Are there traces of historical change in the processing of metonymy?
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Numerous studies have revealed different processing patterns for different types of metonymy (cf. e.g. Frisson/Pickering 1999, 2007; Frisson/Frazier 2005; Schumacher 2013). One possibility to account for these differences is to assume that metonymic meanings can be described on a scale ranging from coded meaning to the creation of ad hoc meanings. Such a view is concurrent with a diachronic account of meaning alternation. Accordingly, diachronic development of meaning proceeds in discrete stages. At the earliest stage, certain meanings are created ad hoc in order to meet particular communicative needs; at the next stage, a word is used in a particular discourse context by a small group of speakers; at the latest stage, a word is used by the entire speech community and has a coded meaning (cf. Traugott/Dasher 2002 – see Hansen/Waltereit 2009 who argue against continuous stages in the life of metonymy). Meanings may even diminish over time (e.g., Champagne, originally a place, now predominately an alcoholic beverage). We designed a task that allows us to test which meaning(s) are stored in the lexicon and whether such lexical differences account for the observed processing differences.

The mixed results for metonymy are based on real time data from eye tracking and electrophysiology. Previous eye-tracking studies by Frisson and Pickering found no processing differences for place-for-event metonymy (traveling in Vietnam vs protesting during Vietnam) (Frisson/Pickering 1999) and for producer-for-product metonymy (reading Dickens vs meeting Dickens) as long as the producer refers to a known person (Frisson/Pickering 2007). Event-related potentials revealed no difference for content-for-container alternations (knocking over the beer vs drinking the beer), but a pronounced positivity for container-for-content alternations (drinking the goblet vs knocking over the goblet) among others (Schumacher 2013). The latter costs were associated with meaning transfer and referential shifts.

These different processing patterns may be reflective of stages in the historical development, with coded meanings being more easily accessible than ad hoc interpretations. For famous authors like Dickens, we expect both meanings (producer/product) to be encoded in lexical representation and thus be highly accessible. In the container-for-content case, the content reading is only available in specialized situations, indicating a low stage in development. For place-for-event metonymy, the picture appears to be more diverse. Some place names still seem to have a strong place reading (Vietnam), while for others the place reading has diminished (Woodstock), and yet others may make both readings equally available. To assess this proposal, participants had to read a list of words (with potentially metonymic meanings) and provide up to five associations as quickly as possible. Participants were instructed that we wanted to design a new set of playing cards for the game ‘Taboo’ (a word guessing game in which a player has to describe a word without using the word itself and five additional words listed on a card). The time limit for each word was set to 30 seconds to get the most spontaneous responses. We tested 90 expressions altogether for the three metonymy types (producer-for-product,
container-for-content, place-for-event). Each participant (N=354) saw ten words of varying metonymy type. The responses were annotated by three independent annotators and classified by ontological type (literal meaning (e.g. producer), metonymic meaning (e.g. product), both or no type assignable). Analyses were based on majority classifications (agreement between at least two of the three annotators). We excluded answers without a majority classification (4%) and those that were classified as not assignable (9%); in total 87% of the answers entered the analysis. The consistency among the annotators was calculated with Fleiss’ Kappa for each metonymy type separately, indicating moderate agreement for place-for-event (0.6), a substantial agreement for container-for-content (0.68) and a very high agreement for producer-for-product (0.85) metonymy.

The results indicate an even availability of producer (47%) and product (47%) readings across items (Wilcoxon signed rank test: W = 390, p = 0.57). (The remaining 6% of the responses could be classified as both producer and product, e.g. ‘Italy’ for ‘DaVinci’.) In contrast, container responses (41%) were generally higher than content responses (31%), but the difference was not statistical reliable (W = 130, p = 0.17). This pointed against our prediction but the results are probably influenced by task-specific requirements of the ‘Taboo’ design of our experiment, since concepts such as ‘piggy bank’ are most easily described their content. Place-for-event metonymy showed the expected variation across items with some (N=18) yielding a significant (W = 171, p < 0.001) event preference (77%). The other items (N=12) were less homogenous with no preference or a stronger place reading (55% place vs 36% event), wherefore the Wilcoxon signed rank test revealed no significance (W = 16.5, p = 0.08).

Altogether, these data strengthen an account that assumes distinct degrees of lexical representation for different types of metonymy, which can account for synchronic processing profiles on the basis of diachronic steps in the development of metonymy. Metonymic expressions mirror the communicative needs of the speech community, which are subject to change. Accordingly, they reflect discrete levels of immersion. We suggest that incorporating insights from historical pragmatics is a fruitful endeavor to explain variation in pragmatic processing.