

Meaning in word-formation: The frame-semantic hypothesis

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17th International Morphology Meeting, Vienna, February 2016



- Polysemy in word-formation is all-pervasive (e.g. Rainer 2015).
- "[W]e must be able to account for the substantial evidence that affixes [...] are frequently semantically underspecified, and subject to polysemy and meaning extensions of various sorts." (Bauer, Lieber & Plag 2013: 641)
- Which kinds of readings or meaning extensions are possible and which ones should be impossible for a given derivative?

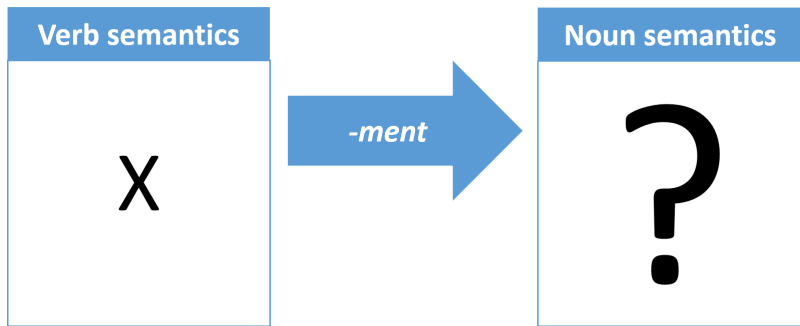
Illustration: Nominalizations

- 1 RESULTS (the outcome of VERB-ing): *acceptance, alteration*
- 2 PRODUCTS (the thing that is created by VERB-ing): *pavement, growth*
- 3 INSTRUMENTS (the thing that VERB-s): *seasoning, advertisement*
- 4 LOCATIONS (the place of VERB-ing): *dump, residence*
- 5 AGENTS (people or person who VERB-s): *administration, cook*
- 6 MEASURE TERMS (how much is VERB-ed): *pinch, deceleration*
- 7 PATHS (the direction of VERB-ing): *decline, direction*
- 8 PATIENTS (the thing affected or moved by VERB-ing): *catch, acquisition*
- 9 STATES (the state of VERB-ing or being VERB-ed): *alienation, disappointment*
- 10 INSTANCES (an instance of VERB-ing): *belch, cuddle*

How do we get different readings?

- Certain base verbs evoke certain readings
(e.g. Bauer, Lieber & Plag 2013: 212, Ferret & Villoing 2015)
 - Verb requires instrument – Instrument nominalization
to wrap – wrap; to refresh – refreshment
- Shift to a syntactic argument of the verb
John purchased a car. His wife approves of this purchase.
- Shifts are not restricted to syntactic arguments
My granny used to embroider pillowcases. I love the embroidery on this one.

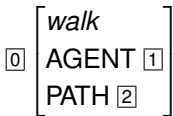
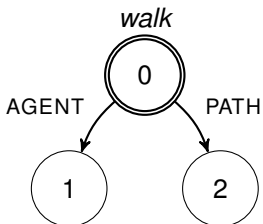
An interplay of verb and suffix

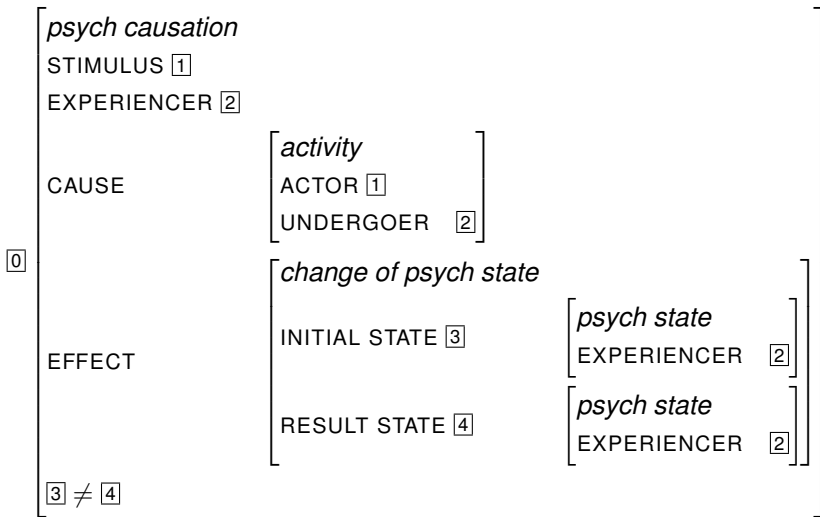


- Introduce a new approach to the formalization of the interpretation of derived words
- Apply this approach to the analysis of *-ment* and *un-* derivatives

Barsalou (1992a,b), Löbner (2013)

- Frames are recursive attribute-value structures, organized in a type hierarchy. **check formulation!**
- They are a general format of mental representations of concepts
- They are applicable to linguistic phenomena
- They can be depicted as graphs or matrices





- Neologisms (*Oxford English Dictionary*)
- Hapax Legomena (*Corpus of Contemporary American English*)
- 109 *-ment* derivatives from 29 verb classes (Levin 1993)
- Largest class: psych verbs (N=23)
- Attestations from other corpora (GloWbE, WebCorp, Google)

Traditional semantic categories, e.g.

- STATE
- EVENT
- EXPERIENCER
- STIMULUS
- RESULT STATE

- EVENT

Medicine's and my great problem and great fault consist of what might be called the intellectualization – the **enrapturement** with science and technology – by which that legion of men and women who are today's doctors have allowed themselves to become besotted. (Webcorp_BLOG_1998)

- RESULT STATE

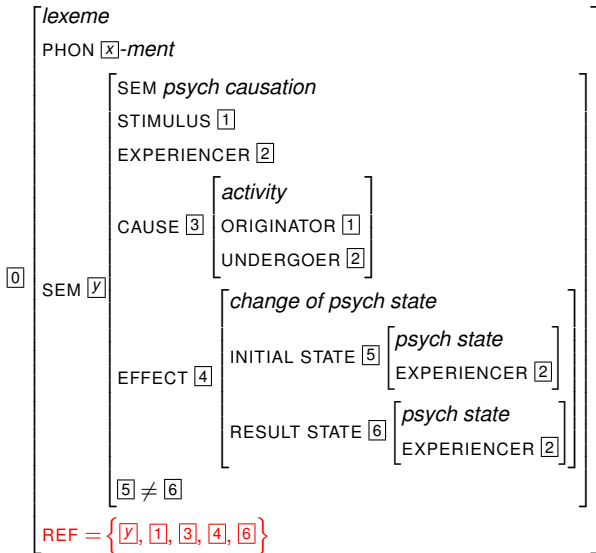
I know a lot of our compatriots also feel the same angst, consternation and **confoundment**. (GloWbE_ART_2012)

- STIMULUS

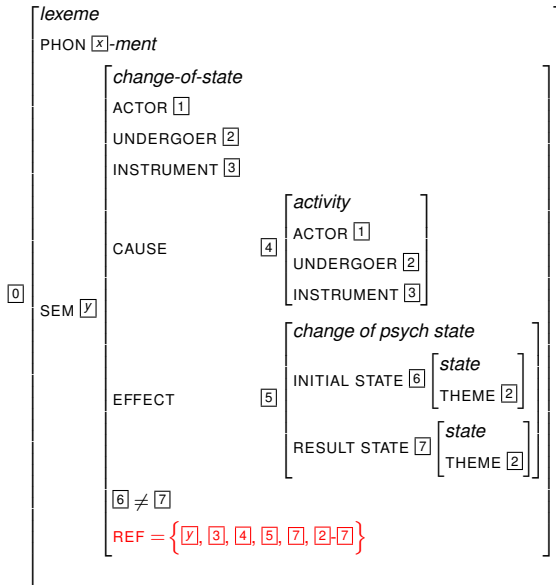
Here comes a **confoundment**(new word I just made up :)) for you. (Google COMM 2006)

- Result state is dominant: not surprising
- Stimulus or event nominalizations should be impossible (Pesetsky 1995, 71):
"These nominalizations lack causative force"
"*Amusement* does not refer to something amusing something, but to the state of being amused"
- Not true.

Formalization: *-ment* on PSYCH verbs



Formalization: *-ment* on CHANGE-OF-STATE verbs



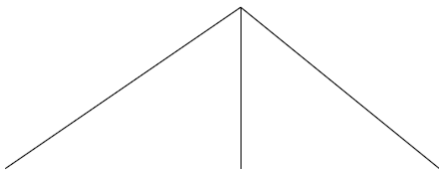
Formalizing *-ment* across verb classes

- Attribute-Value structures, type hierarchy
- Lexical rules (Riehemann 1998, Koenig 1999, Bonami & Cysmann 2016, see also Booij 2010)
- Hierarchical lexicon, inheritance

Unification and inheritance

add downward lines with some content, e.g. AGENT or something

[*lexeme*
PHON [x]-ment
CAT N
SEM [y] RESTR Core
Inanimate
BASE [z]



[*lexeme*
SEM [y]
BASE [z] PSYCH

[*lexeme*
SEM [y]
BASE [z] C-OF-S

[*lexeme*
SEM [y]
BASE [z] PUT

- Attested readings of words of a given morphological category result from clearly defined shifts in the semantic structure of the respective bases.
- These shifts target core elements of the semantic representation of the base.
- For deverbal nominalizations, this means that the shifts can target argumental and non-argumental components.
- Bases of different semantic classes thus trigger different kinds of shifts in their derivatives.
- Given a particular verb class possible readings of the respective derivatives are predictable.
- Frame-based approach can be fruitfully employed to model derivational semantics.
- Stay tuned!

Thank you very much for your attention!

We gratefully acknowledge financial support by
Deutsche Forschungsgemeinschaft (SFB 991, Project C 08)

CHANGE-OF-STATE base verbs: Examples

- 1 EVENT
Markham sets down the rules about park **befoulment**. (WebCorp BLOG 2012)
- 2 INSTRUMENT
Minimal bleeding and I didn't have to have any guaze/tissue in my mouth at all to try and stop it? I'm thinking that they must have used a **congealment** or something to make it clot while I was under or something? (GloWbE COMM 2010)
- 3 EVENT or CAUSE (*activity*)
Click here to watch my **progressment** of the website (Google COMM 2013)
- 4 EFFECT (*change of state*)
For one second she clung to her son, and then, disengaging herself, froze up like the sudden **congealment** of a spring.
- 5 RESULT STATE
Sarcasm, Deb ... trying to excuse the **bedragglement** of the hair, etc?. (Google COMM 2013)
- 6 THEME (in RESULT STATE)
I set down the scrap of doll's dress, a **bedragglement** of loose lace hem (COCA FIC 1999)