

Speech Acts

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Examples of Speech Acts

What you use language for

- Statement
 - Conlanging is fun.
- Question
 - What is your name?
- Command
 - Wash the dishes!
- Promise
 - I will wash the dishes.
- Lots more
- Statements have *truth value*; can be true or false
- It doesn't make sense to say that a question, command, or promise is true or false.
 - Whether or not you promised can be true or false, but that is different from the promise itself.

References

- Wikipedia page about Austin:
[http://en.wikipedia.org/wiki/J. L. Austin](http://en.wikipedia.org/wiki/J._L._Austin)
- Wikipedia page about speech acts focusing on Searle: [http://en.wikipedia.org/wiki/Speech act](http://en.wikipedia.org/wiki/Speech_act)
- The Nespole! Interchange Format (technical report), Levin, Gates, Wallace, Peterson, Pianta, Mana. Available on the Web.
- Dialogue Act Markup in Several Layers
<http://www.cs.rochester.edu/research/speech/damsl/RevisedManual/>

Austin, How to do things with words

- In addition to just saying things, sentences perform actions.
- [http://en.wikipedia.org/wiki/J. L. Austin](http://en.wikipedia.org/wiki/J._L._Austin)
- When these sentences are uttered, the important thing is not their truth value, but the felicitousness of the action (e.g., do you have the authority to do it).
 - I name this ship the Queen Elizabeth.
 - I take this man to be my husband.
 - I bequeath this watch to my brother.
 - I declare war.

Performative sentences

- You can tell whether sentences are performative by adding “hereby”:
 - I hereby name this ship the Queen Elizabeth.
 - I hereby take this man to be my husband.
 - I hereby bequeath this watch to my brother.
 - I hereby declare war.
- Non-performative sentences do not sound good with hereby:
 - Birds hereby sing.
 - There is hereby fighting in the Ukraine.

Austin continued

- [http://en.wikipedia.org/wiki/J. L. Austin](http://en.wikipedia.org/wiki/J._L._Austin)
- [http://en.wikipedia.org/wiki/Perlocutionary act](http://en.wikipedia.org/wiki/Perlocutionary_act)
- Locution: say some words
- Illocution: an action performed *in* saying words
 - Ask, promise, command
- Perlocution: an action performed *by* saying words, probably the effect that an illocution has on the listener.
 - Persuade, convince, scare, elicit an answer, etc.

Searle

- http://en.wikipedia.org/wiki/Speech_act
- Quoting from Wikipedia:
- “Searle (1975)^[3] has set up the following classification of illocutionary speech acts:
- **assertives** = speech acts that commit a speaker to the truth of the expressed [proposition](#), e.g. reciting a [creed](#)
- **directives** = speech acts that are to cause the hearer to take a particular action, e.g. requests, commands and advice
- **commissives** = speech acts that commit a speaker to some future action, e.g. promises and oaths
- **expressives** = speech acts that express the speaker's attitudes and emotions towards the proposition, e.g. congratulations, excuses and thanks
- **declarations** = speech acts that change the reality in accord with the proposition of the declaration, e.g. baptisms, pronouncing someone guilty or pronouncing someone husband and wife”

Searle

- Indirect speech acts:
 - Can you pass the salt?
 - Has the form of a question, but the effect of a directive.

Examples of Speech Act inventories used in language technologies

- These inventories are actually *annotation schemes*.
- They are used for corpus annotation.
- The corpus annotation is used for automated learning.
- They are highly developed and checked for intercoder agreement.
 - But still take a long time to learn.

Task-Oriented Dialogue

- Making travel reservations (flight, hotel room, etc.)
- Scheduling a meeting.
- Task oriented dialogues that are frequently done with computers:
 - Finding out when the next bus is.
 - Making a payment over the phone.

Domain-specific speech acts:
travel scheduling (NESPOLE! Project)

(a primitive version of the speech translation) **app**

- 61.2.3 olang ITA lang ITA Prv IRST “Telefono per prenotare delle stanze per quattro colleghi”
- 61.2.3 olang ITA lang ENG Prv IRST “I am calling to book some rooms for four colleagues”
- 61.2.3 IF Prv IRST c:request-action+reservation+room (room-spec=(room, quantity=some), for-whom=(colleague, quantity=4))
- comments: dial-oo5-spkB-roca0-02-3

Examples of task-oriented speech acts

- Identify self:
 - This is Lori
 - My name is Lori
 - I'm Lori
 - Lori here
- Sound check: Can you hear me?
- Meta dialogue act: There is a problem.
- Greet: Hello.
- Request-information:
 - Where are you going.
 - Tell me where you are going.

Examples of task-oriented speech acts

- Backchannel:
 - Sounds you make to indicate that you are still listening
 - ok, m-hm
- Apologize/reply to apology
- Thank/reply to thanks
- Request verification/Verify
 - So that's 2:00? Yes. 2:00.
- Resume topic
 - Back to the accommodations....
- Answer a yes/no question: yes, no.

Task-oriented dialogue acts related to negotiation

- Suggest
 - I recommend this hotel.
- Offer
 - I can send some brochures.
 - How about if I send some brochures.
- Accept
 - Sure. That sounds fine.
- Reject
 - No. I don't like that one.

DAMSL

Dialogue Act Markup in Several Layers

- For task-oriented or non-task-oriented dialogue.
- However, much of the development was related to task-oriented dialogues:
 - Trains corpus
 - Maptask corpus
 - Meeting scheduling corpus
- Although it has been used for non-task-oriented dialogue:
 - Switchboard corpus (JHU workshop 1997)
 - Spanish CallHome corpus (Clarity Project, Waibel, Levin, Lavie)
 - Text message corpus (Proprietary project, Levin, Rudnicky, Tenny)
- What are the layers?
 - Forward function: offer, ask
 - Backward function: backchannel, accept, reject

Forward looking functions

- Statement
 - Assert
 - Reassert
 - Other-statement
- Influencing-addressee-future-action
 - Open-option
 - Action-directive
- Info-request
- Committing-speaker-future-action
 - [Offer](#)
 - Commit
- Conventional Opening Closing
- Explicit-performative
- Exclamation
- Other-forward-function

Backward looking functions

- Agreement
 - Accept
 - Accept part
 - Maybe
 - Reject part
 - Reject
 - Hold
- Understanding
 - Signal non-understanding
 - Signal understanding
 - Acknowledge
 - Repeat
 - Complete
 - Correct misspeaking
- Answer