

Ambiguity in Natural Language

Colin Werner

Credit

- These slides were adapted from Daniel Berry (<https://cs.uwaterloo.ca/~dberry/>)
- A very useful and exhaustive resource is available:
<https://cs.uwaterloo.ca/~dberry/handbook/ambiguityHandbook.pdf>

Why is ambiguity a problem?

- Read Dan's book!
- Subconscious Disambiguation
- Subconscious Ambiguation

Subconscious Disambiguation

- In subconscious disambiguation, the reader of an ambiguous phrase is not even aware that there is an interpretation other than the one that came first to his or her mind.
- The reader understands an interpretation and thinks that it is the only one.

Subconscious Ambiguation

- Subconscious ambiguation (SA) is the flip side of SD.
- In SA, the writer of an ambiguous phrase is not even aware that he or she has written a phrase that has an interpretation other than what he or she thought to create the phrase.

Advice

- Synonyms
- Plural
- Pronouns
- 'Only'
- 'This'
- 'All'
- Relative

Synonyms

- We were taught to use synonyms of words as opposed to repeating the same word over and over.
- The user ... the customer ... the client ... the consumer...
- Vs
- The user ... the user ... the user ... the user ...

Ambiguity of Plural

- Students enroll in six courses per term.
- Students enroll in hundreds of courses per term.

Ambiguity of Plural Fixed?

- Each student enrolls in six courses per term.
- The student body enrolls in hundreds of courses per term.

Ambiguity in Pronouns

- Every student thinks she is a genius.

Ambiguity in Pronouns Fixed?

- Every student thinks Ellen is a genius.
- Each student thinks he or she is a genius.

Ambiguity of 'Only'

- I only nap after lunch.

Ambiguity of 'Only' Fixed?

- I nap only after lunch.
 - Means I the only time I nap is after lunch.
- I only nap after lunch.
 - Means the only thing I do after lunch is nap.

Ambiguity of 'This'

- This prevents security breaches.

Ambiguity of 'This' Fixed

- This encoding scheme prevents security breaches.

Ambiguity of 'All'

- All the lights in any room have a single on-off switch.

Ambiguity of 'All' Fixed?

- Each light in any room has a single on-off switch.

Ambiguity with Relative Terms

- The response time must be fast.

Ambiguity with Relative Terms Fixed?

- The response time must be less than one second.

Other Words

- almost, also, even, hardly, just, merely, mostly, nearly, really...