

Chapter 16

Staying Up to Date with Fact and Reason

Checking: An Argumentative Analysis of Outdated News



Elena Musi and Andrea Rocci

Abstract This paper tackles outdated news about COVID-19 as a type of misinformation from an argumentative perspective, focusing on the fact-checker Snopes. In rapidly changing information environments the circulation of outdated news can be highly detrimental causing risky behaviors. Such type of misinformation is difficult to pin down through fact-checking since encompassing different types of contents, motivations and channels. To fully understand this phenomenon we deem necessary to move away from a naïve view of fact checking to an argumentative one. But what are the argumentative configurations of outdated statements in the context of the current information ecosystem? To answer this question we rely on the distinction between upstream and downstream argumentation to anchor the kind of issues put forward by outdated statements. We then take as a sample all the news that have been rated as “outdated” and “miscaptioned” by Snopes during the pandemic and analyse the type of source, the semantic type of news claim and the argumentative role played by the outdated information. We come up with an argumentative taxonomy of outdated news where the presence of multimodal information as well as the semantic-argumentative role played by outdated statements pattern with the spread of mis- and disinformation.

Keywords Misinformation · Outdated news · Fact-checking · Defeasible argumentation

16.1 Introduction

During the pandemic, the phenomenon of fake news has received more and more attention from the scholarly community at an interdisciplinary level, in the attempt

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of mitigating the proliferation of false and misleading information leading to misbehaviors. In such a misinformation ecosystem what counts as *fake news* has become an *issue*: without an operationalizable definition it is challenging to develop systems and approaches for their identification. The majority of frameworks have provided arguments to define “fake news” which point to the definition of “fake” as fabricated or, more generally, false information (Klein & Wueller, 2017). There is general agreement, though, that fakery in the context of news making constitutes a *continuum* rather than a discrete notion: as it happens within misinformation, certain news can become fake since the context is misleading or does not accurately portray the entirety of a state of affairs (e.g. Wardle, 2017). However, less attention has been devoted to the very notion of news which, as underlined by Tandoc et al (2018), has undergone substantial changes through the advent of digital media: on the one hand, the rise of citizen journalism has blurred the gatekeeping process; on the other, journalists need to shape their pieces to fit the affordances of different platform guaranteeing popularity, frequently measured through re-posting, re-sharing and so on and so forth. It is no doubt that the “sharing without caring” attitude on social media is a vehicle for fake news spread, but it is even more worrisome that it can trigger new misinformation on its own: if a news that happened to be “an accurate account of a real event” (Kershner, 2011) at t_1 has been overridden by new evidence at t_2 but gets shared as $t \geq 2$, it turns into a fake news. Such a situation is especially common in the highly dynamic epistemic environment of the pandemic post-truth world where an emphatically defeasible picture of “scientific truth” about the virus gets continuously updated. This happens both because *prima facie* facts supported by defeasible arguments are defeated as new evidence emerges (*change in the state of knowledge*) and because the underlying facts themselves change in time (*change in the state of the world*). For instance, *prima facie* real news about the side-effects of the vaccine can become fake if the results of a new scientific trial falsifies them (change in the state of knowledge between t_1 and t_2), or a generalization about the efficacy of a certain vaccine *against all known variants of the virus* can become factually false as a new mutation emerges (change in the state of the world between t_1 and t_2).

Paradoxically, the ease of access and fast-paced sharing of information offered by digital media slows down this double update process, creating an environment where “old” and “new” truths float as competitors in the digital mediasphere. This chaotic, ill-structured, update process boils down to different perspectives on what is *newsworthy*: while for traditional journalism timeliness—a news being recent and up to date—constitutes a core news value (Shoemaker & Reese, 2014), for other publics factors such as alignment with personal and previous beliefs, or repeated exposure (Boehm, 1994) might take precedence as factors affecting trust and shareability with effect of extending the life cycle of news. As a result, mere adherence to facts at the time t_1 of original publication cannot be taken per se as a benchmark to ascertain the validity of a news, and a temporal check becomes necessary.

The awareness of the proliferation of outdated news has brought social media companies such as Facebook¹ to implement alerts system warning users when an article is three months old. Such a top down approach is, for sure, beneficial, but far from solving the issue: what if the article is recent, but contains an outdated image, or draws upon an outdated source? To allow for a proper news screening it is first of all necessary to define systematic criteria to identify different configurations of outdated news.²

16.2 Related Work

16.2.1 Argumentation and Fake News

While the role played by argumentation in shaping the newsmaking process has been thoroughly investigated (e.g. Zampa, 2017), less attention has been devoted to the argumentative underpinnings of the misinformation ecosystem. Gelfert (2018: 108), through a discussion of the parameters used in the media literature to define *fake news*, arrived at the following definition: “Fake news is the deliberate presentation of (typically) false or misleading claims as news, where the claims are misleading by design”.

The phrase “by design” in Gelfert’s definition implies that the author of a fake news either intentionally fabricates non factual content or deliberately puts into place a process of news production and presentation designed to output false or misleading claims. While this allows to distinguish fake news from propaganda or satire, it does not account for the complexity brought about by digital media, especially when it comes to outdated content: any user can, for example, unintentionally become a fake news originator by reposting an article reporting about the results of a vaccine trial, without knowing that it has then been dismissed as non significant by the scientific community. Another user could instead share a mis captioned image since focusing on its iconographic fit rather than its timeliness. Such phenomena are corollaries of the digital media revolution during which skimming and scanning, or “hyper reading,” are the new forms of reading (Hayles, 2012). To encompass such cases, we adopt a broader definition of fake news leaving out the intentionality trait as *news that have the appearance of information without being so* that includes both disinformation—fabricated news distributed with the intention to mislead—and misinformation—news which happen to be misleading without the intention to be so (Carmi et al., 2020). One of our goals is that of understanding the argumentative role played by outdated information in news in relation with disinformation and misinformation.

¹<https://9to5mac.com/2020/06/26/facebook-will-now-alert-users-before-sharing-old-articles-on-the-social-network/>.

²Although the whole paper has been the result of a continuous process of interaction between the two authors, Elena Musi is the main responsible of Sects. 16.2 and 16.4, while Andrea Rocci of Sects. 16.3 and 16.5.

From an empirical perspective, a few studies have leveraged argumentative features with the overall goal of advancing fake news detection. Alhindi et al. (2020) have shown that argumentative components constitute relevant features to build classifiers able to automatically distinguish opinion articles from news stories and, thus, help fact checkers distinguishing facts from opinions. Focusing on semantic content rather than genre, Kotonya and Toni (2019) have built a system for stance detection that aggregates multiple stance labels from different text sources upon a claim to predict its veracity, assuming that (dis)agreement expressed by sources with high credibility is tied to claim trustworthiness. Finally, Sethi (2017) has built the prototype of a graph framework to verify the validity of proposed alternative facts, using an abstract argumentative framework to help shaping new features for automatic fake news detection.

16.2.2 *From Fact-Checking to Reason Checking*

It is well recognized that fact-checking initiatives are currently not enough to counter the infodemic: the pace of proliferation of information disseminated through the Internet is such that human gatekeeping is unfeasible, while automatic detection of fake news is not viable due to the complexity of the misinformation ecosystem. A central issue is that fact-checking is for the most not a matter of mere facts: a proposition can convey factual information and still trigger false, misleading, inferences. This can happen through wrenching from context, through selective omission of detail and by the more or less explicit evocation of argument schemes whose critical questions are, in fact, not met. This possibility of “lying by omission” is a direct consequence of the defeasible, non-monotonic nature of the inferences through which we make sense of the world (Pollock, 1987, 2010). In other words, the veracity of the single statements goes hand in hand with their argumentative role in forming a (un)trustworthy news. Acknowledging that fake news can be produced starting from true factual statements, Visser Lawrence and Reed (2020) advocate for supplementing fact-checking with reason checking, “evaluating whether the complete argumentative reasoning is acceptable, relevant and sufficient” and introduce a set of digital tools (e.g. *Evidence toolkit*) aimed at aiding the public developing critical thinking. In a similar vein, the UKRI funded project *Being Alone together: Developing Fake News Immunity* proposes to reverse-engineer the manipulation of information teaching citizens and communication gatekeepers how to critically assess news through Fallacy Theory. Drawing from the analysis of more than 1500 fact-checked news about COVID-19 and the vaccine, the scholars identify *10 fallacies* which recurrently trigger misinformation during the pandemic and can be used to inform fact-checkers’ ratings. They then developed a *Fake News Immunity chatbot* where citizens interactively learn how to reason check news though fallacies engaging in conversation with ancient philosophers. In such a framework, *outdated news* are generally flagged as instances of “red herring” fallacies since information not anymore valid at the moment of utterance constitutes an irrelevant argument for the news claim. However, building

epistemic vigilance towards this kind of defeasible argument is easier said than done: as explained by Britt et al. (2019: 96), due to the *continued influence effect*, “our memory system does not handle new discrepant information by simply replacing old information. That is, initially faulty or wrong information remains available and can continue to have an effect despite encoding new, correct information”, more so when the faulty information happened to be true in the past. Furthermore, psychological studies (e.g. Otero & Kintsch, 1992) have shown that it is highly challenging for readers to evaluate the relevant support of arguments making reference to events that are not only spread across time, but also expanded in text: doing so calls for a working memory of the claim while looking for the support which is cognitively taxing. In assessing the deceiving value of an outdated news, its argumentative configuration does play a crucial role.

16.3 Theoretical Framework: Upstream and Downstream Issues and Arguments

In this section we outline a basic conceptual framework to capture how news items interact with the argumentative structures that determine their significance in affecting the broader epistemic landscape of the interpreting public. *Prima facie* news are a subtype of factual statements. There are, however, some significant qualifications to this characterization. More precisely, a news story can be seen as a special kind of *assertive* (macro-)speech act, imposing some specific *preconditions*. Recency is one of them: news need to be assertions of recent states of affairs. An assertion such as:

- (1) The Romanised way of life subsisted in Britain well into the fifth century
Cannot be news by itself. For the simple fact it does not relate a recent state of affairs. On the other hand a statement like (2) can:
- (2) Exciting discovery of a fifth century mosaic in Chedworth proves that Romanised way of life subsisted in Britain well into the fifth century.

The complex statement in (2)—not so uncommon in journalistic prose—packs together a recent event of the discovery and its implications. In fact, the recent event can be interpreted as providing an argument in support of an ulterior standpoint expressed in the objective clause. We could reconstruct the argument as:

1. Romanised way of life subsisted in Britain well into the fifth century
 - 1.1 ³A Roman fifth century mosaic was discovered in Chedworth

A further propositional content condition on news concerns aspectuality: punctual or culminative events make good news, processes or activities without culmination as well as stative states of affairs make terrible news. This requires states and processes

³The notation X.1 designates an argument supporting the standpoint X.

to be anchored to a culminative event in order to make into the news. As it happens in example (3):

- (3) Young people drinking less is a real phenomenon, the latest report of the Office of National Statistics data shows.

As in the previous example, the anchoring event can be seen as functioning as an argument—an argument from authority—while the anchored one can be seen as a standpoint in an ongoing debate of some sort about alcohol consumption:

3. Young people drinking less is a real phenomenon

3.1 The latest report of the Office of National Statistics data shows.

Another constraint about news is that evaluative, prescriptive, or generally speaking, deontic statements cannot be news by themselves. A statement like:

- (4) We should continue with AstraZeneca.

Cannot be news and belongs to the opinion sections of the newspaper. As with the previous examples, we can find a form of anchoring that salvages it as viable news content. In this case, like in the previous one, the anchoring consists in embedding the opinion into an attribution frame. Again, attribution can have an argumentative value.

- (5) “We should continue with AstraZeneca”, says chief medical expert.

5. We should continue with AstraZeneca

5.1 Says chief medical expert

In the three examples discussed above we have two orders of phenomena overlapping: (a) a natively non-news assertion (non-recent, non-event, evaluative) that is made relatable in the news through anchoring to a factual statement denoting a recent punctual event, (b) a standpoint that is relevant to some sort of ongoing public discussion—be it history or public health—which is supported by an argument.

In this configuration, the factual statements of the *news appear to be arguments supporting further standpoints* relevant for some public discussion. We call this phenomenon the *downstream argumentativity* of the news. It is interesting to observe, however, that punctual factual statements in the news can be themselves standpoints at issue, supported and attacked by arguments. Consider the following piece of news:

- (6) a. The United States has cancelled the deployment of two warships to the Black Sea, Turkish diplomatic sources said on Wednesday, amid concerns over a Russian military build-up on Ukraine’s borders. (Reuters April 14, 2021)

In example (6.a) the event of the cancellation is supported by reference to a source, forming a very basic argumentation structure:

6. The United States has cancelled the deployment of two warships to the Black Sea

6.1 Turkish diplomatic sources said on Wednesday.

Interestingly, the very fact that this cancellation took place is questioned. Physically a non-event, the non-deployment of ships becomes news due to the complex social event of the cancellation, which presupposes evidence of pre-existing plans. These plans were, in fact, the subject of another news item a few days earlier:

- (6) b. The United States will send two warships to the Black Sea next week, Turkey said on Friday as Russia, which has boosted its military forces near Ukraine, accused NATO powers that do not have a coast line in the region of increasing naval activity. (Reuters April 9, 2021).

Yet, the existence of such plans is somewhat put into question by an American source on April 14:

- (6) c. U.S. officials said that Turkey may have misunderstood the initial notification and the deployment was never confirmed.

They said the United States frequently notifies Turkey for potential access to the Black Sea. But a request does not necessarily mean its ships will pass through, but rather ensures that if they choose to, they already have the required approval (Reuters April 9, 2021).

According to the source, the passage of ships was only “potential” and “never confirmed” we cannot therefore be considered a “cancellation”. The cancellation debate offers a simple example of what we call *upstream argumentativity* of the news. Here it is the news event itself that is at issue. There are at least two distinct ways in which the news events can be at issue.

Reference of the *stases* of Classical rhetorical theory can help us to differentiate between the kind of issues that are discussed in upstream arguments:

- **Conjectural stasis** (*An sit*): “Did it really happen?”. Upstream argumentation can be directed at supporting or attacking the very factuality of the news event. In this type of argument the issue revolves around the referential-deictic aspect of the news statement: the anchoring to places, times and individual actors. A conjectural stasis upstream attack to the previous example could have involved evidence that US ships *did* in fact pass into the Black Sea (so no cancellation took place), or evidence that the US did not notify any upcoming passage to Turkey (so there was nothing to be cancelled in the first place).

Typically in this case the discussion revolves on the evidential basis of the news event. Rarely the news are based on inferences from indirect evidence. In this case we talk of investigative journalism. More often news are based on a chain of direct witnessing and report. Both kinds of evidential source can be the object of criticism.

- **Definitional stasis** (*Quid sit*): “What did actually happen?”. Upstream argumentation can be also directed as supporting or attacking the definition, nature or “framing” (Entman, 1993) of what happened. In this type of upstream argument the issue revolves around the categorical component: the definition or description of what happened. The denial by US officials in example (6.c) amounts exactly to an attack on the framing of the news event: whatever happened with the US warships cannot be really defined as the cancellation of a planned deployment.
- **Quality stasis** (*Qualis sit*): “What was it really like?”. Closely related to the definitional stasis are the upstream issues that revolve on non-essential details, elaborations or features of the reported event. Discussing whether it is correct to say that the mosaic discovered in Chedworth is “intricate” or “vast” or that it is the “product of high craftsmanship” would belong to quality.

Definitional and quality issues in upstream argumentation are important. While not evaluative in themselves they impact on the news framing and thus make the

news statements more or less apt to provide arguments for an evaluative standpoint downstream.

In fact, argumentation upstream and downstream of the kernel news statement is closely connected, so that what might appear at first sight a “plain” factual statement turns out to be argumentatively constructed upstream and argumentatively oriented downstream.

If we go back to example (6.a) we can observe that a reconstruction involving both upstream and downstream arguments is quite natural:

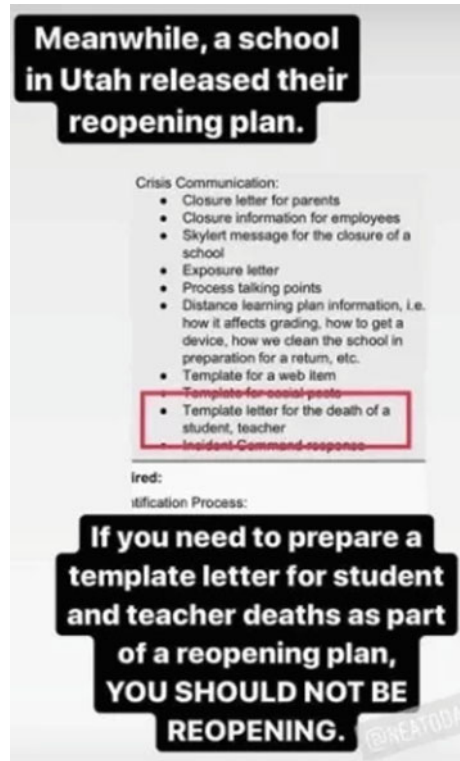
- 6. (The United States acted to avoid a military confrontation with Russia in the Black Sea)
- 6.1a The United States has cancelled the deployment of two warships to the Black Sea
- 6.1a.1 Turkish diplomatic sources said on Wednesday
- 6.1b amid concerns over a Russian military build-up on Ukraine’s borders.

In this reconstruction, the prepositional phrase introduced by ‘amid’—a preposition that is typically used in news texts to vaguely suggest causality in a non committal way—functions as an argument (6.1b) jointly with the kernel news event (6.1a) to provide compound support to an implicit downstream standpoint (6); while 6.1a.1 functions as upstream argument in support of the kernel news event. One advantage of this reconstruction is that it casts light on the argumentative functioning of the denial by US officials in (6.c). By reframing the cancelled deployment as a non-event, the officials tried to undermine the support to the downstream standpoint that the US acted out of concern for Russian reaction or, worse, as a consequence of Russian “warnings” or “threats”.

The notion of *standing standpoint*, introduced by Mohammed (2018) can be invoked to fully capture the largely implicit downstream argumentative value of news: standing standpoints are virtual implicit standpoints that can be presumptively attributed to an arguer on the basis of the following criteria: (a) the standpoint is relevant to an issue that has public presence, (b) certain statements of the arguer can provide support for the standpoint and (c) these statements have been “publicly associated” with the standpoint as arguments, (d) the arguer does not openly reject the standpoint. If these criteria are met the discourse of the arguer functions like an “enthymeme where the conclusion is unexpressed” (Mohammed, 2018)—the conclusion being the standing standpoint.

The argumentative analysis of (6.a) shows also how the framing of definition and quality issues upstreams can provide the basis to support a downstream standpoint. The framing of facts is important because licenses further inferences, often of explanatory, evaluative and practical nature (Entmann, 1993: 52).

Fig. 16.1 Meme shared on Facebook in early July 2020 (Source snopes.com)



16.3.1 *Applying the Framework to the Analysis of Outdated News: An Example*

Let us apply this basic framework to an example of outdated news about the Covid-19 crisis that was circulated through social media.

The fact-checking website snopes.com rates the sharing of the meme in Fig. 16.1 in early July 2020 by Facebook users as a case of *outdated* news dissemination. The meme alleges that the reopening plan of a Utah school⁴ district included a template letter in case of student and teacher deaths. The piece of news about the template letter was used in the meme as argumentative support for the downstream standpoint that “School should not be reopening”. The significance of this explicit downstream standpoint appears clearly if we consider that the meme was shared amid controversy sparked by U.S. President Donald Trump, who tweeted on July 6, 2020, that schools “must” open for fall term despite a surge of coronavirus cases in the U.S.

Snopes’ fact-checking article concentrates on the upstream support of the news-worthy event. The information in the meme turns out to be outdated both because

⁴Did a Utah School Reopening Plan Include Template Letter in Case a Student Dies? (<https://www.snopes.com/fact-check/utah-school-death-template-letter/>).

it ignores the subsequent developments of the events surrounding the reopening plan—the letter was included in an early version of the plan, but was then discarded (change in the state of the world between t_1 and t_2), and because the subsequent news coverage reported further explanations by superintendent of the School District in question, which argued that this kind of letters are not unusual in crisis planning (change in the state of knowledge between t_1 and t_2). The first new element affects the *conjectural* stasis (the alleged facts are not anymore the case), the second affects the *quality* stasis (the alleged facts have since been reframed differently). Clearly, the fact-checkers argument that the factual premise supporting the downstream article was faulty. However, it is much less clear whether substituting the updated facts in the meme’s argument would make any substantial difference in the epistemic force of the meme’s argument - which was already rather weak to begin with.⁵

16.3.2 *Applying the Framework to the Analysis of Miscaptioned News: An Example*

Our second example of application of the framework concerns Snopes’ fact-checking of a video of the demolition of a building in China which was shared through social media in March 2020 with a caption suggesting that a 5G tower is being torn down in China because people feared that 5G was causing the COVID-19 coronavirus disease.⁶ The downstream argumentative role of the video is clear: it is supposed to provide evidence to the conspiracy theory that COVID-19 was caused by 5G. While this downstream standpoint is not stated in the caption, it represents an extremely prominent standing standpoint circulating in social media discussions: the captioned video provides reinforcing evidence in support of this standpoint. In fact, the caption simply says: “Now the Chinese are destroying the 5G”. This statement is however meant to be taken jointly with a number of other premises prominent in the discussion, some of which true (yet irrelevant), some false. For instance, Snopes’ article mentions propositions (7.a) and (7.b), reproduced below.

- (7) a. China started to install 5G towers around the same time that the coronavirus started to spread in the country (true)
- (7) b. Japan is banning the development of 5G over health concerns (false).

The fact-checking argument of Snopes openly addresses both the upstream arguments supporting the news that the video purportedly conveys, and the downstream argument in which the story represents a purported piece of corroborative evidence.

Upstream, the fact-checking argument addresses the conjectural stasis (the footage was taken in August 2019 in Hong Kong, before the outbreak of COVID-19) and

⁵Rhetorically, the nuanced facts certainly would make it impossible to obtain the terseness (*brevitas*) and aphoristic poignancy required by the genre of the meme - but that’s another matter.

⁶Was a 5G Tower Torn Down in China To Stop COVID-19? (<https://www.snopes.com/fact-check/5g-tower-torn-down-china-covid/?collection-id=24041>).

the definitional stasis (“it shows anti-surveillance protesters tearing down a “smart” lamppost”). This is sufficient to make it completely irrelevant as support for the downstream claim. Nevertheless, Snopes’ fact-checkers chose to directly address also the inferential relevance of the broader abductive argument in support of the downstream claim, stressing, in particular, that the mere temporal concomitance of 5G deployment and Covid 19 does not imply causation between them, and stressing that “we already know a lot about the true origins of this strain of coronavirus”.

Temporal considerations often play a key role in mis captioned pictures and videos. There is, however, a clear difference with respect to the outdated example examined before. Here the news did not ignore subsequent changes of the situation nor subsequent development of the state of information about the world, but rather falsely anchored a punctual event in the line of time. In this specific sense many miscaptioned videos are outdated, or, better perhaps, *misdated*.

16.4 Case Study

In this section we extend the analytical approach illustrated by the two previous examples to a small corpus of fact checking arguments.

16.4.1 *Corpus and Levels of Analysis*

For our case study, we have focused on the fact checker *Snopes* since encompassing among its 14 ratings the specific categories called “outdated” and “miscaptioned” defined as follows:

- **OUTDATED:** “This rating applies to items for which subsequent events have rendered their original truth rating irrelevant”
- **MISCAPTIONED:** “This rating is used with photographs and videos that are “real” (i.e., not the product, partially or wholly, of digital manipulation) but are nonetheless misleading because they are accompanied by explanatory material that falsely describes their origin, context, and/or meaning.” (<https://www.snopes.com/fact-check-ratings/>)

We have crawled all the fact-checked news about COVID-19 from the beginning of January 2020 till 1st March 2020 and filtered them out for type of ratings. As a result, we have obtained a corpus of 19 fact-checked news coming from a variety of sources, ranging from social media to official traditional media. Table 16.1, below, presents the dataset providing shortened URLs for each item and headlines (when applicable).

We have analysed the news accounting for the following aspects:

- **Type of source:** what is the digital media type of venue (e.g. social media, blogs, official news media) hosting the fact checked news?

Table 16.1 Snopes dataset of outdated and miscaptioned news about COVID-19

#	Fact-checking article	Source Article	Rating
1	<i>Does Video Show Guns, Violence in Aftermath of Coronavirus Outbreak in China?</i> https://tinyurl.com/snpfactcheck1	Twitter https://tinyurl.com/snpsource1	Miscaptioned
2	<i>Did Kenya Have Maasai Tribe Whip People To Enforce Curfew?</i> https://tinyurl.com/snpfactcheck2	<i>Since people were not taking the police seriously the Kenyan government started using the Maasai tribe for the curfew.: PublicFreakout (Reddit)</i> https://tinyurl.com/snpsource2	Miscaptioned
3	<i>Did Trump Say 'I Don't Care How Sick You Are ... Get Out and Vote'?</i> https://tinyurl.com/snpfactcheck3	Twitter https://tinyurl.com/snpsource3	Miscaptioned
4	<i>Was a 5G Tower Torn Down in China To Stop COVID-19?</i> https://tinyurl.com/snpfactcheck4	Instagram https://tinyurl.com/snpsource4	Miscaptioned
5	<i>Did an Orangutan Start Hand-Washing During COVID-19 Pandemic?</i> https://tinyurl.com/snpfactcheck5	Twitter https://tinyurl.com/snpsource5	Miscaptioned
6	<i>Are These Vegan Foods Left Unsold During the COVID-19 Pandemic?</i> https://tinyurl.com/snpfactcheck6	Twitter https://tinyurl.com/snpsource6	Miscaptioned
7	<i>Does This Photograph Show Women Wearing 'Flu Masks'?</i> https://tinyurl.com/snpfactcheck7	<i>Ladies' fashion from 1913 Stock Photo (Alamy.com)</i> https://tinyurl.com/snpsource7	Miscaptioned
8	<i>Was a Swastika Flag Displayed at Operation Gridlock Protest?</i> https://tinyurl.com/snpfactcheck8	Twitter https://tinyurl.com/snpsource8	Miscaptioned
9	<i>Was 'Proud Boy' Rob Cantrell Seen Screaming at Cop at Anti-Lockdown Protest?</i> https://tinyurl.com/snpfactcheck9	<i>Protesters Swarm Michigan Capitol Amid Showdown Over Governor's Emergency Powers</i> https://tinyurl.com/snpsource9	Miscaptioned
10	<i>Do These Photos Show Staph Infections Caused by Face Masks?</i> https://tinyurl.com/snpfactcheck10	<i>Chickenpox Varicella High-Res Stock Photo (Getty Images)</i> https://tinyurl.com/snpsource10	Miscaptioned
11	<i>Does an Old Photo Show COVID Vax Creator as an Immigrant in Germany?</i> https://tinyurl.com/snpfactcheck11	<i>2nd virus vaccine shows overwhelming success in U.S. tests</i> https://tinyurl.com/snpsource11	Miscaptioned
12	<i>Does a Photograph Show Michigan Gov. Whitmer Without a Mask?</i> https://tinyurl.com/snpfactcheck12	<i>CDC Now Recommends Americans Voluntarily Wear Cloth Masks In Public: Coronavirus Updates</i> https://tinyurl.com/snpsource12	Miscaptioned

(continued)

Table 16.1 (continued)

#	Fact-checking article	Source Article	Rating
13	<i>Did Democrats Fail To Wear Masks at John Lewis' Funeral?</i> https://tinyurl.com/snpfactcheck13	Clinton attends Jackson funeral https://tinyurl.com/snpsource13	Miscaptioned
14	<i>Does a 1994 Denver Airport Mural Show a Masked Global Population?</i> https://tinyurl.com/snpfactcheck14	Facebook https://tinyurl.com/snpsource14	Miscaptioned
15	<i>Is Trump Blocking COVID-19 Aid in Favor of Tax Cuts That Would Drain Social Security?</i> https://tinyurl.com/snpfactcheck15	<i>Trump: No COVID Aid Unless Congress Defunds Social Security</i> https://tinyurl.com/snpsource15	Outdated
16	<i>Was a Fatal Motorcycle Crash Listed Among COVID-19 Deaths in Florida?</i> https://tinyurl.com/snpfactcheck16	<i>Coronavirus: Florida records highest one-day COVID-19 death toll</i> https://tinyurl.com/snpsource16	Outdated
17	<i>Did a Utah School Reopening Plan Include Template Letter in Case a Student Dies?</i> https://tinyurl.com/snpfactcheck17	Facebook https://tinyurl.com/snpsource17	Outdated
18	<i>Did an Oregon County Say Only White People Must Wear COVID-19 Masks?</i> https://tinyurl.com/snpfactcheck18	<i>Oregon county issues face mask order exempting non-white people</i> https://tinyurl.com/snpsource18	Outdated
19	<i>Did Anthony Fauci Say People No Longer Need to Wear Masks?</i> https://tinyurl.com/snpfactcheck19	<i>March 2020: Dr. Anthony Fauci talks with Dr Jon LaPook about Covid-19</i> https://tinyurl.com/snpsource19	Outdated

- **Semantic type of news-claim:** does the news claim express a description of the state of affairs presented as factual, an interpretation or an evaluation?
- **Argumentative** role played by the outdated information: does the outdated information constitute an argument or a standpoint?

In selecting what claims to fact-check, *Snopes*, as most fact-checkers, prioritizes what is popular on search engines and social media sites to address potential fake news which are bound to spread fast. As a result, our dataset is not representative of the information ecosystem per se, but of the type of news that become targets of fact-checkers.

It has to be noted that the reported fact-checked claim (e.g. “Photographs depict persons who developed staph infections from wearing masks to prevent the spread of COVID-19”) does not always coincide with the claim of the fact-checked source(s) (e.g. “Also serious lung infections and loss of consciousness due to restricted airflow from wearing masks”). To allow for the argumentative configuration to be analysed, we have, thus, retrieved the claim as appearing in the original source.

16.4.2 Results: A Taxonomy of Outdated News

According to our sample, outdated news do not leave any room for uncertainty in the way they are presented: their claims, even when interpretative and evaluative, do not contain modal verbs of the epistemic type. In argumentative terms, their defeasibility is, thus, not recognized. As to the source, outdated news (16 out of 19) tend to be hosted on social media. While our dataset is too small to draw any conclusion, the lack of a gatekeeping process makes social media an easier venue for the spread of outdated news: editorial guidelines of major news media outlet (e.g. <https://www.bbc.co.uk/editorialguidelines/guidelines/>) point to authors' accountability for checking the reliability of their sources, while what is worth sharing in a social media environment depends on values and common ground knowledge of the users' community. If I am, for example, part of a normative type of vegan community, I might be less inclined to check whether a photograph that shows store shelves stripped of all food-stuffs except for vegan products going viral online has actually been shot during the COVID-19 pandemic. The tweet⁷ that points to the picture expresses a claim ("Not even the threat of starvation from a panic buying food shortage can move vegan food off the shelves...") that aligns with my beliefs. In such a *confirmation bias* context, the role of the image is purely *illustrative* rather than serving the function of testimonial evidence as in official news. Therefore, the fact that the same picture was already posted just after *Hurricane Harvey* made landfall in Texas and Louisiana in September 2017 would probably not make it an instance of fake news for the user: the picture effectively portrays the general attitude that people have in crisis scenarios leading to stockpiling, regardless its temporal coordinates. In other words, the picture, despite forming outdated news, for social media users primarily serves the function of strengthening the argumentative force of the claim through its definitional stasis since it offers a convincing framing.

Furthermore, the affordances created by different social media allow for the same picture to invite argumentative inferences which can undermine epistemic vigilance: if I see a picture posted on Instagram, where no caption is required, I assume that it makes reference to the *hic et nunc* rather than 4 years ago since the communicative goal of the social media channel is that of sharing everyday life experiences rather than discussing past events; on Twitter, the presence of a written text commenting on the picture, even if limited, would disambiguate such a conversational implicature. The less structured configuration of social media as news venues compared to official ones is particularly relevant for the phenomenon of outdated news in the presence of multimodal content, primarily for semiotic reasons. As underlined by post-digital semiotics, digital photographs/videos convey a digital sign that can be conceived "as a relational, tripartite entity of the sign's embodied digital form (a version of Peirce's representamen), what the sign form refers to (its object) and its interpretation (interpretant)" (Lacković, 2020: 445). The photographs/videos are indexical, since they signal the existence of the object/event they show; at the same time they are iconic, since they signify according to the similarity between the event they portray and

⁷<https://tinyurl.com/4v428bnr>.

its embodied representational form. Due to their indexicality, digital photos/videos potentially bear a strong argumentative force as upstream arguments, pointing to the factuality of the object they represent. However, they happen to be used in social media as embodiments of more abstract concepts, offering downstream support. A video showing a crowd with wounded people, armed police and shooting evokes the concept of “violent repression” and can be used to illustrate manifestations of that concept: the video factchecked⁸ could have per se been interpreted as a symbol of social repressions across contexts other than the pandemic. Reposting and resharing of such video through social media renders it what Barthes (2009) calls a “myth”: in such a situation a miscaption or a tweet (“Meanwhile over 25,000 killed they have started shooting down all the people with the virus in China... this is so sad 😞😞😞”) offering fake contextual infos about the video can falsely anchor its embodied iconic content, triggering false interpretations and creating a fake news.

In other words, the fake news is not originated by the use of the images themselves, but by the miscaptions which assert a false, “outdated” link between the *representamen* (digital form) and its *object*.

Through the analysis of our sample of mis captioned news, two main types of “outdated” links emerge:

- *outdated digital form* → *outdated object*: the picture/video was taken in a time different from what asserted/suggested in the caption/social media post: e.g. a photo showing the two women wearing masks captioned “Photo taken in 1919 during the Spanish flu pandemic”, while the photo was not taken during the flu pandemic, but already available via *Alamy* and presented with the title “Ladies’ fashion from 1913”.⁹ As a result, a faulty interpretation of the *object* is triggered both in terms of *conjectural stasis* (the object represented), since the indexed event happened before 1918 and of *quality stasis*, since main reasons for wearing masks in 1913 had to do with fashion rather than an epidemic.
- *outdated object* → *outdated digital form*: The picture/video does not represent what is described/suggested in the caption since (i) some iconographic elements are misrepresented (*definitional stasis*), e.g. a widely shared photograph showing an immigrant family, where the boy in the yellow shirt is wrongly identified by the caption (“This is an immigrant family, newly arrived in Germany. The boy in the yellow shirt will go on to invent the COVID vaccine”) with Ugur Sahin, CEO of BioNTech¹⁰ (ii) the entire iconography is misrepresented (*conjectural stasis*), e.g. a video shared on Reddit showing a man whipping people in Kenya, captioned “Since people were not taking the police seriously the Kenyan government started using the Maasai tribe for the curfew”,¹¹ while the video, despite being shot in Kenya, does not show a member of the Masai tribe employed by the government and it comes from a Kenyan comedian who created it for entertainment purposes. In both cases, the miscaption entails an outdated interpretation of the *digital form* in terms of when and where the digital artefact has been taken.

When the main claim is of the descriptive type, it constitutes in our sample of mis captioned news the caption of the image. In these cases, the outdated news constitutes

⁸<https://tinyurl.com/snifactcheck1>.

⁹<https://tinyurl.com/snifactcheck7>.

¹⁰<https://archive.is/1bDjw>.

¹¹<https://tinyurl.com/yh67k2vh>.

an instance of disinformation since it expresses information related to the embodied iconic content by the photo/video which is non factual and thus propositionally false.

When the main claim is instead of the evaluative or interpretative type, the *outdated link object-representamen* features as an argument supporting a downstream claim. The claim expressed by the Tweet “#covid19#coronavirus#coronavirusupdate unbelievable president: “Trump to the terminally ill: vote for me before you die”,¹² for instance, expresses a negative sentiment towards Trump, presenting as argument a statement pronounced by the former president taken from a genuine video. However, the video is outdated since it was not shot during the COVID-19 pandemic, but during a campaign rally in Nevada on Nov. 6, 2016. As a result, the statement does not constitute a relevant argument to assess Trump’s behavior during the 2020 campaign. In a similar vein, memes that went viral in November 2020 with captions such as “Problem I had in being told I must wear one! Picture taken directly after the Governor’s conference room full of people. No masks. No distancing”¹³ constitute an instance of red-herring fallacy: the picture of Democrat Michigan Gov. Gretchen Whitmer not wearing a face mask to protect against the virus was taken in late February 2020, before Michigan had its first confirmed case of COVID-19 and before masks were recommended by public health officials by the *Centers for Disease Control and Prevention* (April 2020). In both cases, the social media news vehiculates misinformation rather than disinformation: the posts do not contain fabricated infos, but make use of multimodal content in a misleading way. The photo/video are not accompanied by captions that wrongly ascribe spatio-temporal coordinates to the *objects* indexically referred to, but that are presented as relevant arguments, making the public infer their (faulty) timeliness. In such a scenario, the outdated images are used as upstream arguments to increase political polarization.

Turning to the news in our sample directly rated as ‘outdated’, we attest the same correspondence between claims of the description type, downstream argumentation and disinformation. The headline “Oregon County Issues Mask Order that Exempts ‘People of Color’”, for instance, published by Breitbart on the 25th June 2020,¹⁴ informs the public about a rule established by Lincoln County officials upon its resident presenting it as a matter of fact. However, even if it is accurate to say that such a directive was put into place on the 17th of June, the policy was changed on the 24th of June to remove the controversial exemption, originally put into place to defend people of color from racial profiling and harrassment when wearing masks. We have, thus, a change in the state of the (institutional) world. As a result, when published by the right wing news outlet, the news does not any more portray states of affairs that are factual at publication time, giving rise to misinformation.

In 2 out of 4 fact-checked news, the main claim is of the interpretation type, such as in the meme stating “If you need to prepare a template letter for students and

¹²<https://tinyurl.com/hx37vath>.

¹³<https://tinyurl.com/snpfactcheck12>.

¹⁴<https://tinyurl.com/snpfactcheck18>.

teacher deaths as part of a reopening plan, you should not be reopening”.¹⁵ While in these cases the outdated situation (e.g. the draft of a template letter that has then been modified) constitutes an argument rather than a standpoint, what is common across news with this rating is that a piece of information is *outdated* since the record concerning the present state of the world or the present state of information about the world should have been *updated*. In the first subcase (failure to account for changes in the world) an event that happened in the past is reported in an accurate manner but its termination or subsequent changes are completely neglected. In the second sub-case (failure to account for changes in the state of information about the world) an event or situation is depicted in a way consistent with a previous state of public knowledge—i.e. in a way that would have been deemed fair (*prima facie* truthful) at a certain point in the past when we knew *less* about the world—but failing to acknowledge recent updates or revisions of the state of public knowledge on the world. Both sub-configurations have the potential to produce a misleading argumentative configuration downstream. Let’s, for instance, consider the tweet in (8), which relates to case 19 in our corpus. The example revolves around change in the state of public information in the world and consequent change in the institutional world, which both remain unacknowledged.

- (8) Reminder: (1.) Fauci said not to wear masks (2.) Sur geon General said not to wear masks (3.) Surgeon General said to wear masks because asymptomatic people spread virus (4.) WHO now says its “very rare” for asymptomatic people to spread the virus. Yet the mask mandate remains.

CONTROL

(<https://tinyurl.com/tweetexample8>)

This Tweet gives voice to the conspiracy theory suggesting that masks are imposed by governments as a means of control over the population rather than a means to avoid the spread of the virus. This downstream claim is supported in the tweet making reference to authoritative sources in the field of epidemiology which did not recommend wearing masks, ruling, thus, out the efficacy of masks to counter the pandemic. Zooming on the first argument (“Fauci said not to wear masks”), the statement does not convey false information: in a “60 min” interview from early March 2020 (cf. the source of case 19), Dr. Anthony Fauci actually said there was no reason people in the U.S. needed to wear a mask. However, in light of new scientific evidence showing that people *without* coronavirus symptoms could still transmit the virus through close interactions with others (change in the state of public information), the CDC and Fauci updated as of April 2020 their recommendations (change in institutional realities). By cherry picking an outdated statement by the NIAID director instead of making reference to his current *prise de position*, the tweets misrepresents Dr Fauci’s stance leading to a fallacy of false authority. Even in its original statement, in fact, Dr Fauci stresses on the provisional nature of his statement (“**Right now** in the United States people should not be walking around

¹⁵<https://www.snopes.com/tachyon/2020/07/meme-2.jpg>.

with masks ...), revealing the inherent defeasibility of recommendations in a crisis scenario.

16.5 Conclusions

In this study we tackle the phenomenon of *outdated news* as instances of fake news, adopting an argumentative perspective. While timeliness constitutes with no doubt a news value since far before the COVID-19 outbreak, its meaning has undergone substantial changes during the pandemic due to constant variations in states of affairs related to the virus and consequent institutional measures which are hard to keep up with across digital media. In such a scenario, *outdated news* can trigger not only disinformation (blatantly false information), but also misinformation which cannot be easily pinpointed through human, let alone automatic fact-checking. While reason-checking as a means to keep up with the current misinformation ecosystem has been advocated for in the argumentation mining community, the argumentative underpinnings of *outdated news* have not undergone systematic analysis (Sect. 16.2). In this paper we propose a conceptual and analytic framework to make sense of the role played by outdated information in giving rise to defeasible arguments and thus misleading news. We do so by distinguishing upstream and downstream argumentative configurations (Sect. 16.3) and accounting for types of digital media hosting a news, type of semantic claim of the main standpoint as well as argumentative role of the outdated information (premise/standpoint) (Sect. 16.4). We then observe how these analytic levels interweave and offer insights as to the argumentative configuration of outdated news through the analysis of the COVID-19 news flagged for timeliness by the fact checker *Snopes*.

From the corpus analysis, an argumentative taxonomy of outdated news emerges. An overarching distinction lies in the multimodal nature of the outdated information, which can be expressed by an image/video as well as a written statement. In the first case, it is the miscaption that causes fakery by ascribing to the image faulty conjectural, definitional or quality stases. Due to the peculiar triadic relation *object-representamen-interpretant* imposed by the digital medium, an *outdated representamen* (e.g. the picture was not taken in year x) implies an *outdated object* (e.g. the picture does not represent y) and vice versa. Furthermore, the argumentative role played by photos/videos for the interpretants is affected by the affordances of social media that are privileged hosts for this type of outdated news: for social media users the indexical function of images as providing reliable and factual upstream arguments is less relevant than their symbolic role of effectively illustrating a concept/opinion beyond the *hic et nunc* and in consonance with their communities' downstream claims. When no multimodal info is at stake, a piece of information is outdated since reporting on state of affairs or on a set of information sources which have then changed and are no longer valid at the moment of utterance. In both scenarios, we could say that the news is outdated since it has not been updated, while in the case of multimodal content the news is outdated since alternative scenarios not relevant

to the moment of utterance are established. Regardless the nature of the content, when the outdated information constitutes the main standpoint of the news and it is expressed by a descriptive statement, it conveys disinformation; when, instead, an interpretation or an evaluation are offered downstream or upstream support by an outdated information, misinformation happens to be in place. We believe that our argumentative account of outdated news has the potential to offer fact-checkers and the argumentative community with new means for epistemic vigilance.

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References

- Alhindi, T., Muresan, S., & Preoțiuc-Pietro, D. (Dec 2020). fact vs. opinion: The role of argumentation features in news classification. In *Proceedings of the 28th international conference on computational linguistics* (pp. 6139–6149).
- Barthes, R. (2009/1972). *Mythologies*. Trans. Annette Lavers. Vintage Books.
- Boehm, L. E. (1994). The validity effect: A search for mediating variables. *Personality and Social Psychology Bulletin*, 20(3), 285–293.
- Britt, M. A., Rouet, J. F., Blaum, D., & Millis, K. (2019). A reasoned approach to dealing with fake news. *Policy Insights from the Behavioral and Brain Sciences*, 6(1), 94–101.
- Entman, R. M. (1993). Framing: Toward clarification of a fractured paradigm. *Journal of Communication*, 43(4), 51–58.
- Gelfert, A. (2018). Fake news: A definition. *Informal Logic*, 38(1), 84–117.
- Kershner, J. W. (2011). *Elements of news writing*. Pearson Higher Ed.
- Klein, D., & Wueller, J. (2017). Fake news: A legal perspective. *Journal of Internet Law* (Apr. 2017).
- Kotonya, N., & Toni, F. (Aug 2019). Gradual argumentation evaluation for stance aggregation in automated fake news detection. In *Proceedings of the 6th workshop on argument mining* (pp. 156–166).
- Hayles, N. K. (2012). *How we think: Digital media and contemporary technogenesis*. University of Chicago Press.
- Lacković, N. (2020). Thinking with digital images in the post-truth era: A method in critical media literacy. *Postdigital Science and Education*, 1–21.
- Mohammed, D. (2018). Standing standpoints and argumentative associates: What is at stake in a public political argument? *Argumentation*, (0123456789). <https://doi.org/10.1007/s10503-018-9473-y>
- Otero, J., & Kintsch, W. (1992). Failures to detect contradictions in a text: What readers believe versus what they read. *Psychological Science*, 3(4), 229–236.
- Pollock, J. L. (1987). Defeasible reasoning. *Cognitive Science*, 11(4), 481–518.
- Pollock, J. L. (2010). Defeasible reasoning and degrees of justification. *Argument and Computation*, 1(912931730), 7–22. <https://doi.org/10.1080/19462161003728921>
- Sethi, R. J. (June 2017). Spotting fake news: A social argumentation framework for scrutinizing alternative facts. In *2017 IEEE International Conference on Web Services (ICWS)* (pp. 866–869). IEEE.
- Shoemaker, P. J., & Reese, S. D. (2014). *Mediating the message in the 21st century*. Routledge.
- Tandoc, E. C., Jr., Lim, Z. W., & Ling, R. (2018). Defining “fake news” a typology of scholarly definitions. *Digital Journalism*, 6(2), 137–153.

- Visser, J., Lawrence, J., & Reed, C. (2020). Reason-checking fake news. *Communications of the ACM*, 63(11), 38–40.
- Wardle, C. (2017). Fake news. It's complicated. *First Draft*, 16, 1–11.
- Zampa, M. (2017). *Argumentation in the newsroom* (Vol. 13). John Benjamins Publishing Company.

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