1.2 Is semantic structure “rich”? 
no → formal semantics, propositional logic  
yes → no finite lists (e.g. features) exist

2. Semantic reference and some problems

“Folk” theory: referential theory of meaning  
linguistic expression stands for things in the world for which words are “labels”

(1) a. *are green we boxes ship the  
    b. The boxes we ship are green

→ novel sentences are understood through the words in it and the way they are connected  
  • some strings are more meaningful than others  
  • have parts that are themselves meaningful  
  • mean something in particular  
  • competent speakers handle it effortlessly  
  • meaning of the clause is composed of meanings of the phrases/words
2.1 Objection 1: not every word denotes actual object

(2) Pegasus; nobody; Ralph is fat (examples by Lycan, 1998)

fat = abstract quality (property, feature, attribute)
is = abstract relation
- some nouns do not refer to abstract /individual things like sake, behalf (Quine)
- some words do not refer to things at all (hey, and, the)

2.2 Objection 2: meaning involves more than reference

(3) a. the pope; Benedict XVI; Ratzinger
→ same referent - different meaning

identity problem:
(3) b. Ratzinger’s car sold on ebay / *Ratzinger to read mass in St. Peter
   c. *the pope’s car sold on ebay / the pope to read mass in St. Peter
3. Lexical semantics and inference
inferences play a role in determining lexical semantic structure
→ regularities in the interaction between syntax and word meaning from semantic
features of the word
→ needed therefore: a lexical semantic representation

(4) a. John met Sue on/*in Tuesday
b. John met Sue in/*on the morning
c. John met Sue in/*on March
d. John met Sue (*in/*on) last night
e. John met Sue at/*in/*on ten o'clock.

- world knowledge perspective: March, Tuesday, the morning select particular portions
of time of varying lengths
- interval relations: conceived hierarchically; days = subtypes of week etc.
→ no explanation to the fact that intervals of time corresponding to days are selected
by a different preposition from other such intervals (on vs. in)
    days and months are typed differently in language even though they base on the
same world knowledge ontology (Verspoor, 1997)
choice of preposition is a linguistic convention

4. Productivity

- productive rule can be blocked by presence of a lexeme with the same meaning
  cf. use of cow for the meat of a cow is blocked by independent existence of the word beef in the lexicon

(5) a. *We had cow for dinner
  b. We had beef for dinner

- occurs in isolation of world knowledge
- depends only on lexical information and not on concepts associated with the denotation of a word
  → therefore: further need for lexical semantic representation
5. Conceptual semantics

representation of lexical semantic structure via conceptual structures

- entities reflect human world knowledge
- alternations in the linguistic context in which particular words (mainly verbs and prepositions) can be used, to identify generalizations over relations between alternate uses of lexical items.
→ components of the lexical representation: are assigned a consistent semantics, can be combined in constrained ways

- in lexical semantics: some form of lexical decomposition is necessary to capture generalizations about the relationship between syntactic form and intended meaning
- well accepted that it is impossible to decompose meaning into necessary and sufficient conditions for identification of the entities words
1. Word meaning and categorization

1.1 Conceptual content

Lexical items correspond to repeatable conceptual structures (i.e. have stability in space/time)
cf. dog, house

describes conceptual phenomena:
mass/count water, sand, gold, car
plurality sisters, cosms, earths, *golds
constitutive group, swarm, flock
partitive piece of, part of, slice of...
boundaries area, set, culture, language
1.2 Categorization functions

functions are expressible as part of
   1. lexical conceptual structure
   2. morphological affix
   3. unexpressed

therefore: no 1:1 relationship between syntax - semantics
→ conceptual structure forms a **syntax of thought**

new conceptual structures can be generated on basis of rules of: inference, pragmatics, heuristics
   1. must be expressed, therefore are linked to syntactic structures via correspondence rules
   2. must be related to perception and action
→ conceptual structures are linked to mental representations
2. Lexical items

**lexical item** = a correspondence between fragments of phonological/syntactic/conceptual structure (Jackendoff)

2.1 Core questions in lexical semantics

a. Which aspects of conceptual structure can be encoded in lexis?
b. How does a syntactic combination of lexical items correspond to conceptual structure combinations?

**primitives:**
a.) Why is one primitive better than another?
b.) How to tell that one is "at the bottom"?
3. Conceptual compositionality

(1) Bill went into the house

[event GO [thing BILL] [path TO [place [IN [thing [HOUSE]]]]]

event, thing: conceptual constituents; TO, IN: conceptual content
IN: function that maps things into places
TO: function that maps things on paths
GO: function that maps things and paths into events
**semantic arguments:** theme, goal

theme: argument of GO, [BILL]
goal: argument of TO, [IN [HOUSE]]

*into* phonological
*P* syntactical
[path TO [place[ IN [thing ...]]]] conceptual

*go* V
[event GO [thing ...], [path ...]]

*enter* V
[event GO [thing ...], [path TO [place IN [thing ...]]]]

**result:** arguments are things, *to enter* always appears between two NPs
(2) a. John slept until dawn  
    b. John coughed until dawn  
    c. John smoked the cigarette until dawn  
    d. John smoked cigarettes until dawn

**multiplicity of entities:** feature of conceptualization that is NOT covered in distinction between objects/events

```
  event    UNTIL [event  PLURAL [event LIGHT FLASHED] [time DAWN]
             BOUNDED
  event    UNBOUNDED
             BOUNDED
```

**UNTIL:** function that links an unbounded event with time, produces a bounded event
**PLURAL:** function maps bounded entity into unbounded multiplicity
→ necessary to introduce **two fundamental conceptual features**

A. boundedness: analogy between count noun / mass noun and bounded events/unbounded processes  
   part of: apple ≠ apple
   water = water
   running = running
   winning ≠ winning

B. plurality

(3) a. There was water/apple/* an apple all over the floor
   b. There was the NY times all over the floor.
1. What is meaning within Lexical Semantics?

**Defining meaning:** roots in linguistics, psychology, anthropology, logic and philosophy of language,  
→ definitions reflect at least two components  

1. focuses on language and thought, on language and communication, on language and culture, on language and truth  
2. research methodology:  
group A: looks for feature structures  
group B: looks for abstract, syntax-like representations, or tree structures

<table>
<thead>
<tr>
<th>approach</th>
<th>finds lexical meaning in…</th>
</tr>
</thead>
<tbody>
<tr>
<td>logic</td>
<td>formal systems and model structures</td>
</tr>
<tr>
<td>psychology</td>
<td>concept discrimination, concept acquisition, semantic fields</td>
</tr>
<tr>
<td>artificial intelligence</td>
<td>data bases and symbol manipulation</td>
</tr>
</tbody>
</table>
2. Compositionality

core problem of semantics (and psycholinguistics): the language user's ability to understand novel sentences,

2.1 Principle of Compositionality

First Version: The meaning of a whole is a function of the meanings of the parts. → one can form different, non-synonymous sentences with the same smallest parts (words and morphemes) Principle of Compositionality requires a notion of part—whole structure that is based on syntactic structure

2.2 Principle of Compositionality

The meaning of a whole is a function of the meanings of the parts and of the way they are syntactically combined (Partee, 1995)

→ Principle of Compositionality requires a theory of syntax
3. Formal lexical semantics

3.1 Truth conditions

Cresswell: no good a priori conception exists of what meanings are

→ Cresswell's "Most Certain Principle":

\[
\text{For two sentences } \alpha \text{ and } \beta, \text{ if (in some possible Situation) } \alpha \text{ is true and } \beta \text{ is false, } \\
\alpha \text{ and } \beta \text{ must have different meanings}
\]

→ truth-conditions are at least one fundamental part of what should go into the notion of the meaning of a sentence
3.2 Application of the principle

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

→ half full and half empty are synonymous

but: almost half full and almost half empty are not synonymous

(almost = same lexical item) → half full and half empty have different meanings

→ syntactic bracketing: (almost half) + full and (almost half) + empty

→ full and empty have different meanings (uncontroversial)
3.2.1 Dependencies in tree-like representation

3.2.2 Draw tree structures corresponding to the relationships in the following sentence

Mary feels the cold in her fingers

Which control sentences can you devise?
3.2.3 Truth-conditional semantics

→ rejects that an important difference exists between formal and natural languages

4. Partee’s Case Study I: Adjective Meanings (Partee, 1995)

→ syntactic/semantic rules for forming and interpreting NP → DET + N
(other constituents within NPs: A, PPs and relative clauses (Rel)

(2) a. the teacher from France
    b. the teacher of French
    c. the French teacher
(3) a. the student who was curious
    b. the student, who was curious,
    c. the curious student

→ three semantic roles: *arguments* (2b.), *restrictive modifiers* (2a., 3a.),
   and *non-restrictive modifiers* (3b.)
(4) a. If Chris is the teacher from France, then
   (i) Chris is a teacher? → YES, Valid.
   (ii) Chris is from France? → YES, Valid.

(4) b. If Chris is the teacher of French, then
   (i) Chris is a teacher? → YES, Valid.
   (ii) Chris is of French??? → Invalid.

*teacher* as a relational N → analogue of a **transitive verb**

→ NP or PP can fill a slot in this relation
→ = argument of the head

→ *of French* is an **argument** of *teacher* in (2b.)

English NPs: *of*-PPs are mostly arguments rather than modifiers
*from*-PPs express spatial or temporal or spatiotemporal relations are usually modifiers
→ distinction between "contentful" or "lexical" and "non-contentful" or "grammatical" prepositions

Example (2c.): ambiguous

(2) c. the French teacher

*French* can be interpreted either as a modifier or as an argument

argument reading involves the N *French*; modifier reading involves an A

(3a.) restrictive modifier
(3b.) non-restrictive modifier

(3a.) there was more than one student, but only one who was curious

→ non-restrictive relative clause adds an additional statement about that student.
1. Levels of semantic description

1.1 Lexical units vs. lexemes

lexical units: form-meaning items with stable semantic properties (senses)
lexemes:

1.2 Lexical units in context

two main contextual effects: generality vs. ambiguity in meaning

(1) a. Mary needed a lawyer
    b. We finally reached the bank

*lawyer* covers a large set of properties common to all people working in that profession
→ no distinction between several types

*bank*: different meanings via ambiguity
→ context distinguishes between bank of type A (riverside) or type B (for money)
2. Lexical semantic variation under context

2.1 Modulation

= modification of senses in continuous, nearly infinite ways

e.g. a good/bad lawyer, a lawyer for family law, the lawyer on 23rd street, the lawyer hurt in the accident was taken to hospital...

2.2 Contextual selection

= meaning falls into one of possible slots

(2) This bank has a recommended credit system
modulation achieves **foregrounding** and **backgrounding**

(3)  
a. The bank’s customer relations are appalling  
    b. The bank’s outside was designed by Frank Gehry

→ highlights **different semantic aspects** of the lexical unit
3. Testing ambiguity
3.1 Substitution with synonyms

(4) a. John struck the match → *John struck the contest
   b. The match was won by France → *The lucifer was won by France

3.2 Substitution with antonyms

(5) a. The room has bright colors → *The room has stupid colors
   b. She is a particularly bright student → *She is a particularly dark student

- if substitution with synonyms/antonyms fails then the word form can be ambiguous
(6)  a. a thin woman
    b. a thin tree
    c. a thin book

→ non-symmetrical mapping of antonyms and synonyms
1. Linguistic categorization

1.1 Problem of categorization: ontological foundations

→ objects vs. entities, cf. parts of organisms: problem of delimitation
boundary recognition: accounts for nominals etc.

Classical view in lexical semantics: necessary and sufficient conditions for category membership

cf. semantic features: bird: +ANIMAL, +WINGS, +LAYS EGGS…
2. Gestalt perception principles:

2.1 Principle of proximity
- individual items in close proximity are perceived as belonging together

2.2 Principle of similarity
- individual similar items appear as belonging to the same class
2.3 Principle of closure
- perception focuses on closed figures

2.4 Principle of continuation
- items are seen as wholes when they have few interruptions

(images: http://www.users.totalise.co.uk/~kbroom/Lectures/gestalt.htm)
3. Color term classification

explanation 1: color categories are arbitrary, cf. Lenneberg, Brown: color term differences exist

explanation 2: systems have reference points, Berlin/Kay: focal colors

Berlin/Kay, 1969: strong claim that universal cognitive facilities create this organization independent of any cultural mediation

What is most salient?

- the most frequently used
- the most easily recognized
- the earliest acquired items

→ most salient categories are labelled
4. Prototype theory

Rosch:  1. perceptual salience of focal colors
        2. memory salience
        3. rapid reproduction and early acquisition

Rosch concludes: categories are formed around **prototypes**

a. categories do not represent arbitrary subdivisions but base on cognitive capacities
b. cognitive categories are anchored in salient prototypes
   c. category boundaries are fuzzy
   d. members can be arranged on a typicality scale
Prototype: “the clearest cases of category membership defined [...] by people’s judgements of goodness of membership in the category” (Rosch)

A Prototype is therefore the best member of a category, the most representative of things in a category
1. The semantics of verbal situation types
1.1 Basic events

(1) a. Mary burned the book
    b. Mary liked the book

**event 1:** well-defined boundaries in time, sequence that comprises event can be sequentially portrayed in time:
    internally **heterogeneous**, component events are all different, is **dynamic**

**event 2:** not clearly defined boundaries
    internally **homogeneous**; started in past, open if it still continues, is **stative**
1.2 Perfective vs. imperfective V

perfective situations: bounded events
imperfective situations: unbounded events

perfective: Vendler:
accomplishments, achievements, activities
*jump, kick, bite, learn, break*

(2) She learns/is learning the poem

imperfective: Vendler:
states resemble, have, know, like, believed

(3) He knows/*is knowing the poem
2. Aspectuality and Verbal quantification

Definition

**Aspectuality**: System of the internal temporal semantics of verbs/verbal propositions

Internal structure of propositions can be quantified:

→ **Aspectual classes** (Vendler, 1967)
2.1 Aspectual classes

1. activity (to run, to push a cart)
2. accomplishment (to run a mile, to draw a circle)
3. achievement (to win a race, to reach the summit)
4. state (to like somebody, to hate something)

→ Classes define the telicity or atelicity of events
   (from telos <Greek>: goal)
2.2 States

- static, unchanging situations or qualities (emotional, physical)
- are continuous over period of time, can answer the question, *how long?*

Properties:  no progressive       *Lisa is hating it*

no imperative  Like this book!

no “finish”     *I finished believing it*

vs.

*I started/stopped believing it*
2.3 Activities

- dynamic situations, can persist indefinitely, no defined endpoint
- have no definite end, can answer the question, *how long?*

**Properties:**

- progressive  
  *We were observing the entrance*

- imperative  
  *Watch this movie!*

- voluntary  
  *I’m deliberately looking at the picture*

- unvoluntary  
  *Our plant is growing*

→ If the plant stops growing, it has grown
2.4 Accomplishments

- dynamic situations with a defined endpoint/climax
- endpoint must be reached, can answer the question, *how long?*

**Properties:** have “finish”  
*John finishes writing the letter*

happen *in X time*  
*She recovered from the flu in 2 weeks*

do not happen *for X time*  
*She recovered from the flu for 2 weeks*

→ If John stops writing the letter, he has not written it
2.5 Achievements

- dynamic situations, occur instantaneously
- punctual events in which a state changes, can answer the question, *at what time?*

**Properties:**

- type A: instantaneous
  
  *We reached the summit*

- type B: culmination phase
  
  *We found a solution*
3. Telicity and quantity

atelic + quantified  telic       (to draw a circle)
atelic + unquantified atelic       (to drink beer)
telic + quantified  telic       (to splint trunks)
telic + unquantified atelic       (to splint wood)
2. Lexical aspect

2.1 Aspect vs. aktionsart

implement grammatical dichotomy

**fundamental opposition:** perfective / imperfective

vs.

terminative / durative
aspects determine logical roles (outer perspective, cf. Comrie, 1989)

aktionsarten determine temporal structure of the verb

telicity vs. atelicity (cf. Parsons, 1990)
3. Temporality of events

- language exemplifies a cognitive need to measure and restrict time
  → verbs “temporalize” language hence the referential power lies in **aktionsarten**
- constraining or “measurement” via verbal complements, temporal adverbials
- constraints can be spatial or temporal

(1) She runs a mile - She runs for 10 minutes

1. **telic, no expansion**  
   *(to explode, to flash)*
2. atelic, linear
(to start)

3. telic, limited
(to arrive)
4. telic, beginning and end
(to read a novel)

5. telic, iterative
(to twiddle)

temporal telicity can be parallel to spatial telicity (to arrive)
independent of spatial telicity (to explode)
1. Motion in language

1.1 Definitions

Motion event semantics consists of event frames and a set of semantic properties

Event frame: set of conceptual elements and relationships that are evoked together or co-evoke each other; incidental elements or weakly evoked elements are outside the event frame

motion events: - a semantic key issue
- cognitively salient, reflect gestalt perception principles (figure-ground segregation etc.)
1.2 Typological arguments

motion events are reflected in basic word order: SOV/SVO in 80% of all languages → different languages exhibit typologically significant differences (manner, path etc., cf. Talmy)

2. Motion event parameters and conflation

2.1 The typological approach

Talmy defines 6 parameters of a motion event:

figure, motion, path, ground, manner, cause

(1) The boat floated under the bridge
   FIGURE MOTION+MANNER PATH GROUND
2-way typology:

a.) English, German, Chinese: manner languages

b.) Spanish, Greek, Japanese: path languages

framing function of path parameter:

satellite-framed languages: conflate motion + manner

English: to swim across the river

verb-framed languages: conflate motion + path

Spanish: cruzar el río nadando
2.2 Language-specific event framing: Conflation

**Conflation**: process of lexicalization in which certain parameters of an event/proposition are merged

<table>
<thead>
<tr>
<th>Conflation features in English</th>
<th>Conflation features in Spanish</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. figure rendered as subject (<em>Bleriot</em>)</td>
<td>1. figure rendered as subject (<em>Bleriot</em>)</td>
</tr>
<tr>
<td>2. path and ground: adverbials (<em>across</em>)</td>
<td>2. path is rendered as verb (<em>traversar</em>) → <em>traversa...en avion</em> instead of <em>volar</em> (<em>fly</em>)</td>
</tr>
<tr>
<td>3. motion and manner: verbs (<em>fly</em>)</td>
<td>3. manner is rendered as adverbial (<em>en avión</em>)</td>
</tr>
</tbody>
</table>
### 2.3 A language-specific conflation sketch

<table>
<thead>
<tr>
<th>Germanic</th>
<th>Romance</th>
</tr>
</thead>
</table>
| conflated: motion + manner  
*to fly*        | motion + path  
*traversar*     |
| separate: path  
*to Prague*    | manner  
*en avión*    |
### Continuum of conflation effects:

<table>
<thead>
<tr>
<th>German</th>
<th>English</th>
<th>Spanish</th>
</tr>
</thead>
<tbody>
<tr>
<td>fahren</td>
<td>drive/go by car</td>
<td>ir en coche</td>
</tr>
<tr>
<td>hinausgehen</td>
<td>go out/leave</td>
<td>salir</td>
</tr>
</tbody>
</table>

#### 2.4 Differences between German and English

German speakers [...] tend to orient to some marking of boundedness. [...] English, by contrast has gone in a different historical direction among the Germanic languages, grammaticizing the progressive. [...] we find that [...] English-speaking narratives tend to mark durativity more than termination in their descriptions.

(Slobin 1997:81)
3. Identify motion events in English texts and compare with their German translations

**ac-burr - 199**
If the orbit passes over the poles the Earth will spin under it every 24 h, so that any point on the surface will pass below the orbit every 12 h.

Führt die Bahn über die Pole, bewegt sich die Erde einmal in 24 Stunden unter ihr hinweg, so daß jeder Punkt der Oberfläche alle 12 Stunden von der Bahn passiert wird.

**ac-burr - 470**
The satellites have a cylindrical form. They are stabilised to spin about an axis parallel to the Earth's axis at a rate.

werden durch eine Rotation mit einer Rate von 100 Umdrehungen pro Minute um eine zur Erdachse parallele Achse.
ac-burr - 211
If the orbit radius is chosen at a certain value, then the period of the orbit can be exactly 24 h which means that the Earth will rotate beneath at precisely the same angular velocity. So the satellite will remain above the same point over.

ac-davies - 294
To return the particle to its initial state it is necessary to rotate it through 720°.

tou-newc - 47
It swivels about its centre point on huge roller-bearings and is operated by hydraulic pressure. The High Level Bridge, which is further
## Test results Semantic Issues #2

<table>
<thead>
<tr>
<th>total number of participants</th>
<th>12</th>
</tr>
</thead>
<tbody>
<tr>
<td>question number 1</td>
<td>6</td>
</tr>
<tr>
<td>question number 2</td>
<td>6</td>
</tr>
<tr>
<td>question number 3</td>
<td></td>
</tr>
<tr>
<td>best example of the category</td>
<td>science</td>
</tr>
<tr>
<td>Medicine</td>
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<tr>
<td>Physics</td>
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<tr>
<td>Mathematics</td>
<td>3</td>
</tr>
<tr>
<td>Chemistry</td>
<td>2</td>
</tr>
<tr>
<td>no example</td>
<td>1</td>
</tr>
<tr>
<td>no answer</td>
<td>1</td>
</tr>
<tr>
<td>question number 4</td>
<td>8</td>
</tr>
</tbody>
</table>
1. Acquisition of space in language

Space: continuous, homogeneous
→ for semantic categorization: space must be partitioned into discrete number of basic spatial categories

(1) Cookie is **on** or **in** the dish

but: is non-linguistic spatial perception implicitly categorized?
→ is space divided according to language?
1.1 The standard view in language acquisition

Children acquire morphemes to express spatial concepts they already have (through perception)
- evidence of spatial-semantic categories before month 24

1.2 The Cognitive hypothesis

Spatial acquisition bases on pre-linguistic cognitive achievements

Piaget:  - shows cognitive pre-linguistic development
Rosch:  - natural language categories are less arbitrary than thought before,
   - are more "given" by nature

→ children categorize before they have names for objects

some domains:  stable conceptualization across cultures (Berlin/Kay, colors)
   → semantic acquisition seen as process how to translate from one representational system into the other
1.3 Evidence for the cognitive hypothesis

a.) children know much about space before they talk
b.) linguistic and non-linguistic structuring of space is related
c.) biology imposes constraints like top-bottom, front-back asymmetry, gravity etc.

2. Linguistic markers for the acquisition of space

2.1 Spatial knowledge

children communicate spatial relationships without morphemes:

(2) towel bed

most missing prepositions: on, in; later they are the first prepositions acquired
2.2 Order of prepositions

universally accepted: 1. Functional-topological (in)
2. Support and continuity (on)
3. Occlusion (under)
4. Proximity (behind, beside, between)
5. Projective order (in front of)

2.3 Nonlinguistic/linguistic asymmetry

- front/back can be distinguished before words (before/behind) are acquired
- containment/support can be distinguished before words (in/on) are acquired
3. Hypotheses

**hypothesis 1:** "Morphemes are mapped onto pre-linguistic knowledge" (Slobin, 1997)

**reason:** perceptual and linguistic space are correspondingly structured; morphemes emerge *after* relations are learned

Spatial relationships vary from language to language (Bowerman, 1999)

- "correspondence" means consistence of spatial primitives and their meanings

a) *in* → containment (*apple* → *bowl*)
b) *on* → support (*cup* → *table*)

English: a) extends to c) *cassette* → *case*
  b.) extends to d.) *lid* → *bowl*

English *on*: objects are in contact: *o₁* supports *o₂* but does not contain it

(3) handle on pan, fly on wall, diaper on baby
Talmy captures this in **figure-ground relationships**:

- **in the interior**
- close, in contact
- close, no contact
- far

- **in, inside**
- **on**
- **near**

- fixed
- easily broken
- loose
**hypothesis 2:** children discover grammatical marking according to their own categories
- categories are not yet tuned to grammaticalized distinctions
- so-called primitives are also influenced by language of those who pose these primitives
1. Cognitive semantics

the cognitive view: semantics is language specific but contains conventional imagery

Cognitive Semantics: conventionalized conceptualization

Grammar: conventional symbolization of semantics

1.1 Metaphors we live by

Lakoff/Johnson, 1980: grounding of conceptual system: bodily grounded → direct physical experience depends on having a certain type of body (e.g. symmetry effects)

- priority of body functioning reflected in up/down, front/back, in/out, near/far etc.

but: some experiences are “more physical”, others “more cultural” → emotions: happy is up (orientational metaphor)
1.2 Emergent metaphors

- some concepts emerge directly: object, substance, container
  → visual field is a container

(1) a. Christmas is coming      time is an object
    b. Moe read it in 10 minutes  time is a container

1.3 Metaphorical concepts 1

- come from experience with physical objects
  → correlation of experiences between entities

part for whole: place stands for event

(2) a. Berlin will be in August  place is event/e.g. conference
object stands for user:

(2) b. The White House announced tax cuts
    c. Brazil grows soybeans

institution stands for person

1.4 Metaphorical concepts 2

- the nonphysical is grounded in terms of the physical

(3) a. Matthew is in the kitchen
    b. Matthew is in the Chemnitz 99ers

not metaphorical

social group as container
1.3 Structural metaphors
- show systematic correlation with experience

(4) a. Argument is war

→ arguments between people use properties of war: attack, intimidation, threat, insult…

(4) b. Labor/time is a resource

→ material resources: can be quantified, are a substance of certain kind, are given a value, use up over time
2. Identify metaphorical expressions in the following paragraph

With the Iowa caucuses scheduled for only two days after New Year's, the state is experiencing a holiday season like never before. Neighborhoods are awash in holiday lights and political campaign signs. Mail boxes are stuffed with gift catalogues and candidates' five-point plans. Television ads selling toys, computers, cars and seed corn compete for time with commercials selling Hillary, Obama, Rudy and Huckabee. Because candidates' ads, by law, get preference, local stations have had to bump some regular local advertisers from highly rated programs like the local news — which doesn't always go over well, says Steve Lake, national sales manager of KCRG-TV, an ABC affiliate in Cedar Rapids. The regular folk all those ads are targeted at have other questions to ponder this time around. Will Bobbie Edwards (John's mother) e-mail her figgy pudding recipe to potential Iowa supporters? (She offered her mac n' cheese recipe at Thanksgiving.) Will Iowans give the gift of a signed Romney Family Christmas photo, available from the UltiMitt holiday gift guide? (from: www.time.com)
3. Cognitive functions of metaphor

cognitive abilities $\rightarrow$ create new concepts out of existing concepts
    $\Rightarrow$ mental transfer of concepts

(5) This book is full of nuggets of information.

any physical, abstract, mental, social phenomenon is seen in framework of “domain”
3.1 Domains in cognitive semantics

**Domain:** Any coherent area of conceptualization relative to which semantic structures can be characterized, including any kind of experience, concept, or knowledge system. (Langacker, 1991): Foundations of Cognitive Grammar, Vol 2).

(6) John is married to a library incompatible domains → thus, 2-sided metaphor

(7) a. Microprocessors are the brains of a computer
    b. The company wants to hire new brains
3.2 The “domain”-definition of metaphor

Metaphor: the mapping of a structure of one conceptual domain onto the structure of another conceptual domain

<table>
<thead>
<tr>
<th>source domain</th>
<th>target domain</th>
</tr>
</thead>
<tbody>
<tr>
<td>brain</td>
<td>“brain”</td>
</tr>
<tr>
<td>body</td>
<td>computer</td>
</tr>
</tbody>
</table>

Pinker, 1997: space and motion: metaphors for abstract ideas

(8) a. The messenger went from Paris to Istanbul
    b. The inheritance went to Fred
    c. The light went from green to red
    d. The meeting went from 3 to 4
1. The paradox of semantic definitions

Paradox of defining lexical items: A definition needs something to be defined (definiendum) and something to define it with (definiens)

→ sets of definienses: supposed to be indefinabilia (= not requiring further definition)

1.1 Universal components
- idea of semantic atomism: all meanings are decomposable into "atomic concepts" drawn from fixed, universal set
- idea goes back to Leibniz; problem up to today: establishing this set

→ lexical semantic research is essentially decomposition of lexical items
2. Frameworks of Indefinibilia

most systematic framework for semantic analysis of language: NSM by Wierzbicka

2.1 Metalanguage approaches

**NSM approach:** proposes a metalanguage capable of representing meanings of words in terms of a limited numbers of semantic primitives

→ scriptlike understanding of semantics represented as a string of propositions
propositions form prototypic event schemas
3. Semantic primes and universals

language: tool to convey meaning →  - structure of language reflects its function
- language without semantics is impossible

problem of defining meanings: via other words

→  logical conclusion: ex. indefinibilia, called semantic primitives

without primitives: all definitions become circular (require = demand = require)

Leibniz:  *If nothing could be comprehended in itself, nothing at all could ever be comprehended*
3.1 Conceptual primitives

therefore: starting hypothesis: conceptual primitives can be found through in-depth analysis

- fundamental human concepts: innate (= a strong universalist point of view, cf. Sapir/Whorf)
- reflects universals in acquisition

→ needed: ways of combinations of primitives
3.2 Culture and conceptual primitives

Basic assumption: different societies $\rightarrow$ different speech
different speech: systematic difference exists

systematic difference reflects cultural values or hierarchies of values
- can be explained via independent values

$\rightarrow$ thus needed: matrix of **culture-free perspectives**
4. Natural Semantic Metalanguage (NSM)

4.1 Basics
Wierzbicka's basic assumption: lexicon of any language to be divided into 2 parts

1. small set of words/morphemes regarded indefinable
2. large set of words definable

→ rule: 1. defines 2.

words in 1. can be listed; list is language-specific but realizes the innate "alphabet of thought"

→ 1. is universal although different languages use different labels
therefore: number of indefinables is equal in all languages
they are semantically equivalent and therefore linguistic universals
current list: 30 from originally 14 entries

I, you, someone (who), something (What), this, the same, two, all, think, says, know, want, feel, do, happen, good, bad, big, small, can(?), place (where), time (when), after, under, kind of, part of, like (how), because, if (imagine), more, very, no (I don't want)

this models a language of thought,

**meaning = a configuration of semantic primitives**
words can be compared with intuitively related words
→ makes symmetries between words obvious, thus words form natural groupings
4.2 Cultural scripts via NSM

Cultural scripts: formulated in NSM, based on set of lexical universals and universal syntactic patterns

society's tacit cultural rules: NSM represents the cultural unconscious

Cultural rules:

US
Everyone can say something like this: I think this / I don't think this
it is good to say what I think

in Japan:

it is good not to say what I think

US: free expression of disagreement Japan: opposite, forbids overt disagreement
ne (jap.): emotionally supportive particle

Wierzbicka:

(1) *ne*
   I think you would say the same  → speaker/listener not clearly separated

contrast: English tag questions

(2) *doesn't it*
   I know you may say you wouldn't say the same
   I want you to say if you would say the same
   I think you would say the same

tags: continually acknowledging possible differences of opinions in English
→ constitutes society's cultural semantics