

Summing the parts: do component words of formulaic sequences show intralexical priming effects in a naturalistic reading context?

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Formulaic sequences clearly have some level of cohesion in the mental lexicon, but the exact nature of their representation remains unclear. Idioms in particular have been described as lexical units (Rommers et al., 2013), configurations (Cacciari & Tabossi, 1988) or superlemmas (Sprenger et al., 2006), but unequivocal empirical support for their representation as holistically stored whole units is yet to be presented.

In this paper we explore the possibility that formulaic language represents a case of intralexical priming, i.e. in an idiom like *kick the bucket*, the advantage observed for the final word 'bucket' is the result of strong links between the individual words rather than any degree of whole unit representation. Previous research on intralexical activation in naturalistic language processing have shown strong global discourse effects (Camblin et al., 2007; Traxler et al., 2000), with local lexical influence only being observed in minimal or disrupted contexts. A key question is whether the links between idiom components are subject to the same patterns of behaviour. If they are represented as parts of a single unit, they should show a greater level of intralexical activation than individual items that are linked through semantic association.

We used the base components of idioms in canonical (e.g. *the old man kicked the bucket*) and non-canonical combinations (individual words used in close proximity, e.g. *kick the ball into the bucket/give the bucket a good kick*) and in both constraining and non-constraining global discourse contexts. We used eye-tracking to compare reading times for component words in different conditions. We also compared other formulaic units (binomials, collocations) and lexical relationships (semantic associates, synonyms, identity primes) to assess the degree of intralexical activation for each item type. We discuss the results in terms of their implications for the representation of formulaic language in the mental lexicon.

References

Cacciari, C. & Tabossi, P. (1988). The comprehension of idioms. *Journal of Memory and Language*, 27(6): 668-683.

Camblin, C. C., Gordon, P. C. & Swaab, T. Y. (2007). The interplay of discourse congruence and lexical association during sentence processing: Evidence from ERPs and eye tracking. *Journal of Memory and Language*, 56(1): 103-128.

Rommers, J., Dijkstra, T. & Bastiaansen, M. (2013). Context-dependent semantic processing in the human brain: evidence from idiom comprehension. *Journal of Cognitive Neuroscience*, 25(5): 762-776.

Sprenger, S., Levelt, W. & Kempen, G. (2006). Lexical access during the production of idiomatic phrases. *Journal of Memory and Language*, 54(2): 161–184.

Traxler, M., Foss, D., Seely, R., Kaup, B. & Morris, R. (2000). Priming in Sentence Processing: Intralexical Spreading Activation, Schemas, and Situation Models. *Journal of Psycholinguistic Research*, 29(6): 581-595.