Frame Semantics
An Introduction

COGS 101C, Spring '10
Classical Semantics

- **Structural semantics**
  - Analyzes types of semantic relations among words
  - e.g., hyponymy, meronymy, antonymy, etc.

- **Semantic features**
  - STALLION [EQUINE, MALE]
  - MARE [EQUINE, FEMALE]

- **Truth Conditional Semantics**
  - Logical tradition
  - Conditions of Satisfaction applying to situations in the world
... Frames

- Beyond structural semantics
- Concepts associated in experience
  - Example: RESTAURANT
    - CUSTOMER, WAITER, ORDERING, EATING, BILL, OPENING HOURS
- ... not related by hyponymy, meronymy, antonymy, etc.
... Frames (Cont’d)

- Similar ideas coming from various fields (‘80s):
  - Cognitive psychology
  - Artificial Intelligence
  - Linguistics

- Frame, schema, script, global pattern, base, scene, etc.

- Cognitive Linguistics/Semantics: Charles Fillmore’ Frame Semantics
Frame Semantics

- Fundamental rethinking of goals of linguistic semantics
- Semantics of Understanding (!)
  - Observer, speaker, user, communicating being
  - Understanding is the primary data (not “truth” in the world)

- Example: Opposing terms using vertical extent
  - tall and short (erect human being)
  - high and low (distance from bottom baseline: branch of a tree)
  - Unitary definition for tall and high, short and low? (Impossible!)
Frame Semantics (Cont’d)

- Unitary definitions for adjectives *live* and *alive*?
  - Life:
    - Those are *live* lobsters
    - Those lobsters are *alive*
  - Personality:
    - Her manner is very *alive*
    - She has a very *alive* manner
  - Mode of performance:
    - His performance was *live*
    - He gave a *live* performance
Frame Semantics (Cont’d)

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  - Theatre advertising (or theater advertising): “Live Naked Girls” (as opposed to naked girls on film, not dead naked girls … mmhh … creepy stuff!)
Frame Semantics (Cont’d)

Truth-conditional models?

“During World War I, Ronald Reagan’s birth mother dropped his analog watch into the sound hole of the acoustic guitar” (Example by Fillmore)

When the fact happened (1914-1918)...

- No WWI
- No distinction between birth and genetic mother
- No electric guitars
- No digital watches

... Impossible utterance at that time. Truth?
Frame Semantics (Cont’d)

Semantics of understanding and Text understanding

a) “I had trouble with the car yesterday. The carburetor was dirty”
b) “I had trouble with the car yesterday. The ashtray was dirty”

(a) is incoherent with (b)

The car evokes a frame that allows the hearer to understand which of the millions of carburetors the speaker is talking about (resolution of definite reference)

The frame evoked with having trouble with the car ... (unlike (a)) says nothing about ashtrays.
Profile-Frame Organization

- Identifying the details of frame organization (Langacker)
- Example: RADIUS
  - Dictionary: A line segment that joins the center of a circle with any point of its circumference
  - One can understand RADIUS only against a background understanding of the concept CIRCLE (base)
Profile-Frame Organization (Cont’d)

- **Profile**: The concept symbolized by the word in question
- **Base**: That knowledge (or conceptual structure) that is presupposed by the profiled concept
- **Base ≈ Domain ≈ Frame**: “Any system of concepts related in such a way that to understand any one of them you have to understand the whole structure in which it fits” (Fillmore)
Profile-Frame Organization (Cont’d)

- A concept profile (RADIUS) is insufficient to define a word concept (radius) because it presupposes other knowledge in its definition (i.e., the base, CIRCLE).

- A single base (CIRCLE) may include a wide range of concept profiles (RADIUS, ARC, CENTER, CHORD, DIAMETER, etc.)
  - The base alone is insufficient to define a linguistic concept.

- The meaning of a linguistic unit must specify both the profile and its base.
LAND and GROUND appear to denote the “same thing” … but against different frames

- “A bird that spends its life on land” (does not go in the water)
- “A bird that spends its life on the ground” (does not fly)

- LAND describes the dry surface of the earth in contrast with SEA
- GROUND describes the dry surface of the earth in contrast with AIR
Profile-Frame Organization (Cont’d)

- ROE and CAVIAR both refer to “fish eggs”
  - ROE is profiled against the frame/domain of reproductive cycle of fish
  - CAVIAR is profiled against the frame/domain of food preparation and consumption
Profile-Frame Organization (Cont’d)

- FLESH and MEAT
  - FLESH is profiled against the frame/domain of the body’s anatomy
  - MEAT is profiled against the frame/domain of food
  - Flesh and bones; meat and potatoes
  - Meat and bones; flesh and potatoes
Profile-Frame Organization (Cont’d)

Profiling: further extensions with image-schematic structure into OUT OF

FIGURE 2.3 Conceptual composition of schemas. The English expressions “into” and “out of” have composite meanings. “In” profiles the interior of a Container schema, while “out” profiles the exterior. “To” profiles the goal of the Source-Path-Goal schema, while “from” profiles the source. With “into” [a], the interior is the goal and the exterior is the source. With “out of” [b], the interior is the source and the exterior is the goal.
How an experience is framed is a matter of construal.

It depends on how the speaker conceptualizes the experience to be communicated.