

## Speech acts:

### not truth-conditional, but part of semantics

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*It is an interesting and by no means trivial task to incorporate attitude  
specifiers into the formal apparatus of possible world semantics, both  
with respect to their semantic type and their denotation.*  
Bierwisch (1980)

## 1. Speech acts: semantics or pragmatics?

Background: Well-developed semantics that allows for the compositional derivation of truth conditions of sentences with respect to contexts of utterances, given the meanings of lexical items and syntactic rules of combination of expressions (Montague 1972, Kaplan 1977).

Problem: The communicative acts that are performed with the help of such sentences?

Two possible takes:

- (A) Speech acts are to be treated within, or as an extension of, semantics.
- (B) Speech acts belong to an entirely different realm, pragmatics.

Bierwisch (1980) opts for (B), calling (A) the "original sin of speech act theory": "Speech act theory is a part of the theory of communication (...) rather than a part of the theory of language." Speech act theory is as little an extension of the theory of language as "a putative theory of forest economy would be an extension of the biology of trees".

I will argue for a version of (A), in particular:

- Speech acts (to be precise, *literal* speech acts) take part in the compositional rules of meaning assignment involving semantic expressions, hence they have to be part of semantics (contra Bierwisch 1980).
- Speech acts cannot be captured within denotational, truth-conditional semantics (contra Lewis 1970, Vanderveken 1990, but in unison with Bierwisch 1980).
- But we can give a non-truthconditional semantics for speech acts in which we can capture the interaction of truth-conditional expressions with speech acts, which in some cases follows the way Bierwisch (1980) proposed for explicit performatives.
- What speakers *do with (literal) speech acts* indeed does not belong to semantics, but to pragmatics (in the spirit of Bierwisch 1980, but I happen to think that linguists should be interested in that as well).

## 2. The argument of Bierwisch in a nutshell

The same clause, without any ambiguity, can be used to express many different "communicative senses", depending on the "interactional setting". This argues against grammaticalized speech acts.

- (1) *I'll be there before you.* (Promise, Warning, Prediction, ...)  
However, explicit performatives seem to make the speech act explicit. So – are speech act distinctions grammaticalized after all?
- (2) a. *I promise you that I'll be there before you.*  
b. *I warn you that I'll be there before you.*

Suggestion: Explicit performatives, whenever uttered in the right circumstances, are self-verifying. So we can derive the **expression** of a speech act from its **description**. But this is not a grammaticalization either.

- (3) A, to B: *I promise you that I'll be there before you.*  
=> A has promised to B that he/she will be there before B.

*promise* is a verb that can **describe** speech acts. The self-verifying nature of sentences like "I (hereby) promise you that p" allows us to use this utterance to **express** speech acts.

Hence there is no need to analyze (1), when used as a promise, as either

- having an underlying syntactic structure like (2)(a) with subsequent deletion (cf. **Performative Hypothesis**, Katz & Postal 1964, Ross 1970)
- (4) ~~*I promise you that I'll be there before you.*~~
- or involving an **illocutionary operator** that results in the same meaning as (2)(a) (cf. Lewis 1970, Vanderveken 1990).

- (5) PROMISE(sp, ad) (I will be there before you.)  
(where 'I will be there before you' denotes a proposition a semantic object)

Arguments against underlying performative syntactic structure: Known.

Arguments against semantic illocutionary operators:

- Self-verifying verbs do not form a closed class – e.g., verbs like *give up* can be used for describing a speech act.
- (6) *I give up.*
- "Performative" verbs can be modified.
- (7) *I gladly promise to help you move.*

We would end up with an open class of illocutionary operators.

### 3. Problems with a purely pragmatic view of speech acts

There are problems with this radically pragmatic view of speech acts: as there are expressions that appear to have semantic meaning that interact with what appear to be operators that express speech acts (cf. also Davison 1983).

#### Not a real problem: Lexical IFIDs

There are lexical illocutionary force indicating devices that cannot be interpreted as part of the propositional content. But these are linguistic expressions that do not have a denotational meaning, but just regulate the pragmatic use of utterances. They may have historically derived from expressions having a semantic meaning.

- (9) *Please, be there before me.*
- (10) *Du bist bitte vor mir da.*  
'You be there before me, please.'

#### Austrian conditionals

The *if*-clause is not interpreted with respect to the propositional content:

- (11) *If you want biscuits, there are some on the sideboard.*

Suggestion (Dunnmett 1973, Bach & Hamish 1979, ...): Quantification into speech acts. Cf. valid reading (12) vs. odd reading (13).

- (12) V[s]you want a biscuit in s → ASSERT(sp,ad,s)(there are some on the sideboard in s)]
- (13) ASSERT(sp,ad,s) V[s]you want biscuit in s' → there are some on the sideboard in s']

#### Discourse connectives

The *for*-clause is not interpreted as related to the propositional content (that I don't see her is not a reason for Jane not being here, perhaps rather vice versa). Rather, it specifies the grounds for asserting (Rhetorical Structure Theory; Asher & Lascarides 2003).

- (14) *Jane isn't here, for I don't see her.* (Ross 1970)  
Justification(ASSERT(sp,ad,s)(Jane isn't here), I don't see her)

Similarly, for *in-case* clauses, which give a condition under which the speech act is relevant.

- (15) *In case you need me, I'll be home all day.* (Davison 1983)

Purpose(PROMISE/ASSERT(sp,ad,s)(I'll be home all day)(you need me))

Similarly, *while*-clause may be not interpreted temporally, but expresses a parallelism between two assertions.

- (16) *While John is a linguist, Mary is a philosopher.*  
Parallel(ASSERT(sp,ad,s\*)(John is a linguist),  
ASSERT(sp,ad,s\*)(Mary is a philosopher))

#### Speechact-related adverbials (Davison 1973, Sadock 1974)

The adverbial *frankly* is not interpreted as related to the propositional content, but relates to politeness norms that govern the performance of speech acts. It signals that a speech act violated politeness rules in virtue of other conversational goals.

- (17) *Frankly, I don't like your new boyfriend.*  
Frank(ASSERT(sp,ad,s)(I don't like your new boy friend.))

This is the same interpretation we would get with explicit performatives:

- (18) *I tell you quite frankly that I don't like your new boyfriend.*

There is also a speechact-related reading of *gladly* in commissives. In one reading (19) means *I gladly promise to help you move*, not *I promise that I gladly help you move*.

- (19) *I gladly help you move.*

#### Quantificational particles: exclusives

Ambiguity with exclusive particles in directive speech acts, as in imperative clauses (Sophie Repp, Andreas Haida, pers. comm.).

- (20) *Streich nur die RECHTE Seite!*  
'Paint only the right side!'

- a. 'You are required to paint only the right side.'
- b. 'You are only required to paint the right side.'
- a. ORDER(sp, ad) (ad paints only one side)
- b. only ORDER(sp, ad) (ad paints only one side)

Reading (b) is absent with bare infinitives in directive readings:

- (21) *Nur die RECHTE Seite streichen!*  
'You are required to paint only the right side.'

This form-related distinction makes it plausible that there is a linguistic operator in imperatives that interacts with scopal particles, which is lacking in bare infinitives in directive readings. This operator may be realized in the finiteness of the verb (Truckenbrodt 2006), or in speechact-related particles:

- (22) a. *Nur mal die RECHTE Seite streichen.* (Reading b).  
b. *Mal nur die RECHTE Seite streichen.* (Reading a)

The difference is difficult to handle for a pragmatic approach which does not refer to the particular syntactic properties of the expression.

#### Quantificational particles: repetitives

The particle *wieder* 'again' is not interpreted with respect to the propositional content.

- (23) *Wie heißen Sie wieder?*  
'What's your name again?'

Analysis in Sauerland (2004): 'Make it the case that I know your name again'. Assuming that question operators are complex (here, requests for an assertion):

- (24) *Wie heißen Sie?*  
 QUEST(sp, ad) ('what is your name')  
 = REQUEST(sp, ad) (ad acts such that (sp knows what is ad's name))

(25) *Wie heißen Sie wieder?*  
 REQUEST(sp, ad) (ad acts such that (again (sp knows what is ad's name)))  
 If *wieder* interacts scopally in syntax (c-command), we would have to assume that the illocutionary operator is complex (Request(Act(Again(Know(n(Φ))))))

#### Quantification into questions

Karttunen (1977) observes an ambiguity of questions containing a universal quantifier.

- (26) *What grade does every student deserve?*  
 a. 'What grade is such that every student deserves it?'  
 b. 'For every student x, what grade does x deserve?'

#### 4. Speech acts as propositions?

Considering such and other intractions of expressions with semantic meaning and illocutionary acts, there is a temptation to develop a truth-conditional semantic reconstruction of speech acts (cf. e.g. Vanderveken (1990)).

Vanderveken assumes illocutionary operators F that are determined by parameters like illocutionary point (representatives, directives etc.), Mode of achievement, Strength etc., and that are applied to propositions.

Glossing over details, and concentrating on just two parameters (illocutionary point, mode of achievement):

- (27) a. *Shut the window!*  
 DIRECTIVE<sub>I</sub>[(you shut the window.)  
 b. *Please shut the window!*  
 DIRECTIVE<sub>I</sub>[please<sub>I</sub>(you shut the window.)

Such representations are of type t of truth values, hence participate in the Boolean algebra of standard semantics. We can conjoin, disjoin, negate, and quantify over speech acts. Example:

- (28) *If you don't want to get a cold, shut the window.*  
 If (you don't want to get a cold) (DIRECTIVE<sub>I</sub>(you shut the window))

But the combinatory potential of speech acts is limited:

- Conjunction, but no disjunction of speech acts.  
 (29) *Did John arrive, and did Mary leave?*  
 o.k. as conjoined question:  
 QUEST<sub>I</sub>({John arrived, –John arrived}) & QUEST<sub>I</sub>({Mary arrived, –Mary arrived})

- (30) *Did John arrive, or did Mary leave?*  
 o.k. only as alternative question:  
 QUEST<sub>I</sub>({John arrived, Mary arrived})  
 or as rhetorical question, with the implied answer "no" for both questions.

➤ Quantification into questions only with universal quantifiers (Kritka 2001).

- (31) *What grade does every student deserve?*  
 a. QUEST<sub>I</sub>(what grade g:  $\forall x$ [student(x)][x deserves g])  
 b.  $\forall x$ [student(x)] [QUEST<sub>I</sub>(what grade g: x deserves g)]

- (32) *What grade do most students deserve?*  
 only a: QUEST<sub>I</sub>(what grade g: most x[student(x)][x deserves g])

Notice that universal quantifiers are generalized conjunctions, hence (31) has the reading (if there are n students):

- (33) QUEST<sub>I</sub>(what grade g: student<sub>1</sub> deserves g) &  
 QUEST<sub>I</sub>(what grade g: student<sub>2</sub> deserves g) &  
 ..  
 QUEST<sub>I</sub>(what grade g: student<sub>n</sub> deserves g)

Non-universal quantifiers can only be reduced to clauses with other Boolean operators, e.g. (32) when three students are present.

- (34) QUEST<sub>I</sub>(what grade g: s<sub>1</sub> deserves g) & QUEST<sub>I</sub>(what grade g: s<sub>2</sub> deserves g)]  $\vee$   
 QUEST<sub>I</sub>(what grade g: s<sub>1</sub> deserves g) & QUEST<sub>I</sub>(what grade g: s<sub>3</sub> deserves g)]  $\vee$   
 QUEST<sub>I</sub>(what grade g: s<sub>2</sub> deserves g) & QUEST<sub>I</sub>(what grade g: s<sub>3</sub> deserves g)]

As speech acts can be conjoined, but not disjoined, we explain why there is no quantifying into speech acts with non-universal quantifiers.

But then speech acts do not form a Boolean algebra.

#### 5. Speech acts do not describe, but change the world!

##### Szabolcsi (1982). "Model-theoretic semantics of performatives".

- Propositions are evaluated with respect to a model and a particular world-time index. They describe the world, and do not change it.  
 ➤ Performatives do not describe the world, but change it. Formally, they are functions that change world-time indices.

- (35) *I congratulate you*  
 is evaluated at an input index and yields an output index that is identical to it with the possible difference that at the output index, the proposition *I congratulated you* is true.

This is reminiscent of dynamic semantics (e.g., Heim 1983) in which propositions are interpreted as devices to change the common ground of speaker and hearer. But now, it is not the common ground that is changed, but the world itself.

(36)  $C + John\ arrived = C \cap \{i \mid John\ arrived\ in\ i\}$

It is also reminiscent of Poessio & Traum (1997), who integrate speech act events in discourse representation theory. DRT representations stand for the common ground, but are interpreted with respect to a model. Hence speech acts might be seen as changing the worlds of a model.

In any case, the change of the world induced by successful speech acts must be part of a the common ground, as the participants of a conversation must be aware of this change.

### Sketch of an implementation

Speech acts are a particular type of **events**. Typically, they record a change of public commitments of participants in a conversation of which the participants must be aware.

Given a semantic model with world/time indices ( $i, i'$  etc.) and events ( $e, e'$  etc.). Assume descriptive predicates that characterize events as belonging to certain speech acts:

(37)  $assert(e, sp, ad, i)(\Phi)$  (where  $\Phi$  is a proposition)

' $e$  is an event in  $i$  of asserting by  $sp$  to  $ad$  in the world  $i$  that  $\Phi$ '

' $e$  is an event in  $i$  in which  $sp$  causes/obliges  $ad$  to believe  $\Phi$  is true in  $i'$ '

' $e$  is an event in  $i$  in which  $sp$  is taking on the commitment to give evidence for  $\Phi$ '

(38)  $direct(e, sp, ad, i)(\Phi)$  (where  $\Phi$  is a proposition)

' $e$  is an event in which  $sp$  obliges  $ad$  to make  $\Phi$  true in  $i'$ '

(39)  $quest(e, sp, ad, i)(\underline{\Phi})$  (where  $\underline{\Phi}$  is a set of propositions)

' $e$  is an event in which  $sp$  obliges  $ad$  to assert to  $sp$  the true propositions in  $\underline{\Phi}$ '

From these descriptive speech act predicates we can derive performatives as functions from indices to indices.

(40) We write **ifelj'** for: ' $i$ ' is identical to  $i$  except that in  $i'$  the event  $e$  exists, which does not exist in  $i$ . We understand  $e$  to be a punctual event without temporal extension.

(41)  $John\ shut\ the\ window$ : (uttered by  $sp$  to  $ad$ )

$\lambda i\ \text{ti}'\exists e[\ \text{ifelj}'\ \wedge\ \text{assert}(e, sp, ad, i')(John\ shut\ the\ window)]$

This changes an input index  $i$  to the output index  $i'$  so that  $i'$  is like  $i$  except that in  $i'$  there is an event  $e$ , an event in which  $sp$  asserts to  $ad$  that John shut the window.

(42)  $Shut\ the\ window!$ : (uttered by  $sp$  to  $ad$ )

$\lambda i\ \text{ti}'\exists e[\ \text{ifelj}'\ \wedge\ \text{direct}(e, sp, ad, i')(sp\ shut\ the\ window)]$

(43)  $Did\ John\ shut\ the\ window?$ : (uttered by  $sp$  to  $ad$ )

$\lambda i\ \text{ti}'\exists e[\ \text{ifelj}'\ \wedge\ \text{quest}(e, sp, ad, i')(John\ shut\ the\ window, \neg John\ shut\ the\ window)]$

Notice that:

➤ performatives are not propositions (functions from indices to truth values), but functions from indices to indices.

➤ performatives are not particular speech acts or speech act "tokens", like a particular event  $e$  that satisfies  $\text{assert}(e, sp, ad, i)(\Phi)$  – rather, they are speech act types, something close to the "potential" speech acts of Stegell (2006).

➤ when applied to an index  $i^*$  (and a speaker and addressee), we get an index that differs from  $i^*$  insofar as a speech act of the specified type has happened.

(44)  $John\ shut\ the\ window$ : (uttered by  $sp$  to  $ad$ , at index  $i^*$ ):  
 $\text{ti}'\exists e[\ \text{ifelj}'\ \wedge\ \text{assert}(e, sp, ad, i')(John\ shut\ the\ window)]$

➤ Illocutionary operators can be analyzed as operators that take a sentence radical  $\Phi$ , a speaker, and a hearer, and create a speech act:

(45)  $ASSERT = \lambda p\ \lambda x\ \lambda y\ \lambda i\ \text{ti}'\exists e[\ \text{ifelj}'\ \wedge\ \text{assert}(e, x, y)(p)]$

### Quantification into questions

Cf. also Krieka (2001), where speech acts where analyzed as changes of commitment states.

There is a natural notion of conjunction of speech acts types – functional composition:

(46)  $A \ \& \ A' = \lambda i\ [A'(A(i))]$ , where  $A, A'$  are speech act types.

For example:

(47)  $Which\ grade\ did\ John\ get,\ and\ which\ grade\ did\ Mary\ get?$

$\lambda i\ \text{ti}'\exists e[\ \text{ifelj}'\ \wedge\ \text{quest}(e, sp, ad, i')(John\ got\ g \mid grade(g))]\ \&$

$\lambda i\ \text{ti}'\exists e[\ \text{ifelj}'\ \wedge\ \text{quest}(e, sp, ad, i')(Mary\ got\ g \mid grade(g))]$

$= \lambda i\ \text{ti}'\exists e[\ \text{ti}'\exists e[\ \text{ifelj}'\ \wedge\ \text{quest}(e, sp, ad, i')(John\ got\ g \mid grade(g))]\ [e]\ i'$

$\wedge\ \text{quest}(e, sp, ad, i')(Mary\ got\ g \mid grade(g))]$

➤ Arguably, the order of this conjunction does not matter.

if  $ifelj'$  and  $i'[e]'$ , and  $ifelj''$  and  $i''[e]''$ , then  $i''' = i''''$ .

➤ Introducing sum formation for events, we can claim:

if  $ifelj'$  and  $i'[e]'$ , then  $ifelj''$ , where  $e \cup e'$  is the sum of  $e$  and  $e'$ .

Simplified representation:

(48)  $\lambda i\ \text{ti}'\exists e\exists e'[\ \text{ifelj}'\ \wedge\ \text{quest}(e, sp, ad, i')(John\ deserves\ g \mid grade(g))]$

$\wedge\ \text{quest}(e', sp, ad, i')(Mary\ deserves\ g \mid grade(g))]$

Universal quantification as generalized dynamic conjunction:

(49)  $What\ grade\ does\ every\ student\ deserve?$

$\&\ \lambda i\ \text{ti}'\exists e[\ \text{ifelj}'\ \wedge\ \text{quest}(e, sp, ad, i')(x\ deserves\ g \mid grade(g))]$

$x \in \text{student}$

We can define the operation of conjunction on speech act types, but we cannot define an operation of disjunction. Hence we predict that quantification into questions is not possible with non-universal quantifiers, as in *What grade do most students deserve?*

## 6. Application to other cases

### Descriptive and performative uses of speech-act predicates

We have seen how speech act descriptions, like  $\text{assert}(e, \text{sp}, \text{ad}, i)$ , can be turned into performatives. This can be generally done with verbs denoting speech acts. This captures the idea of “From description to expression”:

(50) *I promise that the money will be there.*

$\lambda i \text{ ti}' \exists e [i]e]i' \wedge \text{promise}(e, \text{sp}, \text{ad}, i)(\text{the money will be there})$ ,

where  $\text{promise}(e, \text{sp}, \text{ad}, i)(\Phi)$  iff  $e$  is an event in  $i'$  in which  $\text{sp}$  commits himself to  $\text{ad}$  to make  $\Phi$  true.

We can define an operator  $\text{PERFORM}$  that applies to descriptive speech act predicates  $\alpha$ , changing them into performatives:

(51)  $\text{PERFORM}(\alpha)(\text{sp}, \text{ad})(\Phi) = \lambda i \text{ ti}' \exists e [i]e]i' \wedge \alpha(e, \text{sp}, \text{ad}, i)(\Phi)$

Notice that  $\alpha$  applies to events that are located in time, but  $\text{PERFORM}(\alpha)$  itself does not apply to events – it rather changes indices by introducing events. This captures the fact that, speech act verbs, in their performative use, are not tensed (they have default present tense), and do not have progressive aspect.

This operation can apply to verbs that do not even denote speech acts, turning them into speech acts.

(52) *I give up.* (uttered by  $\text{sp}$ ):

$\text{PERFORM}(\text{give-up})(\text{sp}, \text{ad}) = \lambda i \text{ ti}' \exists e [i]e]i' \wedge \text{give-up}(e, \text{sp}, \text{ad}, i)$

### Modifications of speech act verbs and speech acts

The performative use of modified speech act verbs can be handled as follows. Notice that the modifier applies to the descriptive use and has its regular semantic interpretation.

(53) *I gladly promise to help you move.*

$\text{PERFORM}(\text{gladly}(\text{promise}))(\text{sp}, \text{ad})(\text{I help you move})$

$= \lambda i \text{ ti}' \exists e [i]e]i' \wedge \text{gladly}(\text{promise})(e, \text{sp}, \text{ad})(\text{sp helps ad move})$

We also can explain how illocutionary operators can be modified, by assuming that modifiers, like *frankly*, apply to the underlying descriptive predicate:

(54) *Frankly, I don't like your new boyfriend.*

$\lambda i \text{ ti}' \exists e [i]e]i' \wedge \text{frankly}(\text{assert})(e, \text{sp}, \text{ad}, i)(\text{sp doesn't like ad's new boyfriend})$

If this speech act type is applied to an index  $i$ , the resulting event can be described by *I frankly asserted that I didn't like your new boyfriend*.

We can also analyze such modifiers as modifiers of speech act types, as the input index and the output index differ only in the existence of one particular communicative event  $e$ , and the modifier can be thought of as applying to that event:

(55)  $\text{frankly} = \lambda S \lambda i \text{ ti}' [i' = S(i) \wedge \text{frank}(e [i]e]i')$

(56)  $\text{frankly}(\lambda i \text{ ti}' \exists e [i]e]i' \wedge \text{assert}(e, \text{sp}, \text{ad}, i)(\text{sp doesn't like ad's new boyfriend}))$

$= \lambda i \text{ ti}' \exists e [i]e]i' \wedge \text{assert}(e, \text{sp}, \text{ad}, i)(\text{sp doesn't like ad's new boyfriend}) \wedge \text{frank}(e)$

Here,  $\text{frank}(e)$ , where  $e$  is a conversational event, means that the speaker of  $e$  performs  $e$  in a frank manner with respect to the addressee.

### Embedding of speech acts

(57) *John weiß [wer (denn) gekommen ist].*

‘John knows who came.’

(58) *John will wissen, [wer (denn) gekommen ist].*

‘John wonders who came.’

Krifka (2001): *wissen/know* embed sentence radical of question (a set of propositions), *wissen wollen / wonder* embeds a question speech act; can be captured in the theory proposed here, as speech acts are semantic objects (functions from indices to indices).

## 7. Speech Acts and Histories

### Conditional speech acts

One way of dealing with conditionalized speech acts:

(59) *In case you're hungry, there are cookies.*

$\lambda i \text{ ti}' [i'$  if you are hungry in  $i$ , then  $[i]e]i' \wedge \text{assert}(e, \text{sp}, \text{ad}, i)(\text{there are cookies})$ , else  $i=i]$

The input index  $i$  is changed only if the condition holds.

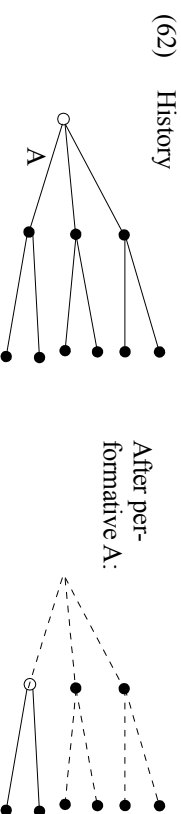
This is problematic for cases like the following:

(60) *If I get lost, who should I call?*

Possible solution: Interpretation with respect to “histories” in a model with branching time.

(61)  $i < i'$  iff  $i$  and  $i'$  are time points in the same history; and  $i$  is before  $i'$ .

Interpretation is with respect to a set of histories  $H$  that start with a common root  $r(H)$  and outlines the possible courses of events. Some moves represent developments in the physical world, some represent possible speech acts (creation of communicative events) (below, left).

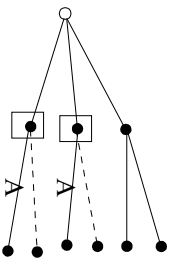


A simple performative  $A$  applied to  $H$  chooses the development from the root of  $H$  that consists of adding the communicative event described by the performative (above, right).

- (63)  $H + A = \{i \in H \mid A(\text{root}(H)) < i\}$   
 The rooted history, updated with the performative  $A$ , consists of all indices  $i$  in  $H$  that follow the root of  $H$  updated with  $A$ .

Conditionalized speech acts identify all indices in a set of histories for which the condition holds, and state that only those continuations are ruled in in which the index in which the condition holds is followed by the performative; others are truncated.

- (64)  $H + \text{If I get lost, who should I call?}$   
 $= \{i \in H \mid \forall i' \in H[\text{sp get lost in } H \rightarrow \forall i'' [i' < i'' \rightarrow \text{QUEST}(\text{who should I call})(i'') \leq i'']]\}$

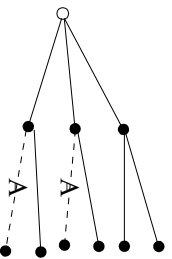


#### Denegation of speech acts

Removal of the speech act in question from future development.

- (65) *I don't promise to come.*

- (66)  $H + \sim A = \{i \in H \mid \neg \exists i' \in H[A(i') < i]\}$



#### Exclusive particles quantifying over speech acts

- (67) *Streich nur die RECHTE Seite!*

$H + \text{DIRECT}$ (die rechte Seite streichen) +  $\sim \text{DIRECT}$ (die linke Seite streichen)

Direktiv, die rechte Seite zu streichen, und Denegation des Direktivs, die linke Seite zu streichen.

General rule: focus speech act is performed, alternative speech acts undergo denial.

- (68)  $H + (A, \Delta) = H + A + \& \sim a$   
 $a \in \Delta, a \neq A$

The speech act  $A$  is performed, all alternative speech acts are denegated.

## 8. Conclusion

We need speech acts (speech act types) as semantic objects, and we can accommodate for them.

To be done: A lot. For example, the communicative events talked about here are associated with expression events (articulation of speech sounds) which explains, among others, the role of *herby*.