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COGNITIVE PRAGMATICS

Lecture 1:

Two Models of Linguistic Communication: The Code Model and Inferentialism;
Coding and Mindreading as Cognitive Skills

What is pragmatics?

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→ indexical reference assignment
→ disambiguation

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(2) A: How about going to the cinema tonight?
B: I have an exam tomorrow.

(3) A: How about going to the cinema tonight?
B: What a lovely weather we are having today.

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(2) A: How about going to the cinema tonight?
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⇒ B is not going to the cinema tonight.
→ B *rejects* A's *invitation*. [*invitation* and *rejection* as conv. moves]

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→ implied meanings (implicatures)

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→ presuppositions (*background implications*)

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Unlike implicatures, presuppositions survive embedding under negation.

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→ indexical reference;
→ disambiguated meanings;
→ implicatures;
→ presuppositions;
→ conversational moves;
→ …

*What is **cognitive** pragmatics?*

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This is the branch of linguistics and/or cognitive science that studies
discourse and *cognitive mechanisms*
underlying the interpretation of context-dependent aspects of meaning, including

- indexical reference,
- disambiguated meanings,
- implicatures,
- presuppositions,
- conversational move,
- …

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(8) A: Tom is your former student, isn't he?
Do you think he is a good candidate??

B: His command of English is excellent,
and his attendance at seminars was regular.

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→ *insinuation or off-record communication motivated by politeness?*

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Back-door speech acts (Langton 2018)

Difficult Exam

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Private Sector (Fraser 2001)

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[!] → 'Hey, wait a minute' Test

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Wharton 2003: 464-465

- code$_1$ = a **(cognitive) system** which pairs a signal with a message, enabling two information-processing systems [→ the *sender* and the *receiver*] to communicate, i.e., to exchange messages;
- code$_2$ = a **collection of rules**, regulations or conventions of the form '*E* means *M*'.

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A MESSAGE IN THE SENDER'S DATA STORE

|

[encoding]

↓

A SIGNAL

|

[decoding]

↓

A MESSAGE IN THE RECEIVER'S DATA STORE

Shannon-Weaver (1949) model of communication

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An information source	—	where the message originates;
a transmitter (*encoder*)	—	which converts the message into a signal;
a communication channel	—	the medium through which the signal travels;
receiver (*decoder*)	—	which converts the signal back into the message;
information destination	—	the intended recipient of the message;
noise source	—	potential disturbances that can distort the signal.

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translating a message into a signal → *encoding*
translating the signal back into the message → *decoding*

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- Vervet monkeys' alarm calls;
- tigers' scratches;
- peacocks' tails.

Vervet monkeys and their alarm calls

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what the signaller perceives		***signal***		**predator avoidance behaviour**
a leopard	→	***L_*!!!**	→	running into treetops
an eagle	→	***E_*!!!**	→	looking up
a snake	→	***S_*!!!**	→	looking domw

These calls are *pushmi-pullyu representations* (Millikan 1995);

they are *functionally referential*.

Vervet monkeys and their alarm calls

Sound ***L_!!!*** of loudness X at location P_1 at time T_1

signals

the presence of a **leopard** of size Y at location P_2 at time T_2

Tigers and their scratches

A tiger reaches as high as it can on the bark of a tree
to **make scratches** marking its territory.

By marking the tree, it defines its territory boundaries
to warn other tigers about its presence and avoid conflicts with potential competitors.

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→ The newcomer stands on its hind legs
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Stability of this system?

→ The tiger's scratch marks are *indices*: signals difficult to fake
because of physical limitations on the organism (Green 2009).

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→ Peacocks' tails are *handicaps*: signals difficult to fake because of being costly to produce and maintain (Green 2009).

In summary

- The code model has impressive descriptive and explanatory power;
- however, it has certain limits.

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B: I have to pick up my *independent* sister from the airport.

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[*coded*] B has to pick up B's independent sister from the airport.

(12) A: How about going to the cinema together tomorrow?
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$\Rightarrow_1$ B will not go to the cinema with A tomorrow.

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[*move*] B *declines* A's invitation.

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>> B has a sister.

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[*irony*] B's sister is not independent. (⇒ ?)
B jest disappointed in B's sister. [→ expression]

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- These meanings are constituted by the specific intentions of speakers and are inferentially recognized by hearers.

- Human communication consists of *forming*, *expressing* (→ by speakers), and *inferentially recognizing* (→ by hearers) complex communicative intentions.
- Verbal comprehension involves a combination of *coding* and *mindreading* (Wilson & Sperber 2012).

What are communicative intentions?

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→ Overt intentions, i.e., intentions whose fulfilment requires their recognition.
(Grice 1957; Bach & Harnish 1979; Wilson and Sperber 2012)

What are communicative intentions?

"*S* means something by utterance *U*"

is equivalent to

"*S* intends utterance *U* to produce some response *R* on the part of *H* by means of getting *H* to recognize *this intention*."

→ Meaning-constituting intentions are *reflexive*.

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Within hearing distance of their daughter Nora, *T* says to his partner *U*:

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b. Santa only comes if the kids are asleep.

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— Standing on the shoulder of the road and waving;

— walking into the road and blocking it with one's body.

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Girce's model of communication

- Most human communication is intentional and inferential;
- it consists of forming, expressing (→ *S*),
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[?] *What is the role of language in communication?*

- Language conventions (→ $code_2$) facilitate communication
  but are not necessary for it;
- they help us solve **coordination problems** characteristic of communication.

What are coordination problems?

- A **coordination problem** occurs when two or more people need to choose the same action or strategy to achieve the best possible outcome, but they have multiple options to choose from.
- The **challenge** is that they must *somehow* agree on which option to pick, even though there's no obvious way to *communicate* or *guarantee* they'll make the same choice.

Bert and Ernie in the Shopping Mall

→ Bert and Ernie lost contact with each other in the shopping mall and want to find each other, that is, meet at the same location.

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B / **E**	*car*	*bookshop*	*ice-cream shop*
car	1 / 1	0 / 0	0 / 0
bookshop	0 / 0	1 / 1	0 / 0
ice-cream shop	0 / 0	0 / 0	1 / 1

Lewis Signalling Game

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- The sender chooses a signal to convey a message,
  and the receiver must interpret it to take the correct action.

- The **challenge** is that there are multiple possible *ways to interpret the signals* (→ *interpretation systems*), and both players must converge on *the same interpretation* (→ *interpretation system*) for the interaction to be successful.
- The **goal** is for both players to achieve a shared understanding and successfully coordinate their behaviour. **(→ a game of perfect common interest**)

Lewis Signalling Game

- Two players (→ the *sender* and the *receiver*) must coordinate their actions based on signals sent by the sender.
- The sender chooses a signal to convey a message,
  and the receiver must interpret it to take the correct action.

- The **challenge** is that there are multiple possible *ways to interpret the signals* (→ *interpretation systems*), and both players must converge on *the same interpretation* (→ *interpretation system*) for the interaction to be successful.
- The **goal** is for both players to achieve a shared understanding and successfully coordinate their behaviour. **(→ a game of perfect common interest**)

Red and Blue Flags

- Two possible states of the world:
  — the enemy is coming from the land,
  — the enemy is coming from the sea.
- Two corresponding actions:
  — arranging the defence of the wall,
  — arranging the defence of the waterfront.

Red and Blue Flags

S **R**	*land—red* *sea—blue*	*land—blue* *sea—red*
red—wall *blue—water*	**1** **1**	0 0
red—water *blue—wall*	0 0	**1** **1**

Recall

- A coordination problem often occur when there are multiple possible equilibria, and players must coordinate on which equilibrium to choose.

Conventions by Lewis

A **convention** is a regularity in behaviour that satisfies the following conditions:

- **Mutual benefit**: The regularity is beneficial to the participants *because* it helps them coordinate their actions effectively.
- **Common knowledge**: The participants know that the regularity exists, and they know that the others know, and so on.
- **Expectation**: Each participant follows the regularity *because* they expect others to do so.

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Digression

common knowledge *versus* shared individual knowledge

mutually shared beliefs *versus* merely shared beliefs

↑ ***common ground***

Gricean communication as a signalling game

→ Communication consists of forming, expressing (→ signalling),
and recognizing complex intentions.

what is signalled: the speaker's intention

the correct action: the hearer's representation of the speaker's intention

Gricean communication as a signalling game

(12) A: How about going to the cinema together tomorrow?
B: I have to pick up my *independent* sister from the airport.

[*irony*] B's sister is not independent. (⇒ ?)
B jest disappointed in B's sister. [→ expression]

[*move*] B *declines* A's invitation.

$\Rightarrow_2$ B has to pick up B's independent sister from the airport tomorrow.

$\Rightarrow_1$ B will not go to the cinema with A tomorrow.

[*coded*] B has to pick up B's independent sister from the airport.

>> B has a sister.

Gricean communication as a signalling game

(13) Open the window!

Gricean communication as a signalling game

(13) Open the window!

(13') *I suggest you to* open the window.
(13'') *I allow you to* open the window.

In summary

- Verbal comprehension involves a combination of *coding* and *mindreading* (Wilson & Sperber 2012).

How to test one's ability to read other minds?

How to test one's ability to read other minds?

→ Sally-Annie as a False-Belief Test

The Scenario:

- The child is shown a story with two characters, typically named **Sally** and **Annie**.
- Sally has a basket, and Annie has a box.
- Sally places a marble in her basket and then leaves the room.

The Deception:

- Annie takes the marble from Sally's basket and places it in her box.

The Key Question:

- *When Sally returns, where will she look for the marble?*