Hedged Assertions and Questions

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Introduction Evidentials Assertion Questions Summary References

Introduction: Hedges

Lakoff 1973: hedges are “words whose meaning implicitly involves fuzziness – words whose job is to make things fuzzier or less fuzzy.”

Sentential Hedges (Urmson 1952, Ross 1973, Slote 1979, a.o.)

**Sentential hedge**: an element that affects the ‘force’ of a sentence (e.g., weakens the commitment made by a sentence)

Un-hedged sentences:
(1) Shelly left yesterday. declarative
(2) Did Shelly leave yesterday? interrogative

Hedged sentences:
(3) Shelly left yesterday, I think. declarative
(4) Did Shelly leave yesterday, do you think? interrogative

A: Yes = I think she left
A’: No = I think she didn’t leave

Goal:
A unified semantics for mood, compositional contribution of hedges

Not restricted to sentence-final parentheticals (Urmson 1952):
(5) I *suppose* that your house is very old. (somewhat different)
(6) Your house is, I *suppose*, very old.
(7) Your house is very old, I *suppose*.

or to first person:
(8) *Norma* thinks (that) Shelly left yesterday.
(9) Shelly, *Norma* thinks, left yesterday.

Verbs like *suppose* in (5) have a “assertion-qualifying use” (Horn 1978, also Urmson 1952, Slote 1979, Simons 2007, a.o.)
Sentential Hedges

Not all parentheticals are hedges:
(10) Jones was, I conclude, the murderer. (Urmson 1952)
(11) Jones was, it follows, the murderer. or I’ve shown
(12) The Holland Tunnel is the quickest way to Manhattan, I’ve realized. I find (?)

Not all hedges are 1st person slifting parentheticals:
(13) Bob was the murderer, reportedly.
(14) Bob was the murderer, they say.
(15) Bob was the murderer, it’s said.
(16) Bob was the murderer, according to Dale.

■ (non-parenthetical) modals? adverbs? a bit more later...

Analysis Preview

(1) Shelly left yesterday.
(2) Did Shelly leave yesterday?
(3) Shelly left yesterday, I think.
(4) Did Shelly leave yesterday, do you think?

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<th>Not-at-issue proposition</th>
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<td>I(q)</td>
</tr>
<tr>
<td>(3) q</td>
<td>think(i, q)</td>
<td></td>
<td>declarative</td>
<td>D(♦q)</td>
</tr>
<tr>
<td>(4) q</td>
<td>think(u, q)</td>
<td></td>
<td>interrogative</td>
<td>I(♦q)</td>
</tr>
<tr>
<td></td>
<td>∨ think(u, ¬q)</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

Where q = that Shelly left yesterday

■ On this analysis, hedges are not really ‘force modifiers’
  ■ Mood semantically contributes a relation (here: D, I)
  ■ What is modified is the argument of this relation
  ■ This will affect the force of an utterance, but indirectly

■ (1) and (3) are both declaratives, both typically used for assertions, but what is asserted is different
■ main propositional content is unchanged

Outline

1 Introduction
2 Evidentials and (Not)-at-issue Content
3 Hedged Assertions
4 Hedged Questions
5 Summary
Cheyenne Evidential Distinctions

Cheyenne (Plains Algonquian, Montana and Oklahoma) data primarily from my fieldwork (since 2006), plus Cheyenne grammar, texts, and dictionary (e.g., Leman 1980b,a, Fisher et al. 2006)

**Direct evidential**

(17) **É-hoo’koho-∅.**
3-rain-DIR
‘It’s raining, I’m sure’
‘Given my experience...’

**Narrative evidential**

(19) **É-x-hoo’kóhó-neho.**
3-PST-rain-NAR.SG.B
‘Long ago, it rained, it is said’

**Reportative evidential**

(18) **É-hoo’kóhó-nése.**
3-rain-RPT.SG.B
‘It’s raining, I hear’

**Inferential evidential**

(20) **Mó-hoo’kóhó-hané-he.**
INF-rain-INF-INF
‘It’s raining, I take it’

Evidentials and Illocutionary Mood

**Direct evidential**

_Né-néméne-∅_
2-sing-DIR
‘You (sg.) sang’
‘Did you (sg.) sing?’

**Interrogative**

_Né-némene-he_
2-sing-he
‘You (sg.) sang’
‘Did you (sg.) sing?’

**Hortative**

_Némene-ha_
sing-HRT.3SG
‘Let him sing!’

**Imperative**

_Néméné-stse_
2-sing-RPT.2SG
‘You (sg.) sang, I hear’

**Excerpt of the Cheyenne mood paradigm**

**Also:** other evidentials, delayed imperative, and dependent moods
Direct Challengeability

(21) É-némene-séstse Andy.
    3-sing-RPT.3SG Andy
    ‘Andy sang, I hear.’

(22) ✓ That’s not true. He danced.
(23) ✓ No he didn’t. He danced.
(24) # That’s not true. You didn’t hear that.
(25) # No you didn’t (hear that).

¬ holds for grammatical evidentials crosslinguistically

The Scope of the Reportative Can be False

¬ Evidentials can also affect the ‘force’ of a sentence
¬ Scope of reportative evidential can be false, denied

(27) (i) É-hô’tâheva-séstse Shelly naa+oha
    3-win-RPT.3SG Shelly but

(ii) é-sáá-hô’tâhévá-he∅
    3-NEG-win-h(an)é-DIR

‘Shelly won, they say, but (I was there and) she didn’t.’

¬ behavior typical of parenthetical-like evidentials
   (e.g., Quechua, Faller 2002, 2006)
¬ cf. modal-like evidentials where parallel of (27) is infelicitous
   (e.g., in Lillooet, Matthewson et al. 2007)

Sentences with Evidentials: Two Contributions

    3-sing-RPT.3SG Andy
    ‘Andy sang, I hear.’

B: ✓ No he didn’t.
   # No you didn’t.

¬ ‘propositional’ contribution (q = Andy sang)
¬ challengeable/deniable, up for negotiation
¬ the ‘main point’ (e.g., Simons 2007)
¬ at-issue proposition

¬ evidential contribution (speaker heard that q)
¬ not challengeable/deniable, not up for negotiation
¬ not the ‘main point’, but new
¬ not-at-issue proposition


Questions with an interrogative clitic can contain an evidential:

(28) Mó=é-némene-séstse Andy?
    y/n=3-sing-RPT.3SG Andy
    ‘Given what you heard, did Andy sing?’

A: yes...
B: ✓ 3-sing-RPT
   ...❌ 3-sing-DIR

¬ A ‘yes’ answer carries with it the reportative evidential
¬ Is this a “crazy language”??
**Analysis: Three Semantic Contributions**  
(Murray 2010, forthcoming)

- Every sentence contributes:
  - at-issue proposition
  - not-at-issue restriction (if there is not-at-issue content)
  - illocutionary relation (contribution of sentence mood)
    - constrains, but does not determine, the force of an utterance of a sentence

- Modeled as:
  - introduction of discourse referent
  - direct update of the common ground
  - update that structures the context


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**Initial common ground: 3-sing-DIR Andy**

**Initial context set** ($p_0$)

- set of candidate speech worlds
- information that the speaker and hearer take for granted for the purpose of the conversation

(Analysis illustrated here with diagrams; update semantics in Murray 2010, forthcoming)

**Presentation: 3-sing-DIR Andy**

**Presentation**:

- present the at-issue proposition $q = \text{that Andy sang}$
- introduce it for discussion ‘put it on the table’
- a discourse referent introduced for $q$ (represented by solid lines)

**Direct update: 3-sing-DIR Andy**

**Not-at-issue restriction** (to $p_1$)

- reduce context set to worlds where speaker has direct evidence that $q$
- $\text{DIR}(i, q)$ not represented by a discourse referent (dashed lines)
- not at-issue non-negotiable (not deniable)
- A: 3-sing-DIR (‘He sang (I witnessed)’)
- B: # ‘No you didn’t’
Structuring update: 3-sing-DIR Andy

Illocutionary relation $([\leq_q])$

Illocutionary relation: add $q$ to common ground $\langle c_1, \leq_q \rangle$ (update to $q$-worlds)

at-issue proposition 

negotiable (deniable)

A: 3-sing-DIR 

('He sang (I witnessed)')

B: ✓ ‘No he didn’t’

New context set: 3-sing-DIR Andy

New context set ($p_2$)

New context set: $p_0$ updated with the information that $DIR(i, q)$ and that $q$

Reportative Evidential

Initial context set ($p_0$)

Present at-issue $q$

Not-at-issue restriction (to $p_1$)

New context set ($p_1$)

New context set: $p_0$ updated with the information that $RPT(i, q)$

Analysis: Three Semantic Contributions

(Murray 2010, forthcoming)

- Evidentials:
  - contribute an evidential not-at-issue restriction
  - can change the argument of the illocutionary relation
  - affects the commitment to the at-issue proposition

- Welcome results:
  - evidentials contribute new information, but not-at-issue
  - no appeal to separate level of meaning or illocutionary primitives, e.g., PRESENT (cf. Faller 2002)
  - unified semantics of mood, elements making not-at-issue contributions
  - challengeability results comes out as propositional anaphora
  - can be extended to other evidential systems, related phenomena
Evidentials vs. Parentheticals

Connection often noted: Simons 2007, Higginbotham 2009, a.o.

Some parentheticals are evidential:

(30) The Holland Tunnel is the quickest way to Manhattan, I find. (Murray 2010)

(31) Bob was the murderer, it’s said.

Some are not:

(32) Shelly left yesterday, I think.

(33) Max is a Martian, I feel. (Ross 1973)

Yet, they are parallel in the kind of meaning that they contribute (though not the content)

Hedges in Declaratives

(1) Shelly left yesterday.

- Slifting (sentence lifting, Ross 1973):

(3) Shelly left yesterday, I think.

(34) Shelly left yesterday, I suppose.

(35) Shelly left yesterday, I gather.

(36) Shelly left yesterday, it’s said.

Max is a Martian, 

\[
\begin{align*}
I & \text{feel} \\
\text{we realized} & \\
\text{it seems to have been believed} & \\
\text{remember} & \\
\text{don’t you think} & 
\end{align*}
\]

Slifting (Ross 1973)
Mood and Force

- Illocutionary (sentence) mood: morphosyntactic
- Illocutionary relation: semantic
- Illocutionary force: pragmatic

I assume we want a semantics for illocutionary mood
- Crosslinguistic semantics
- Declarative mood often used in assertions

Declarative mood constrains, but does not determine, the force of an utterance of a sentence in declarative mood

However, assigning semantics to mood makes hedges problematic for a pragmatic account

Hedged Assertion and Level of Commitment

Less committed to $q$:
- “[T]he whole point of some parenthetical verbs is to modify or to weaken the claim to truth which would be implied by a simple assertion $q$” (Urmson 1952)
- Evidentials, lifting parentheticals lower the quality threshold (Davis et al. 2007)

Alternate view:
- committed to the possibility of $q$
- with Cheyenne evidentials: direct commits to $q$, reportative to neither $q$ nor the possibility of $q$
- the (propositional) argument of the illocutionary relation is changed, various grades of modality for different hedges

(1) Shelly left yesterday.

Initial context set ($p_0$)  Present at-issue $q$

Bilocutionary relation ($\leq_q$)  New context set ($p_1$)

New context set: $p_0$ updated with the information that $q$

(3) Shelly left yesterday, I think.

Initial context set ($p_0$)  Present at-issue $q$  Not-at-issue restriction (to $p_1$)

Bilocutionary relation ($\leq_{eq}$)  New context set ($p_2$)

New context set: $p_0$ updated with the information that $\text{think}(i, q)$ and that $q$ is possible
Hedged Assertion: Analysis Summary

(1) Shelly left yesterday.
(3) Shelly left yesterday, I think.

<table>
<thead>
<tr>
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<th>AI</th>
<th>NAI</th>
<th>Mood</th>
<th>IR</th>
</tr>
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<tbody>
<tr>
<td>(1)</td>
<td>$q$</td>
<td></td>
<td>declarative</td>
<td>$\leq (q)$</td>
</tr>
<tr>
<td>(3)</td>
<td>$q$</td>
<td>$think(i, q)$</td>
<td>declarative</td>
<td>$\leq (\Diamond q)$</td>
</tr>
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</table>

Where $q =$ that Shelly left yesterday

- difference in commitment to AI proposition is a difference in the argument of the illocutionary relation (IR)
- hedges affect what this argument is, altering the level of commitment compositionally
- hedged declarative, and thereby hedged assertion

No change in the semantic contribution of mood ($\text{DEC}: \leq$)

- Just a change in the argument
- Refined definition of a hedge: where AI proposition and argument of IR are different
  - will extend to other moods
- cf. I think Shelly left yesterday, where the AI proposition can be $think(i, q)$ (e.g., Simons 2007)

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1. Introduction
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Hedges in Interrogatives

(2) Did Shelly leave yesterday?

- Slifting in interrogatives: “double-top” questions (Ross 1973):

(4) Did Shelly leave yesterday, do you think?

(a) Is there enough jam, 
\[
\begin{align*}
\text{do you} & \quad \{\text{think, imagine, know, admit, realize, do you think Ed knows}\} \\
\end{align*}
\]

- Parallel to declaratives, interrogative mood contributes a structuring relation (≡)
- Hedges affect what the argument of the relation is

(2) Did Shelly leave yesterday?

(4) Did Shelly leave yesterday, do you think?

Context set partitioned: into \(q\)-worlds and \(\neg q\)-worlds

Analysis

(2) Did Shelly leave yesterday?
(4) Did Shelly leave yesterday, do you think?

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<td>(q)</td>
<td></td>
<td>interrogative</td>
<td>(\equiv(q))</td>
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<tr>
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<td>(q)</td>
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<td>(\equiv(\Diamond q))</td>
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Where \(q\) = that Shelly left yesterday

- No change in the semantic contribution of mood (INT: \(\equiv\))
- Just a change in the argument
- NAI contribution in interrogatives: anchored to addressee (, I think vs , do you think?), presuppositional
Introduction

Evidentials and (Not)-at-issue Content

Hedged Assertions

Hedged Questions

Summary

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Outline

Modals, Adverbs?

(37) Bob was the murderer.
(38) Bob might have been the murderer.
(39) Bob was reportedly the murderer.
(40) Might Bob have been the murderer? A: yes
(41) Was Bob reportedly the murderer? A: yes

Arguably these can be part of the at-issue proposition

- e.g., modal proposition is directly challengeable (e.g., von Fintel and Gillies 2007 mastermind example)
- AI: $\Diamond q$ and IR: $\leq (\Diamond q)$
- In contrast to hedges, where AI: $q$ and IR: $\leq (\Diamond q)$

Analysis Summary

(1) Shelly left yesterday.
(2) Did Shelly leave yesterday?
(3) Shelly left yesterday, I think.
(4) Did Shelly leave yesterday, do you think?

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Where $q =$ that Shelly left yesterday

- Hedged declaratives and interrogatives, and thereby assertions and questions, because mood constrains force

Thanks!

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### References I


### References II


### References III


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