# Micro-narratives of hatred online: COVID-19 and negative emotions behind anti-vaccine, anti-quarantine, anti-masks, and denialist movements

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# Abstract

Anti-vaccine, anti-quarantine, anti-mask, and denialist movements have been spreading hate micro-narratives on social networks since 2020 regarding the COVID-19 pandemic. Some social sectors perceive the measures disposed of by governments to control the pandemic as an instrument to control citizens. Various conspiracy theories about the COVID-19 epidemic spread, and disinformation (infodemics) increased. Some citizens reject the measures established by the government, including preventive vaccination processes. Political leaders, health authorities, and some relevant actors (including organizations) are accused of depriving freedom and exercising a kind of dictatorship over citizens. These movements frequently disseminate hate speech online and provoke confrontation rather than dialogue or mutual respect, understood as civility and tolerance in deliberative democracies. Hate is expressed through various negative emotions (e.g., anger, disgust, fear, or sadness) and is directly directed at public figures, institutions, or organizations.

This research identifies and compares online hate micro-narratives channeled and disseminated to the public through anti-vaccine, anti-quarantine, anti-mask, or denialist movements on social networks between 2020 and 2023. It examines whether and to what extent these movements (and Twitter users), typically disseminators of pandemic-related conspiracy theories, have appealed to sentiments and emotions in their messages. This research compares the micro-narratives of hate among different movements and in Spanish and English to advance the understanding of the role of emotions in the context of social networks where conspiracy theories and disinformation are disseminated.

The research is based on the *Conspiracy Theories Dataset, 2020-2023*, composed of 5.509.549 organic tweets (only original tweets) collected from the Twitter API between January 2020 and February 2023. We collected the data directly connecting to API 2 [Twitter Academic version] through twarc2 (Python). The search keywords for the data collection were 35 hashtags or keywords in both Spanish and English that represented relevant areas of the conspiracy theories or hatred developed during the pandemic. A preliminary analysis was done before the collection to detect popular or significative keywords or hashtags representing the topic of study from the beginning of the pandemic (i.e., *#covidiots, #dictadurasanitaria #dittaturasanitaria, #plandemic, #novax, #vaccinesideeffects, #Pfizergate, #nolockdown, #yonomepongoelbozal, #muzzle-free, #5G*). After the first exploratory data analysis, we filtered the global dataset and built different specific subsamples or sub datasets to answer our questions and test the hypothesis.

Apart from the exploratory and descriptive first analysis, a semantic analysis was applied in each sub-dataset to explore the different micronarratives of hatred. In the specific case of sentiment analysis of texts, various tasks were done as pre-processing, data cleaning, or tokenization, before applying a sentiment analysis with the NRC Emotion lexicon with the multilingual *syuzhet* package in R. This lexicon consists of words and their associations with eight emotions (anger, fear, anticipation, trust, surprise, sadness, joy, and disgust) and two

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ISBN: 978-91-8082-044-8

sentiments (negative and positive). Conscious of the technical difficulties of investigating the emotions and feelings disseminated in social media through "sentiment analysis," further exploration of micro-narratives, now segmented into different emotions, is done under a qualitative focus on critical discourse and semantic network analysis. Various Python libraries and R packages were used for this aim (*quanteda, tidyverse*, and others).

After exploring the data, we discovered differences in the emotional component of the different subsamples analyzed and a diversity of parallelisms in the micro-narratives of hate related to COVID-19 in Spanish and English. It was also found that the propagation of hatred is mainly concentrated in some actors, with greater centrality in each subsample. This research sheds light on our understanding of how emotions are employed in the hate narratives commonly disseminated in conspiracy theories and disinformation on social networks. It also concludes on the importance of reducing the capabilities of some actors to produce radical and distorted hate narratives, in order to improve the possibilities of the online democratic deliberation.

#### Keywords

Micro-narratives, hatred online, COVID-19, emotions, conspiracy theories

## Short biography

Estrella Gualda is a Full Professor of Sociology at the University of Huelva, where she is Director of the Social Studies and Social Intervention Research Centre. She is a Full Member of the Ibero-American Academy of La Rabida (Huelva, Spain). She holds a Ph.D. in Sociology, and a Master of Arts in Political Science and Sociology from the Complutense University of Madrid (Spain). She recently published in Computational Sociology, COVID-19, Big Data, Disinformation, Hate Speech Online, Conspiracy Theories, and Sociology of Migrations. Website: www.eseis.es/estrella.

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