Lexicalization Patterns
Leonard Talmy (2000)

Outline

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2. The Verb
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Surface/ Meaning Interface

- Relation between meaning and surface expression (semantics and syntax)
  - Meaning: motion, path, figure, ground, manner, cause
  - Surface expression: verb, adposition (e.g., prepositional phrase), subordinate clause, satellite
- Many-to-many mapping
Patterns

- Patterns within or across languages
- **Typology** – small number of patterns
- **Universal** – single pattern
- **Universal Exclusion** – pattern appears in no languages
- Which semantic entities are expressed by a selected surface entity?

Number of Morphemes

- **Zero forms**
  - I feel like [having] a milk shake
  - I hope for [there to be] peace
- **Surface complexes**
  - be of interest to == interest
  - carry out an investigation == investigate
- **Single morphemes**
  - Root and derivational morphemes

Characteristics of Lexicalization

_What pressure was exerted?_
How does the ‘degree’ meaning arise?

- **Lexicalization** – direct association of certain semantic components with a particular morpheme (pressure$_2$ = degree of pressure$_1$ or what$_1$ = degree of)
- **Deletion** – degree of has been deleted from the middle of the phrase
- **Interpretation** – use of present context and general knowledge

Usage and Equivalence

- **Morpheme’s usage** – a particular selection of its semantic and syntactic properties
  - Allows usage equivalencies between morphemes with different core meanings, or even across languages
- **Equivalence between** **kill** and **make appear**

  L$_2$ = _kill_: Agent action on Patient (causative)
  L$_1$ = _appear_: Patient acting alone (noncausative)
  G = _make_: Agent-to-Patient relation

  usage of L$_2$ = usage of L$_1$ in construction with G
Break

- Break can function equally as L₁ or L₂

Break₂ = I broke the vase (causitive)
Break₁ = I made the vase break (noncausitive)

usage range of L₃ = usage of L₂ + usage of L₁

Meaning-in-form relations

- Lexicalization – individual lexeme
- Incorporation – integration of multiple semantic concepts in one verb usage
- Conflation – mixing of two different concepts in one verb usage

Motion Events

- Motion event consists of:
  Figure – object moving or being located
  Ground – reference object
  Path – path followed or site occupied by figure
  Motion – presence of motion of locatedness in the event

Motion: MOVE
Location: BE_loc

Co-events of Motion

<table>
<thead>
<tr>
<th>Motion</th>
<th>Manner</th>
<th>Cause</th>
</tr>
</thead>
<tbody>
<tr>
<td>a.</td>
<td>The pencil rolled off the table.</td>
<td>The pencil blew off the table.</td>
</tr>
<tr>
<td>b.</td>
<td>The pencil lay on the table.</td>
<td>The pencil stuck on the table (after I glued it).</td>
</tr>
</tbody>
</table>

Figure: pencil
Ground: table
Paths: on, off
Manners: rolled, lay
Cause: blew, stuck
Talmy vs. Fillmore

- Talmy argues figure and ground have advantages over Fillmore’s cases
- Ground captures commonality among Location, Source, Goal, and Path (vs. Instrument)
- MOVE / BE\(_{\text{Loc}}\) opposition distinguishes Source, Goal, and Path from Location
- All notions of Path (‘to’, ‘from’, etc.) capture by abstract Path

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2. The Verb

- “Characteristic” expressions of a verb
  - Colloquial in style (rather than literary or stilted)
  - Frequent occurrence in speech
  - Pervasive rather than limited (wide range of semantic notions are expressed in this type)

1. Motion + Co-Event
2. Motion + Path
3. Motion + Figure

2.1 Motion + Co-event

- The verb expresses at once both the fact of
  - Motion
  - Co-event: usually either the manner or the cause of the Motion

```
\begin{align*}
\text{Motion} & \rightarrow \text{Co-event} \\
\text{Source} & \rightarrow \text{Goal} \\
\text{Path} & \rightarrow \text{Figure}
\end{align*}
```

Manner Co-event Decomposition

English expressions of Motion with conflation Manner or Cause

**Manner**

- The lamp was left on the table.
- The rope hung across the canyon from two books.

**Cause**

- The lamp lay on the table.
- The rope hung across the canyon from two books.

**Example**

- The craft floated on a cushion of air. (locative)
- The craft floated into the hanger on a cushion of air. (directional + locative)

- Two different lexicalizations?
  - float₁ = buoyancy
  - float₂ = movement + buoyancy
  - The craft floated₁ was afloat on a cushion of air.
  - The craft floated₂ was afloat into the hanger on a cushion of air.

MOVE WITH-THE-MANNER-OF [floating₁] → float₂
or MOVE [floating₂, the while] → float₁

The craft moved [floating₁, the while] into the hanger on a cushion of air

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Cause Co-event Decomposition

**Manner**

- The lamp lay on the table.
- The rope hung across the canyon from two books.

**Cause**

- The lamp was left on the table.
- The rope hung across the canyon from two books.

**Example**

MOVE + Cause

- The craft blew off the table.
- The bone pulled loose from its socket.

**Example**

- I kicked the wall with my left foot.
- I kicked the ball across the field.

• Mandarin also conflates the co-event in its verb, and has the same double usage for a single verb form.

- Wò yíng zuò jiāo tǐ le yì xià qiāng
  - I used, with left foot, kicked one stroke
- Wò yíng zuò jiāo bā qì tǐ guò le cāo-chíng
  - I used, with left foot, ball kicked across PERF field
  - ‘I kicked the ball across the field with my left foot.’
Carry / Hold

Without motion
a. I held the box as I lay on the bed.
b. *I carried the box as I lay on the bed.

With motion
a. *I held the box to my neighbor’s house.
b. I carried the box to my neighbor’s house.

I stood at the front door carrying the box.

Children’s errors
a. Don’t hug me off my chair (= by hugging move me off).
b. When you get to her [a doll], you catch her off (on a merry-go-round with a doll, wants a friend standing nearby to remove the doll on the next spinaround).
c. I’ll jump that down (about to jump onto a mat floating atop the tub water and force it down to the bottom).

Lexical Conflation vs. Constructions

• Aske (1989) and Goldberg (1995) treat the additional complexities of the surrounding construction as the source of additional meanings.

• Break: intransitive vs. transitive forms
  — Lexical conflation says distinct lexical items
  — Constructionist says transitive causative items consists of intransitive break in interaction with the structure of the surrounding sentence

Extensions of the Co-event Conflation Pattern

(Mid-level verbs)

Mid-level verbs that take Co-event conflation
a. COVER: [F] BELOC all-over [G]
   [paint COVERED the rug] WITH-THE-MANNER-OF [the paint was in streaks/dots]
   Paint streaked/dotted the rug.

b. GIVE: [A₁] MOVE [F] into the GRASP of [A₂]
   [I GAVE him another beer] WITH-THE-MANNER-OF [I slid the beer]
   I slid him another beer.

c. PUT: [A₁] controllably MOVE [F] by limb motion but without body translocation
   [If PUT the hay up onto/down off of the truck] WITH-THE-CAUSE-OF [I forked the hay]
   I forked the hay up onto/down off of the truck.
   (*I forked the hay to my neighbor’s house down the block shows that fork is based on PUT, not on MOVE.)

Extensions of the Co-event Conflation Pattern

(Matrix Verbs)

a. GO: [A₁] AGENT himself [i.e., his whole body, = F] to MOVE
   [the child WENT down the hallway] WITH-THE-MANNER-OF [the child hopped]
   The child hopped down the hallway.
   Similarly: I ran into the house.

b. GET: [A₁] INDUCE [A₂] to GO
   [I GOT him out of his hiding place] WITH-THE-CAUSE-OF
   [lured/scared him]
   I lured/scared him out of his hiding place.
   Similarly: I talked him down off the ledge. / I prodded the cattle into the pen. / They smoked the bear out of its den.

c. URGE: [A₁] AIM to GET [A₂] = [A₁] AIM to INDUCE [A₂] to GO
   [I URGED her away from the building] WITH-THE-CAUSE-OF
   [I waved at her]
   I waved her away from the building.
   Similarly: I beckoned him toward me. / I called him over to us.
Extensions of the Co-event Conflation Pattern (Metaphorically extended MOVE)

More Relations

- **Precursion** – the co-event precedes the main Motion event, but does not cause or assist its occurrence (glass splintered onto the carpet)
- **Enablement** – the co-event directly precedes the main Motion event and enables the occurrence of an event that causes the motion but does not itself cause this Motion (I scooped jellybeans up into her sack)
- **Reverse enablement** – the co-event is an event that has previously taken place and that now gets undone (German: I have the dog free-chained)
- **Onset Causation** – the co-event precedes the main Motion event (I batted the puck across the ice)
- **Extended Causation** – the co-event co-occurs with the main Motion event (The water boiled down to the midline of the pot)
- **Manner** – the co-event co-occurs with the Motion event and is conceptualized as an additional activity that the Figure of the Motion event exhibits (I slid the mug along the counter)
- **Concomitance** – similar to Manner, but the activity does not in itself pertain to the concurrent Motion (I whistled past the graveyard)
- **Concurrent Result** – the co-event results from the main Motion event, and would not otherwise occur (The rocket splashed into the water)
- **Subsequence** – the co-event takes place directly after the main Motion event, and is enabled by, caused by, or is the purpose of that Motion event (They locked the prisoner into his cell)

Multiple Conflation

2.2 Motion + Path

<table>
<thead>
<tr>
<th>Figure</th>
<th>Motion</th>
<th>Path</th>
<th>Ground, Motion event</th>
<th>Relation</th>
</tr>
</thead>
<tbody>
<tr>
<td>MOVE</td>
<td>MOVE</td>
<td>Path</td>
<td>MOVE, [MOVE]</td>
<td>Subsequence</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Precession, Enablement, Causation, Manner, Concomitance</td>
</tr>
</tbody>
</table>

V roots

Path conflate in the Motion verb
2.3 Motion + Figure

- **Motion + Co-Event**, Path, or Figure
- **Motion + Ground** – near Universal Exclusion (exceptions: emplane, deplane)
- **Motion + Two Semantic Components** – combinatorial explosion (to box, to shelve)
- **Motion + No Further Semantic Component** – inefficient (estar)
- **Motion + Minimally Differentiated Semantic Component** – (straight line, curve, and circle path contours in ASL)
- **Split System of Conflation** – different conflations for different types of Motion events (BE→ vs. MOVE)
- **Parallel System of Conflation** – different conflation types for the same type of Motion event
- **Intermixed System of Conflation** – no consistent pattern of conflation for a given type of Motion event

2.4 Typology of Motion Verbs

- **Preocuson**: Ensemble, Cause, Manner, Concomitance
- **Move**: MOVE
- **Be**: BE

V roots

Figure conflated in the Motion verb

2.5 Aspect

- The pattern of distribution of action through time
  - intrinsically part of verb root meaning
  - determines how it interacts with grammatical elements that also have an aspectual meaning
  - different languages have different patterns of aspect incorporation in their verbs
  - verb roots' aspect incorporation can correlate with surrounding factors
2.6 Causation

Different types of causative meaning incorporated in the verb root

- The vase broke.
  - Autonomous event (not causative)

- The vase broke from a ball’s rolling into it.
  - Resulting-event causation

- A ball’s rolling into it broke the vase.
  - Causing-event causation

- A ball broke the vase (in rolling into it).
  - Instrument causation

- I broke the vase in rolling a ball into it.
  - Author causation (i.e., with result unintended)

- I broke the vase by rolling a ball into it.
  - Agent causation (i.e., with result intended)

- I broke my arm when I fell (= My arm broke [on me] ...).
  - Undergoer situation (not causative)

- I walked to the store.
  - Self-agentive causation

- I sent him to the store.
  - Inductive causation (caused agency)

2.7 Interaction of Aspect and Causation

- **Stative** – being in a state

- **Inchoative** – entering into a state

- **Agentive** – putting into a state

2.8 Personation

- The role structure ascribed to an action

- **Monadic** – action manifested locally, in the body and movements of a single actor (*I will shave*)

- **Dyadic** – action manifested distributively, with an actor’s body acting on that of a further participant (*I will shave John*)

Personation

- Personation envelope / Transitivity envelope

  - **Aa.** The girls is beating the drum. (dyadic, transitive)
  - **Ab.** The girl is drumming. (monadic, intransitive)
  - **Ba.** I shaved him. (dyadic, transitive)
  - **Bb.** I shaved myself. (reflexively dyadic, reflexively transitive)
  - **Bc.** I shaved. (monadic, intransitive)
2.9 Valence

• Traditionally, the number of distinct element types occurring in association with a verb
• Here, used just for the particular case assignment(s) that a verb exhibits
• Syntactic alternations of semantic roles
• A verb’s constraints on its freedom to assign **focus** in a multi-roled event.

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Valence

<table>
<thead>
<tr>
<th>Valence properties for emanate, emit, and radiate</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Figure as subject</strong></td>
</tr>
<tr>
<td>Light emanates from the sun.</td>
</tr>
<tr>
<td>*Light emits from the sun.</td>
</tr>
<tr>
<td>Light radiates from the sun.</td>
</tr>
<tr>
<td><strong>Ground as subject</strong></td>
</tr>
<tr>
<td>*The sun emanates light.</td>
</tr>
<tr>
<td>The sun emits light.</td>
</tr>
<tr>
<td>The sun radiates light.</td>
</tr>
</tbody>
</table>

Emanate requires the Figure as the subject.
Emit requires the Ground as the subject.
Radiate can incorporate either focus.

a. Valence patterns for a non-figure-type Path (F = Figure, G = Ground, A = Agent)

<table>
<thead>
<tr>
<th></th>
<th>Basic</th>
<th>Inverted</th>
<th>Agentive</th>
</tr>
</thead>
<tbody>
<tr>
<td>Precedence</td>
<td>Perfume (F)</td>
<td>Perfume (F)</td>
<td>I (A) suffused perfume (F)</td>
</tr>
<tr>
<td></td>
<td>through the room (G)</td>
<td>with perfume (F)</td>
<td>through the room (G)</td>
</tr>
</tbody>
</table>

b. Valence patterns for a figure-type Path

<table>
<thead>
<tr>
<th></th>
<th>Basic</th>
<th>Precedence</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Inverted</td>
</tr>
<tr>
<td>Nonagentive</td>
<td>The gasoline (F) drained</td>
<td>I (A) drained the gasoline</td>
</tr>
<tr>
<td></td>
<td>from the fuel tank (G)</td>
<td>(F) from the fuel tank (G)</td>
</tr>
<tr>
<td>Agentive</td>
<td>The fuel tank (G)</td>
<td>(A) drained the fuel tank</td>
</tr>
<tr>
<td></td>
<td>drained of gasoline (F)</td>
<td>(G) of gasoline (F)</td>
</tr>
</tbody>
</table>

4. Salience in the Verb Complex

- **Salience** – the degree to which a component of meaning, due to its type of linguistic representation, emerges into the foreground of attention, or on the contrary, forms part of the semantic background where it attracts little direct attention.

- **Principle of backgrounding according to constituent type** - Other things being equal, a semantic component is backgrounded by expression in the main verb root or in any closed-class element, including a satellite. Elsewhere, though, it is foregrounded.

  a. I went by plane to Hawaii last month.
  b. I flew to Hawaii last month.
  c. I went to Hawaii last month.

a. Use of aircraft foregrounded
b. Use of aircraft backgrounded
c. Use of aircraft absent
Salience in the Verb Complex

- **Ready expression under backgrounding** – speakers tend express a concept more often when it can be referred to in a backgrounded way than where it can only be referred to in a foregrounded way.
- **Low cognitive cost of extra information under backgrounded** – extra information in background is included “for free”
- **Ready inclusion of extra information under backgrounding** – a language can casually and comfortably pack more information into a sentence where it can express that information in a backgrounded fashion than can another language that can’t

Spanish sentence closest to information-packed English sentence of (127)

- El hombre salió a corregir the man ran back down to the cellar.
- El hombre salió a corregir the man went back to the cellar running.
- El hombre bajó a corregir the man went down to the cellar running.
- El hombre bajó a corregir the man went into the cellar running.

The man ran back down into the cellar.

5. Conclusion

- Semantic elements and surface elements relate to each other in specific patterns, both typological and universal.
- There exist certain semantic categories: Motion Event, Figure, Ground, Path, Co-event, Precursion, Enablement, Cause, Manner, Personation, etc. along with syntactic verb complex
- Analysis of semantic decomposition at morpheme level, and across languages
- Whole system properties of semantic-surface relations (multiple semantic components per surface form)
- Meaning-form patterns can exhibit diachronic shifts/nonshifts in the history of a language
- Suggestion of cognitive structures and processes that underlie the newly posited semantic and syntactic categories