# Onomatopoeia in Turkish cartoons

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Onomatopoeia are imagic icons that mimic sounds of animals, objects, or human paralinguistic sounds using the phonemic inventory of individual languages (Schmidtke, Conrad & Jacobs 2014; Winter et al. 2023). While this group of words has historically been considered somewhat peripheral to the language system, onomatopoeic words as prototypical instances of vocal iconicity play a role in language acquisition (Perniss & Vigliocco 2014), vocalic iconicity is also a phenomenon implicated in language evolution (Ćwiek et al. 2021). There is also evidence that iconic words are easier to process in neurotypical speakers as well as in aphasia (Meteyard et al. 2015; Sidhu, Vigliocco & Pexman 2020). From a different perspective, these words also form an important component of cartoons as they are means for the visual articulation of sound in these multimodal narratives (Guynes 2014; Pratha, Avunjian & Cohn 2016). In this paper, we focus on the use of onomatopoeia in Turkish cartoons. While onomatopoeia (*yansıma*) are typically mentioned in the works of Turkish grammaticography, there are not, to the best of our knowledge, any systematic descriptions or classifications (but cf. Kahraman & Akdağ 2023; Nalbantoğlu, Hazır & Dövencioğlu 2024).

We collected 1000 onomatopoeic tokens from comics and caricatures published by eight Turkish Instagram profiles (@canbaytak, @emrevebilgic, @evdecatbasina, @firatinsayfasi, @limonilezeytin, @omergoksell, @rossofare, @serkanaltunigne). This sample is currently being annotated for source of depicted sound (e.g. inanimate object), meaning in the context of the strip (e.g. impact), and phonological features of individual phonemes within these words. The aim of the subsequent analysis is to provide a description of the distribution of individual tokens as well as whole meaning-based categories. Furthermore, we will explore the variability of phonemes and phonological features within these categories and potential associations between features (e.g. sonority, backness) and meaning components (e.g. speed, impact) using classification and regression trees. Finally, we will conduct an acceptability judgment study with congruent and incongruent pairs of scenes and onomatopoeic words (e.g. swift movement accompanied by a word expressing speed (congruent) or impact (incongruent)) to corroborate the results of the descriptive analysis. At least 15 congruent and 15 incongruent stimuli will be created, and responses will be collected from at least 100 Turkish native speakers. The aim of this experiment is to establish whether these onomatopoeic words are conventionalized to the extent that Turkish speakers retrieve their meanings from memory or whether they rather interpret these ad hoc based on context.

## References

Ćwiek, Aleksandra, Susanne Fuchs, Christoph Draxler, Eva Liina Asu, Dan Dediu, Katri Hiovain, Shigeto Kawahara, et al. 2021. Novel vocalizations are understood across cultures. *Scientific Reports*. Nature Publishing Group 11(1). 10108. https://doi.org/10/gjz5x3.

Guynes, Sean A. 2014. Four-Color Sound: A Peircean Semiotics of Comic Book Onomatopoeia. *Public Journal of Semiotics* 6(1). 58–72. https://doi.org/10.37693/pjos.2014.6.11916.

Kahraman, Cahit & Ayşe ÖZKAN Akdağ. 2023. Japonca ve Türkçe yansıma ikilemelerin fonosemantik açıdan karşılaştırmalı olarak incelenmesi. *RumeliDE Dil ve Edebiyat Araştırmaları Dergisi*. Yakup YILMAZ (Ö12). 580–594. https://doi.org/10.29000/rumelide.1330577.

Meteyard, Lotte, Emily Stoppard, Dee Snudden, Stefano F. Cappa & Gabriella Vigliocco. 2015. When semantics aids phonology: A processing advantage for iconic word forms in aphasia. *Neuropsychologia* 76. 264–275. https://doi.org/10.1016/j.neuropsychologia.2015.01.042.

Nalbantoğlu, Hamza, Beyza Melis Hazır & Dicle N. Dövencioğlu. 2024. Selectively manipulating softness perception of materials through sound symbolism. *Frontiers in Psychology* 14. https://doi.org/10.3389/fpsyg.2023.1323873.

Perniss, Pamela & Gabriella Vigliocco. 2014. The bridge of iconicity: from a world of experience to the experience of language. *Philosophical Transactions of the Royal Society B: Biological Sciences*. Royal Society 369(1651). 20130300. https://doi.org/10.1098/rstb.2013.0300.

Pratha, Nimish K., Natalie Avunjian & Neil Cohn. 2016. Pow, Punch, Pika, and Chu: The Structure of Sound Effects in Genres of American Comics and Japanese Manga. *Multimodal Communication*. De Gruyter Mouton 5(2). 93–109. https://doi.org/10.1515/mc-2016-0017.

Schmidtke, David S., Markus Conrad & Arthur M. Jacobs. 2014. Phonological iconicity. *Frontiers in Psychology* 5. https://doi.org/10.3389/fpsyg.2014.00080.

Sidhu, David M., Gabriella Vigliocco & Penny M. Pexman. 2020. Effects of iconicity in lexical decision. *Language and Cognition*. Cambridge University Press 12(1). 164–181. https://doi.org/10/ggnkmv.

Winter, Bodo, Gary Lupyan, Lynn K. Perry, Mark Dingemanse & Marcus Perlman. 2023. Iconicity ratings for 14,000+ English words. *Behavior Research Methods*. https://doi.org/10.3758/s13428-023-02112-6.