How internet memes evolve and become
as abstract as | || || |_

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The study of the evolution and emergence of grammar and structure in language has greatly benefited from grammaticalization theory, which studies the development from lexical to grammatical forms and from grammatical to even more grammatical forms in the languages of the world (Kuteva et al., 2019, 3). However, since precise data on language transmission is typically not available for a given language, the relationship between transmission patterns and semantic change is not well understood (Petré & Van de Velde, 2018).

In this paper, we argue that the study of image macros or internet memes can contribute to our understanding of language evolution. Image macros, here "memes", are multimodal constructions with text superimposed on an image (Dancygier & Vandelanotte, 2017; Zenner & Geeraerts, 2018). We argue that internet memes follow an evolution pattern akin to grammaticalization, changing from concrete to abstract meanings and developing their own multimodal "grammatical" constructions. We also hypothesize that in periods of high transmission (virality), the rate of semantic change increases in the direction of higher abstraction.

We analyze ten different viral memes (ca. 2000 instances), each consisting of an image with text. We collect information on the date, format, and semantic change over time of a sample of meme instances shared on Know Your Meme (knowyourmeme.com). Our classification of semantic change describes the incremental stages of change of text and picture in memes (see Figure 1). These stages are parallel to the stages of grammaticalization, such as use in new contexts (innovation) and semantic bleaching and erosion (change of text and picture). We also show that these stages follow the same temporal ordering across memes (cf. Figure 1), resembling the unidirectionality of grammaticalization.

In Figure 1, the first image on the left is the original source for the "Boardroom suggestion" meme. While the original webcomic characters represent the Nintendo boardroom concretely (Know Your Meme, 2023a), the second image sees the rise in abstraction as the characters become placeholders for any boardroom character, the staff of History channel in this case. Comic strips are especially suitable for the reinterpretation of a character's identity because their stereotypical characters are seen as representing a type that can apply to many individuals. The second image achieves this reinterpretation by replacing all of the original text; the last image is even further eroded, as the pictures themselves are replaced. It is also more semantically bleached, since it departs from the topic of the original instance.

Additionally, we compare the memes from our sample, consisting of text and image, with memes whose constructions use only visual language, e.g. shape and position of different elements. In Figure 2, we exemplify this with the "Loss" meme, which evolved to highly abstract visual representations, such as "| || || |_".

Finally, based on our data we can also show that higher transmission of memes leads statistically to a higher rate of semantic change in the direction of higher abstraction and that the rate of growth in abstraction of a meme correlates proportionally to its virality.

References

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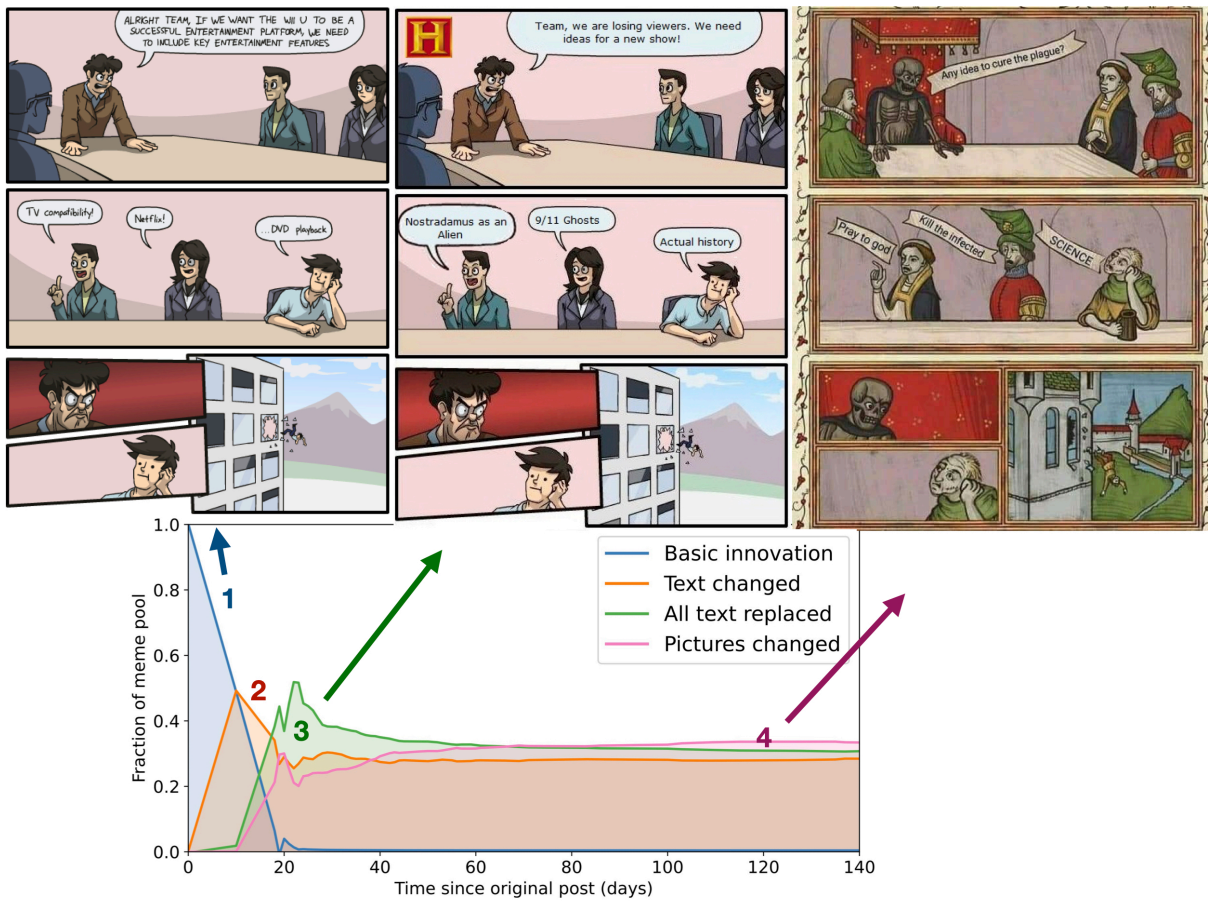
Fig. 1: Fraction of memes (N=277) in each stage of evolution over time of the "Boardroom suggestion" meme with examples, memes from Know Your Meme (2023a)
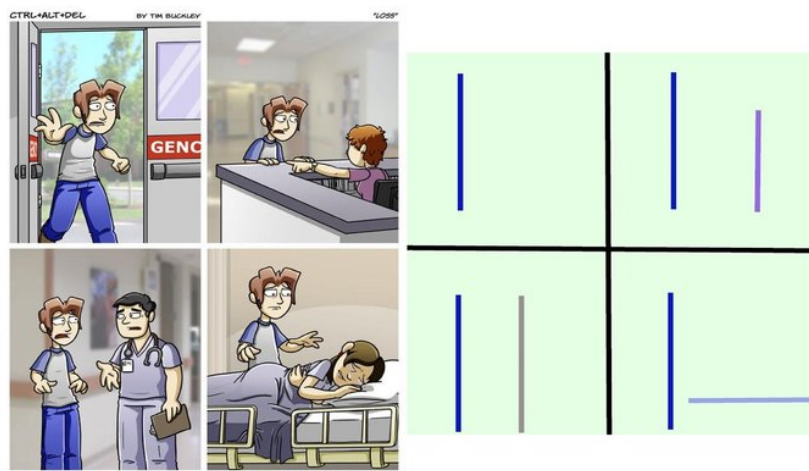

Fig. 2: The original comic "Loss" (left) and its recent abstract versions as "Loss" meme (right), from Know Your Meme (2023b). The meme can also be written as "| || || |_".