The special property of challenging speech acts is that they can take forms that express any speech act type, just by adding the appropriate focus and prosody on these forms. Hence they may be called **second-order speech acts**: They take an arbitrary speech act and turn it into a challenge for the addressee to perform that speech act.

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