The Prime Directive

• the business at hand
  – sketch a classification of elicitation methods in language documentation and description
  – focus on (field) semantics and semantic typology
    • which happen to be my primary areas of interest
    • observations should apply to other areas of language documentation/description as well
      – and in fact to linguistic research in general
  – based on an analysis of
    • the sources of evidence linguists can draw on
    • the principal components of any elicitation

• the point
  – this maxim applies to any form of linguistic research
  – but it has special implications for semantic fieldwork
  – embracing (1.1) entails rejecting relativist agnosticism
    • the assumption that it is impossible to study meaning without native speaker intuitions (cf. Matthewson 2004)
  – (1.1) entails that semantic fieldworkers are in the same epistemological boat as
    • every other semanticist
    • every documentary/descriptive linguist

Overview

• the Prime Directive
• field semantics
• understanding elicitation
• the empirical basis of (field) semantics
• diagnostics in lexical semantics
• folk definitions and the lexicon
• summary
Field semantics

- field semantics in language description
  - descriptive grammars and dictionaries ideally offer semantic analyses
  - of the lexical items, function words, inflections, and constructions of the language
  - but since field workers often lack the training and resources (time, funding!) to accomplish this
  - all too often, all they provide are rough English glosses
    - based on random sets of examples they happen to have come across
  - one consequence is rampant Eurocentrism
    - e.g.,
      - perfective aspects are misdiagnosed as past tenses
      - inferential evidentials are misdiagnosed as perfects
      - path-neutral place-function-denoting adpositions are misdiagnosed as goal/ablative adpositions

Field semantics (cont’d)

- examples in compositional/formal semantics include
  - the work presented at the SULA conferences
    - Semantics of Under-Represented Languages in the Americas
      » http://web.mit.edu/sula/SULAS_program.pdf
      » http://uwa.humanities.manchester.ac.uk/sula/sula6-program.pdf

Field semantics (cont’d)

- field semantics and semantic typology
  - semantic categorization and language specificity

Field semantics (cont’d)

- distribution and generalizations

Figure 2. Basic color terms in the "grue" domain

Figure 3. Green and blue terms in WALS (Kay & Maffi 2008)

Figure 4. Stage model of implicational generalizations, covering 83% (91/110) of the languages of the World Color Survey (Kay & Maffi 1999b: 746)

Overview

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Understanding elicitation

- linguistic data collection involves maximally three components
  - a stimulus, a task, and a response
  - stimulus: contact language utterance
  - task: translation
  - response: target language utterance

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<th>Table 1. Approaches to linguistic data collection</th>
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<td>response</td>
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Understanding elicitation (cont’d)

- most of these can play a role in semantic field work
  - from meaning to expression
    - completion/association; translation; contextualized production; description
  - from expression to meaning
    - entailment/contradiction/felicity judgments; explication by paraphrase/scenario; demonstration/acting out

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<th>Table 2. Linguistic elicitation techniques – from stimulus via task to response</th>
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<td>response stimulus</td>
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<td>contact L utterance</td>
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<td>elicitation</td>
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<td>elicit often involves combinations of these</td>
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Understanding elicitation (cont’d)

- type I: target L utterance -> target L utterance
  - completion and association tasks
  - example: verbs of cutting and breaking (C&B verbs)
    - objective: determine which verbs impose narrow selection restrictions on the theme/patient
      - and which impose such restrictions on the instrument
      - the hypothesis to be tested is that the former have syntactic properties similar to those of English break
        - and the latter have syntactic properties similar to those of cut
        - cf. Guerssel et al. 1985; Bohnemeyer 2007
  - procedure

(3.2) Typical theme prompt: “I want you to tell me the kinds of objects that can be VERBed. If you hear that somebody VERBed something, what kind of thing are you going to think it is that they VERBed it with?”

(3.3) Typical instrument prompt: “I want you to tell me the kinds of objects that one can VERB with. If you hear that somebody VERBed something, what kind of thing are you going to think it is that they VERBed it with?”

Understanding elicitation (cont’d)

- type II: contact L utterance -> target L utterance
  - translation
  - example: Dahl’s (1985) tense-aspect-mood questionnaire – contextualized translation
    - background: the problem with translation
      - insufficient control over how the speaker construes the stimulus
        - e.g., b/speaker and consultant differ in their competence in the contact language or use different varieties of it
        - or due to differences between speaker and researcher in inferences as a result of differences in cultural knowledge
    - the risk that the speaker attempts to translate not just the meaning but the form of the stimulus
      - by trying to find one-to-one equivalents of particular words or constructions

- what the data might look like
  - a theme-specific verb: hat ‘tear’
    - theme associations: clothes, paper, leather; a plastic bag, a letter; one’s hand; one’s mouth/lips; shoes
  - a non-theme-specific verb: cut ‘cut’
    - theme associations: rope; melons, squash, tomatoes; one’s hand; one’s clothes; a plank or the table; another person;...
    - an instrument-specific verb: axe ‘cut’
      - instrument associations: hand saw; knife; machete; reaping hook; hack saw; axe; shards of glass; pieces torn off an aluminum can; ...
    - a non-instrument-specific verb: hat ‘tear’
      - instrument associations: one’s hands, feet, or mouth; a stick; a machete, knife, or axe; a piece of wire; scissors; ...
  - classic readings on association: Ervin & Landar 1963; Clark 1970
  - a very interesting recent application: Evans & Wilkins 2000
Understanding elicitation (cont'd)

• Dahl's questionnaire tries to overcome these problems
  – by providing each target sentence with a context that restricts its interpretation

(1.4) **TMA Questionnaire Item (example):**
A (16) [Q: What your brother DO when we arrive, do you think? (= What activity will he be engaged in?)]
He WRITE letters.

  » the question that constitutes the context defines a reference/topic time for the target
  » the infinitives in caps are used to avoid interference effects
  » the best way to make sure that the speaker appropriately considers the context
  » is to have them translate it along with the target

• the contextualization aspect makes Dahl's questionnaire a combination of Types II and III

Understanding elicitation (cont'd)

(1.7) **A possible elicitation scenario for BowPed:** "Imagine you're talking to somebody who is looking for the [FIGURE]. This person knows where the (GROUND) is, but doesn't know where the [FIGURE] is. You know where the [FIGURE] is; but neither of you can see the [FIGURE] and the (GROUND) right now. The person asks you where is the [FIGURE]? Imagine you want to tell the person where the [FIGURE] is. How do you respond?"

  » even with a slight tweaking of this context, the properties of the responses you get already changes!

• visual stimuli in comprehension tasks
  – the visual stimulus is presented along with a target language utterance
  – a typical example of a "hybrid" technique
  – verification tasks
  » the speaker's task is to determine whether the utterance can serve as a description of the visual stimulus
  – matching tasks
  » select among two or more visual representations the one best described by the utterance
  » or select among two or more utterances the one that best describes a given visual representation

Understanding elicitation (cont'd)

• the interpretation of visual stimuli is subject to non-trivial cultural conventions
  – Figure 9, interpreted by Westerners as a horse in full gallop
  » is understood by Arrente children in central Australia as showing a dead horse lying in the dirt (Wilkins 1997)
  – it is inherently difficult to visually represent abstract states of affairs
  – e.g., events
  » by single snap-shot images vs. cartoon-strip sequences vs. video clips
  » this, too, is subject to cultural conventions – e.g., medieval and non-Western artists often represent temporal as spatial relations

Figure 9. The role of cultural conventions in the interpretation of visual representations (Wilkins 1997: 157)

Understanding elicitation (cont'd)

• type IV: non-verbal representation
  -> target L utterance
  – description of non-verbal stimuli
    » the method of choice in semantic typology
    » (mostly) visual stimuli may be used in production tasks
    – but also in various types of comprehension tasks and in referential communication tasks
  – visual stimuli in production tasks
    » it is crucial to give the speaker a sufficiently specific task
    » e.g., a description of Figure 7 may be just a list of objects
    » to focus the speaker on the spatial relation, their description is framed as the answer to a question

(3.5) **BowPed elicitation question (Bowerman & Pederson ms.)**
Where is the [FIGURE]?

(3.6) **Uh, right here, in the picture?**
  » to avoid something like (3.6) as an answer, the elicitation question needs to be contextualized itself in a scenario

Understanding elicitation (cont'd)

• "application range elicitation"
  – a combination of production and comprehension
  » designed to elicit the full range of possible descriptions of a given stimulus
  » cf. Bohnemeyer et al. 2007

• referential communication tasks
  – a combination of production and comprehension
  » distributed across two participants
  » cf. Clark & Wilkes-Gibbs 1990
  » involve (at least) two speakers
  » one describes the content of a stimulus
  » the other re-matches the description to a set of non-verbal stimuli
  – numerous realizations
    » picture to picture; picture to toy model; ...

Understanding elicitation (cont'd)

• type V: target L utterance -> judgment
  – of entailment/contradiction, wellformedness/anomaly
  – and felicity
    • example: testing for telicity
    • background: telicity has no syntactic reflexes in Yucatec
    » e.g., no distinction b/w duration (i.e., -for type) and time-span (i.e., -type) adverbals
    » spend X time VERBing and take X time to VERB have identical translations
    » the aspectual verb translating "finish"/"complete" is compatible with telic and atelic VPs alike
    – the only way to test for telicity is by tapping into the entailment pattern known as the imperfective paradox (Dowty 1979)
  » cf. also Bohnemeyer & Swift 2004

(3.8) a. Floyd was pushing a cart
  : Floyd pushed a cart
  hence, push a cart is atelic
b. Floyd was drawing a circle
  not : Floyd drew a circle
  hence, draw a circle is telic
Understanding elicitation (cont’d)

- method
  - negotiate with a consultant a scenario in which
    - the VP to be tested applies in the progressive
    - the event described by the VP is plausibly interrupted at a time at which the progressive applies
  - ask whether a perfective or perfect form of the same VP can be
    truthfully asserted at the time of the interruption

(3.9) Pedro=e' táan unik'ay.
Pedro=TOP PROG A3=sing\ATP
'Pedro, he was singing.'

káa=t-unik'at-ah
unik'ay Pablo.
CON=TPR=A3=cross-CMP(B3SG) A3=sel\F Pablo
'when/and then' Pablo interfered.'

Pedro=e' te=k'at-ah
unik'ay.
Pedro=TOP TPR=A3=leave-CMP(B3SG) A3=sel\F Pedro
'Pedro, he stopped singing.'

Be'oraa'za t'o'k'iw=ah
unik'ay Pedro?
now=A2 TERM=A1T A3= sel\F ATP Pedro
'Now, has Pedro sung?'

Understanding elicitation (cont’d)

- type VI: utterance -&gt; verbal representation
  - explication by scenario or paraphrase
    - ask the speaker to come up with a scenario
      - in which a given sentence could be used to make a truthful assertion or ask a
        pragmatically felicitous question, etc.
    - example: a scenario in which (3.10) is acceptable as a description of the
      clip in Figure 12
        - the problem: (3.10) carries a stereotype implicature to the effect that the ball
          moves
        - this implicature needs to be defeated in context for (3.10) to be applicable
          to Figure 12 - cf. Bohnemeyer 2010

(3.11) Le'chan tääbaaro'
DET=dim plank=A2 PRV=move-CMP B3SG
h'peek-nah=ih
CON=TPR=A3=ascend(B3SG) DET=dim marble
'le'chan kanikaa
CON=PRV-ascend(B3SG) DET=dim marble
'y=ete'tel che' te'l
y=okkol=ik'.
A.3=with wood there A3=on=d2
'The little plank, it moved, and the little marble
and the tree ascended there on top.'

Understanding elicitation (cont’d)

- method
  - in a first step, typical theme/figure objects are elicited
    for each known dispositional root
    - applying the association task described above
  - then participants are asked to illustrate the dispositions
    that can be ascribed to a given object
    - by putting the object in the relevant disposition
  - dispositions applicable to the same theme/figure
    are elicited contrastively
  - the demonstrations are video-taped

Understanding elicitation (cont’d)

- be prepared for surprises!
  - e.g., in (3.9), most consultants answer negatively
    - since Aboy’s ‘sing’, the antipassive stem of the transitive root k’oy
      ‘sing’, is normally interpreted as ‘sing a song’
  - if possible, use a visual stimulus to clarify the scenario
    against which you wish to test entailments
    - this is the “verification” method mentioned above
  - example: do Yucatec verbs of “inherently directed motion” (Levinson 1993)
    entail translational motion of the figure
    - or merely change of location, as described by Kita 1999 for Japanese hainu
      ‘enter’ and deru ‘exit’?
    - test: e.g., is it possible in reference to the clip in Figure 11 to say (3.10)?

(3.10) H-na'k
le'chan kanikaa
PRV-ascend(B3SG) DET=dim marble
ya=ok'ik'
le' tabaa'ra
A3=on
DET=plank=d2
'The marble, it went up the plank'

Figure 11. First and last frame of "FIGURE_GROUND"
14a (Levinson 2001; click to play)

Understanding elicitation (cont’d)

- type VII: target Lutt. -&gt; nonverbal representation
  - demonstration/act out tasks
    - example: the semantics of “dispositional” roots
      - background: Mayan languages have hundreds of roots that
        lexicalize non-inherent spatial properties
        - “dispositions” can be thought of as a generalization over the posture
          domain, extending it to inanimate objects
        - distinctions that enter the conceptualization of dispositions include
          - support, suspension, blockage of motion
          - orientation (mainly in the gravitational field)
          - shape, configuration of parts of the figure-wt. one another
          - dispositions function as “manner of location”
          - dispositional roots produce transitive and intransitive verb stems,
            derived static predicates, numeral classifiers, and more
            - depending on the derivational morphology used
        - the greatest challenge in analyzing dispositional semantics
          - we don’t know the dimensions of contrast, since dispositions are largely
            not lexicalized in Indo-European languages

Understanding elicitation (cont’d)

- comparing elicitation to experimental research
  - elicitation is structurally similar to experiments in
    psycholinguistics and acquisition research (etc.)
    - both involve responses to stimuli and tasks
    - elicitation is often mislabeled as experimentation
      - especially when it involves nonverbal stimuli
    - linguists, anthropologists, and psychologists alike
      have been confused on this issue
      - the key difference is that experimentation in the narrow
        sense is aimed at hypothesis testing
        - whereas elicitation is a purely observational method
    - in practice, there is a grey area
      - quite a bit of research in psycholinguistics (etc.) is exploratory,
        but still considered experimental b/c the designs are the same
interpreting elicitation responses

- “raw” elicitation responses don’t document much of anything about the speakers’ knowledge
  - except for the fact that they are able to produce them
  - which doesn’t even tell us whether the responses are wellformed, etc.
- due to the lack of a direct causal link between task/stimulus and response
  - the linguistic knowledge the researcher is after isn’t in the response, but needs to be inferred from it
- the questions involved
  - how did the speaker construe the task?
  - how did the speaker construe the stimulus?
  - how did the speaker intend his/her response to be understood?

The Golden Rule of elicitation: An elicitation response only becomes a data point in the reconstruction of a speaker’s linguistic competence once the speaker’s interpretation of the task and stimulus and the intended interpretation of the response have been ascertained.

The empirical basis of (field) semantics

- field semanticists face the same problem as children during language acquisition
  - since they aren’t mind readers, they have to infer senses/intensions from observed extensions
  - avoiding overgeneralizations and undergeneralizations

The empirical basis of (field) semantics (cont’d)

The empirical basis of (field) semantics (cont’d)

- the child and the field semanticist rely on versions of Roger Brown’s (1958) Original Word Game
  - in fact, while it can be argued that the child can often not rely on explicit negative evidence from the “tutor”...
    - i.e., the parents/caregivers, older children, etc.
  - the field semanticist is in a position to elicit such negative evidence from the tutors – the native speaker consultants

The empirical basis of (field) semantics (cont’d)

- the empirical basis of (field) semantics
  - the meanings of linguistic expressions are part of the speakers’ procedural knowledge
  - this knowledge manifests itself in their productions and in judgments of
    - truth conditions
    - or conditions of successful reference
    - often accessible as entailments in the form of judgments of contradiction or logical consistency
    - the “satisfaction” of non-representative speech acts
    - pragmatic felicity
    - wellformedness or anomaly (based on selection restrictions)
    - discourse coherence

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Table 3. Overextension, underextension, overlap, and mismatch in the acquisition of lexical semantics (Barrett 1995: 372)

- the child and the field semanticist rely on versions of Roger Brown’s (1958) Original Word Game
  - in fact, while it can be argued that the child can often not rely on explicit negative evidence from the “tutor”...
    - i.e., the parents/caregivers, older children, etc.
  - the field semanticist is in a position to elicit such negative evidence from the tutors – the native speaker consultants

The empirical basis of (field) semantics (cont’d)
The empirical basis of (field) semantics (cont’d)

- truth conditions and the domain of semantic/pragmatic research
  - even semanticists who view meaning in terms of mental representation (usually) aren’t mind readers
  - and thus in the field have to rely on consultants’ intuitions about conditions for successful reference
    - to intersubjectively observable or constructible circumstances
  - the core phenomena contemporary semantic theory attempts to account for
    - entailment, contradiction, synonymy, ambiguity, anomaly, implicature, presupposition
  - truth conditions play a direct or indirect role in all of these

(4.3) Pedro=e’ táan u=k’àay,
Pedro=TOP PROG A3=sing\ATP
‘Pedro, he was singing.’
CON=PRV-A3=cross-CMP(B3SG) A3=himself Pablo.
‘[when/and then] Pablo interfered.’
Pedro=e’ t-ùup’at ah u=k’àay.
Pedro=TOP PRV-A3=leave-CMP(B3SG) A3=him\ATP
‘Pedro, he stopped singing.’
Be’bora=a’ ts’o=k’àah u=k’àay Pedro?
now=ID2 TERM=ALT A3= sing\ATP Pedro
‘Now, has Pedro sung?’

The empirical basis of (field) semantics (cont’d)

- entailment

(4.1) Entailment: A (set of) sentence(s) A entails (set of) sentence(s) B if and only if every situation in which A is true also makes B true.
- it is impossible to examine every situation in which A is true
- one way around this is to consider a situation in which B is false
  - if A is acceptable as a description of such a situation, then A cannot entail B
- example: does (4.2) entail movement of the ball (“marble”)?
  - answer: not if it is compatible with the scenario in Figure 16

Figure 16. First and last frame of FIGURE_GROUND 14

The empirical basis of (field) semantics (cont’d)

- contradictions

(4.4) Contradictions: Two (sets of) sentence(s) A and B are contradictions of one another if and only if any situation in which A is true makes B false and vice versa
- example: Yucatec compound verb stems such as tiup+ùust
  - extinguish+blow
  - is the V3 a resultative secondary predicate?

The empirical basis of (field) semantics (cont’d)

- synonymy

(4.6) Criterion of synonymy: If two sentences A and B are synonymous, then every situation in which A is true makes B true as well and vice versa.
- synonymy of lexical items is attested in terms of synonymy of otherwise identical sentences in which they occur
  - in general, truth conditions can only be ascribed to clauses and sentences
    - lexical items contribute to the truth conditions of sentences, but don’t have themselves truth conditions in isolation
- the inverse of (4.6) does not hold: sentences with identical truth conditions aren’t necessarily synonymous

(4.7) a. The glass is half full
b. The glass is half empty

(4.8) a. Kryten is a mechanoid
b. Kryten is a mechanoid, and he’s not an antaeater
- these have identical extensions, but different senses/intensions
- this is one of the principled limits of extensional/referential semantics

The empirical basis of (field) semantics (cont’d)

- ambiguity

(4.9) Ambiguity: A sentence A with two interpretations α and ψ is ambiguous if A can be truthfully denied under interpretation ψ in a situation in which A clearly applies (or vice versa).
- examples from Cruse 1986: 59-61

(4.10) Is the subject of this poem a monarch?
- No, it is a king.
  ⇒ monarch is vague (underspecified) re. gender

(4.11) Is that a dog?–No, it’s a bitch.
  ⇒ dog is polysemous re. gender (pace Cruse!)

(4.12) John prefers bitches to dogs
  ⇒ dog is polysemous re. gender (pace Cruse!)

(4.13) Mary likes mares better than horses
  ⇒ horse is vague (underspecified) re. gender
The empirical basis of (field) semantics (cont’d)

– anomaly

– 4.14  Has Charles changed his position?
   a. - No, he still supports corporal punishment
   b. - No, he still supports corporal punishment.
      He's now sitting next to the chairman, though.

– polysemy is the result of semantic transfer — metaphor and metonymy
   — these are conceptual processes and, unlike ambiguity, cannot be diagnosed by referential methods alone

The empirical basis of (field) semantics (cont’d)

– implicature

(4.16)  Conversational implicature: A (set of) sentence(s) A conversationally implicates \( \varphi \) if and only if
   (i) \( \varphi \) holds in certain contexts
   (ii) \( \varphi \) does not entail \( \varphi \)
   (iii) not \( \varphi \) does not imply \( \varphi \)

– since implicatures are pragmatic meanings, diagnosing them goes beyond the scope of extensional semantics
– but demonstrating that they are defeasible (= non-monotonic)
   – i.e., not entailed — is an indispensable step
   – example: does the connective \( \kappa \) encode sequential order?

• 4.17 Pedro=e’ káa=t-urts’ib-t-ah
  Pedro=TOP CON=PRV-A,3-write-APP-CMP(B.3SG)
  hun-p’él káartañe’,
  one-CL.IN letter=TOP Juan=Top
  káa=t-urts’u’ts’-ah hun-p’él chamal
  CON=PRV-A,3=suck-CMP(B3SG) one-CL.IN cigar
  ‘Pedro, [then/and then] he wrote a letter, [then/and then] he smoked a cigarette’
  preferred interpretation: sequential

– presupposition

(4.19)  Presupposition: A (set of) sentence(s) A presupposes \( \varphi \) if and only if
   (i) \( \varphi \) implies \( \varphi \)
   (ii) not \( \varphi \) likewise implies \( \varphi \) (as does the polar question \( A \), etc.)
   (iii) \( \varphi \) entails that \( A \) is false (Russell) or indecideable (Strawson)

Table 4. Major types of generalized conversational implicatures

|-------------|----------------|--------------------------|
| First Quantity Maxim (Q1): Make your contribution more informative as is required | I-Heuristic: What isn’t said, isn’t Scalar implicatures (e.g., the sequential interpretation in (4.17) vanishes if the two A-positions have different subjects)
| Second Quantity Maxim (Q2): Do not make your contribution more informative than is required | Conjunction buttressing (The went to the movies and saw a film +> She went to the movies and saw a film) |
| Manner Maxims: Be perspicuous | Q-Heuristic: What is expressed simply is stereotypically exemplified |

Figure 17. Preemption (scalar implicature) in Yucatec definite particles (Bohnemeyer ms.)

Figure 18. Grice’s typology of implicatures (e.g., Grice 1975)
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Diagnostics in lexical semantics

• there are by and large just two types of diagnostics for lexical-semantic relations – tests based on
  – entailments/contradictions
  – wellformedness/anomaly in semantic composition
• ambiguity revisited

(5.1) Ambiguity: A sentence A with two interpretations \( \phi \) and \( \psi \) is ambiguous if A can be truthfully denied under interpretation \( \phi \) in a situation in which \( \psi \) clearly applies (or vice versa).

– the ambiguity test encapsulated in (5.1) relies on intuitions about entailments/contradictions

The empirical basis of (field) semantics (cont’d)

– speech act meanings of course do not have truth conditions
  • but they, too, impose conditions on referential success –
  • and one might call satisfaction conditions
  • e.g., the meaning of a question can be spelled out
    – in terms the conditions of answering it
    – the meaning of a command in terms of what it takes to execute it
    – and the meaning of performative speech acts
    – in terms of what it takes to perform it
  • in general, speech acts are goal-directed actions
    – and their meanings can be captured
    – in terms of the conditions of the accomplishment of the goal

• the objectivism charge
  • mentalists (e.g., Lakoff 1987; Jackendoff 2002) have attacked the truth-conditional approach
    • charging that it presupposes a naïve “objectivist” view of both meaning and truth

The empirical basis of (field) semantics (cont’d)

– if real, this problem would be exacerbated in field semantics
  • by cross-cultural variation in the conceptualization of “truth”
  • what the objectivism charge misses

(4.21) The relation between meaning and truth:
The truth of a sentence depends on its meaning;
its meaning is independent of its truth.

• whether one believes that truth is objective or subjective is irrelevant to truth-conditional semantics
  – meaning doesn’t depend on truth, but on truth conditions
  – and few are denying that truth conditions are “in the mind”
    » in the sense that a speaker’s judgment of the truth of a sentence depends
    » on her knowledge of the truth conditions
    » and that knowledge is just simply part of her linguistic competence

• whether a sentence is actually true, or whether it is even knowable whether it is true
  – is again irrelevant in truth-conditional semantics
  – even a sentence in a perfectly fictional context is amenable to a truth-conditional analysis
    » as long as speakers know what would have to be the case for the sentence to be true
    » hence we can, e.g., evaluate the truth of (4.22) in the fictional context of
      Tolkien’s The Return of the King

(4.22) “The quest has failed, Sam. Even if we get out of here, we can’t escape. Only Elves can escape.
Away, away out of Middle-earth, far away over the Sea. If even that is wide enough to keep the
Shadow out.”
Diagnostics in lexical semantics (cont’d)

- in contrast, the popular zeugma-test of lexical ambiguity relies on intuitions about anomaly

(5.2) ?John and his driving license expired last Thursday
(Cruse 1986: 61) ⇒ expire is ambiguous

(5.3) ?John’s driver’s license expired last Thursday. So did John
(Cruse 1986: 62) ⇒ expire is ambiguous

(5.4) My cousin, who is pregnant, was born on the same day as Arthur’s, who is the father
(Cruse 1986: 62) ⇒ cousin is vague

• the source of these anomalies is the activation of different senses in a single lexeme
  – this is thus a different source of anomaly than the violation of selectional restrictions  
  ⇒ although such violations often occur as secondary effects

meronymy has a very similar characteristic pattern

(5.7) Meronymy: Word form (lexical unit) \textit{y} is a meronym of word form \textit{x} (the holonym) if and only if entities in the extension of \textit{y} have parts that fall in the extension of \textit{x}

(5.8a) a. The boil is on his \textit{elbow} :: The boil is on his \textit{arm}
    b. Sally painted the \textit{house} purple
    c. Sally painted the \textit{front} purple
    d. Floyd wrote a \textit{book} :: Floyd wrote a \textit{page}

• the difference between these patterns
  – the meronymy pattern is restricted to expressions of spatial relations
    (5.8a), contact (5.8b),
  – and “incremental change” [5.8c; cf. Dowty 1991, Krifka 1998]
  – the hyponymy pattern is restricted to predication

a. A spaniel is a kind of dog
b. A rose is a type of flower
c. A mango is a kind of fruit

(5.14a) a. ?A kitten is a type of cat
b. ?A queen is a type of monarch

• problem: kind of has other uses as well – e.g., as a hedge

Test-frames for meronymy:

(5.15) (i) \textit{A} has \textit{s/an} \textit{a}
(ii) \textit{A} is a part of \textit{an}

• Cruse argues that the safe identification of meronymy requires both diagnostic to apply simultaneously

a. A wife has a husband
b. ?A husband is part of a wife

hyponymy and meronymy

(5.5) Hyponymy: Word form (lexical unit) \textit{y} is a hyponym of word form \textit{x} if and only if the extension of \textit{y} is properly included in the extension of \textit{x} (in any given situation)

• elements in a hyponymy relation participate in a characteristic entailment pattern
  • when used as predicates

(5.6a) a. This is a \textit{dog} :: This is an \textit{animal}
    b. That is a \textit{stallion} :: That is a \textit{horse}
    c. This is a \textit{scarlet flower} :: This is a \textit{red flower}
    d. He murdered someone :: He killed someone

(based on Cruse 1986: 89)

• but it is a surprisingly tricky proposition to define hyponymy through this pattern

b. ?hyponymy - diagnostics and anomaly

• beware – both patterns reverse under the influence of downward entailing expressions
  – such as negative polarity items

(5.9) All \textit{animals} are forbidden
      :: All \textit{dogs} are forbidden

(5.10) There’s no \textit{boil} on his \textit{arm}
      :: There’s no \textit{boil} on his \textit{elbow}

• anomaly-based tests for hyponymy

Test-frame for taxonymy: An \textit{a} is a kind/type of \textit{b}

• word forms that enter the test frame in [5.11] without producing anomaly stand in a taxonomic relationship

(5.12) Taxonomy: Word forms (lexical unit) \textit{a}_1, \textit{a}_2, \ldots, \textit{a}_n are taxonyms of word form \textit{b} if and only if

(i) \textit{a}_1, \textit{a}_2, \ldots, \textit{a}_n are hyponyms of \textit{b}
(ii) \textit{a}_1, \textit{a}_2, \ldots, \textit{a}_n are incompatible with one another (i.e., anything that falls in the extension of \textit{a}_i can therefore not also be in the extension of \textit{a}_j, etc.

Cruse 1986 mentions a third kind of diagnostic

• analogy/proportion

(5.17) a. A huge bank balance is a part of his attractiveness to women
    b. ?His attractiveness to women has a huge bank balance

• the same goes for the various kinds of opposites
  • complementaries, antonyms, converses
  • again, there are both entailment/contradiction-based diagnostics and anomaly-based diagnostics

b. Cruse 1986 mentions a third kind of diagnostic

cont’d
Diagnostics in lexical semantics (cont'd)

- bonus: a fun paper on antonyms in the field
  - Hale 1971: *A note on the Warlbiri tradition of antonymy*
    - during the kanakdj initiation ritual, initiated Warlbiri men use tjilliwiri, or "upside-down Warlbiri"
    - a secret language generated by Warlbiri by replacing all content words with antonyms of sorts
      - uninitiated men are exposed to this practice as observers for weeks until they get the hang of it

Figure 20. *A note on the Warlbiri tradition of antonymy* (Hale 1971: 474-475)

Overview

- the Prime Directive
- field semantics
- understanding elicitation
- the empirical basis of (field) semantics
- diagnostics in lexical semantics
- folk definitions and the lexicon
  - summary

Folk definitions and the lexicon

- the lexicon in the field: a script

Figure 19. The lexicon in field research: flow chart

- the lexicon also "contains" vast amounts of ethnographic information
  - kinship terms
  - folk taxonomies of flora & fauna
  - economical production (game animals; agricultural techniques; ...)
  - body part terms & ethnomedicinal terminology
  - terms for political institutions
  - religious/spiritual practices
  - speech genres
  - artifacts (garment, vessels, tools, ...)
  - ...

- the lexicon is the basis for generating dictionaries

Folk definitions and the lexicon (cont'd)

- folk definitions are not semantic analyses
  - not even inexpert ones
    - they do not distinguish between semantics and pragmatics/encyclopedic knowledge
    - exhaustively account for all uses of an expression and for polysemy and homophony
  - then why elicit folk definitions?
    - because they provide rich material as a starting point for a semantic analysis
      - they tend to access the extensional prototype
      - they provide evidence of the structure of the mental lexicon entry
        - e.g., how much information is needed by a speaker to "triangulate" the target?

Table 5. Grammatical information in the lexicon

<table>
<thead>
<tr>
<th>Lexical categories (&quot;V, N, A, P&quot;)</th>
<th>Functional categories and bound morphology</th>
</tr>
</thead>
<tbody>
<tr>
<td>carry information about the phrases they head/govern/modify</td>
<td>provide &quot;reference points&quot; for the definition of lexical (e.g., person, tense; derivation) and phrasal categories (e.g., case, agreement)</td>
</tr>
<tr>
<td>down to fine-grained distinctions (e.g., subcategorization frames ⇒ argument structure; N classes ⇒ possessive constructions)</td>
<td>encode the semantic distinctions grammaticalized in the language (tense, aspect, noun class, honorific level, ...)</td>
</tr>
</tbody>
</table>

Figure 20. Output of a language description project
Folk definitions and the lexicon (cont’d)

- a method for eliciting folk definitions: “Taboo”

(6.1) FEE: Be’éré’w’i i=et’Yir.

- Speaker: ‘This time, I’d like you to guess me.’

- This time, I’d like you to guess me.

- Bohnemeyer, The

- Golden

- Bohnemeyer, A practical epistemology for semantic elicitation

- Bohnemeyer, A practical epistemology for semantic elicitation

Folk definitions and the lexicon (cont’d)

- a classical paper on folk definitions: Casagrande & Hale 1967

- supposition: every speaker of every language must be able to lay out the meanings of lexical items

- every language “must thus in some degree serve as its own metalanguage to explicate semantic usage” (p. 165)

- this is the view that has been advocated by Wierzbicka and collaborator — e.g., Bohnemeyer 2003 for discussion

- analysis of around 800 Papago (= O’odham) folk definitions

- folk definitions establish a network of relations between the target lemma and other lexicon entries

- although not all of these relations are semantic relations – a problem that C&H don’t touch

- C&L classify the definitions in their corpus on the basis of the relations that constitute them into 13 types


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summary

Summary (cont’d)

- the empirical basis of field semantics

- field semanticists have to infer senses/intensions from observed extensions

- since they aren’t mind readers

- to achieve this they manipulate real or imagined situations and observe how this affects

- native speakers’ intuitions about the applicability of certain expressions in reference to these situations

- the core phenomena of semantics and pragmatics...

- entailment, contradiction, ambiguity, anomaly, implicature, presupposition, and speech act meanings...

- …can be explored in the field directly or indirectly

- on the basis of native speaker intuitions for conditions of successful reference – or truth conditions

Summary

- field semantics – the elicitation of semantic data from native speaker consultants

- and the semantic analysis of these data

- based on the consultants’ intuitions for entailments/contradictions and pragmatic felicity

- linguistic data collection techniques can be classified in terms of three components

- stimulus, task, and response

- methods for eliciting expressions of a given meaning

- completion, association; translation; contextualized production; description

Summary (cont’d)

methods for eliciting meanings of a given expression

- entailment, contradiction, felicity judgments

- explication by paraphrase or scenario

- demonstration, acting out

the epistemology of elicitation

- native speakers apply their linguistic knowledge to solving a certain problem

- researchers reconstruct the speakers’ knowledge based on the observation of the solution

the Golden Rule of elicitation

- a response becomes a data point in the reconstruction of a speaker’s linguistic competence

- once the speaker’s interpretation of task, stimulus, and response have been ascertained

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Methods

- methods for eliciting meanings of a given expression

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The Epistemology of Elicitation

- native speakers apply their linguistic knowledge to solving a certain problem

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Methods (cont’d)

- methods for eliciting meanings of a given expression

- entailment, contradiction, felicity judgments

- explication by paraphrase or scenario

- demonstration, acting out

The Epistemology of Elicitation (cont’d)

- native speakers apply their linguistic knowledge to solving a certain problem

- researchers reconstruct the speakers’ knowledge based on the observation of the solution

The Golden Rule of Elicitation (cont’d)

- a response becomes a data point in the reconstruction of a speaker’s linguistic competence

- once the speaker’s interpretation of task, stimulus, and response have been ascertained

Figure 21. An elicitation game for folk definitions: Taboo.
The objectivism charge against referential semantics

arguable misconstrues the relation between meaning and truth

truth depends on meaning

meaning doesn’t depend on truth

meaning is reflected in truth conditions

and truth conditions are undeniably “in the mind”

References (cont’d)


Evans, Nicholas and David P. Wilkins. 2000. In the mind’s eye: The semantic perception of perception verbs in Australian languages. Language 76:646-632.


References (cont’d)

Bohnemeyer, A practical epistemology for semantic elicitation

SOAS, June 14, 2011

Thank you!