Frameless Folk Psychology

How Online Context Collapse and User-Centeredness Distort Social Cognition and Nudge Hostility and Epistemic Injustice

In this paper, I will argue that the rise in hostility and polarization on social media is explainable by taking into account a radical difference between online and face-to-face interaction. In everyday offline environments, socially shared and context-dependent norms frame the understanding of other people's minds based on their behavior. I will argue that, on social media platforms, social cognition is distorted thanks to two deliberate design choices that are a means for financial gain for the platform's designers: namely, the lack of socially shared norms on these platforms (entailed by what is known as context collapse) and their interfaces' extreme user-centeredness. I will argue that such design features not only cause frustration in the understanding of others but encourage testimonial injustice in interaction.

Author Information

Giacomo Figà Talamanca, Radboud University, Nijmegen
https://orcid.org/0000-0002-1623-6785

1. Introduction[1]

Toxicity, polarization, and hostility are *du jour* concepts in contemporary research on social networking sites (SNSs). Further, SNSs enable people to be exposed to and engage with a variety of information sources, as well as interacting with people holding beliefs and views different from their own (Beam et al. 2018; Flaxman, Goel, and Rao 2016). However, they are also linked to a variety of aggressive and toxic behaviors, such as flaming (Moor, Heuvelman, and Verleur 2010; Rost, Stahel, and Frey 2016), cyberbullying (Kowalski et al. 2014; Langos 2012), trolling (Bail et al. 2020; Phillips 2015), dehumanization (Pacilli et al. 2016; Harel, Jameson, and Maoz 2020), and incivility (Masullo Chen et al. 2019; Rains et al. 2017).

I propose an explanation of how polarized aggression arises on SNSs such as Facebook and Twitter, by underlining the role of socially shared, context-dependent norms that normally characterize social interaction and understanding in everyday, offline settings. I argue that hostility in these platforms arises due to a frustration caused by a lack of shared grounds for mutual understandability. Not only does such lack of grounds make hostility in online interaction more likely but it favors epistemic (and specifically testimonial) injustice. I argue that the tendency to hostility and epistemic injustice is caused by deliberate design choices that characterize these platforms, namely, their user-centeredness and what is known as context collapse.

In Section 2, I introduce the theory of social cognition called "the regulative view of folk psychology," which stresses the importance of socially shared and context-dependent norms for the everyday understanding of other people's minds. In Section 3, I describe how certain SNSs such as Facebook and Twitter are characterized by context collapse and argue that it causes, on these platforms, a lack of socially shared norms. In Section 4, I argue that context collapse and the extreme user-centeredness of these platforms are the main contributors to hostility in online interaction. Specifically, they hinder social cognition by depriving shared norms and values that can act as a normative frame for facilitating mutual understandability. In Section 5, I argue that, by the same design choices, these platforms play an active role when their users commit testimonial injustice toward other people online.

2. Regulative Folk Psychology: The Role of Norms in Social Cognition

Before introducing the regulative view of folk psychology, it is worth briefly sketching the meaning of the term folk psychology within contemporary philosophy of mind. The term was introduced by Sellars (1956) to propose the way "ordinary" folk (i.e., non-philosophers or psychologists) understand each other's minds while engaged in social interaction. Up until the early 2000s, the predominant theories of how people understand each other's minds were the *Theory Theory*, which views social cognition as reliant on people knowing what mental states are, how they relate

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[1] An earlier version of this manuscript, with a different title and which was part of the author's master's thesis, is available at Radboud University's Thesis Repository: https://theses.ubn.ru.nl/handle/123456789/10933.

to action and to each other (Nichols and Stich 2003); and *Simulation Theory*, which views mental state attribution as reliant on the capacity to model others' mental states in one's own mind (Gallese 2009; Goldman 2006). However, since the diffusion of phenomenology and 4E cognition approaches in philosophy of mind, many competitor theories of social cognition emerged, such as primary interaction theory (Gallagher 2001, 2004), folk psychology as a narrative practice (Hutto 2009), direct social perception (Zahavi 2001, 2011), participatory sense-making (De Jaegher and Di Paolo 2007; Torrance and Froese 2011), and pluralistic folk psychology (Andrews 2012, 2015).

I wish to point out that these approaches are competing: endorsing one of these approaches entails excluding the others. In contrast, the approach I am going to endorse here can be seen as complementary to all these approaches as it highlights an aspect of social cognition rather than aiming to capture the essence of social cognition. This approach, known as "mindshaping" (Mameli 2001; Zawidzki 2013) or "regulative folk psychology" (Castro 2020; McGeer 2015, 2021), focuses on the role played by context-dependent, socially shared norms in mental state attribution, and is compatible with other contemporary theories of social cognition (see, e.g., Peters 2019; Westra 2020).

McGeer (2015) illustrates the role of norms in social cognition by describing, as an intuition pump, playing chess as a paradigmatic case of social interaction. To be a competent chess player, correctly attributing mental states to the other player – i.e., understanding the other player's beliefs, intentions, and desires – is crucial. To acquire such competence, the player must first learn the rules of the game. Learning these rules also requires a degree of sensorimotor skills, to understand the movement patterns of each piece on the board. Relevantly, when you don't follow the rules of the game, the other player is entitled to correct you and compel you to act in accordance with the rules – and if you intend to be a chess player, you will also feel compelled to follow them. Not only is being able to understand the mental state of the other player essential to being a competent chess player; the capacity is *grounded* in the normative infrastructure of the game itself and our sensitivity to the rules that compose it.

Everyday social interaction and mental state attribution work likewise as in the game of chess.[2] When we attribute beliefs, intentions, and mental states to others, the context where the interaction takes place has a grounding role. Just as in the rules of chess, there are norms underlying the different contexts of social interaction that mediate the expectations and interpretations of others' behavior. In every social context where interaction takes place, there are norms and conventions of appropriate and inappropriate behavior: human beings are raised in situated social environments characterized by (spatially and temporally variable) norms, including evaluative standards, ideals, values, codes of conduct, and/or imperatives that are shared within that social context. In other words, the context has a normative influence not only on how people behave but also on the interpretation of people's

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[2] With the difference that the normative structure of everyday interaction is not as clear-cut and straightforward as a game of chess.

behavior. Context-dependent norms ground our expectations for other people's and our own behavior.[3]

The importance of contextual norms for mutual understanding is grounded, as Zawidzki (2013) notes, in the centrality of cooperation in our species. Being able to make commitments with one another to achieve a goal, and to jointly see that goal as making us accountable toward one another – i.e., to *establish a common ground* between people acting together – is central to carrying out that goal successfully. Such capacity to establish a common ground is central to a hyper-social species like ours.[4] For this reason, on the one hand the normative (or "binding," if you will) aspects of the context are inevitably varied due to the varieties of joint action human beings commonly partake in. On the other hand, it is because joint action is so central to human everyday life that we are characterized by such sensitivity to norms and to the feedback we receive from other people when we (do not) adhere to them. The relevance of norms in understanding other people's minds derives from the fact that our everyday agency is grounded in our social nature and in the importance of cooperation from an evolutionary standpoint.

For McGeer (2015, 2019), the grounding of social cognition and interaction in socially shared norms is highlighted by the intrinsic connection between understanding other people and the (moral) evaluation of their behavior and character. She makes use of the idea, introduced by P. F. Strawson, of *reactive attitudes*, the "non-detached attitudes and reactions of people directly involved in transactions with each other … of such things as gratitude, resentment, forgiveness, love, and hurt feelings" (Strawson 1962, 5). Strawson argues that these attitudes – reacting to others' behavior through appraisal, disapproval, resentment and so on – have the function to hold other people liable to certain normative standards regarding (morally) appropriate and inappropriate behavior. When we assume these attitudes, either we expect our target to understand and conform to normative standards or we are illustrating to our target what those standards are and, eventually, why they should conform to them. If folk psychology is a normative practice, and the kind of assessment present in reactive attitudes implies a normative evaluation of behavior, then reactive attitudes can be considered a way of structuring and directing the target's behavior to a correct standard. Conformity with context-dependent norms matters for successful and smooth social interaction to take place, and not only the felt need to correct inappropriate behavior but the sensitivity to these corrections is fundamental to

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[3] Importantly, embodied expressivity – including facial expressions, gaze, tone of voice – is also important in our sensitivity to social feedback and understandability (Gallagher 2001; Zahavi 2011). For the general goals of this paper, the importance of embodiment will not be considered: for while there is a relevant sense where embodied expressivity is strongly hindered online, it is not necessarily accurate to claim that human interaction online is *disembodied* (see Osler 2021 for a discussion).
[4] I am not claiming that the capacity to make commitments is the only relevant aspect of joint action; nor is this the place to explore in depth the debate regarding the ontology of joint action (Bratman 2014; Gilbert 2013) or whether other animals are capable of normative practices or making commitments (Figà Talamanca 2021; Vincent, Ring, and Andrews 2018). I just want to state that, in the case at hand of members of the species Homo Sapiens, the capacity to establish and feel compelled by a common ground is particularly important.

understand others' behavior and to make oneself not just understandable but ac-countable on the basis of such understandability.[5]

3. Online Context Collapse: From Merged Audiences to Lack of Shared Norms

Let us now turn to describe one of the most salient differences between face-to-face and online social interaction in the case of several SNSs. In a sense, such difference is characteristic of computer-mediated communication as such: as Kiesler et al. (1984) point out, because the message recipient is not tangibly present,[6] "communicators must imagine their audience, for at a terminal it almost seems as though the computer itself is the audience" (1125). In the specific case of many SNSs – most prominently Facebook and Twitter – this problem persists in a slightly different form. While on such SNSs there is arguably a clearer understanding that a user's communicative acts are received by other people, SNS users do not technically know who is going to see what they post. The content they share and post on such platforms can reach unexpected or unintended recipients. Typically, an SNS user will have online social ties with people who belong to different social groups in face-to-face interactions: for instance, your family members, your friends, your colleagues are likely to be parts of your own *online* social network, while you would interact with them in distinctly separate settings in face-to-face interaction. Even strangers, under certain circumstances, can interact with the content you generate:[7] users do not have full control over who is going to consume their content and how (Selinger and Hartzog 2016). A Twitter or Facebook user may not know who exactly is going to see and react to what they post, or how they will react, because the "audience" of their posts is undetermined, constituted by a merging of different social groups that in offline interaction would normally remain distinct. This dynamic, which is typical of many SNSs but can also occur in some specific face-to-face interactions – such as weddings and funerals – is known as *context collapse*: "the flattening out of multiple distinct audiences in one's social network, such that people from different contexts become part of a singular group of message recipients" (Vitak 2012, 451).

This is typical of many Web-based platforms to an extent, and is a feature that users of those technologies adapt to, deal with, or even make use of in a variety of ways. It is a particularly researched mechanism in SNSs, primarily in terms of its implications for users' privacy management (Marwick and boyd 2014; Vitak 2012) and

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[5] Importantly, the shared norms, values, and goals that ground our understandability and account-ability can vary greatly, ranging from procedural norms (such as the rules of chess) to common interests, shared goals, and moral norms and values existing in a given society.
[6] To think of computer-mediated communication as lacking *any* form of embodiment is not obvious (Osler 2021). In the context of SNS-based communication (in contrast to, e.g., a private chat or a videocall service) what matters is not the "disembodiment" of the other but their indeterminacy.
[7] For instance, when you comment under a Facebook page, people who also follow it (or are recommended that post by the algorithm on their newsfeed) but are not a social tie on your online network may read your comment.

news sharing and exposure (Beam et al. 2018; Kim and Ihm 2020).[8] However, with little exception (Fox and Moreland 2015), the impact of context collapse in online interaction has not been researched as much. I intend to propose, here, that context collapse is one of the most radical and disruptive differences between face-to-face and online interaction. Before I specify why that is, there are two important aspects of online context collapse to be pointed out: first, what makes context collapse in SNSs such as Facebook or Twitter specifically distinct from offline instances of context collapse; and second, why context collapse on SNSs is often a deliberate design choice.

To make the difference between online and offline context collapse clear, one can take a wedding party as an example of offline context collapse. Context collapse is the merging of normally separated social contexts. In a wedding, different people from different social contexts of your life can be present – your parents, your colleagues, your college friends, your conservative relatives. Each of them may have diverse expectations regarding how one should behave at a wedding and may tend to hold other participants accountable to their own standards: in fact, because of their diversity, these expectations may clash – and it may happen that, say, your conservative aunt reprimands your college friends for making inappropriate jokes. However, if such a scenario occurs, other people (including the newlyweds) are entitled to quash the fight in the name of having a nice wedding. In other words, while (some) expectations regarding appropriate behavior at a wedding may vary, there are norms that characterize (offline) social practices that are *not* contested, and that characterize the social practice *as such*. If a wedding party is the celebration of the union of two people, expectations about certain aspects of behavior in that context – such as how to dress, or what jokes to make – may not be defined, but others – such as a fight between guests – clearly contravene the core commitments of the participants to the wedding's course and overall purpose. These norms participants commit to also work to *ameliorate* the eventual setbacks of offline context collapse – of which the squabble between your friends and your aunt is an example. As argued before, the norms underlying the diverse social contexts of human interaction exist to enable and facilitate joint action: the norms entitling the newlyweds to reprimand people misbehaving at a wedding are an example of this function. In cases of offline context collapse such as a wedding, there still exist norms that mediate interaction and frame the understanding and moral assessment of other people. On SNSs, as environments characterized by online context collapse, there are no such norms: the merging of different audiences online, which in offline environments is mediated by norms that can facilitate interaction, is not characterized by any clear or shared values, norms, or standards among those involved. This is a key difference

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[8] Note that much of current research on context collapse focuses on SNS use in the Western world, which can limit the understanding of these platforms' social impact: for instance, Costa (2018) found that teenage Facebook users in Turkey create different profiles for each of their social contexts (family, friends, schoolmates, etc.) in order to avoid any awkwardness online that context collapse would generate. However, while creating multiple profiles can help in avoiding context collapse, such choice contravenes the platform's intended use and underlying ideology from the standpoint of its designers, who want each user to create a singular profile (see below).

between offline and online context collapse: while instances of the former are char-acterized by norms that mediate and frame interaction and mutual understanding for the purposes of joint action, instances of the latter are not.[9]

The second aspect of online context collapse to be underlined is its role as a de-liberate design choice for SNSs such as Facebook and Twitter. While not explicitly acknowledged as such, in the case of Facebook, the merging of different audiences within the indeterminacy of the platform can be tracked as an intentional choice in the notorious statement by Zuckerberg: "You have one identity ... The days of you having a different image for your work friends or co-workers and for the other people you know are probably coming to an end pretty quickly ... Having two iden-tities for yourself is an example of a lack of integrity" (Kirkpatrick 2010, 199). It is safe to assume that context collapse is not implemented simply due to Zuckerberg's philosophical beliefs on personal identity. Rather, context collapse can be seen as a means for the SNS's service providers to maximize collection of users' data, which is the designers' main source of revenue (Büchi et al. 2019; Hildebrandt 2008; Hilde-brandt and Gutwirth 2008). The SNSs enable their designers to collect data through user engagement and that data is then sold to third parties. It is, in other words, in the designers' interest that the collected data reflect as much as possible each user's profile, character, and preferences. Zuckerberg's statement on identity, reflected by context collapse as a design choice, can then be seen in a new light when keeping in mind that data collection is a means for service providers to achieve their financial gain. The interest in what he calls "integrity" really reflects the desire to gain as much information as possible about each user's character and preferences, which are not necessarily manifest in each offline context that person lives in – at least, not in all at the same time. Context collapse can be seen as a way to extract a user's character, preferences, and desires, by placing the user in an (online) environment where all of the people they interact with in their offline life are present and, in a sense, by attempting to paint a "complete" picture of that person by detaching them from the specific contexts of family, workplace, friendships, etc. Context collapse can be seen as a way for SNSs to maximize user data collection, by placing the platform's focus on individual users abstracted from their diverse social contexts. And while this (somewhat Cartesian) view, evident by these platforms' design, of the human self as existing separately from its embodied and embedded life can be considered inaccurate or problematic on its own, I intend to examine its implications for users' online interpersonal life.

4. Hostility as Frustrated Interaction and the Self-Centeredness of Social Media Platforms

We now get to the crux of my argument. Social cognition and interaction in every-day, face-to-face settings relies on socially shared norms and conventions that not

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[9] An alternative way to capture the difference is the following: while cases of offline context collapse exist to favor forms of joint action, the use of SNSs such as Facebook and Twitter is not a joint action: ironically, while we engage with other people on such sites, we are not acting *with* other people.

only drive people's behavior but frame the understanding of such behavior. On SNSs such as Facebook and Twitter there are no such norms: due to online context collapse, social interaction on SNSs can be characterized as decontextualized as there is no shared frame for the evaluability and understandability of people's behavior. In other words, the capacity to understand other people's minds is severely undermined thanks to the lack of a shared normative frame, which would normally ground mutual understanding – in many SNSs, social cognition is frameless.

The lack of a normative frame for understanding others does not in itself make it impossible to understand others' minds: rather, such lack leads to a severe disruption of such capacity. Such disruption of the frame for understanding others' behavior online is understandable once we look again at how SNSs are designed, and what kinds of action they make salient to their users. Building on the previous section, I will now argue that the grounds on which people interpret and evaluate others online are determined by their own normative standards, and that the platforms where the interactions occur are responsible for such a coordinate shift.

So how can people online, when deprived of a socially shared and (to some extent) non-contested normative frame for interaction, interpret other people's behavior? The very design of these SNSs' interfaces as choice architectures can provide an answer to this question. The designers' goal is data collection through user engagement: the more people engage with content on the SNS, the more data are gathered and can be monetized by the service providers.[10] Context collapse, as a design choice, can be considered a means for gathering a "full" picture of a user's profile, with the assumption that a complete portrait of a user's self is to be found abstracted from the diverse and situated social contexts in which that user lives. However, this function of context collapse is effective especially because the interfaces of SNSs such as Facebook and Twitter are entirely focused on users themselves. Besides the mechanism of notifications to draw users to the platform when they are not using it, and the way the algorithms of such SNSs provide certain kinds of content based on previous user engagement (Burr, Cristianini, and Ladyman 2018), the very way a Facebook or Twitter homepage is designed, in line with the designers' financial interest, is entirely centered on the user's own preferences and thoughts. From the recommendation to users of content and social ties (friends and other people to follow); to the chance for users to pick and personalize their online social network and favored information sources with great ease; to the continuous proposal of the most high-ranked content in users' feed and of content produced by or interacted with by the user's social ties; to the very simple invitation in the middle of the interface promoting users to express themselves, epitomized by Facebook's tagline "What are you thinking?" or Twitter's "What's happening?" – each and every aspect of these SNSs is entirely focused on the individual user's beliefs, thoughts, events surrounding them, expectations, and values. Users are prompted, or nudged, to see the (online world) through their own lens, their own beliefs, moral standards, norms, and values, as this facilitates their engagement with and the overall business model of these plat-

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[10] Due to the focus of this paper, I will not explore here issues concerning the gamified and often addictive (Eyal 2014) design of these technologies, which are in themselves important means for maximizing user engagement.

forms. However, this emphasis on the user comes at the cost of values that can be shared among the collective of people using the platform. And if shared norms are lacking, the grounds that enable mutual understandability and evaluability between people in everyday life significantly hinder successful interaction.

As Rini (2017) points out, as the norms of communication of SNSs are disputed and there is no common understanding of why people share and generate content, users of SNSs find themselves in an epistemically uncertain environment. For Rini, taking a partisan stance toward seemingly immoral content – and, specifically, sticking to one's own normative frame of reference, one's own values and standards for (in)appropriate behavior – can be considered rational. Exactly because there is no undisputed reference frame, SNSs users may choose to refer to their own – an action that is all but discouraged by the platforms' interface design. If anything, as Marin (2021) argues, setting aside a few explicit (and minimally enforced) norms in the Terms and Conditions of such platforms, the only (somewhat implicit) meta-norm that these SNSs implement to guide users' online life is a *norm of sociality*[11] promoting the expansion of people's online social network. It is true that, under this general norm, users can create many social practices, or "language games," with diverse goals and values. However, belonging to this group requires minimal conditions (such as following the same page, person, or information source at best, or being accepted by a group moderator after a request to join at worst). Due to context collapse as encountered by a user toward an imagined and somewhat all-encompassing community of users (in contrast to members of a specific niche, or followers of a specific page), the possibility of contact, attunement, or shared ground among the performers of such diverse language games is not encouraged by the SNSs at best and is incredibly uncertain at worst.

So here is the crux of social cognition on online platforms affected by context collapse: the understanding and evaluation (both moral and epistemic) of other people normally relies on socially shared values and norms, but due to online context collapse and the interface design, what frames the understanding of other people's minds is the individual's own beliefs, normative standards, and values, *which are not necessarily shared by other people online.*[12] Not only through a lack of shared conceptual resources (i.e., a lack of shared norms, standards, and values) but through being actively encouraged by the interface design and SNS algorithms, people tend to use their own standards, norms, and values when interpreting the behavior of

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[11] She specifically speaks of a "meta-norm" of sociality, referring to Horne (2001).

[12] In the case of platforms such as Facebook and Twitter, this can be particularly highlighted by Marin's (2021) notion of *general* social media platform. While what she calls *purposeful* social media platforms (such as dating apps, job sites, or Q&A sites) are joined by people with a clear and shared goal, and who (and whose generated content) can be flagged and excluded when openly contravening that goal and the shared standards necessary to achieve it, general social media platforms do not have a clear shared purpose or goal, as people can use them for a variety of different reasons and with different goals. The latter platforms include those that are characterized by context collapse, and their use is (almost) completely left up to individuals. On purposeful social media platforms, the presence of shared rules and goals entails a common ground that can enable people to act together and functionally interact with one another; on general social media platforms characterized by context collapse, users are not acting together – using a general social media platform does not constitute an instance of joint action, which requires shared norms, goals, and mutual understandability.

others, even when those norms do not correctly apply. The combination of context collapse and user-centeredness prompts people to rely on their own frame for orienting themselves in the understanding and (moral) evaluation of other people's behavior, even if the person whose behavior is interpreted follows a completely different normative frame for evaluating their own behavior and that of others. It is the lack of a shared normative frame that radically distorts social cognition on SNSs.

Ironically, while SNSs such as Facebook or Twitter seem focused on the social connections of individual users and on the transmission and sharing of content within a user's social network, these platforms are focused on the user alone. Information regarding individuals' connections and belonging to social groups is instrumental to maximizing engagement from individual users. For this purpose, these platforms subtly promote users seeing the world through the lens of *their own* values and expectations, a type of experience that is nudged both by the available choice of architecture of the platform (promoting users to share their own thoughts, notifications, and recommendations based on previous engagement) and by the absence of a shared social structure entailed by context collapse.

From an individual's view, the absence of a unified frame has the implication of (mis)representing behavior that follows different and unseen normative frames as morally and epistemically incompetent and will lead users to treat others as such. Our reactive attitudes toward those pieces of behavior, our attempts to expect and enforce conformity in others to a set of understandable and shared normative frame are not just unjustified and ineffective due to the absence of a shared frame. Likely, the other person will feel called out without justification, and consider your behavior immoral and unjustified; consequently, they will react to your behavior by assessing it as immoral and assessing you as the morally and epistemically incompetent agent. The application of each other's frames is derived from lack of a common ground, leading to interaction becoming dysfunctional and frustrated. Online hostility becomes common in the absence of a shared frame enabling mutual understandability and joint action. Not only, then, are social cognition and interaction frustrated due to the design choice of context collapse; SNSs such as Facebook and Twitter exploit our natural sensitivity to norms (both following and enforcing them) for financial gain, as frustrated cognition and reactive attitudes represent a source of engagement, regardless of the discomfort experienced due to the lack of a normally shared normative frame and regardless of the groundlessness of people's reactive attitudes.[13]

The empirical evidence available seems to confirm such a relation between unease, frustration, and outrage, on one hand, and sensitivity to (contested) normative expectations in SNSs, on the other.[14] The observed tendency to either mediate self-pres-

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[13] This idea, while seemingly derogatory, is not unrealistic. In September 2021, as part of a vast document leak from Meta, the *Wall Street Journal* (Hagey and Horwitz 2021) reported that Facebook posts with a higher number of "angry" reactions were promoted by the algorithms much more than posts with a higher amount of "likes" or "love" reactions.

[14] While the following overview of empirical studies retroactively motivates the elaboration of my argument, it might be relevant to think briefly of ways to verify it through empirical research. For instance, one might examine cases of conflictual online interaction by observing whether language related to norm enforcement is used, and whether such cases of conflictual interaction are more frequent when people from different online social networks interact.

entation in a collapsed context (Marwick and boyd 2011; Vitak et al. 2015; Wang and Mark 2017) or outright avoid context collapse through multiple profiles (Costa 2018) can be seen as a way to avoid any awkwardness or ambiguity in online interaction. While in the former case users negotiate their decontextualized self to interact without conflict, in the latter users avoid discomfort entirely by creating separate contexts for each profile they have. Fox and Moreland (2015) also observed that Facebook users had varying expectations regarding what kind of content is appropriate to share both on the SNS as such and with specific social ties, thinking that there are supposed to be "natural boundaries" for appropriate behavior while acknowledging that such standards can vary from person to person, as the platform does not establish or enforce any. Specifically: "[A]lthough participants report[ed] engaging in *rule development* for themselves, they often avoid the process of *boundary coordination* with others in the Facebook sphere. Instead, they choose to simply avoid offenders' pages or block them from their newsfeed" (171). Participants developed and followed their own norms for understandability and moral evaluation but did not agree with the totality of their online social network on the validity of such norms. Similarly, Rost, Stahel, and Frey (2016) replicated an SNS-like environment to observe whether user anonymity favored aggression and outrage when discussing controversial issues. Their findings suggest not only a lack of relation between anonymity and aggression; (moral) outrage appeared to be a form of norm enforcement by the participants, who felt entitled to punish standpoints they deemed inappropriate or wrong – an entitlement that goes together with users' identifiability. In this sense, their findings see outrage as a form of *sousveillance* and, while the result of frustration, not necessarily an irrational behavior. If anything, the apparent overstatement of one's own values and standards through outrage and aggression is a result of human sensitivity to normatively relevant issues coupled with a lack of *shared* values and standards.

To conclude, context collapse and the SNSs' interfaces, which exploit users' normative sensitivity to their values, beliefs, and standards for right and wrong behavior, are key contributors to frustration, polarized aggression, and outrage. This effect of SNSs' deliberate interface structure distorts our natural reliance on the context-dependent norms and values that ground our understanding and evaluation of other people – norms that are absent due to context collapse, which embodies one of the most radical shifts from face-to-face and social media-based interaction. Not just the moral evaluation of other people's actions (our reactive attitudes) but the mere understanding of what a piece of behavior or utterance means is decontextualized, and therefore groundless. The transformation of social cognition and interaction and the rise of aggression and incivility on SNSs like Facebook and Twitter is explainable because of frustration, a systematized tendency to misunderstand others' behavior due to a lack of a shared normative frame.

5. How Context Collapse Nudges Epistemic Injustice

So far, my argument possesses the potential to explain the rise in hostility in online interaction by understanding a key difference between social cognition in online

and offline environments. However, it is worth noting that this SNS-based dynamic enables a specific kind of injustice. I will now argue that, by the same logic by which SNSs such as Facebook and Twitter frustrate social cognition due to the lack of a shared frame, they also nudge epistemic, and specifically testimonial, injustice. In other words, the deliberate design choices of these platforms not only cause frustration in the understanding of others but can also be considered a key element in the mistreatment of others as competent knowers, speakers, and agents online.

Fricker (2007, 2016) defines testimonial injustice as a credibility deficit that a speaker suffers from due to the bias of the hearer; it occurs "when the level of credibility attributed to a speaker's word is reduced by prejudice operative in the hearer's judgement" (2016, 161). She proposes, as an example of testimonial injustice, the jury's bias toward Tom Robinson, an African American, in Harper Lee's novel *To Kill a Mockingbird*. The lack of trust experienced by the (all-white) jury of the trial toward the defendant is represented as a lack of credibility when it comes to the defendant's account of what happened and his feelings toward the victim of the crime he is being blamed for. This lack of credibility depends not on the credibility of the defendant's speech acts in themselves but on the jury's prejudice toward the defendant as an African American, which has nothing to do with the sincerity, veracity, or credibility of the speech act as such. Testimonial injustice occurs when, for reasons unrelated to the speech act in question, a speaker's credibility is downplayed or denied.

This is exactly the kind of position that SNSs like Facebook and Twitter, through the decontextualization of their users and their interactions, put people in – with one important exception. If typical cases of testimonial injustice occur due to a systematized belief or (dis)value (typically a bias toward a minoritarian group) shared within a community or social structure, in the case of testimonial injustice on SNSs, a systemic credibility deficit toward a speaker due to the hearer's prejudice occurs because of a lack of any shared belief, value, or standards among the community of social media users. Rather, the prejudice stands because, due to context collapse, and with the encouragement of the platform's interface design, the hearer needs to rely on their own beliefs, values, and (perceived) standards to judge others as competent or credible. If our mutual understandability, social evaluability, and capacity for interaction are, under ordinary circumstances, framed by socially shared values and norms, and if on SNSs like Facebook and Twitter, due to context collapse and their user-focused design, interaction is frustrated and groundless, then users' evaluations of others as competent agents, knowers, and speakers are systematically prejudiced.[15] Because understand-ability, accountability, *and* credibility standards are normally grounded in the shared practices of a community, and because many social media platforms do not provide any of such standards and actively encourage

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[15] In a typical case of testimonial injustice, the person committing the injustice is very often in a relation of power toward the victim – which is one of the reasons why it typically occurs, especially in its more systemic instances, toward marginalized groups. However, this criticism can be answered by underlining that SNSs, through extreme user focus, favor the impression of entitlement and empowerment in their users, which can come at the cost of acknowledging others' competence as speakers and knowers. Epistemic injustice online is particularly favored by the platforms' design, and thus it has a higher likelihood to occur, especially toward marginalized groups (Phillips and Milner 2021) due to the designers' deliberate design choices.

their users to interpret the world through their own values and standards as part of their business model, SNSs end up nudging testimonial injustice, for they systematically favor a credibility deficit through context collapse and by encouraging individual users to interpret others' speech acts and actions through their own values and standards rather than through shared ones. In a sense, this is the result of SNSs' focusing their designs on decontextualized individuals, rather than seeing users as members of a community.

As Gunn (2020) argues, responsible agency meant to promote productive (or, in our case, not frustrated) communication and mutual understanding needs to be sensible to the context that mediates our conception of one another as competent agents and communicators. In this sense, the normative (both epistemic and moral) standards for individual behavioral and belief formation regulation need to be grounded in a joint commitment of all agents involved in the interaction to mutually acknowledged ends. The existence of shared epistemic and moral norms and values is a key enabler of functional communication and understanding; and if contravening such grounding norms can lead to injustices in the treatment of others as (in)competent agents and knowers, their absence impedes the just and appropriate treatment of others because there are no clear and shared standards for assessing what any piece of behavior means, let alone its appropriateness, veracity, or sincerity. If a speaker's and knower's understandability, accountability, and credibility also importantly depend on practice-specific standards, and if those standards are not just missing but the individual user is nudged to assume their own (and possibly inappropriate ones), then the likelihood of unjust discrediting of others as competent knowers, speakers, and agents becomes not just high but systematic. And, most importantly, this is a direct result of context collapse and the extreme user-centeredness of these SNSs' interfaces, as deliberate design choices.

6. Concluding Thoughts

In this paper, I argued that the lack of a normative infrastructure capable of framing mental state attribution in some SNSs has significantly negative consequences for online interaction. When there are no norms for social interaction online due to context collapse, our competence as social agents is hindered; we have no normative frame through which to understand others' beliefs, intentions, and desires. The lack of such a frame, which is often a deliberate choice by SNS designers, not only can lead easily to frustrated interaction and hostility online but can also be seen as a way of nudging one's own thoughts and values over other people's, leading to a systematic credibility deficit toward people who share different or contrasting values – in other words, nudging a systematic epistemic injustice.

My argument highlights the distortion of social cognition in online environments, while explaining how such transformation can lead to frustration, aggression, and epistemic injustice online. While an in-depth exploration of possible strategies to aptly tackle the negative impact of online context collapse on social media-based interaction would require a lengthy discussion, it is already possible to sketch two

parallel and complementary pathways, i.e., creating appropriate media literacy policies and implementing design changes for social media interfaces. Both these pathways ought to tackle the lack of shared norms within these online spaces: the goal, roughly sketched, would be to establish some mutually shared norms, or a *pragmatics*, for social media users that would facilitate mutual understanding and transform the social landscape of these platforms from a set of individual users to a community of people with shared values. Given that the user-centeredness of these platforms is largely responsible for context collapse and, in turn, systematic epistemic injustice, a media literacy program focused on understanding the presence and reasons of other people online – see Phillips and Milner (2021), e.g. – would be helpful in mitigating the negative effect of context collapse. On the other hand, it might be possible to make some design implementations that would counterbalance the tendentially egocentric configuration of these platforms. An example would be the implementation of pop-up notifications that might prompt users to respond reflectively, rather than instinctively, to posts they may want to verbally sanction – a sort of "think twice" function that would help users keep in mind the diverse backgrounds of the people they may interact with, and hopefully mitigate the effects of context collapse. The overall goal, for both an adequate media literacy policy and a set of design interventions, is to favor the establishment of shared norms and values across all users, whose awareness and respect can constitute a frame through which to promote mutual understanding and interaction.

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