



Vernacular Explanations of Causation in Lay Health Discourse

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Context:

Few linguistic works exam vernacular terms for health concepts rather than technical medical terms (cf. Rueda-Baclig & Florencio 2003). The prevalence of conversations on food, sleep, exercise, and illness--and the ordinariness of the words--leads to aspects of lexical misinterpretation remaining understudied. Lay terms with multiple senses are studied here to determine effects on misunderstanding of causality in health discussions.

Problem:

Studies of individual polysemy pairs have shown lexical conflation for *fat*, *sugar*, *cold*, *health literacy*, and *stress* (Stvan 2007, 2008, 2010). Assumption: word pairs with identical forms bring expectations that a trigger leads to a same-named outcome. Can we tell if this is what speakers believe? Goal: seek overt statements of causality in lay texts containing these pairs.

Instrument:

Five polysemy pairs hypothesized to implicate causation were collected, then a context width of up to 15 words between the words in the pair was scanned for causality predicates. Data was pulled from the Corpus of American Discourses on Health (CADOH), a set of vernacular texts from 1993-2013.

Polysemy Pairs

cold_ADJ **cold**_N
cholesterol_N1 **cholesterol**_N2
fat_N **fat**_ADJ
stress_N1 **stress**_N2
sugar_N1 **sugar**_N2

Causality Predicates

e.g., brings about, causes, develops into, is a ticket to, leads to, makes, triggers

(Causality predicates are an open-ended set. Mihéailä et al. (2013) found 347 unique triggers of causality in just 19 biomedical journal articles).

Examples:

- 1) "You know, you don't **GET** a **cold** by going out in the **cold** weather after a shower despite what my mother told me."
(TV talk show, 2002)
- 2) "When you eat ice cream, the **fat** in the ice cream becomes **fat** in your body. So if you eat a lot of ice cream, you might **BECOME fat**. If you don't, you're gonna stay skinny."
(Movie script, 2006)
- 3) "Sure, they're packed with **cholesterol**. But scientists now know that eating **cholesterol** doesn't necessarily **RESULT IN** high levels of harmful **cholesterol** in the blood, where the damage is done."
(Weekly magazine, 2003)
- 4) "Actually, you could **GET** a bigger rise in blood **sugar** after eating potatoes -- a baked potato, say -- than you do from eating pure table **sugar**."
(TV news show, 2004)

Results:

Polysemous Words	# Lemmatized Tokens	# of Pairs
cold	437	49
cholesterol	159	12
fat	574	11
stress	272	7
sugar	71	3

Table 1. Polysemy Pairs Ranked

Predicates
catch; causes; get
linked to
makes you; get
causes; experience
get a rise in

Table 2. Top Predicates

Each of the investigated pairs was found with causality predicates. For stress, a triplet of meanings was found. Because all the conflated sets are low in frequency, a corpus is useful in compiling a dataset of examples, but not for making statistical claims comparing how often they occur. The pairs and predicates of causation are used in sections of lay discourse with the same rhetorical function—claiming causality. Even those discussions whose purpose is to deny causality have to deny it because the connection is so widespread. e.g., pairs also appeared in metadiscussions that raised the causality as a myth in order to dispute it.

Implications for Practice:

Identifying conflated senses reveals linguistic reinforcement of cultural beliefs about becoming ill, with ramifications for the wording of public health policies. By separating conflated interpretations, healthcare providers might counsel more effectively on preventive health.

References

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