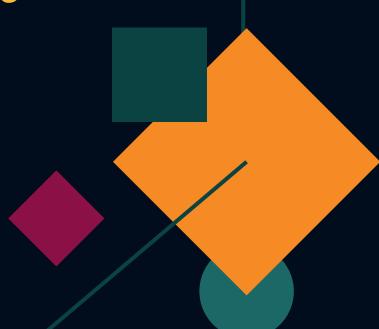
## On the meaning and use of OKAY in spoken German



- A: Sag mir, was du über C weißt. Tell me what you know about C.
- B: C kommt aus Hamburg. C is from Hamburg.
- A: Okeh (fall), das ist falsch. C kommt aus Homburg.
  - Okay, that's wrong. C is from Homburg.



 $okay + \downarrow \overline{\hspace{0.1cm}}(I,C,p) := uptake(I,C,p)$ 

$$C = \begin{bmatrix} f_A & g_A \\ f_B & g_B \end{bmatrix}$$

$$\begin{bmatrix} f_B & g_B \end{bmatrix}$$

$$C' = \begin{bmatrix} f_A & g_A \\ f_B & g_B \sqcup \{(p,1)\} \end{bmatrix}$$

$$C' = \begin{bmatrix} f_A & g_A \\ f_B & g_B \sqcup \{(p,1)\} \end{bmatrix}$$

$$C'' = \begin{bmatrix} f_A & g_A \\ f_B \sqcup \{(p,1)\} & g_B \sqcup \{(p,1)\} \end{bmatrix}$$

$$C''' = \begin{bmatrix} f_A \sqcup \{(p,0)\} \\ f_B \sqcup \{(p,1)\} \end{bmatrix} g_A \\ g_B \sqcup \{(p,1)\} \end{bmatrix} \qquad C''' = \begin{bmatrix} f_A \sqcup \{(p,1)\} \\ f_B \sqcup \{(p,1)\} \end{bmatrix} g_B \sqcup \{(p,1)\} \end{bmatrix}$$

### Acceptance

- A: Hast du einen Stift? Do you have a pen?
- B: Ja.
  - Yes.
- A: Okeh (fall). Also du musst jetzt vom Startpunkt ...
  - Okay. So, you have to move from the starting point ...



 $okay + \downarrow^+ (I, C, p) := acceptance(I(uptake(I, C, p), p))$ 

$$C = \begin{bmatrix} f_A & g_A \\ f_B & g_B \end{bmatrix}$$

$$C' = \begin{bmatrix} f_A & g_A \\ f_B & g_B \sqcup \{(p,1)\} \end{bmatrix}$$

$$C'' = \begin{bmatrix} f_A & g_A \\ f_B \sqcup \{(p,1)\} & g_B \sqcup \{(p,1)\} \end{bmatrix}$$

$$C''' = \begin{bmatrix} f_A \sqcup \{(p,1)\} & g_A \end{bmatrix}$$

### Undecidedness

- A: Du hast keine Nägel? You don't have nails?
- B: Mhmh. (fall) Uhuh.
- A: Okeh? (rise) Okay?
- B: Ich habe einen Schornsteinfeger. I've got a chimney sweeper.
- A: Okeh. (fall) Dann sind das aber nicht so ganz gleiche Bilder. Okay. But then the pictures aren't exactly the same.



 $okay+\uparrow^+(I,C,p):=undecidedness(I(uptake(I,C,p),p))$ 

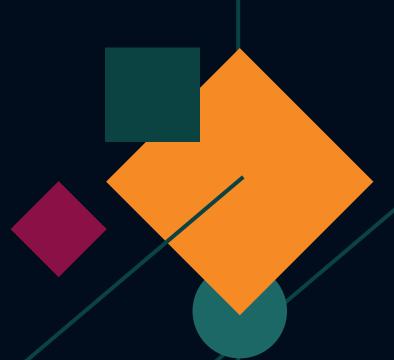
$$C = \begin{bmatrix} f_A & g_A \\ f_B & g_B \end{bmatrix}$$

$$C' = \begin{bmatrix} f_A & g_A \\ f_B & g_B \sqcup \{(p,0)\} \end{bmatrix}$$

$$C'' = \begin{bmatrix} f_A & g_A \\ f_B \sqcup \{(p,0)\} & g_B \sqcup \{(p,0)\} \end{bmatrix}$$

$$C''' = \begin{bmatrix} f_A \sqcup \{(p,u)\} & g_A \\ f_B \sqcup \{(p,0)\} & g_B \sqcup \{(p,0)\} \end{bmatrix}$$

# OKAY states truth of propositions



### Speech Act Model

$$C := (A, B)$$
 $A := (f_A, f_B)$ 
 $B := (g_A, g_B)$ 

$$f_{(p,n)} := \{(q, n') : q \neq p, (q, n') \in f\} \cup \{(p, n)\}$$

$$f \sqcup \{(p,n)\} := \{(q,n) : q \neq p, (q,n) \in f\} \cup \{(p,n)\}$$

$$f \sqcup \{(p,n)\} := \begin{cases} f \cup \{(p,n)\} & \text{if } f \text{ is undefined for } p \\ f_{(p,n)} & \text{else} \end{cases}$$

$$p \in cg \leftrightarrow f_A(p) = f_B(p) = g_A(p) = g_B(p) = 1$$

$$uptake(I, C, p) := \begin{cases} ((f_A, f_B \sqcup \{(p, n)\}), (g_A, g_B)) & \text{if } I = A, g_B(p) = n \\ ((f_A, f_B), (g_A \sqcup \{(p, n)\}, g_B)) & \text{if } I = B, f_A(p) = n \\ \text{undefined} & \text{else} \end{cases}$$

$$acceptance(I, C, p) := \begin{cases} ((f_A \sqcup \{(p, 1)\}, f_B), (g_A, g_B)) & \text{if } f_B(p) = n, g_B(p) = n, I = A \\ ((f_A, f_B), (g_A, g_B \sqcup \{(p, 1)\})) & \text{if } f_A(p) = n, g_A(p) = n, I = B \\ \text{undefined} & \text{else} \end{cases}$$

$$undecidedness(I, C, p) := \begin{cases} ((f_A \sqcup \{(p, u)\}, f_B), (g_A, g_B)) & \text{if } f_B(p) = g_B(p) = u, I = A \\ ((f_A, f_B), (g_A, g_B \sqcup \{(p, u)\})) & \text{if } f_A(p) = g_A(p) = u, I = B \\ undefined & \text{else} \end{cases}$$

$$assertion(I, C, p) := \begin{cases} ((f_A \sqcup \{(p, 1)\}, f_B), (g_A, g_B)) & \text{if } I = A \\ ((f_A, f_B), (g_A, g_B \sqcup \{(p, 1)\})) & \text{if } I = B \\ \text{undefined} & \text{else} \end{cases}$$



#### Outlook

General formal model of speech acts and speech act interpretation by modifying the event calculus of Lambalgen and Hamm (2005)

This is a type-free first-order system for axiomatizing notions of causality (instantaneous vs continuous change)

It provides a non-Davidsonian event semantics for lexical and sentential meaning

Illocutionary acts as achievments obeying instantaneous change: Illocutionary actions as causes of illocutionary effects

OKAY as truth predicate



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