Modeling a network of morphological constructions with locative prefixoids on a micro-, meso-, and macro-level.

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This paper studies constructional idioms with locative prefixoids (e.g., *uplifting, downfall, overemphasize*) from a usage-based and cognitive Construction Morphology perspective (Booij 2010). I aim to make a first contribution of modeling a network of these morphological constructions with a particular focus on 'vertical' links between constructions at different levels of abstraction and 'horizontal' links connecting the antonymic *up-X* and *down-X* constructions. In this project I demonstrate the significance of both types of links to account for generalizations at different levels as well as novel and creative coinages.

'Vertical' links within the family of constructional idioms with locative prefixoids are productively accounted for by Traugott's (2008) concept of micro-, meso-, and macro-constructions. Based on Marchand's (1969: 109) claim that all locative prefixoids systematically function as adverbs, adjectives and prepositions in different complex words, I argue that positing a higher-level macro-construction with an unspecified slot for a locative prefixoid is merited. However, corresponding to their uses in isolation and in contrast to the functions of other locative prefixoids, prefixal *up* and *down* additionally have verbal properties in some complex verbs (*uproot, downskill*). Antonymic pairs of micro-constructions are therefore a conceivable level of granularity for a meso-construction.

For morphological constructions, much emphasis has recently been placed on the significance of sister schemas and 'horizontal' links as opposed to mother schemas and 'vertical' inheritance links (Norde & Morris 2018; Audring 2019; Jackendoff & Audring 2020). In this project I demonstrate that sister links motivate novel and creative instantiations by analogy such as the following from the Timestamped JSI Web Corpus 2014-2021 English (Bušta et al. 2017), which cannot be accounted for by the constraints of the mother schema:

(1) Back at the gala, 22-year-old Jessica Zraly sang Adele's eloquent if rather **downlifting** Water Under The Bridge accompanied by pianist and VMO composer in residence Trevor Hoffmann. (http://vancouversun.com/health/local-health/town-talk-fashion-boost-for-pacific-autism-family-network)

(2) Florida rain falls in no fewer than three directions at once: there's down, and then the humid **upfall** from rain hitting the ground and hugging the ground in a low, impossibly humid fog, and then the random Brownian motion spirals in the air. (http://www.sbnation.com/college-football/2014/11/25/7273447/florida-state-football-2014-season)

Both *downlifting* and *upfall* are creative coinages that violate the constraints posed by the construction, where the verb must either specify the same direction as the prefixoid (*uplifting, downfall*) or no concrete direction (*upcurved, downcurved*), thus eliminating the need for a mother schema. Here, the notions of second-order (sister) schemas (Audring 2019: 289) or paradigms based on affix replacement (Booij 2010: 31–36) are argued to have the most explanatory power to account for these creative coinages, but are too inclusive in other cases (?*downheaval*, ?*downroot*).

In a bottom-up approach, constraints of the constructional idioms *up-X* and *down-X* are first identified by means of data from the BNC and through collostructional analysis (Stefanowitsch & Gries 2003) and subsequently compared to determine whether positing an antonymic meso-construction or mother schema is merited based on recurring constraints. The JSI Web Corpus is examined for coinages by analogy that would indicate a predominance of horizontal links, establishing a paradigm or second-order schema. Finally, the results of the corpus study are taken as a basis for discussing the merit of the constructional network proposed in Figure 1.
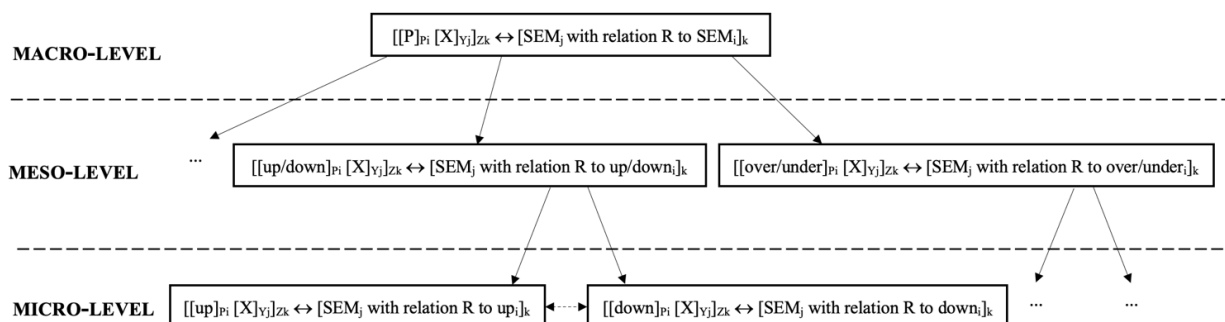
Fig. 1: Network of constructional idioms with locative prefixoids in the constructicon.

The figure contains the following constructions:

MACRO-LEVEL: $[[P]_{Pi} [X]_{Yj}]_{Zk} \leftrightarrow [SEM_j \text{ with relation R to } SEM_i]_k$

MESO-LEVEL: ... $[[up/down]_{Pi} [X]_{Yj}]_{Zk} \leftrightarrow [SEM_j \text{ with relation R to } up/down_i]_k$ $[[over/under]_{Pi} [X]_{Yj}]_{Zk} \leftrightarrow [SEM_j \text{ with relation R to } over/under_i]_k$

MICRO-LEVEL: $[[up]_{Pi} [X]_{Yj}]_{Zk} \leftrightarrow [SEM_j \text{ with relation R to } up_i]_k$ $[[down]_{Pi} [X]_{Yj}]_{Zk} \leftrightarrow [SEM_j \text{ with relation R to } down_i]_k$ ... ...

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