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The COVID-19 Crisis and Its Challenges on Social Issues

COVID-19: crisi e sfide nella società

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Flouting the Truth

A Pragmatic Study of Conspiracy Beliefs at the Time of COVID-19

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ABSTRACT

Since the outbreak of the COVID-19 pandemic in December 2019, a multitude of conspiracy theories have started floating around which ascribe the origins of the virus to a range of causes. Against this backdrop, the chapter aims at demonstrating how conspiracy beliefs are linguistically created in news and social media. For this purpose, adopting an approach which combines Grice's Cooperative Maxims with the principles of Cognitive Linguistics, our study delves into a set of documents available on free online fact-checking organizations as well as Tweets, Facebook posts and speeches released by influential voices and ordinary people. The research demonstrates how unconventional metaphors and metonymies, unexpected syntactic patterns and dispreferred windowing of attention, as well as other linguistic devices, contribute to flouting or violating the Maxims of Quantity, Quality, Relevance and Manner (Grice 1975; 1989) thus constructing false claims and mis-/dis-information.

Keywords: Cognitive Linguistics; conspiracy theories; COVID-19; Grice's Cooperative Principle; social media.

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1. INTRODUCTION

On 30 January 2020, Dr Tedros Adhanom Ghebreyesus, Director-General of the World Health Organization (WHO) declared "the novel coronavirus outbreak a public health emergency of international concern (PHEIC), WHO's highest level of alarm" (WHO 2020a). Since then, "the Coronavirus pandemic has been accompanied by an unprecedented

'infodemic'" (Jourová, June 4, 2020) [1], thus causing the propagation of a huge amount of deliberately constructed myths and conspiracy theories through Twitter, Facebook, Instagram and other social media platforms (Kouzy *et al.* 2020),

The virus of disinformation and fake news has been spreading faster than the coronavirus itself and, at the time of writing this article (May 2023), many gray areas and unanswered questions still remain concerning the origins of the virus, the timing of its appearance, its mode of transmission, impact on patients, features, and potentialities in terms of mutation.

The phenomenon has fueled a multitude of studies in various research areas. International organizations (e.g., the WHO), fact-checking agencies (e.g. Poynter, FactCheck, Ap News) as well as academics from various fields have been struggling to debunk the variety of myths developing around COVID-19, such as 5G, the Wuhan lab and the microchips conspiracy theories.

As conspiracy theories involve "allegation(s) of conspiracy that may or may not be true" (Douglas *et al.* 2019, 3), the paper aims at demonstrating how conspiracy beliefs based on 'false truths' are discursively constructed in the news and on social media. For this purpose, we adopt an approach which combines a Gricean perspective (Grice 1975; 1989) with cognitive principles (Evans and Green 2006; Kleinke 2010) to delve into a set of corpora compiled using datasets from free online fact-checking resources (e.g. Poynter, FactCheck.org) as well as Tweets, Facebook posts and speeches released by influential voices worldwide, in order to demonstrate how the maxims of quantity, quality, relevance and manner are flouted or violated (Grice 1975; 1989) to construct false claims and misinformation.

The chapter is organized as follows. Section 2 reviews the literature on the misinformation, fake news and conspiracy theories which have been formulated around the COVID pandemic from January 2020 to July 2020. Section 3 illustrates the theoretical and methodological background underlying the research. Sections 4 reports the case studies and results. Section 5 contains concluding remarks and suggestions for future research.

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[1] "From Pandemic to Infodemic": speech of Vice President Věra Jourová on countering disinformation amid COVID-19.

2. Background literature on conspiracy theory and mis/disinformation

Mis-/dis-information, conspiracy theories, fake news and false claims [2] have been the object of much research in various fields, including psychology (Swami *et al.* 2016; Douglas *et al.* 2017), sociology (Grimes 2016), history (Grauman 1987), and linguistics (Klein *et al.* 2019). Owing to the spread of the COVID-19 pandemic, the virus of mis-/dis-information, or *Infodemic*, to use a term coined by David Rothkopf in 2003, refers to "an overabundance of information, both online and offline. It includes deliberate attempts to disseminate wrong information to undermine the public health response and advance alternative agendas of groups or individuals" (WHO 2020c).

According to Kott *et al.* (2016), people are biased by their ideological stances in their selection of information, as well as in their perception of a message: e.g. people with a more conservative ideology tend to be more sensitive to fear and threats and, consequently, are easier to manipulate.

Feelings of fear and anxiety tend to increase distrust towards political and health institutions and authorities, often triggering reactions of racial and social discrimination, social riots and skepticism (Freckelton 2020). Sentiments of unrest and intolerance are enhanced through social platforms, even if, oftentimes, Twitter and Facebook might be used by institutions and governments to promote campaigns against mis-/disinformation (Alam *et al.* 2020; Wicke *et al.* 2020).

Shahi *et al.* 2021 and Ceron *et al.* 2021 urge the need to investigate the identity of Twitter accounts responsible for the spreading of misinformation, by employing fact-checking and sound scientific methods, such as the epidemiological model, whereby misinformation is measurable with the reproduction number R_0 (Cinelli *et al.* 2020), or, the broadcasting model, whereby information is propagated directly from one source to a large number of individuals, as in re-tweets (Vosoughi *et al.* 2020).

Wood *et al.* (2012) and Douglas *et al.* (2017) have investigated the psychological factors that favour the spread of conspiracy theories.

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[2] For the sake of brevity, we will employ these terms and expressions as synonyms, although a semantic distinction would be useful (Karlova and Lee 2011; Jiang and Wilson 2018; Tandoc Jr. 2019). Some authors (Ceron *et al.* 2021; Shahi *et al.* 2021) distinguish between misinformation, i.e. information which is accidentally false, and disinformation, i.e. information which is deliberately false. Somehow, this distinction is related respectively to Grice's notions of violation and flouting of maxims.

Adherence to conspiracy theories may be connected to the low levels of education and critical-thinking capacities of individuals, low social status, ethnicity or income of individuals, or even group identity and political ideologies (Uscinski and Parent 2014).

Kim and Kim (2020) find that the origins of conspiracy theories about COVID-19, in the Korean context, can be ascribed to political and psychological factors, namely authoritarian forms of government, anxiety, blame attribution and health status after recovery from COVID-19.

Recent studies have focused on the linguistic devices used in social media, which contribute to making people vulnerable to the misinformation spread by politicians, e.g. the use of swear words (Tiang and Wilson 2018), metonymy (Stephens 2020), storytelling (Tennent and Grattan 2022) and narratives in mainstream vs independent media (Mancosu and Vegetti 2020).

Two recent volumes are Birchall and Knight's (2023) and Butter and Knight's (2023), which provide and exhaustive account of conspiracy theories in the time of COVID-19; the authors examine the nature and origins of the conspiracy theories as they emerged in various countries and their impact on the social, political and economic contexts.

3.   Methodology

3.1.   *Grice's Cooperative Maxims: flouting and violation strategies*

In *Logic and Conversation* (1975), Grice distinguishes between *saying* and *implicating*. *Saying* implies the conventional meaning of the utterances. But, in saying words speakers also *implicate*, i.e. suggest, imply, something else which goes beyond what is said. *Implicature* represents the pragmatic aspect of the utterance.

Implicatures can be *conventional* or *conversational* (aka *non-conventional*). Conversational implicature depends on the contexts or situation in which it is uttered, i.e. it depends on *discourse*. In order for conversational implicatures to work, speakers must observe the Cooperative Principle (CP). This consists of four maxims and submaxims: the maxim of Quantity, the maxim of Quality, the maxim of Relevance and the maxim of Manner. The category of Quantity refers to the quantity of information to be provided to let communication work; it implies two submaxims: "be informative" and "do not provide more information than is

required since over-informativeness may be confusing and mislead hearers from the core of a communication". The rationale of the maxim of Quality is truth, whereby speakers are required not to say what they believe to be false or that for which they lack adequate evidence. According to the maxim of Relevance, speakers are required to be relevant, consistent with the subject of the topic of the information. The maxim of Manner is concerned with *how* what is said is to be said rather than *what* is said. The maxim consists of different submaxims, mainly requiring speakers to be perspicuous, but also to avoid obscurity and ambiguity as well as to be brief and orderly. Maxims are *violated* when participants deliberately manipulate them in order to deceive, gull or mislead their hearers; they are *flouted* when participants intentionally fail to fulfil a maxim, i.e. they use implicature, in order to persuade their interlocutors about some hidden meaning behind what is said. In other words, *flouting* implies violation of the maxims in a blatant way; in this case, the hearer is well aware of the fact that the speaker is violating the maxim(s) on purpose and with a specific intention on mind; the hearer understands the implied meaning of the speaker's utterance. In violation, by contrast, hearers do not know that the speaker is lying or making false claims; they assume that the speaker is speaking true, they take the speaker's words at face value, therefore they are deceived or misled.

Grice's theory has found manifold applications in the field of communication studies. Hongmei (2014), for instance, adopts Grice's CP to investigate negative news and fake news reports. Likewise, Gupta *et al.* (2013) exploit Grice's CP and conversational implicature to develop their own approach to analyze verbal deception. This consists of various strategies whereby a speaker (S) wants the hearer come or continue to believe that something is true, although the speaker knows it is false; or the speaker wants to stop the hearer or prevent her/him from believing something that the speaker believes is true.

Although these approaches provide valuable insights into the application of pragmatics to the investigation of the language of deception, they cast no light on how fake news or conspiracy theories are linguistically instantiated at the textual level.

A significant contribution in this regard comes from Kleinke (2010) who proposes the adoption of a Cognitive Linguistics perspective to Grice's conversational maxims. Her approach underlies the methodology adopted in the present research.

3.2. *Kleinke's cognitive approach*

In her paper (2010), Kleinke shows how, in communicative interactions, a speaker uses the morphological, syntactic, and lexical structures, to observe or infringe the cooperative maxims.

In particular, she draws on the crucial notion of *construal* in Cognitive Linguistics, i.e. "the way a speaker chooses to 'package' and 'present' a conceptual representation" (Evans and Green 2006, 467) to evoke meanings in the mind of the hearer. Different construals are achieved in language by differentially focusing on a specific aspect of any given scene (focal adjustment) and by variously "organizing different linguistic expressions or different grammatical constructions to describe that scene" (Evans and Green 2006, 536).

Levels of categorization, metaphor and metonymy, encyclopedic background knowledge, frames and event types, windowing of attention and selection of domains are only some of the cognitive principles and patterns adopted by Kleinke (2010) to describe how the speaker directs the hearer's attention towards the entities that participate in a particular scene, thus adhering to or deviating from the maxims. In other words, the instantiation of these cognitive principles causes the flouting or violation of a given maxim.

The maxim of Quantity is associated with the levels of categorization and abstraction and specificity. The levels of categorization include (a) basic-level categories; (b) superordinates; and (c) subordinates. The maxim is observed if basic-level categories are used as they comply with the principle of cognitive economy, i.e. the largest, efficient amount of information is provided with the least effort. It is flouted or violated if subordinates or superordinates are used, as they provide too much or too little information respectively.

The maxim of Quality is related to three areas of Cognitive Linguistics: encyclopedic background knowledge, frames and scenarios; metaphorical reasoning; metonymic reasoning.

The Maxim of Quality is observed if the speaker and the hearer share the same *frames*. It is flouted or violated if speakers and hearers do not share the same background knowledge, i.e. if the speaker deviates from the hearer's frame-based expectations, contradicts the hearer's knowledge, or uses hyperboles.

The Maxim of Quality is also flouted if the speaker uses fresh and/or non-conventional metaphors and metonymies. Non-conventional metaphors and metonymies are generally used when the speaker wants

to achieve a rhetorical or social communicative effect, such as persuading their audience.

The Maxim of Relevance is flouted if the Speaker (1) structures event frames asymmetrically; (2) uses distinct or distant or unexpected domains; or, (3) adopts asymmetrical windowing of attention, i.e. the speaker switches from one topic to another topic that belongs to an utterly different domain of the speaker's encyclopedic knowledge; or the speaker involves interactions between elements that do not provide coherence or organization to the scene, or the speaker gets the hearer to focus his or her attention onto some entities rather than others that are involved in a particular scene.

The Maxim of Manner can be flouted or violated when the speaker adopts unconventional metonymic reasoning. Peripheral domains and unexpected profiling entail forms of unanticipated shifting, at the semantic and grammar level respectively. In both cases, an utterance can be construed in one way rather than another by foregrounding lexical and grammatical elements while backgrounding others.

4. Results

Taking the cue from Kleinke's paper, we will explore how conspiracy beliefs and fake news about coronavirus are linguistically constructed in Tweets, Facebook posts and other communication settings. We assume that (a) flouting or violation occurs as the speaker's cognitive concepts deviate from their conventionalized representation, and (b) conspiracy theories are the result of the speaker's flouting or violation of the Maxims. To demonstrate these assumptions, we investigate the use of fresh metaphors, non-conventional metonymies, dis-preferred windowing of attention and unexpected constructional profiling that speakers employ in order to build mis-/disinformation about the pandemic.

The analysis is carried out on a selective sample of passages taken from three sets of data.

The first set consists of about 100 articles collected by querying the platforms of some fact-checking organizations, namely Poynter [3] and FactCheck [4]. The second set of data is represented by a Do-It-Yourself

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[3] https://www.poynter.org/.
[4] https://factcheck.afp.com/.

(DIY) corpus consisting of 8.8K tweets and 2K Facebook posts released between January and July 2020. The tweets were collected using the Twitter Advanced Search option, typing #ChinaVirus# and setting the time span in the relevant spaces. The Facebook posts were gathered on the basis of the information obtained from the Tweets. Both the tweets and the Facebook posts were analyzed using Wordsmith Tools V.7. The third set of data includes a corpus of the speeches, remarks and tweets (1,100 texts) released by the former President Trump between January and July 2020, as well as tweets (7.4K) and Facebook posts (2.6K) released in the same period by public voices who endorsed conspiracy theories about the spread of COVID-19.

4.1. *Case study 1: The China virus conspiracy theory*

One of the main conspiracy theories that spread in the early months of the pandemic claimed that the coronavirus had been released from a laboratory in the city of Wuhan, China. The study of the "China virus" conspiracy theory was carried out on the second and third set of data. The corpus of tweets and Facebook posts shows a variety of derogatory, xenophobic and stigmatizing expressions, such as "China virus" or "Wuhan virus", or "China Outbreak Virus Identified in 2019", "China Originated Virus In December 2019", or "Wuhan Health Organization", instead of the real, official extended expression Corona Virus Disease 2019 (World Health Organization – WHO), which started going viral in social media, as well as in speeches, press releases, and remarks of politicians, scientists and doctors.

This case study shows how Trump pushed conspiracies about China's accountability for the spread of COVID-19. We use a corpus of his speeches and tweets collected from factba.se and from presidential remarks retrieved from WhiteHouse.gov and, through the analysis of cognitive principles, we demonstrate how the former US President flouts or violates the four Maxims of Quantity, Quality, Relevance and Manner.

In his press conference held on March 19, 2020 (see *Text 1*), Trump refers to Coronavirus with the general noun "virus" or with the expression "Chinese virus".

Text 1
Thank you all for being here. And we continue our relentless effort to defeat the Chinese virus. Before I begin, I want to start by announcing that today we are bringing home another American citizen. It was a big thing. Very big.

From a cognitive perspective, he uses a basic level category, premodified by the epithet "Chinese", thus adhering, from a pragmatic point of view to the Maxim of Quantity as he gives "enough, but not too much information" (Kleinke 2010, 3352).

The speeches (*Tab. 1*), by contrast, offer significant examples of how Trump flouts the four Maxims at a blow, testifying to the fact that the four Maxims are mutually dependent on one another (Grice 1989). All the Maxims are flouted because of Trump's use of "China virus" and the co-textual pattern in which the expression occurs.

First of all, he flouts the maxim of Quantity through subordinate categorization (Kleinke 2010). By using *China* as a premodifier of *virus*, he employs the subordinate category at the cognitive level since *China* functions as a *classifier*[5] of *virus*, thus distinguishing it from other categories of virus.

Table 1

We call it the **"China virus"**. We call it the "invisible enemy". We call it many different names. It's got many different names, …
… because of the coronavirus or the **China virus**, whatever you want to call it. Now we're up to 21 different names.
Nobody's blaming me for the fact that the – call it whatever you want, the **China virus**, as you know there's 20 names for it. You have your pick of names, right? I call it – [Yes.] – generally the **China virus**. Came out of China.
… or the **China virus**, the China plague – call it whatever you want; got a lot of different names.
There's 15 different names. There's 22 different names for this thing. I like best **"China virus"** because it's the most accurate.
… it's the **China virus**, not the coronavirus. Corona sounds like a place in Italy, a beautiful place. It's corona. No, it's the **China virus**.
You know how many names? We have like 22 different names. I call it the China virus.

He also flouts the maxim of Quantity as he makes unspecific reference to the quantity parameter or domain in his instantiation of the schematic reference to "virus names". This lack of specificity can be inferred from the fact that the "number of names" for the virus constantly changes across his speeches, remarks and tweets. Unspecificity and abstraction are also cognitively conveyed by the intentional vagueness in the linguistic

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[5] To put this in terms of Systemic Functional Grammar, we might say that "Chinese" functions as epithet, whereas "China" functions as classifier thus bestowing an ideological meaning to the expression.

expression "call it whatever you want / whatever you want to call it" and the general noun "thing" that he uses to refer to the virus.

Secondly, using the term "China virus" Trump flouts the Maxim of Quality as he uses unconventional frames that are inconsistent, in terms of agents, causes, results, quantities, with his audience's encyclopedic background knowledge. In the expression "China virus" or "China plague", the word *China* is inappropriately used as a metonymy: *China*, which works as the vehicle entity, is unconventionally employed to identify the *virus*, which works as the target vehicle.

Thirdly, Trump's flouting of the Maxim of Relevance is testified by his switching of topic to an utterly different area of the encyclopedic background knowledge or his distancing from the topic he is sharing with his hearers. This occurs through asymmetrical windowing of attention, which affects the attentional system in Trump's speeches (see *Texts 2* and *3*):

> *Text 2*
> **I can call it the "plague." I call it the "China plague." A lot of different names**. But we always call it the "invisible enemy." But the invisible enemy has been very tough on Mexico, and we have areas along the border where we're in great shape because right there, because of that, that we're in great shape. (Remarks: Donald Trump Discusses the Border Wall in Alamo, Texas - January 12, 2021)

> *Text 3*
> [...] That's another. I mean, think of it. That's never been done before. And while foreign nations are in a free fall, and you see that. And we don't want that, but you see **what's going on is COVID or the China virus or the China plague, there's about 21 different names**. We're creating the world's greatest economic powerhouse, and next year will be one of the greatest years, maybe the best year that we've ever had, based on what's happening [...]. (Speech: Donald Trump Holds a Campaign Rally in Montoursville, Pennsylvania - October 31, 2020)

Once again, the crucial role is played by the pattern consisting of "China virus" and "different names", which help Trump deviate his hearers' attention from the main topic of his speeches: the Border Wall in *Text 2* and the American economy in *Text 3*.

Text 4 is another example of how Trump flouts the maxim of Relevance through the issue of "China virus" as he deviates from the main topic. The unexpected, positive connotation of the term "corona", which Trump willfully associates with Italian beauties, as opposed to "China"

which, by contrast, he uses to categorize the "virus", determines a dispreferred windowing of attention in the encyclopedic framework knowledge of his hearers. In fact, not only is the Maxim of Relevance flouted but the Maxim of Manner is also violated, as the shifting of the topic is enhanced by syntactic discontinuity: he interrupts his argumentation about social, health or political issues, to foreground the "China virus" topic out of the blue.

> *Text 4*
> We built the greatest economy in the history of the world and right now, we're doing it again. You know it's – I see all these hats, make America great again. And now I'm going to say this, make America great again, again. Make America great again, again. We saved 1.4 million jobs in Pennsylvania alone.
> **And to fight the China virus, it's the China virus, not the coronavirus. Corona sounds like a place in Italy, a beautiful place, it's corona. No, it's the China virus**. They don't want to say it. You know the radical left, they don't want to say it. Do you ever notice they're always going after Russia? Look, nobody's, been tougher on Russia than me, but they say, Russia, Russia, Russia. (Speech: Donald Trump Holds a Campaign Rally in Moon Township, Pennsylvania - September 22, 2020)

4.2. *Case study 2: The "microchips" conspiracy theory*

In this section, we will see how the "microchips" conspiracy theory is linguistically constructed. According to this conspiracy theory, Bill Gates was plotting to use COVID-19 testing and future vaccines to track people with microchips. The case study is carried out on the second corpus of tweets and Facebook posts and on data obtained from the querying of the fact-checking organizations.

The first set of tweets belongs to Emerald Robinson, White House correspondent for the conservative website Newsmax. The tweets date back to April, 6 to 8 2020. The analysis of cognitive principles shows how Robinson violates all the Maxims, with the exception of the Maxim of Manner, thus building false claims about Bill Gates.

In *Text 6* below, she violates the Maxim of Quantity by achieving a high degree of specificity in all her tweets. For example, in her instantiation of the schema "nanotechnology", notwithstanding Twitter's 280-character limit, Robinson provides a huge amount of details to elaborate the schematic meaning of nanotechnology: she introduces a subor-

dinate category, i.e. "quantum dot-tattoo", providing the parameters of SHAPE, POSITION, MANNER OF ARRANGEMENT, and ORIGIN.

> *Text 6*
> Most people are not aware such nanotechnology exists. What's a quantum dot-tattoo? It's a tag that comes with your vaccine shot. It embeds "just under the skin, where they become something like a bar-code tattoo." It's invisible & tracked by smartphone. (Tweet, April 6, 2020)

Robison repeatedly tweets about Gates with reference to another debunked conspiracy theory, Event 201, an exercise jointly run by The Johns Hopkins Center for Health Security, World Economic Forum, and Bill & Melinda Gates Foundation, which "simulated a series of dramatic, scenario-based facilitated discussions, confronting difficult, true-to-life dilemmas associated with response to a hypothetical, but scientifically plausible, pandemic" (www.centerforhealthsecurity.org/event201).

In *Text 7*, using rhetorical questions, Robinson flouts the maxim of Manner as she eludes the regular question-answer adjacency pair (Schlegoff and Sacks 1973) implied by Tweets, whereby speaker A produces a question and speaker B responds to this question. In this case, not only does speaker A, i.e. Robinson, produce the initial (rhetorical) question but she also provides the answer, which conveys the intended implicature, thus precluding retweets from anyone.

> *Text 7*
> The more you study this virus, the more you find the same name: Bill Gates. He's the 2nd largest funder of WHO. He's building 7 vaccine labs. Fauci. Tedros. Event 201. ID2020. He basically controls global health policy. What's the plan? Using vaccines to track people. (April 6, 2020)
>
> Bill Gates is very interested in one area of medicine: vaccines. Why? Because govts can mandate that people get them. And if vaccines include microchips then you have worldwide surveillance. (April 6, 2020)

The maxim of Quality is generally violated or flouted through violation of frames. The microchip conspiracy theory, for example, is often constructed by representing an unconventional schematization of experience at the conceptual level, thus violating or flouting the maxim of Quality through violation of frames. Knowledge is structured by associating elements and entities with unusual scenes, situations or events from human experience. Linguistically, conspiracy frames include attributes and relations between attributes belonging to different, asymmetrical domains.

One asymmetrical frame, which contributes to violating the maxim of Quality, is represented by the use of the expression "Bill Gates microchips" or "Bill Gates' microchips" in tweets and Facebook posts (see *Texts 8* and *9*):

Text 8
They secretly planting **bill gates micro chips** in the body through the nose […].

Text 9
There's no pandemic! What we're really doing is implanting **Bill Gates' microchip**. The Gates Foundation is paying $25k per implanted chip, […].

Moreover, the analysis of the corpus of tweets and Facebook posts demonstrates the close relatedness that exists among different conspiracy theories, as if they were parts of a single plot devised by higher orders of power. For examples, the microchip conspiracy theory intertwines with the 5G conspiracy theory (see *Texts 10* and *11*):

Text 10
It claims that "people like Bill Gates" plan to secretly inject microchips during vaccination, allowing 5G mobile phone owners to make calls, transfer money and travel internationally without passports. It warns the microchips can "read your mind" and could be used to control people.

Text 11
With a 5G phone!you don't need to move around with your Phone, You just keep it at home. But a MicroChip will be implanted under your skin! [*sic*]

4.3. *Case study 3: The "5G" conspiracy theory*

As the vast majority of the 5G-based false claims have been removed from social platforms, we use the documents stored by the fact-checking organization Fact Check (factcheck.afp.com) to analyze how the cognitive processes that cause flouting or violation of the maxims construct this conspiracy theory. Fact Check allows users to read Tweets, Facebook posts, and Instagrams from public and private conspiratorial voices.

The case of 5G testifies to how viral and poisonous a false claim can become in no time at all. On July 20, 2020, a paper entitled "5G Technology and Induction of Coronavirus in Skin Cells", authored by a team of scientists from Italy, USA and Russia, was published in the

scientific journal *Biolife* and later added to Pubmed.gov, which is part of the National Institutes of Health (NIH). The study, which claimed that 5G can lead to the proliferation of Coronavirus in human cells, was soon retracted. Unfortunately, the false claim had already started circulating on the social platforms setting the stage for the divulgation of the relevant conspiracy theory.

In April, 2020, a misleading post (see *Text 12*) appeared on Facebook, which falsely claimed that the spread of the COVID-19 pandemic was linked to 5G technology.

> *Text 12*
> In 1918 telecommunications radio waves were deployed. (Spanish flu.)
> 1940s radar technology was deployed. (Influenza epidemic.)
> 2003 3G was deployed. (SARS epidemic.)
> 2009 4G was deployed. (H1N1 epidemic.)
> 2019 5G being deployed. (COVID 19 epidemic.)

Besides displaying cognitive features that suggest that the Maxims of Quantity and of Quality are flouted, the majority of the claims analyzed prove to be false as they also flout the Maxim of Manner. They show an unexpected constructional profiling that is mainly characterized by the use of questions in marked positions (see *Text 13*):

> *Text 13*
> Look this means we were right, again... 5G activates the smart dust in the system to create Covid symptoms. Other groups talking about Flat Earth instead of actually digging for stuff like this, their groups don't get shadow banned ours does. Why? (July 23, 2020)

or the adoption of rhetorical questions (see *Texts 14* to *18*), where the speakers seem to mock an entire dialogue as they ask the question and they either provide the answer (see *Texts 14* and *15*):

> *Text 14*
> More detailed then I could say.
> Remember when the #coronavirus outbreak first hit in #Wuhan, #China? Remember that Wuhan, China had just rolled out #5G technology around the same time? Remember the theory postulated that 5G might have something to do with the outbreak of coronavirus? If you do, you will be pleased to know that Dr. Anthony S. Fauci's National Institute of Health (NIH) just released the findings of a study that indicates 5G technology can produce coronavirus in human cells. (Facebook post, July 25, 2020)

Text 15
What's more disturbing: that the NIH had a study on its official website claiming 5G creates coronaviruses, or the fact it was removed after becoming exposed?

or leave the questions unanswered (see *Texts 16* to *18*):

Text 16
They are saying that the Con V will peak in Australia in July […] how do they know this? because July is when 5g will be fully rolled out and amped up here.

Text 17
5G millimeter waves can also send nanotechnology into the human body. So even if we don't want to be vaccinated… it doesn't look like we can't go anywhere to be safe! Maybe join the other Aliens living underground? Or plan out an action plan to take swift action. We are concerned now about the vaccine genetically modifying us… imagine what 5G nanotechnology can do?

Text 18
This is not science fiction anymore! It's already happening. Why do you think they were burning 5G towers in the UK?

As Kleinke (2010) remarks, unexpected profiling is a technique that is often used in Internet discussions where speakers tend to give too much information in order to be perceived as experts and knowledgeable.

5. CONCLUSIONS

The paper has approached the issue of conspiracy theory in the age of COVID-19 by adopting a methodology that combines Grice's Cooperative Principle and the framework of Cognitive Linguistics. Notably, we have investigated how false claims and fake news about the pandemics are created in social media by both public and private voices. By elaborating the four Maxims on the cognitive principles of unconventional metaphorical and metonymic reasoning, dispreferred windowing of attention, unexpected constructional profiling and rhetorical questions, it has been shown how speakers fuel prejudice, skepticism and myths about the virus by flouting or violating the maxims and, consequently, encourage the hearer to acquire their truth – or falsehood – about the origins of the pandemic. Specifically, flouting or violation of the maxims is instanti-

ated linguistically by providing more or less information than required, for example by using subordinates or superordinates to describe agents, event frames or schemas. This device tends to drive the hearers' focus of attention on unexpected topics that belong to domains unrelated to or distant from the referent domain in question. False information is also the result of the speakers' use of unconventional metaphorical or metonymical expressions and unexpected organization of syntax, in order to achieve specific rhetorical effects. Often, these devices do not work in isolation but coexist in one single act. Our future work will aim at identifying forms of collaboration with other areas of research, besides Pragmatics and Cognitive Linguistics, which may help to hone our approach to debunk conspiracy theories.

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