# Context and Interpretation

## Towards An Inferential Model of Interpretation

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# Overview




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# Parameter-based Two-Dimensionalism

## Basic Notions

- Linguistic Meaning $[\![.]\!]$
  A function from expressions and contexts into a function from circumstances of evaluation (CEs) to an extension.
- Semantic Content $[\![.]\!](c)$
  A function from circumstances of evaluation to an extension.
- Extension $[\![.]\!](c)(i)$
  Semantic values such as an object in $D$ for a singular term, a subset of the $n$-ary Cartesian product of $D$ for an $n$-ary predicate, *true* or *false* for a formula.

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# Contextualism

- Context and CE initially coupled: CE contains world and time of context unless modified by operator (alethic modalities, doxastic modalities, tense operator).
- Features of context determine semantic values of contextually-variant expressions.
- CEs only encode features that are shifted by modal operators to which certain natural language expressions correspond.

# Relativism

Following Stojanovic/Predelli (2008):

- Context and CE not initially coupled.
- Features of context determine semantic values of indexicals, features of CE determine semantic value of contextuals.
- CEs encode features shifted by modal operator and whatever else is needed for determining the extension of contextuals.

# Fun or not Fun?

Let the lexicon entry for 'fun' be a function $[\![Fun]\!] : C \rightarrow (I \rightarrow \mathcal{P}(D))$ s.t. either of the following holds:

## Contextualist Fun

$[\![Fun]\!](c)(i) = \{x \in D \mid x \text{ is fun at } time(i) \text{ in } world(i) \text{ for } assessor(c)\}$

## Relativist Fun

$[\![Fun]\!](c)(i) = \{x \in D \mid x \text{ is fun at } time(i) \text{ in } world(i) \text{ for } assessor(i)\}$

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# Fun or not Fun? (continued)

## Example

(1) Alice in $c_1$: Eddy is fun.
(2) Bob in $c_2$: Eddy is not fun.

- Contextualism: Assessor depends on $c$, thus $[\![Fun]\!](c_1) \neq [\![Fun]\!](c_2)$ if $[\![Fun(e)]\!](c_1)(i) = true$ and $[\![\neg Fun(e)]\!](c_2)(i) = true$. $\Rightarrow$ no faultless disagreement possible
- Relativism: Assessor depends on $i$, thus it is possible that $[\![Fun]\!](c_1) = [\![Fun]\!](c_2)$ if $[\![Fun(e)]\!](c_1)(i_1) = true$ and $[\![\neg Fun(e)]\!](c_2)(i_2) = true$ and even $c_1 = c_2$. $\Rightarrow$ faultless disagreement possible

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# Relativism vs. Contextualism

## Recipe

(i) Is the expression systematically context-sensitive?
(ii) Is faultless disagreement possible?
If the answer is *Yes* to (i) and *No* to (ii), then the expression in question is a traditional indexical.
If the answer is *Yes* to both (i) and (ii), then the expression needs to be analyzed according to the relativist doctrine.

- Stojanovic (Wednesday evening in the pub): But according to the RT view, the assessors differ. This is not real disagreement!

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# What's Wrong With Two-Dimensionalism?

## The Underdetermination Thesis

Context does not determine semantic values.

## Bach (2005)

"Context does not literally determine what is said or what is meant."

## Mount (2008)

"...there are no automatic indexicals. All indexicals are discretionary..."

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# Indexicals vs. Contextuals

## Indexicals

+ depend on deictic center
+ dependence encoded by linguistic meaning
+ relatively small and homogeneous class of expressions
+ particular ingredient missing
+ pass Cappelen & Lepore's tests

## Contextuals

- don't depend on deictic center
- dependence not encoded by linguistic meaning
- huge and inhomogeneous class of expressions
- missing ingredient a 'gap' or not even present in lexicon
- fail Cappelen & Lepore's tests

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# Non-Automatic Indexicals

It is well-known that the boundaries of spatial and temporal indexicals can vary almost arbitrarily:

## Example

(3) Alice in the water: I can stand *here*.
(4) Bob about religion: The natural laws hold *here*, but in the divine realm they are of no significance.
(5) Alice: Salaries are *now* higher than 30 years ago.
(6) At the horse race: And Anderson wins...*now*! Anderson on Althea!

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# Contextuals

## Example

(1) Eddy is fun.
(7) Alice is tall.
(8) John is ready.

- (i) Eddy is fun for whom? (ii) In comparison to which class is Alice tall? (iii) For what is John ready?
- Some answers to (i)–(iii) may be more salient than others in a given context, but they are not given objectively, they are not perceivable or measurable as a feature of the utterance situation.

# Conclusions

- If indexicals of the 'basic set' (Cappelen & Lepore) aren't automatic, so aren't contextuals. Contextuals don't even semantically depend on features of the deictic center.
- Relativism transforms aspects of subjective interpretation into objective partial truth-makers.
- When contexts are taken as entities that provide semantic values, this is only descriptively adequate under a fairly high degree of idealization—perhaps too high.

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# An Alternative?

**Literal Meaning** + **Assumptions**

$\Downarrow$ *inference*

**Interpretation**

Assumptions: generated from recipient's beliefs + recipient's beliefs about what the sender believes

Literal Meaning: what is derivable from the lexicon

Inference: deduction, default reasoning, . . . ?

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# A Simple Example

## Example

(7) Alice is tall.

- Intensional interpretation operator: $M, c, i \vDash \mathfrak{I}_b Tall(a)$ iff. $\forall c', i'$ s.t. $R_b^{\mathfrak{I}}(c, c')$ and $R_b^{\mathfrak{I}}(i, i')$: $M, c', i' \vDash Tall(a)$
- Context-sensitivity can be captured in this case if 'tall' is given a relativist semantics:
  - 'tall' is domain-sensitive
  - the domain is shifted when $c, i$ are shifted (assuming there is a domain function for contexts and indices)
- No complex reasoning chain needed in this case.

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# A Complicated Example

## Example

(8') Alice at a party: John is ready.

- Usually, when people intend to leave a party, they say good-bye, grab their jacket, etc. when they are about to leave the party.
- John has grabbed his jacket and said good-bye to some people.
- $\rightsquigarrow$ John intends to leave the party. (unless there is specific counter-evidence)
- $\rightsquigarrow$ John is about to leave the party. (unless there is specific counter-evidence)
- Usually, when somebody intends to do X and is about to do X, he has to be ready for X.
- Interpretation: John is ready to leave the party.

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# Open Problems

- What relations can there be between literal meaning and interpretations? (cf. Generalized Quantifiers)
- Heavy technical apparatus required:
  - representations of uncertainty (e.g. for checking)
  - default reasoning on the basis of rich background knowledge
  - semantic implementations of AGM-style revision (e.g. DDL, DEL) and preferably in a higher-order setting
- Does it really make sense to take a look at interpretation from an ideally rational perspective? (vs. Relevance Theory; vs. Gricean programme)