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
- Wikipedia page about speech acts focusing on Searle:  
- Dialogue Act Markup in Several Layers  
  http://www.cs.rochester.edu/research/speech/damsl/RevisedManual/
In addition to just saying things, sentences perform actions.

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.

http://en.wikipedia.org/wiki/J._L._Austin
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

- 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

- 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