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# Qual é a relação entre o poder das fake news e o nível de compreensão profunda da leitura?

What is the relationship between fake news' power and deep reading comprehension level?

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Resumo: Este trabalho discute o papel da compreensão leitora profunda no combate à aceitação e à multiplicação de *fake news*. Para isso, é apresentada uma revisão teórica sobre mecanismos para o desenvolvimento da compreensão leitora profunda e para a formação do leitor crítico, além de reflexões sobre a forma como as *fake news* interagem com o pensamento coletivo e com o inconsciente do público leitor. São apresentadas possibilidades de ação para qualificar a formação do leitor crítico e competente e discutem-se dois textos jornalísticos veiculados em meio digital que visam a exemplificar como se articulam as informações presentes em notícias falsas. Por meio da identificação de elementos que podem contribuir para a disseminação desses artefatos discutimos como a manipulação da informação pode vir a influenciar o público leitor. A análise dos materiais escolhidos ocorre no sentido da verificar a forma como o coletivo social acolhe as *fake news* e as toma como verdadeiras, ampliando sua divulgação. Neste sentido, cabe destacar a importância da leitura profunda para a ampliação da capacidade crítica do leitor como ferramenta para deter o impacto de *fake news*.

Palavras-chave: Fake news, compreensão leitora, leitura crítica.

Abstract: This paper discusses the role of deep reading comprehension in combating the endorsement and propagation of fake news. For this, we present a theoretical review on mechanisms for developing deep reading comprehension and critical reading skills and reflections on how fake news interacts with the collective thought and the unconscious of the reading public. We also suggest action possibilities for the improvement of the critical and competent reader through two journalistic texts published in digital media showing how information is presented in fake news. By identifying elements that can contribute to disseminating misleading information, we discuss how the manipulation of false narratives can influence the reading public. The analysis of the texts demonstrates how the social collective receives the fake news and takes it as accurate, intensifying the spread of disinformation. In this sense, it is vital to highlight the importance of deep reading to boost the critical capacity of the reader as a tool to stop the impact of fake news.

**Keywords:** Fake news, reading comprehension, critical reading.



#### 1. Introduction

Having access to qualified education and cultural means has a relevant impact on societal development. In this context, reading stands for one of the most significant vectors for information and knowledge dissemination, thus becoming one of the main tools in the era of information. In the last decades, reading ceased to have the printed medium as its priority vehicle, starting to be configured in different vehicles in the online format. Thus, digital media have occupied a growing space in information spreading, which has become essential for daily and work activities. However, it is still common to identify people who cannot reach satisfactory reading comprehension levels in the information society, regardless of whether the text is printed or digital. A reader who does not understand a text's objective risks not achieving success in one's simplest vet necessary activities, whether related to health, work, safety, education, consumption, or entertainment. Another risk that comes from the significant number of readers who cannot reach the expected depth of reading comprehension is using the written word as a tool for manipulating and building distorted and controversial ideas. A population with reading comprehension challenges can become hostage to what they understand in political, social, and cultural spheres.

Disseminating fake information for specific purposes is not recent in human history. As Gutenberg's invention became visible and accessible, information and ideas started to circulate. In the same vein, truthfulness came to be credited to both reliable and erroneous information. The idea that information spread by some means of communication, whether printed or not, assumes an irrevocable truth value seems to be a cultural construct that follows the evolution of technology used for social communication. How could any means communication (once considered severe and reliable) spread the news that did not meet its actual value?

The presupposition that what is divulged is necessarily true is added to the frivolous culture of

superficial reading and non-verification of facts. Readers who can comprehend neither the meaning of a message nor its inferences may get inadvertently caught by the news that meets their expectations and beliefs but does not adhere to the truth or impartiality that journalism claims to practice. Wolf (2018) explains that the reading process that leads to a more precise comprehension of a text depends on previous exposure to reading, the reader's world knowledge, and one's experience as a regular reader. According to Wolf (2018), "deep reading" accelerates our reading comprehension because it allows a more considerable amount of word reading and the establishment of more complex semantic webs among such words and reaches broader levels of reading comprehension. This perspective allows one to see that readers carry the ability to think critically, i.e., observe the author's points of view and the media's values and perspectives by checking fonts and facts. Reading can expand the reader's horizons, but it demands that readers be open to and consciously aware of what is happening around them.

Morais (2013, p. 111) states that text comprehension consists of progressive elaboration of an integrated mental representation of information presented in a text. When integration does not occur as expected, either due to lack of prior knowledge or incomprehension of word meanings, it may lead to an incorrect understanding of the author's intention. Recurrently, using technologies to implement visual and linguistic resources may create a favorable space for information manipulation. Within the sphere of possible communication pitfalls, we could address technologies and video/image editing tools, known as "deep fake", practices of "deepfake"1, and the manufacture of content seen in unverified messages forwarded by the WhatsApp application or the like. It means that people with low levels of education tend to

<sup>&</sup>lt;sup>1</sup> Deepfake is a technology that uses artificial intelligence (AI) to create fake yet realistic videos of people undergoing actions they had never undergone in real life. Source: <a href="https://www.techtudo.com.br/noticias/2018/07/o-que-e-deepfake-inteligencia-artificial-e-usada-pra-fazer-videos-falsos.ghtml">https://www.techtudo.com.br/noticias/2018/07/o-que-e-deepfake-inteligencia-artificial-e-usada-pra-fazer-videos-falsos.ghtml</a>, Access: Nov, 29th, 2021.

believe in heated discussions on disseminated digital tools.

Based on the perspective mentioned above, this article aims to investigate the role of deep reading comprehension skills in fighting fake news' acceptance and dissemination. To this end, we propose a theoretical review of the mechanisms for developing deep reading comprehension and critical reading skills. Also, we reflect upon how fake news interacts with collective thinking and with the unconscious of the "naïve" reader audience. Next, we present intervention possibilities to qualify the development of the critical and competent reader. Finally, as a means of illustration, comments will be made on two fake news once widespread in national territory, identifying elements that contribute to disseminating such artifacts.

# 2. Pathways for the construction of reading comprehension

The reading process can begin with associating graphemes with phonemes, going through language's semantic component, but it does not stop at such a stage. Regarding its design and use

The word "reading" is properly employed for all manner of activities when we endeavor to make sense of circumstances; its original meaning was "interpretation." We read the weather, the state of the tides, people's feelings and intentions, stock market trends, animal tracks, maps, signals, signs, symbols, hands, tea leaves, the law, music, mathematics, minds, body language, between the lines, and above all—a point I must come back to—we read faces. (SMITH, 2004, p. 2)<sup>2</sup>

Reading comprehension goes through several pathways and constructions, including the ability to guide thinking and idea organization throughout the sentences of a text, originating coherent semantic relationships. It requires that a set of skills be acquired and trained to such an extent that the world of writing becomes part of our world, that the reading material our eyes run through can no longer remain unnoticed

or empty in their meanings. According to McGuinness (2006), reading comprehension involves various abilities, including monitoring context and making inferences based on prior knowledge, besides being familiar with the most diverse text genres. The meaning of what is read is related to the reader's prior experiences and how one organizes and represents one's ideas based on the word one knows. An individual with an excellent command of the language will have more subsides to understand more complex texts, question texts, seek parallel sources, confront ideas, and have a qualified conclusion.

good reading comprehension will depend on good language understanding more generally. This requires comprehension of the individual words and the sentences that they form. However, comprehension typically requires the comprehender to integrate the sense of these words and sentences into a meaningful whole. Too so, the construction of a suitable mental model is necessary. A mental model is a mental representation that is created from information in the real, or an imagined, world – i.e., agist representation of what the comprehender has read (or heard or seen). (OAKHILL ET.AL. 2015, p.1)

The old saying "practice makes perfect" is justly applicable when talking about reading. We need rich and consistent reading experiences to build our repertoire as readers. We go from decoding readers to comprehensive readers through continuous and persistent pathways. Therefore, the world becomes more accessible and more transparent. It is important to emphasize that reading experiences can be constructed before the grapheme-phoneme decoding period. Propelling access to cultural means, fostering discussion on various themes, and increasing world knowledge and freedom of speech have the power to improve children's early linguistic repertoire.

To comprehend texts, we use our lexical competencies (i.e., our knowledge of word meanings) as well as syntax analysis processes and semantic integration. We use our knowledge of the world and personal experience, but all these processes and knowledge also activate when we understand spoken language. This type of process and knowledge is developed in a child much before they learn to read (MORAIS, 1996, p. 114).

 $<sup>^{\</sup>rm 2}$  The authors take responsibility for the versions of English of the original texts written in Brazilian Portuguese.

This section has discussed reading as a cultural construct - learned, practiced, and developed over time - from either an individual or a social perspective. Reading comprehension recruits a reader's linguistic repertoire to relate a text to its possible meanings, creating hypotheses to be reinforced or refuted throughout the reading, thus ascribing meaning to what is read. However, not always will one be successful when comprehending what was read. Some readers do not read fluently and automatically or cannot ascribe meaning to what they read. There are both superficial readers and readers who fail in some steps of the process. The following section will delve into the characteristics of deep reading and the critical reader, highlighting studies that point out the relationship between reading comprehension and learning ability.

## Deep comprehension and the critical reader formation

In the same way that reading can expand a reader's horizons, it can also bring a series of inconveniences for those who cannot achieve success in such a skill, essential for contemporary society (also known as the "information society"). Soares (1986, p. 16) states that language is culture's leading product and serves as an instrument for spreading information. Within this perspective, Grigorenko and Naples (2008, p. XI) describe reading "as a necessary foundation for a higher-order cognitive process, reading—a gateway to success in our complex, developed societies". Language is ubiquitous to everything around us: in newspapers, on supermarket shelves, at bus stops, on drug leaflets, in newspaper news, among other forms of communication.

Despite being a relatively recent construction considering humankind's evolution, literacy is an essential skill for carrying out the simplest daily tasks and learning. Everything we learn is spread through written material. For example, Cunha et al. (2017) evaluated elementary school students' fluency and reading comprehension from second to fifth grades.

They compared the performance of students with and without learning difficulties. The study measured reading time, accuracy, speed, and comprehension. The results indicated an inferior performance of students with learning difficulties in the measured constructs, demonstrating the relationship between learning success and reading skills.

Similarly, the study by Coelho & Correa (2017) aimed to examine the relationship between various metalinguistic and cognitive skills, assessed at the beginning and the end of Elementary School second grade, bearing in mind the text types used for this study. Reading comprehension was evaluated in narrative and expository text types, rapid automized naming skills, phoneme level of phonological awareness. working memory, verbal skills/performance, vocabulary, morphological awareness, reading accuracy, and monitoring comprehension. The results showed that phonemic awareness, rapid automized naming of objects, and monitoring comprehension contributed to reading comprehension in both text types, demonstrating the complexity of cognitive constructs involved in reading.

The studies above demonstrate that reading ability improvement needs constant attention from parents and teachers. Reader's development is highly dependent on the environment in which one is inserted and the way written language is presented. The habit of reading to children since early childhood and the example given by family members and adults with whom children live can encourage the development of a reading routine, of a search for knowledge. As students undergo the initial stages of learning how to read, various text types and genres should be presented in the school context. Additionally, children should be exposed to a considerable amount of vocabulary to enrich their linguistic repertoire and, consequently, their horizons regarding spoken or written language comprehension. Reading is one of the skills that most impact other types of learning. It is ubiquitous in all knowledge areas in the school environment and permeates individuals throughout life, at work, with the family, in their memories and projects.

Learning issues cause students to fail reading and writing activities in school mainly for the following reasons: the subject who learns, the teacher, the pedagogical content, the lack of learning opportunities, the unfavorable socioeconomic conditions, and the ineffective teaching strategies for the profiles and needs of the students (CUNHA et al, 2015, p. 1).

We can also add the establishment of reading and writing habits throughout school life and, perhaps, throughout adult life. Such practice may develop the critical sense and the linguistic conditions to interact carefully with the spread of information, making it possible to judge its veracity and ideological inclination within the contexts in which they are presented.

Reading pathways are changing every day. If before we could choose a book and look for a comfortable and quiet place to read it, today, most of our reading takes place on screens. For the researcher Maryanne Wolf (2019, p. 51), the quality with which we read sentences or texts is dependent on the choices we make regarding the time we allocate to deep reading processes, regardless of the medium. It is inevitable to adhere to screen reading, even if we prefer touching and smelling the physical book because much of the up-to-date information we get in contact with is conveyed in digital media. The newspaper is first published in digital media; then, one can instantaneously share information and facts throughout the day on social media. A mix of verbal and non-verbal language creates an ethos we adhere to daily, sometimes without even questioning. Wolf (2019, p. 52) points out that deep reading processes take years to develop and that we, as a society, need to pay attention to its development, starting with our children and young people.

School is usually the only environment where adolescents practice attentive reading in search of answers that may not be on the text's surface. As immediacy dictates the rhythm of the reading on their smartphones and other screens, what was just read may no longer be considered essential or relevant.

All phenomena that occur in language must undergo an interaction pathway between what is experienced and how communication reflects and refracts such experiences. Through Bakhtin's (2016, p. 20) lens, this constant textual modification and their speech genres are typical of the intertwining between societal history and language history. The need to delve deeper into the text, and search for its essence, is maintained despite historical time and the available time for reading. Serious information that is disseminated also needs to be evaluated.

According to Volochínov (2019, p. 269), everyday utterances consist of unexpressed - but implied and extra-verbal dimensions (situation and audience) - without which one cannot comprehend its meaning.

Without the necessary care and discernment, a superficial reading may incur the dismissal of the bigger picture of which individual utterance is part. This way, one may erroneously elaborate a mental model regardless of the extraverbal. A new meaning is then created, and a new truth starts to guide and anchor new conclusions once disseminated to different contexts.

Information can give a sense of freedom through reading. The subject who reads can, theoretically, question what was just read and create one's reasoning based on what he learned. When observing the situation in which the informational world is inserted, the following questions arise:

Is there freedom if individuals, citizens, do not have access to information vital for them to act freely and consciously from the liberties of others? Can a citizen be free if essential information to learn the available alternatives for instance, in the political sphere - is denied? (GUINOTE, 2014, p. 10)

Reading as decoding is not enough to achieve the previously mentioned liberating sense. Freedom of thinking follows the freedom of comprehending what one reads. In this sense, the role of reading is to keep freedom of thought and respect the importance of thinking and questioning. One does not have to disagree or agree with everything in life;

nevertheless, one must think – this does bring subsidies for seeking a reliable truth.

Generically, literacy refers to abilities to comprehend, evaluate, use and generate. The ability to discern fake news is considered a subset of news literacy, which falls under the context of media (as in mass media) literacy, which, in turn, is part of information literacy. Information literacy is the ability to locate, access, select, evaluate, manage, use, create and communicate information effectively and responsibly. Fake news also requires language literacy of functional reading and writing, digital literacy, visual literacy, and numeracy/ data literacy (FARMER, 2021, p. 51)

Morais (2013, p. 130) highlights that schools can - and should - provide appropriate stimuli and teaching regarding reading, thus helping to narrow the gap between different cultural environments. With a liberating approach toward reading, criticality will consequently come. Thus, new information with questionable origins may perhaps be verified with more caution and less haste and qualify the content of the information being conveyed.

In Wolf's (2019) perspective, the readings one makes throughout life add up to form encyclopedic knowledge, which is fundamental to help us infer deeper meanings of what we read, separating us from superficial reading. Henceforth, people who do not have a repertoire of in-depth reading tend to become more likely not to question or evaluate the content of what is being read. Interestingly, as the author points out, although we apparently read in greater quantity, mainly due to the worldwide widespread of digital reading being made available in different vehicles, what happens is a tendency to "read over," which means reading to get the gist of a given theme. Such knowledge is sometimes based on simplified and uncoherent information, leading us to trust and rely more and more on similar external providers, which may be dangerous. Once we formulate our world views based on what we see and read, the introjection of questionable or false content can negatively impact how we place ourselves and interact in society.

Wolf (2019) highlights the reciprocal relationship between world knowledge and deep reading. Deep

reading allows us to discern what is true and add it to our built knowledge. The author explains that readers should also adopt a posture based on the models of scientific methods - like what we do in science and life -, which demand observation, the postulation of hypotheses, predictions based on inferences and deductions, evaluations, tests, interpretations to, then, formulate conclusions.

Superficial reading, especially in digital media, leads to the acceptance and dissemination of fake news. In the next section, we will analyze the case of two journalistic texts available in digital media. The texts aimed to counter-argument false news published in 2021 in the pandemic context caused by the COVID-19.

# 4. Fake news: analysis of two illustrative texts

It would be easier to identify fake news if it circumscribed to a specific textual genre! They are everywhere, assume different forms and areas of knowledge, and appear in the environments where we least expect them. They are unwanted and, at the same time, widespread on a large scale. They have existed for a long time and maintain their popularity based on the power relations and domination they articulate.

The numbers are striking. Lyons and collaborators (2021) point out that more than a quarter of the US population accessed at least one fake news website during the 2016 election in that country. As for Brazil, a study developed in 2020 by Kaspersky - a global cybersecurity company - published on the *Canaltech* website<sup>3</sup> concluded that 62% of Brazilians cannot identify fake news.

Considering the global crisis caused by the COVID-19, such data is worrying. Lagarde & Hudgins (2018) advocate the need to develop critical skills to discern fact from fiction to produce a positive

Signo [ISSN 1982-2014]. Santa Cruz do Sul, v. 47, n. 90, p. 26-37, set./dez. 2022. http://online.unisc.br/seer/index.php/signo

<sup>&</sup>lt;sup>3</sup> Available on <a href="https://canaltech.com.br/seguranca/brasileiros-nao-sabem-reconhecer-fake-news-diz-pesquisa-160415/">https://canaltech.com.br/seguranca/brasileiros-nao-sabem-reconhecer-fake-news-diz-pesquisa-160415/</a>, accessed March 2022.

response amidst misinformation. Indeed, criticality needs to take its place, requiring the reader to engage their reading activity in a profound and inquiring manner.

Barclay (2018) defines fake news as any information created under the guise of being reliable when it is not. The author sees it as a subset of fake news, within which advertisements and other types of fakes are also found. Specifically, advertisements are created specific to promote commercial organizational ideas. Bernecker e et al. (2021) point out that the term fake news is not widely accepted in the academic environment for its imprecision. Until 2015 it was used to designate satirical news in the style of parodies in humorous criticism programs, but after the 2016 US presidential elections, it took on a new meaning. The instability in the meaning of the expression goes through the idea that the information artifact presents false news and even the suggestion that such falsehoods come from the author's intention to manipulate a particular social group. For example, in the case of elections, the discredit to the opponent has been seen as one of the main tricks of disinformation bequeathing a strictly negative sense to the term (BERNECKER et al., 2021).

With the advent of digital media, social networks, and fast communication apps, anyone who wants to socialize their ideas can come to do so, regardless of the veracity of facts or findings and the ethics and seriousness of their real goals. Santaella (2018) argues that the technologies of digital networks allow the consumption of media. However, they have been updated so that the consumer reader can be an author in a game of uninterrupted back and forth. The author (idem, 2018) mentions the so-called *bubbles* (also called *echo chambers*) - the individual and collective ecosystem that repeats their beliefs to exhaustion in a vicious way, not subject to questioning or modification.

The reasons, forms, and origins of disinformation are as varied as possible. The fabrication of facts ranges from manipulating data reported in journalistic texts to edited videos. The speakers' speeches are edited and altered through

practices such as *deepfake* to scientific articles published in predatory journals to force the validation of a biased truth.

The dissemination of information is influenced by specialized algorithms, which filter the information from the data collected and the users' access to their searches and consumption preferences (SANTAELLA, 2018). Users of social networks and apps of the most varied natures, by declaring to be aware that the company holds their data and that their use of the app will be monitored, set precedents for the most varied information on behavior and consumption habits commercialized. We compulsorily feed a system that feeds the interests of those who seek power and individual economic growth.

Manipulated information seeks to be incorporated in the sense of truth. The enunciator creates their communicative ethos by carefully observing all the nuances of their publication: where, when, how, with what words, in what position. According to Maingueneau (2020, p. 10), in the elaboration of ethos interact elements of very different natures, going from the choice of linguistic and vocabulary register to the textual planning, rhythm, and costume.

Disinformation seeks to reach the addressee as an unchangeable truth, with nuances of the *incredible, controversial*, or *spectacular*. DeFleur and & Ball-Rokeach (1993) state that three issues are incorporated into the problem of truth identification. The first issue is labeling the truths identified in the world in specific senses; the second is separating our memory bundles of previous experiences; the third is agreeing on rules that a given label will be associated with a specific definition that embodies the concept's meaning. This last issue becomes a collective decision, as certain groups in their bubbles will accept labels.

The force behind a particular idea may influence on its dissemination and the consequent acceptance of its *ethos*. An idea may seem absurd, but if it is believable, with an invented ethos, and reaches an audience that shares its principles, it may

conquer its place in this new "created reality," giving rise to another piece of disinformation.

The lack of cultural and linguistic repertoire and the desire to always be up to date with the latest news hits a large part of society. Independently of its origin, disinformation is a weapon much in use nowadays. The manipulation of information and the fabrication of instant and appealing truths conquer the most vulnerable public: the superficial reader, who cannot go beyond the surface of the text. The big news is passed on at the touch of a button or on the screen itself as if a brief, superficial reading was enough to validate a new fact, which sometimes borders on the absurd.

We will discuss the criticality of reading and the importance of seeking ways to verify what comes to us as *unpublished* or *exclusive*. We will emphasize the need to popularize practices and techniques to search for veracity, besides reducing the speed of response to the flood of information we receive every day. Caution, deep reading practices, and criticality can be very useful.

We will analyze below, as an example, the case of two false news that circulated during the year 2021 and was refuted by reliable media. We will present the texts that refuted the erroneous information, as reported by the digital media. Our objective was to verify the mechanisms that may have increased the dissemination and acceptance of false news by a part of the population.

The first text selected for analysis is entitled Fake News Not Pod #8: Are vaccines made of aborted fetuses?<sup>4</sup> It was published in electronic media in the University of São Paulo (USP) newspaper in the year 2020, in discussions about the technologies employed in the development of vaccines against COVID-19. The news is accompanied by a podcast on the same topic, also available on the same website. This text is informative since it demonstrates the need

to bring clarifications about widely disseminated false news.

The false news that generated the need for this publication informed that the vaccines against Covid-19 produced in Brazil would use cells from aborted fetuses. The topic of *abortion* is reasonably related to religion in different countries. Farmer (2021, p. 10) argues that religion can be an essential issue for fake news, mainly because it is often central to individual identity or a value system. The polemic topic of abortion summons moral and religious precepts so that the idea can be opposed and rejected.

According to Amossy (2017, p. 49), the first mark of the polemic as a current debate is a discourse opposition. There is inevitably discursive confrontation when a theme generates a conflict between distinct ideological positions. The text discussed here unites two neuralgic points of conflict: vaccination against COVID-19 and the right to abortion. We will not discuss all the arguments that the opposing groups present; however, it is necessary to point out that the manipulated approach of data related to topics already known to cause controversy only increases the distancing of ideas and the polarization of oppositions. Amossy (2017, p. 57) explains that the rhetoric of polarization consists of establishing enemy camps, which, therefore, is a social phenomenon and not an abstract of opposed and conflicting opinions. Polarization is felt in the low adherence to vaccination campaigns in several countries on all continents. With each new variety of the virus, a new wave appears and reignites the vaccination controversy: the idea that, if many are already vaccinated, the waves should be less impactful versus the idea that the virus will continue killing while the population is not fully vaccinated.

Another aspect that draws attention to this topic is the incitement to fear. According to Bauman (2008, p. 8), "fear" is the name we give to our uncertainty: our ignorance of the threat and what must be done to make it stop. Inherent in all living creatures, fear is part of our species' perpetuation processes and delimits behavioral boundaries. However, fear serves as another strategy deployed to reach the emotional

<sup>&</sup>lt;sup>4</sup> Available on https://jornal.usp.br/podcast/fake-news-nao-pod-8-vacinas-sao-feitas-de-fetos-abortados/, accessed March 2022.

sphere of the subjects. For Amossy (2017, p. 62), emotional engagement and demonstrations of effort to touch the hearts of readers/viewers are connected. The emotional context, commotion, and moments of social imbalance tend to unite groups that converge in their beliefs and ideologies. In this sense, polarizations are formed, which continue to be fed by fabricated and manipulated news.

Regarding text content, we must say that the technical data aimed to clarify to the readers the technologies used to develop vaccines, which was verified by a pharmaceutical researcher who imposes great credibility given the professional ethos inserted in this context. The interviewed pharmacist explains how vaccines are made and how the cells used are isolated and do not multiply or die, highlighting that human fetuses are not used during this procedure. Indeed, it is conceivable that a reader who does not have sufficient scientific and world knowledge will doubt such highly technical information, featuring vocabulary specific to the scientific world. A superficial understanding of what is read can lead to the generalization of data and the refutation of science.

Bauman (2008) argues that fear and evil go together. The ideas observed in this artifact of misinformation support this way of thinking. For groups opposed to abortion, it symbolizes evil, the interruption of life, the devaluation of being, and disrespect for the divine. In the same way, the use of sub-products of this act in vaccine production would add to this scope the negativism associated with immunization by some groups. Groups opposed to the immunization of the population argue that they prefer to keep their bodies clean from the chemical and pharmacological manipulation that vaccination would bring. Despite the massive evidence of vaccination effectiveness for pathologies such as infantile paralysis - already eradicated worldwide due to effective vaccination campaigns - the discredit by specific groups remains

By observing the journalism discourse to combat the ideas of the false news generated, we can guess the most influential topics leading to the acceptance of the false idea that aborted human fetuses were used to produce Brazilian vaccines. Among the most apparent topics are the appeal to moral and religious precepts before the already existing controversy related to abortion; the emotional appeal to the public, from the idea of the death of defenseless beings for the improbable control of a pandemic, and the fear instilled in the population collectively.

The second text chosen for this discussion about the acceptance of misinformation by readers is on the digital page of the newspaper Estado de Minas, published in September 2021. It discusses the post's content by the singer Nicki Minaj<sup>5</sup> on the social network Twitter. The text's title is "No evidence that COVID-19 vaccine causes impotence, contrary to what Nicki Minaj<sup>6</sup> says. "According to the singer, the COVID-19 vaccine would cause sexual impotence, leaving implicit in her post that vaccination should be avoided.

We begin the discussion of this text with the statement that "there is no evidence that the COVID-19 vaccine causes impotence". "The term evidence demonstrates the newspaper's concern in clarifying the facts from reliable sources. The evidence supporting the vaccination presented by the text is supported by researchers from renowned universities (University of Miami and Stanford University) and technical explanations about other pathologies that cause impotence in men.

The emotional appeal or the fear provoked appears in this false news related to male virility. In this context, the fear of impotence seems more substantial than death itself. Social values and the need for self-affirmation may override even survival instincts. Even knowing the high number of COVID-19 victims since the pandemic, the appeal to the need to maintain male virility causes fear and commotion. The

<sup>&</sup>lt;sup>5</sup> Onika Tanya Maraj, better known by her stage name Nicki Minaj, is a Trinidadian American rapper and singer-songwriter in the hip hop and rap genre. Nicki Minaj also sings songs from the R&B and pop genres, but her career is dedicated to hip hop and rap. Available on <a href="https://som13.com.br/nicki-minaj/biografia">https://som13.com.br/nicki-minaj/biografia</a>, accessed March 2022

<sup>&</sup>lt;sup>6</sup> Available on

https://www.em.com.br/app/noticia/internacional/factcheck/2021/09/15/interna\_internacional,1305920/nao-ha-evidencias-de-quevacina-contra-covid-cause-impotencia-ao-contrario.shtml, accessed September 2021.

controversy goes beyond the invalidation of data by science, the credibility of the evidence, and the facts exposed in newspapers around the world about the high mortality virus rate causing this pandemic. Farmer (2021) highlights that science has been a victim of fake news with considerable frequency, even more so in contexts where low literacy and limited access to scientific publications nurture the belief in pseudoscience, especially in the unverified information disseminated on social networks.

The text of the newspaper from Minas Gerais highlights the proportion of shares and revalidations that Minaj's post received on Twitter. The quick reading, the non-validation of the truth, the liquidity of information, and the need to position itself in a newly established controversy, may have been influential in such a huge impact. The speech of a famous artistic figure like Nicki Minaj tends to be accepted by her admirers, even if it is an untruth or has shocking content.

It is possible to infer that the speed of information disseminated on social networks and the credibility given to the public figure of the artist may have influenced the circulation of false news about male sexual impotence. We should also consider the relationship of the male gender with the need for self-affirmation and virility. The fear of impotence is a common fear among men and could lead them to avoid vaccination to the detriment of the fear of death by COVID-19.

The fabrication of truth intends to generate misinformation. A piece of data can be masked or decontextualized, creating a new reality. With the help of emotional appeal, the credibility of famous people, and the speed of social networks, we have an effective and quick recipe to transform reality. The manufactured information meets the group's needs, creates, or promotes it, has specific objectives, and travels quickly through collective imagination.

The production and proliferation of fake news are motivated by financial and ideological gains. Initiatives to combat fake news are also unlikely to prevent self-interested actors from finding new ways

to spread fake news and other forms of disinformation. Thus, research focuses on understanding the factors that make individuals prone to being misled by fake news. These factors are often exploited by those behind the production and proliferation of fake news. (TANDOC JR, 2021, p. 36)

Farmer (2021, p. 11) points out that "fake news as a message targets some kind of intended audience: the general public; groups of people such as religious members, political parties, ethnic groups, professions, social organizations and so governments; foreign entities; and individuals". The fabricated content delimits the audience to be reached, which is the public in the case of our study. By analyzing it more closely, we verify that the first news covers an expressive part of the population against abortion and people who disagree with the information about genetic manipulation. The second news item concerns people linked to patriarchal society, intimately relating the man's figure to his active sexuality. Despite the audience targeted by fake news in this discussion, everyone should support the need to have the population vaccinated against the COVID-19, even if they believe otherwise or are less susceptible to contamination.

Fear, beliefs, skepticism, and the devaluation of science contribute to constructing parallel realities, disseminating negationist views, and the generation of insecurity. When invented news is endorsed by someone famous or somebody who claims to be an expert on the subject or has experienced some related situation, it gains life, acquiring a sense of value by the collective and a completely new status. A new reality is created.

### 5. Final remarks

We have emphasized the need to cultivate deep reading practices to achieve an adequate understanding of what is being read (or heard) and followed by discussing how fake news could reach broad reader audiences. Disinformation propagates through social media and fast communication

applications through various formats and technologies, even turning into arguments for heated discussions.

Reading is inserted in this context with the role of expanding the possibilities of dialogue, highlighting the importance establishing comprehension consciously and profoundly. We will not always agree with what is written, and our cultural and linguistic background will not always reach what the author expresses. That is why we need to continue propelling the teaching and practice of critical reading, which has what it takes to remove the reader's blindfolds, create a mental model of reality, and access it through good thoughts and arguments. To teach reading involves fostering consistent reading habits, making it a daily practice and an imperative need in intellectual development since childhood.

As readers, we need to learn to read carefully and discerningly evaluate the content of what we read before accepting it. Such evaluation must consider the context, the source, the writer's purpose, and the possibility of checking the content based on valid and reliable sources. In the fake news era, deep reading becomes a remedy to break ties and avoid the traps that the fast and information-oriented world tries to impose on us.

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