

The Hard Problem of Translation

COGS 200

Cette phrase en français est difficile à traduire en anglais.

Ambiguity

- Dave is going to throw a ball.
- I woke up because there was a tap on the door.
- Lucy is reading the same book as Jill.

Ambiguity is not vagueness

‘The student’s essay was good.’

‘The total size of the apartment is 800 square meters.’

- Vagueness can arise from unmade semantic decisions, or imprecise boundaries.

Ambiguity is not context sensitivity

'That is a chair.'

'Stephen is unusually tall.'

'The strength of the matchstick explains why the match lit.'

- Context sensitivity arises from the presence of a variable that needs to be set by context.
- Usually this is the context of utterance, but in some cases it may be the context of evaluation.

- I shall wear no clothes to distinguish myself from my Christian brethren.
- He only drinks red wine.
- I want to marry a Norwegian.

- The ambassador was asked to leave in the morning.
- Amos shaved and played with the cat.
- I won't vote as a protest.

Q: Why isn't a really good dictionary sufficient for translation?

A: Because the way to make a move in a language game is by uttering *sentences*.

- Jam is better than peanut butter.
- But marmalade is better than jam.

Therefore:

- Marmalade is better than peanut butter.

- Nothing is better than eternal happiness.
- But peanut butter is better than nothing.

Therefore:

- Peanut butter is better than eternal happiness.

“The semantic value of any expression is that feature of it that determines whether sentences in which it occurs are true or false”

(Miller, 1998, *Philosophy of Language*, p. 10)

- Every x (if x is in London, then (there is a y such that y is in Dublin and x loves y)).
- There is a y such that (y is in Dublin, and (Every x (if x is in London, then x loves y))).
- Do not think of ‘everyone’ or ‘someone’ or ‘nothing’ as behaving like names!

Haugeland

“Understanding - making sense of things - is the mark of the mental. This is not to deny that intentionality, rationality, objective knowledge, or self-consciousness might also be marks of the mental, but only to put the emphasis more nearly where it belongs”
(p. 1)

Pronouns create ambiguity

“And Jacob was left alone; and there wrestled a man with him until the breaking of the day. And when he saw that he prevailed not against him, he touched the hollow of his thigh; and the hollow of Jacob’s thigh was out of joint, as he wrestled with him. And he said, Let me go, for the day breaketh. And he said, I will not let thee go, except thou bless me. And he said unto him, What is thy name? And he said ...”

- In particular:
 - *Anaphoric* pronouns...
 - ...create ambiguity when they have multiple possible *antecedents*.
- The process of assigning antecedents to anaphora is called *anaphoric resolution*.
- When the pronoun comes first, it's *cataphora*.

“The monkeys ate the bananas because they were ripe.”

“The monkeys ate the bananas because they were hungry.”

“We gave the bananas to the monkeys because they were ripe.”

“We gave the bananas to the monkeys because they were hungry.”

«Nous avons donné des bananes aux singes parce qu’ils étaient mûrs»

Haugeland

“The hard problem, it turns out, is not simply the enormous volume of common knowledge, but rather storing it so that it can be efficiently accessed and used. Obviously, it is quite impractical to check every available fact for relevance, every time some question comes up. ...

Haugeland

...So the task is to design a system that will quickly home in on the genuinely relevant considerations, while ignoring nearly everything else. This is the “memory-organization” or “knowledge representation” problem; what makes it hard is the quixotic way that odd little facts turn up as germane”

- “I left my raincoat in the bathtub because it was still wet”

“Real-time holism is precisely *incompatible* with semantic atomism: understanding a sentence requires *more* than a grammar and a dictionary - namely, common sense” (Haugeland, 1979)

Haugeland

“The trouble with artificial intelligence is that computers don’t give a damn.”

