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ORIGINAL PAPER

Symbolic cryptoviolence in on-line social networks

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Abstract

On-line platforms, and on-line social networks in particular, have a great impact on the life and liberties of individuals, and on the society as a whole. In this paper, we will show that social networks exert a special kind of symbolic violence on their users. The notion of symbolic violence was introduced by Bourdieu and Passeron to denote the arbitrary imposition of norms as well as cultural and moral values by a dominant group (for instance, the school system and the teachers) on a dominated group (for instance, the pupils). If the school system can exercise this type of violence thanks to the authority vested in it by the political power, on-line social networks exercise it without any authority, thanks to their use of artificial intelligence to alienate and control their users, in combination with the natural mechanism of homophily. We characterize and describe as symbolic cryptoviolence this type of more hidden and subtle symbolic violence.

Keywords On-line social networks · Symbolic violence · Privacy · Control · Alienation

Introduction

Internet became a mass phenomenon in the 1990s. At that time, it was still usual to encounter a utopian vision after which cyberspace, a place made possible by the Internet outside physical space, was and would be free. In 1996, the libertarian essayist John Perry Barlow started his declaration of the independence of cyberspace (Barlow 1996) with the following words:

> *Governments of the Industrial World, you weary giants of flesh and steel, I come from Cyberspace, the new home of Mind. On behalf of the future, I ask you of the past to leave us alone. You are not welcome among us. You have no sovereignty where we gather.*

These words tapped into a certain libertarian current among Californian technologists, which in turn had roots in the hippie countercultural movements of the 1970 s in the San Francisco Bay Area (Turner 2010). Still in 2013, the former Google boss Eric Schmidt and the former US State Department employee Jared Cohen wrote that the "Internet is the greatest experience of anarchy in history" (Schmidt and Cohen 2014). For them, as for Barlow, it was good anarchy.

Indeed, cyberspace had the power to unleash radical changes that were utopian up to then: Internet societies, ordinary people, marginalized groups, strange technologies, and other players were able to materialize initiatives that were transnational, communitarian, unregulated, or liberal (understood as the prevalence of individual liberties). In the background of such a landscape, there was a strong criticism of institutions.

Alas, with time, cyberspace has become an environment dominated by a few big companies (Madrigal 2019). In addition, these companies have not been able to remain independent of national governments. The model of a worldwide interconnected society that needed no regulation has vanished altogether. In the end, the Internet servers are located in physical places, the Internet cables cross physical places, and the physical world is controlled by governments.

Admittedly, governments have not lacked reasons to prefer an internet controlled by corporations to an anarchistic internet. The nation states soon realized that their laws were being violated everyday in cyberspace. Barlow's alleged "home of Mind" was inhabited by a host of trolls and robots, virus and cyberattacks grew increasingly perilous, and guaranteeing public order in the virtual world became a more

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daunting task than guaranteeing order in the physical world. The administrations were overwhelmed. Therefore, concentrating the activity of netsurfers in a few big platforms has served not only the interests of the companies owning those platforms but also the interests of the public authorities, which have managed to achieve a certain control over the Internet through those companies.

With the appearance and the expansion of Google, Facebook and the other big internet companies in the first years of the XXIst century, platform capitalism became a reality.

Here we will focus on a specific type of platform, on-line social networks or social networks for short. Occasionally, we will use the term "social media" to denote a somewhat broader category, including social networks, blogs, instant messaging and, in general, on-line platforms that mediate social relationships. The adjective social is well justified because such platforms have a great impact in the shaping and the functioning of our societies. Social networks have at least three prominent features:

1. They derive income from users directly or indirectly, and from that point of view they are reminiscent of an industrial factory, which allows obtaining a surplus on the labor of workers.
2. They exercise surveillance and profiling on their users and their contacts in order to maximize the income they derive from them. This control is reminiscent of the surveillance in disciplinary institutions, even if it is much less apparent and hostile.
3. They are useful for propagating and imposing products, ideas, beauty canons, lifestyles, and moral values. From this point of view, they exert a type of symbolic violence (Bourdieu and Passeron 1970) that is much more powerful, effective, and subtle than that of the school system or even established religions.

Claim

Although it is true that social networks amplify the possibilities of symbolic violence (more audience, more depth, more breadth, less cost), we will seek to demonstrate in this article that the difference between Bourdieu and Passeron's symbolic violence and the symbolic violence exercised by social networks is not just quantitative.

Our claim is that there is a difference in quality that justifies minting a new concept. Specifically, social networks exercise their symbolic violence on the users by replacing the authority of the Bourdieusian school system —which the social networks do not have— by a combination of alienation and panoptical control made possible by artificial intelligence (AI), plus the natural mechanism of homophily. Furthermore, symbolic violence in social networks involves several actors not present in the school system and has a more distributed and hidden nature. We call this hidden symbolic violence without any authority *symbolic cryptoviolence*.

Structure of this article

In the remainder of this article, we use Toulmin's argument model (Toulmin 2003) to defend the above claim.

In Sect. Enablers of imposition of meanings in social networks we describe enablers of imposition of meanings in social networks, namely alienation and control as artificial enablers and homophily as a natural enabler. In Sect. Symbolic cryptoviolence in social networks: a new concept, we show that the symbolic violence of social networks substantially differs from Bourdieu and Passeron's symbolic violence: it involves different actors and relies on different enablers that do not include authority; thus, the use of a new concept, hidden symbolic violence or symbolic cryptoviolence, seems justified. In Sect. Foundations and related work we give background by comparing in some detail this new form of symbolic violence with the main Bourdieusian axioms of symbolic violence and giving some context of recent related work. In Sect. Can social networks be free of symbolic cryptoviolence? we discuss cases in which social networks may be free of symbolic cryptoviolence. Limitations and objections to our concept of symbolic cryptoviolence are discussed in Sect. Limitations and objections. Finally, conclusions and future research directions are collected in Sect. Conclusions and future research directions.

Enablers of imposition of meanings in social networks

In this section, we describe the enablers of the imposition of meanings in social networks. Alienation and control are artificial enablers, and hence they must be actively pursued by social networking platforms. In contrast, homophily is a human tendency that reinforces the imposition of meanings in a natural way.

Alienation in social networks

Etymologically, "alienation" means the process of becoming someone else different from oneself. Rousseau used this term (Rousseau [1762] 1992), although in a positive sense: The individual gives up their natural freedom for the sake of the conventional freedom needed to build the community. Hegel borrowed the term "alienation" from Rousseau, but he gave it a different meaning (Engels [1888] 2001): To accomplish his destiny, man creates objects (tools, artworks,

political institutions) that become stranger/alien to him, that can turn against him, and from which he must separate to undertake higher creations. In Feuerbach's case, alienation takes a religious meaning: man sublimates the qualities proper to the human species in God (Feuerbach 2016). Marx resumed the notion of alienation in a much more materialistic sense to describe the discomfort of man in the capitalistic era.

In the on-line world, Fisher, Wark, and Zuboff have adapted the concept of alienation. Fisher (2022) talks about the *privatization of stress* brought about by capitalism and, in particular, platform capitalism. What he calls "capitalist realism" treats poor mental health as a natural phenomenon, like the weather, while he claims that there is a cause-effect relationship between capitalism and mental diseases. In fact, current reality proves him right: On 31 January 2024, Mark Zuckerberg apologized before the US Senate to the families of teenagers who have been harmed by (his) social networks[1].

Wark (2021) says that industrial capitalism was not interested in the thoughts or feelings of workers: it wanted only their hands and muscles. In contrast, on-line capitalism has other ambitions. According to the author, industrial bourgeois have been replaced by what she calls "the vectorialist class", which possesses the "vector", that is, the platform or infrastructure through which the information is routed (social networks, mass media, telecommunication infrastructures). Workers have been replaced by what she calls "the hacker class", tasked with producing new information (contents, software). Consumers have been replaced with users/consumers/workers, meaning that it is not only possible to sell them products and services but it is also possible to make them work for free by generating new data to be leveraged by platforms. Like the farmer or the worker from past centuries, usually the hacker class ends up being dispossessed of the product of its efforts, whereby it suffers from alienation in the Marxian sense. Users/consumers/workers spend their life time in the social networks which try to retain them for as long as possible to collect their data and preferences, that are used to send them targeted advertising. Therefore, the user/consumer/worker suffers from alienation, too. In summary, social networks (and on-line platforms in general) are no longer interested in exploiting the bodies of their workers or users/consumers/workers, but their minds, their desires, their feelings.

Zuboff (2019) discusses the human behavior technology deployed by what she calls "surveillance capitalism", which includes social networks. These must be designed so as to induce a modification in the behavior of users, with the objective of maximizing their session time and the money or information (personal data, preferences) that can be extracted from them during that time. Hence, social networks alienate their users to the extent that they alter their behavior to promote addiction and dispossess them of their time and lives in the physical world.

The tools used by social networks to retain users are based on AI algorithms. On the one hand, classifiers are used on the interaction profiles of users to categorize them. On the other hand, recommender systems (Meserole 2022) are employed that propose to the user content and advertisements that fit their profile category. Users also receive "rewards" such as points or approval from other users, in a way to "gamify" their experience on the social network. The bottom line is that, if users receive content that fits their preferences, they will spend more time on the network, and if they receive advertisements related to what they like, they will buy more of the advertised products or services.

One effect of automating content selection is that the user gets increasingly locked in a bubble with other users similar to him/her, so that s/he loses the general perspective of society. This is an additional factor of alienation, social disarticulation, and polarization.

Control in social networks

Foucault (1975) dealt with the control of individuals in disciplinary institutions, which include not only prisons and mental health facilities, but also industrial factories. This philosopher focused on physical environments and recovered the concept of panoptical control, proposed by Bentham ([1791] 2017).

According to Mathiesen (2017), the mass media transformed the disciplinary society into a viewer society, in which many people could watch the lives of celebrities through their home television. Zuboff (2019), among other authors, has used the concept of surveillance capitalism to designate the control situation facilitated by the Internet and social networks: The users are no longer those who watch celebrities from their homes, but they are themselves being watched by the AI algorithms of the platforms. Indeed, the web giants (Meta, Tiktok, Microsoft, Google, and others) observe our interactions with their platforms to better classify us in order to retain us longer and advertise us what we want.

Note that in the on-line world alienation is a prerequisite to control. In order to be able to control their users, the platform must keep them on-line for as long as possible. Once users close their sessions and move back to their lives in the physical world, the platform loses sight of them and cannot gather information on what they do.

The accumulation of user data can be construed as a genuine accumulation of capital. Verwiebe and Hagemann

[1] https://abcnews.go.com/Politics/social-media-ceos-face-grilling-senators-child-safety/story?id=106825984

(2024) revisit Bourdieu's theory of capital (Bourdieu, [1986] 2011) as a tool to analyze how individual-level data constitute an independent form of digital capital. The authors analyze software engineering, prosumption (production-consumption of content), and creation of social media content. They conclude that individual-level data are unequally distributed in favor of the upper class and the new digital elite. These findings connect with what we just mentioned: the alienation and the control made possible by social networks allow the digital elite to accumulate huge amounts of individual-level data on the rest of society. The accumulated data can be used in many ways, from targeted and effective imposition of content (*e.g.*, advertising) to data brokerage, which increases the power and the wealth of the elite (mainly gathered around the big 5 tech companies).

Imposing meanings in social networks

What is the point of alienating people to control them? Is it a pure desire for power on the part of the platform owners? Despite the attraction of sheer power experienced by humans, platforms are owned by companies which seek more tangible benefits. As hinted above, control allows for the gathering of information on the tastes and preferences of users, which is essential to the success of targeted advertising, the main source of income for platforms. Advertising does not only refer to promoting products or services: it can also consist of promoting ideas. More generally, we can speak of imposing meanings. A meaning can of course be the belief that a certain product or service will make us happier, and hence we better buy it; however, it can be an opinion or an abstract belief (on art, politics, religion, philosophy, etc.).

An important concept related to the imposition of meanings is the notion of *symbolic violence* first introduced in *La reproduction* (Bourdieu and Passeron 1970). Bourdieu and Passeron focused on the school system and, more precisely, the French school system of the 1970s. Symbolic violence has to do with double arbitrariness: on the one side, an arbitrary imposition, and on the other side, an arbitrary content imposed by the system on pupils (see Fig. 1). The arbitrary contents can be the language to speak, the version of history to be taken for granted, the authors and artists that the dominant agents deem worth studying, etc.

Since the beginning of the XXIst century, social networks have become a new worldwide entrant in the symbolic domain, in competition with traditional players such as churches and states. It is legitimate to wonder whether social networks bring violence with them and whether all of that violence qualifies as symbolic.

The information flow that reaches us on a social network is not optimized by the content quality, but by its popularity and its proximity to its target (us). As a side effect, this introduces an algorithmic bias that increases fragmentation and polarization in the social debate (Sîrbu et al. 2019). As a result of polarization, verbal violence is indeed to be found in social networks. In fact, the permitted anonymity or pseudonymity bring debates on platforms to a verbal violence that transposes the physical violence of the Hobbesian nature state (Hobbes [1651] 2002). In many of these debates, *homo lupus homini*. From the very moment a user expresses an opinion, s/he is subject to attacks by a crowd of trolls. In any case, verbal violence has always existed and social networks have made it easier. If in the old days one had to go to the public square or the theater to boo a politician or an actor, now this can be done from home, without having to disclose one's face or even one's identity.

Verbal and even physical violence are also present in the school system, due to punishment for pupils and the interaction of pupils among themselves. But just as another, subtler form of violence —symbolic violence— is far more essential to the school, the same occurs for social networks. In fact, imposing meanings is a major interest of the promoters of both the school and the social networks.

Symbolic violence appears as soon as there is someone who wants to impose opinions, choices, or concepts on other individuals. It is pretty obvious that there are arbitrary meanings that are imposed through such networks and that implies a certain level of symbolic or at least psychological violence. For example, social networks have taught young

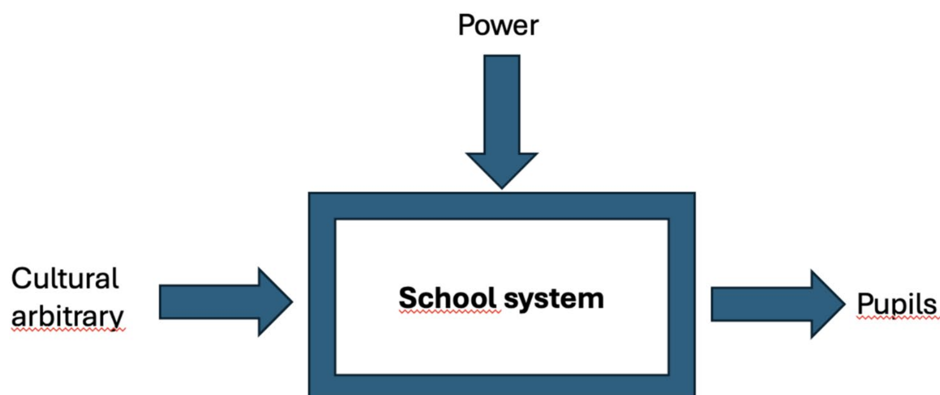

Fig. 1 Symbolic violence according to Bourdieu and Passeron. The school system imposes arbitrary cultural contents, values, and norms on the pupils that are dictated by an arbitrary power in a more or less concealed manner

people to erase their physical faults. Beauty standards, more than ever, are causing irreparable damage. The imposed contents dictate what is trendy in any aspect of life: fashion, political ideas, moral values, sports, jobs, places to visit, slang terms, cool videos or books, etc. According to (Anderson and Jiang, 2018), nine teenagers over ten between ages 13 and 17 use social networks, which therefore compete with the school system regarding the transmission of knowledge and values. In particular, increased social media use at a younger age has been correlated with dissatisfaction with one's appearance. When young people cannot look like Instagram models, this has a huge impact on their self-esteem and mental health.

The level of symbolic violence that a normal user can exert in a social network is limited by the number of his/her followers (usually a small number) and by the reputation s/he enjoys among them (not huge, probably). If one increases the number of followers and the reputation level, then one has an influencer, who has a much higher potential for symbolic violence. Finally, companies also exercise great symbolic violence, through their targeted and direct advertising, through the influencers they hire, or both.

We can now wonder whether the appearance of social networks as an important player in the symbolic domain had as many philosophical advocates as the appearance of the state when it decided to take over from religions in that domain (Hobbes [1651] 2002; Rousseau [1762] 1992; Spinoza [1670] 2020). In other words, who are the Hobbes, Spinoza, and Rousseau in the case of social networks? The answer is that the (partial) replacement of the church and the state —in fact, their school systems— by social networks in the imposition of meanings has had no explicit philosophical foundations. Such a replacement has occurred as a consequence of the commercial interests of platforms, which want to keep users in session as long as possible. Accordingly, platforms have been carefully designed to maximize the addiction of their users.

Several authors have realized the potential of social media for symbolic violence. Recuero (2015) points out that social media "have given "superpowers" to symbolic violence". Other authors use notions of symbolic violence in social media that are specific to certain domains or that deviate from Bourdieu and Passeron's idea of imposition of symbolic meanings: Alrawashda (2020) focuses on the ability of social media to spread violent speech; Sartini and Adrian (2023) deal with discriminatory gender discourses over social media; Nser,Al-Tkhayneh,Aqtash and S., Almajali, H.K.S. (2025) study the spreading of negative stereotypes against women in Lybian social media; Johanssen (2025) interprets symbolic violence as any form of violence that stops short of the physical. However, none of those contributions focuses on the conceptual novelty of the symbolic violence ushered in by social networks with respect to Bourdieu and Passeron's concept.

Homophily as a natural enabler of imposition of meanings

Homophily plays a fundamental role in social networks. It is the individual tendency to prefer interaction with people perceived as similar, and it is a well-established principle in social psychology (Lazarsfeld 1954). The literature on homophily has developed rapidly in recent years, both with theoretical contributions (McPherson et al. 2001; Rivera et al. 2010) and with experimental approaches (Munniksma et al. 2015; Stehlé et al. 2011; Stark and Flache 2012). Homophily has been shown to keep people longer on social networks and promote controversy and polarization (Gargiulo and Gandica 2017). As homophily grows, the emergence of marked topological community structures also increases. The preference for like-minded people helps to build consensus within those communities. In combination with social media, homophily leads to strongly polarized groups.

The British documentalist Adam Curtis linked homophily with the stupidity of crowds in an interview (Orlowski 2007). With clairvoyance, he explains the extent to which bloggers are tyrants, and he warns against the sellers of the "new democracy" of the Internet —a new concept at the time of the interview, in 2007. He points out the following paradox: on the one hand, the Internet has been perceived as a new form of democracy, insofar as it has allowed for a new pluralism, a new collage, a new mosaic that is truly representative of all sorts of different ideas; but on the other hand, there is a bias in content and a tyrannical behavior of bloggers. The latter are deeply emotional individuals who often do not go out enough. In addition, they exploit existing information sources and do little research themselves. What ensues is that this idea of a "hive spirit", instead of leading to a new plurality or a new richness, leads to a growing simplicity. Bloggers of one side try to force the mainstream media in one sense, and those of the other side try to force them in the other sense. The mainstream media end up trying to find a path between these polarized extremes. As a result, one is faced with a rigid and simplified view of the world, negotiated by the mainstream media in response to intimidating extremes. Far from the "wisdom of the crowds", the stupidity of the crowds prevails, and one gets a simplified but false world.

According to Fisher (2022), Curtis attacks the Internet because he contends that it encourages the communities of solipsists, interpassive networks of people sharing the same ideas who confirm, rather than contest, the hypotheses and prejudices of each other. Instead of being forced to confront

other viewpoints in a contested public space, these communities pull back on closed circuits.

More than three centuries before the Internet and social networks appeared, Spinoza remarked the power of homophily in his *Ethics* (Spinoza [1677] 2005), specifically in Part III ("De affectibus"). The application of Spinoza's characterization of affects can be summarized as follows: we will tend to follow other users that we perceive as similar to ourselves, in identity and tastes. If a blogger or an influencer makes us happy, we will try to follow them as much as possible —in fact, that is exactly what platforms want from us. Furthermore, by virtue of the identification mechanism described by Spinoza (which is just one dimension of homophily), *we tend to like the people who like the same things we like*, and this *explains to a large extent the formation of opinion bubbles in social media*. Another dimension of homophily is what Spinoza calls *imitatio affectuum* (imitation of affects): *we like what is liked by people we believe similar to us*.

Symbolic cryptoviolence in social networks: a new concept

In this section, we will explain why symbolic violence in social networks and, more generally, social media entails conceptual novelty with respect to the symbolic violence characterized by Bourdieu and Passeron.

In Axiom 0 of *La reproduction*, there is a mention of a power of symbolic violence that imposes meanings as legitimate by concealing the force relations which are at the foundation of its force. What the authors had in mind was primarily the state-supported education system, which inherited state power.

In social networks, *who* has the power to impose meanings is much less clear. It is certainly not a state power or even a decentralized power. It is a very distributed power with several actors:

- Companies owning the social media;
- Influencers;
- Users in general, to the extent where any user can be a prosumer, that is, they can produce content (opinions, pictures, messages in fora, etc.) in addition to consuming it;
- Governments;
- Other actors such as financial investors, non-governmental organizations (NGOs), programmers, and even algorithmic agents.

Companies that own social networks often pretend to have no leverage on posted content. They claim that their role is only to provide the communication channel. Mark Zuckerberg has stated several times, even before the US Congress, that users of his platform have control over their data (Fowler 2018). He has also asked governments to help control Internet content, as if his company had little to do with it. His argument is that the responsibility to monitor content is too great for Internet companies alone[2]. He has called for laws in several areas: prevention of harmful content dissemination, tranparency reporting, protection of election integrity, privacy, and data portability. However, he acknowledged that "legislators often tell me that we have too much power over speech, and frankly I agree".

What has been said about Mark Zuckerberg and Meta is also applicable to the other big internet companies (Google, X, etc.). There is a tendency by these companies to minimize their responsibility and to transfer to administrations the duty to control content. At the same time, Zuckerberg and his peers draw up long lists of requests for governments which are very difficult to satisfy in a globalized context, because they require a consensus that is difficult to reach. This strategy allows them to argue that, without the requested regulations, their companies will continue business as usual. Too bad (or much better) that putting those regulations in place in various countries takes many years. The intense competition among the major social networks (Instagram, TikTok and the others) for user engagement is a powerful reason for them to try to minimize regulations: the best way to compete is to keep a free hand on the design and operation of their platforms. This allows them not only to innovate, but also to copy any attractive features introduced by their competitors. Indeed, social media keep copying each other, because their attractiveness is trend-based. A classical example is when Instagram copied in 2016 the Snapchat Stories format, which allows users to share photos and videos that disappear after 24 hours.

Influencers are users followed by many other users. Among them there are celebrities like artists, politicians, or journalists, but there are also people who are simply viewed as attractive for some reason and thereby gather attention. The opinions and contents of those influencers become very important to the growing number of their followers, who seek their validation (according to Spinoza's imitation of affects, see Sect. Homophily as a natural enabler of imposition of meanings above). Therefore, influencers do have the power to impose symbolic arbitrariness, and this power is mainly derived from their attractiveness among their peers; it is not bestowed on them by the social networking platform, which is a mere vehicle of their content. Thus, the power of influencers appears to be the result of "direct

[2] "Mark Zuckerberg asks governments to help control internet content", BBC, March 30, 2019. https://www.bbc.com/news/world-us-canada-47762091

democracy" among peers. By pushing the argument, we can go as far as to say that *the followers of an influencer self-impose the influencer's symbolic arbitrariness, because they are the ones who confer power on the influencer.*

Usually, at the beginning of their careers, influencers express their personal viewpoints. As they are noticed and recruited by companies, they modulate their content according to what companies expect of them. In other words, *the cultural arbitrariness that influencers initially impose is their own, but as they become more successful, they increasingly impose the arbitrariness of companies*. Micro-influencers, those who have between 10,000 and 100,000 followers, often have the most authentic relationships with their followers. They have gathered a specialized audience and do not want to damage their reputation or the relationship with their followers by promoting what they do not believe in. If a company wants to recruit a micro-influencer, it must first convince him/her about its value. Requiring the alignment of the relation between micro-influencers and brands on the target audience means that the influencers are often picky about the people or brands they work with. Some micro-influencers are even happy to promote a brand for free if they believe in it. In summary, micro-influencers tend more than larger and smaller influencers to impose their own cultural arbitrariness rather than that desired by brands.

Ordinary users of social networks are subject to alienation and control by the social network, and they are imposed symbolic arbitrariness by influencers as well as targeted advertising by the network. However, we should not overlook that any user also exerts an influence on their contacts and those who follow him/her. Furthermore, without qualifying as influencers, many users can be viewed as prosumers (producers and consumers), to the extent that they do not only consume content, but produce a non-negligible amount of content that has an impact on their followers. Hence, to a greater or lesser extent, a user also contributes to imposing arbitrary content.

Regarding governments, their role in social networks is passive by default, but sometimes it can be markedly hostile. Government action can range from requesting that certain contents be removed (content removal can also be initiated by the owning companies *motu proprio*) to fining the companies that own the social networks or even banning a social network from their countries. For example, quite recently, Turkey blocked Instagram for nine days in August 2024 (Durmaz 2024) and Brazil blocked the X network starting August 31, 2024 (Pessoa and Savarese 2024). Also, the U.S. is fighting a legal and policy battle against TikTok over national security related to TikTok's parent company ByteDance, and potential access to American user data by the Chinese government. However, the influence of nation-state governments on social networks is limited by the global nature of the latter. The governance of a social network cannot be entirely dictated by any state, let alone the U.S., where most big companies owning social networks are headquartered.

Up to now, we have enumerated the most visible actors in social networks. However, other actors also play an important role:

- Financial investors and venture capitalists that take stakes in a company that owns a social network may have their own agenda different from that of the company. The so-called "superstar" Internet firms that operate the main social networks have disproportionately accumulated capital investments (Tambe et al. 2020). This makes them highly dependent on an often changing mix of investors. In fact, if an investor or a coalition of investors manages to hold a majority stake, they may change the company's agenda. A clear and relatively recent example is the case of Elon Musk and Twitter. In addition to changing the name of the social network to X, Musk dismantled trust and safety teams that took care of content moderation. He committed to "free speech" and a reduction in the enforcement of the rules of moderation and hate speech. Such moves have a clear influence on the nature of the meanings that can be imposed on users of the social network. Even investors who do not hold majority stakes can push certain contents (such as political or religious opinions) to be more or less tolerated in the social network.
- NGOs may have several functions. In content moderation, they can work alongside platforms, activists and users to monitor, evaluate and influence user-generated content to align with human rights (Article 19 of the Universal Declaration of Human Rights, which guarantees the right to freedom of opinion and expression). For example, Human Rights Watch has recently conducted research on the alleged censorship of pro-Palestinian content on social networks such as Instagram, Facebook, X and TikTok (Brown and Younes 2023). NGOs or even informal groups of people can lobby to preserve privacy rights. An example is an open letter from a list of scientists working on privacy technologies who oppose the EU's proposed child sexual abuse regulation, which mandates client-side scanning on encrypted messaging platforms to detect child sexual abuse material[3].
- Programmers are those who ultimately code the algorithms that govern social networks. Like financial investors, programmers may have agendas that differ from those of the company they currently work for. Burrell and Fourcade (2021) argue that a coding elite is arising

[3] https://cepis.org/open-letter-calls-on-academics-to-oppose-eus-proposed-child-sexual-abuse-regulation/

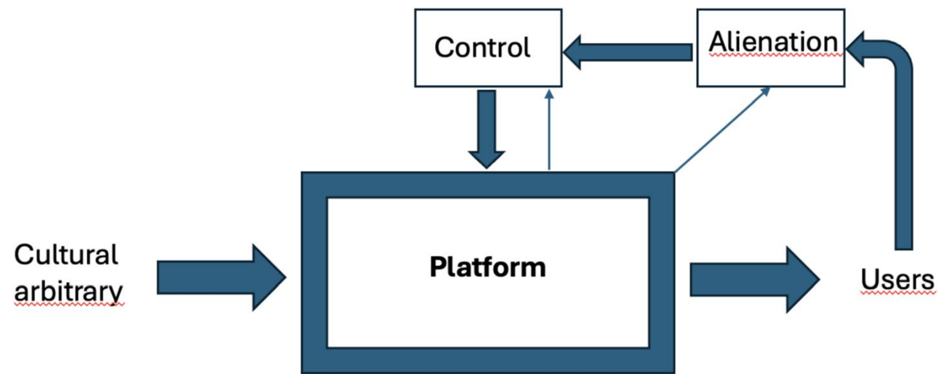

Fig. 2 Symbolic cryptoviolence. The social network, through a combination of alienation and control of its users, imposes on them the arbitrary cultural contents, values and norms that are arbitrarily dictated by some users (influencers) or brands

that "occupies the upper echelons of the digitized society". In this elite they include tech CEOs, investors, and software developers as well as computer science and engineering professors. In fact, the same individuals can easily circulate among these roles. Thanks to their skills, these people determine how algorithms work exactly. In the case of social networks, the coding elite wields the real power to decide exactly how contents are prioritized, moderated, or even censored.

- Algorithmic agents are pieces of code that implement AI algorithms that make decisions in different situations. Although they have been coded by software developers and programmers, they may have their own agency not entirely controlled by the humans who trained them (Dowding and Taylor 2024). Agents may play an important role in shaping the attitudes of consumers and social network users (Fan and Liu 2022).

In summary, Bourdieu and Passeron's definition of symbolic violence in the school system is *not directly transposable* to social networks. Whereas in the school system, there is a (more or less concealed) state or religious authority imposing the double arbitrariness to passive and submissive individuals, in a social network, all individuals participate in the imposition to the rest of individuals, with a force proportional to each one's number of followers, and this number is also decided by the users themselves. In fact, *the authority of the school system is replaced in social networks by a combination of alienation, control, and homophily.* Beyond users, there are several other actors who play more or less concealed roles in the imposition of content on social networks. Also, unlike state-controlled school systems, social networks are global, and hence their governance is more complex and less clear. Thus, *symbolic violence in social networks is more hidden, more distributed, involves different actors, and is enabled in a different way compared to the school system or even to conventional media (radio, TV, press)*. This justifies our proposal for a new name, *symbolic cryptoviolence*. See its representation in Fig. 2 and compare it with the representation of Bourdieu and Passeron's symbolic violence in Fig. 1.

Foundations and related work

The main axioms of Bourdieusian symbolic violence

Bourdieu and Passeron's *La reproduction* begins with an Axiom 0 that can be translated into English as:

> *Any power of symbolic violence,* i.e. *any power which succeeds in imposing meanings and imposing them as legitimate by concealing the force relations that are at the foundation of its force, adds its own force,* i.e. *properly symbolic, to these force relations.*

Whereas one would expect a definition of symbolic violence in this Axiom 0, what we find in it is a characterization of the power of symbolic violence. Several points deserve to be commented on in this axiom:

1. The phrase "any power of symbolic violence" makes it clear that the subject of symbolic violence is the power, the authority.
2. This power —as any power— uses the force relations that are specific to it.
3. The goal of power when using symbolic violence is to impose meanings, that is, ideas and values.
4. Imposing meanings requires controlling minds, which is much more difficult than controlling bodies. Whereas someone's body can be forced to obey by constraint, it is much less obvious that someone can be forced to believe certain things just by constraint. Besides, whereas body obedience can easily be verified by the power, mind obedience is much harder to check: no one knows exactly what another person believes deep down.
5. To impose meanings on the minds, these minds must accept those meanings as legitimate. This has been the

approach of religions: Believers accept a religious doctrine in the name of a divine or supernatural being.

6. The acceptance of a meaning as legitimate sits uneasily with too obvious a use of force to impose it: people do not like constraint, and they will tend to resist —at least in their innermost being— the imposed meaning.
7. For symbolic imposition to be perceived as legitimate and, therefore, be effective, the power must conceal the force relations. Just as religion has recourse to God, nonreligious power will seek to use a symbolic force to legitimize its imposition. This symbolic force can be based on moral authority, cultural superiority, patriotism, security, benevolence, etc. To simplify without loss of generality, we will identify *this symbolic force with a certain authority of power, in the sense of the Latin term "*auctoritas*", that is, a socially recognized legitimacy.*

In the first scholium of Axiom 0, the authors underline the autonomy of symbolic relations —symbolic force that we just mentioned— with respect to the force relations —which are concealed when symbolic violence is exerted.

The next axiom (Axiom 1) of *La reproduction* is the one that really defines symbolic violence as the double arbitrariness mentioned above and points at pedagogic action as the implementation of symbolic violence:

> *Any* pedagogic action *(PA) is objectively a symbolic violence as an imposition, by an arbitrary power, of a cultural arbitrariness.*

This axiom introduces some new elements:

1. The pedagogic action, and thus the action of the school, is qualified as symbolic violence. From this second axiom, the book focuses on the education system. It is not without reason that the subtitle of *La reproduction* is *Elements for a Theory of the Education System.*
2. Symbolic violence is defined as the imposition of a cultural arbitrariness by an arbitrary power. Thus, the imposed meanings mentioned in Axiom 0 are concretized here in cultural arbitrariness. Moreover, the power that imposes this arbitrariness is itself arbitrary. In fact, since this axiom combines the attribution of symbolic violence to pedagogic action with a definition of symbolic violence, it is not entirely clear whether this arbitrary power is only that of the educational system or whether any power exercising symbolic violence must be seen as arbitrary.

The scholium following Axiom 1 explains that the power exerting symbolic violence is not limited to the school: it can be the family or whoever takes the mission of educating a certain group of individuals. Next, several propositions follow that stress that the symbolic violence ensuing from pedagogic action seeks to *reproduce* (hence, the title of the book) the cultural arbitrariness of the dominant or the dominated classes, that is, "reproducing the structure of force relations, in a social formation where the education system tends to secure the monopoly of legitimate symbolic violence". In any case, the school seeks to perpetuate and stabilize the social and national structure. Clearly, imposing a language, a version of history, and some cultural values helps homogenizing the population, and thus reinforces social order and, in turn, the state. Bourdieu and Passeron draw a parallel, which they call homology, between the state monopoly of physical violence described by Weber ([1919] 2014), by means of the police and the army, and the monopoly of the legitimate exercise of symbolic violence also by the state, by means of the school system.

The last axiom of *La reproduction* we will recall here is Axiom 2. Together with its scholia, it deals with the pedagogic authority. As we mentioned when commenting Axiom 0, without authority there is no legitimation of symbolic violence, and hence no effective imposition of the cultural arbitrariness. This point is clarified by Axiom 2:

> *As a power of symbolic violence exercised in a communication relation that can only produce its proper —*i.e.*, properly symbolic— effect if the arbitrary power that makes imposition possible never appears in its full truth [...] and as inculcation of a cultural arbitrariness fulfilled in pedagogic communication relation that can only produce its proper —*i.e.*, properly pedagogic— effect if the arbitrariness of the inculcated content never appears in its full truth [...], the PA necessarily implies as a social condition of exercise the* pedagogic authority *(PAu) and the* relative autonomy *of the instance in charge of exercising it.*

In Scholium 1 of this axiom, the authors give some precisions. Implementing a pedagogic communication relation requires concealing the force relations that make it possible, in order to add the specific force of legitimation. Exercising a PA without PAu is declared "sociologically impossible": If the PA revealed its objective truth of violence and thereby destroyed the foundation of the agent's —the teacher's— PAu, the PA would become self-destructive. Bourdieu and Passeron illustrate this self-destruction by adapting the paradox of Epimenides of Knossos, called the liar: "either you believe I do not lie when I tell you education is violence and then my teaching is not legitimate, so you cannot believe

me; or you believe I lie and my teaching is legitimate, so you cannot believe either what I say when I say it is violence".

A second important point of Axiom 2 is the *relative autonomy* the education system needs to ensure its legitimacy. An education system that would be too obviously dependent on the state would be perceived as not very legitimate to the extent that the state exercises violence and physical constraint. Nonetheless, Bourdieu and Passeron in Chapter 4 of their work (entitled "The ideologic function of the education system") assert that "the relative autonomy of the education system is always the other side of a dependence more or less fully concealed by the specificity of the practices and the ideology authorized by this autonomy". Indeed, the difference between autonomy and independence is that the former must be authorized by someone, the state in this case.

Axiom 0 of *La reproduction* is not directly transposable to social networks, due to the difficulty in identifying an external power to which symbolic violence can be attributed. This was discussed at the end of Sect. Symbolic cryptoviolence in social networks: a new concept.

In contrast, Axiom 1 about double arbitrariness is easier to adapt to social media. There is certainly a cultural arbitrariness that influencers and advertisers impose using social networks. Beauty canons, musical tastes, or political opinions are arbitrary to a large extent: they could be different. Also, although the power in the media is distributed and granted by the users themselves by direct democracy, it remains an arbitrary power, contingent on the tastes and the preferences of those who grant it at a certain moment. In fact, in the school system characterized by Bourdieu and Passeron, it is not excluded that the state power at the top may also be democratic —the authors probably had in mind the French representative democracy of their time. This validity of the double arbitrariness in the social networks is somehow a common feature in Bourdieusian symbolic violence and in what we can symbolic cryptoviolence.

Axiom 2 of *La reproduction* stresses the need for relative autonomy of the instance in charge of exercising the pedagogic authority: if the school is too obviously dependent on the state or the church, its legitimacy decreases. Relative autonomy can also be transposed to social media: *To make advertising by an influencer more effective than ordinary advertising directly made by the corresponding brand, it must be plausible for followers that the influencer really and spontaneously prefers the product or the service s/he recommends.* Hence, the influencer must keep a *relative autonomy* from the brands if s/he wants to exert an effective symbolic cryptoviolence.

An important difference between a school system and social networks is the contingency of power. In a state-run school system, the lack of legitimacy of the school can harm the imposition of contents because pupils may not accept those contents as legitimate deep down or even openly. But the power of the state remains because it does not critically depend on what pupils think about the teaching they receive. In contrast, in a social network, an influencer who loses his/her legitimacy (for example, because s/he is perceived as being too obviously at the service of brands) also loses his/her power. The reason is that in a social network, power comes from followers, and thus it is very contingent, as it critically depends on the survival of the attractiveness and the legitimacy attributed by those followers.

Related research on algorithmic governance and digital society

Fuchs (2014) discusses the relationship between corporate social media and the capitalist organization of time. Using a Marxian foundation, a model is proposed to assess the importance of the category of time for a labor theory of value and a digital labor theory of value. This contribution explores the blurring of leisure and labor time, production and consumption time (prosumption), new forms of absolute and relative surplus production, and other new issues. The focus is on labor rather than on the imposition of meanings, but this work is related to the alienation prerequisite to control and symbolic cryptoviolence.

Dijck et al. (2018) analyze the platform society and investigate the way platforms transform market and labor relations, social and civic practices, and democratic processes. Platform is a more general concept than social network and includes applications that offer basically services with no particular ambition to impose meanings (apartment rental, cab hailing, etc.). The aspect of this book that comes closest to symbolic cryptoviolence is their analysis of how platforms affect public values (privacy, accuracy, safety, security, fairness, accessibility, democratic control, accountability). *De facto* impacting public values can be construed as a specific imposition of meanings, where platforms clash with administrations, religions, and their regulations.

Nieborg and Poell (2018) take a similar line and explore how platformization affects the production, distribution, and circulation of cultural content. The focus is on platform governance, including content curation and pricing strategies, and on the effects on the format of cultural commodities (design modularity, reworking, repackaging). Although such format changes may have consequences on the type of meanings being communicated, social networks and the imposition of meanings on users are not specifically treated.

Kellogg, Valentine and Christin (2020) investigate the role of algorithms in the workplace and identify 6 mechanisms of algorithmic control: restricting and recommending to direct workers, recording and rating to evaluate them,

and replacing and rewarding to discipline them. Most of these mechanisms are also used in on-line social networks to alienate and control users: restricting and recommending are used in targeted advertising, recording and rating are used to profile users, and rewarding is often used as a mechanism to increase the session time of users in the network.

Willson (2019) and Burrell and Fourcade (2021) also explore the role of algorithms, but they consider their impact not only on the workplace, but also on social interactions in general. Their findings are in line with those of (Zuboff, 2019) as far as surveillance is concerned. More generally, they identify what they call the "coding class" as the new elite class, which dominates the rest of society thanks to their technological skill. Social networks are just one development among the ones promoted by the coding class, but arguably the most prominent and visible one.

Calderon Gomez (2021) focuses on what he calls the third-level digital divide in relation to offline outcomes of Internet use. Based on fieldwork in Madrid, he studies the mechanisms to convert the three fundamental forms of capital identified by Bourdieu ([1986] 2011) (economic, cultural, and social capital) into digital capital, and the reconversion of digital capital back into the three fundamental forms. The author finds that economic capital is the most basic form of digital inequality, as it imposes material barriers to digital access. Regarding social networks, he concludes that individuals with better socioeconomic situations, with higher levels of cultural capital and more diversified social networks are better positioned to take advantage of the opportunities of the digital world. However, the focus of his study is on professional networks, such as LinkedIn, which are oriented to matching jobs offers and candidates rather than imposing meanings. Beyond social networks, similar results are presented in Ragnedda,Ruiu and Addeo (2020) that relate socioeconomic position and digital capital.

Can social networks be free of symbolic cryptoviolence?

In fact, it is possible to have social networks free from symbolic cryptoviolence. Two important cases in point are: i) when such networks are only used for inter-user communication, with all users playing a similar role; ii) when contents are published, but they are universal, that is, non-arbitrary, undisputable and beyond tastes or opinions.

End-to-end inter-user communication was probably the main use of social networks in their initial stages. When the Internet emerged in 1969 with the ARPANET, scientists in four connected universities exchanged messages, software, and data. In the 1980 s and 1990 s, the growth of the Internet favored the appearance of on-line communication systems such as CompuServe, America On-Line, and Prodigy (Shah 2016). Such systems allowed people to stay in touch with their distant friends or relatives. In our days, Whatsapp and similar platforms are still mainly oriented towards end-to-end inter-user communications, in many respects similar to exchanging SMS or e-mail messages. It is worth mentioning that platforms such as the above-mentioned LinkedIn —allowing the publication of professional profiles and their exchange between employers and potential employees— are closer to inter-user exchanges than to imposing contents.

Even social networks that try to impose meanings can be free of symbolic cryptoviolence. This is the case where the contents are *universal*, that is, undisputably true. For example, mathematics and physics are mostly universal knowledge, and using a social network to teach them or publish related content does not face conflictual plurality and, therefore, avoids arbitrariness. In contrast, universality claims are problematic for human sciences (not to mention arts and non-educational contents): there are many possible views of history, many languages that can be promoted, many preferences in arts and literature, etc. For instance, when one teaches history, there are always several ways to present a certain historical fact: each country's viewpoint, the winner's viewpoint, the loser's viewpoint, etc. In summary, symbolic violence is unavoidable when publishing contents not related to hard sciences.

In fact, the absence of symbolic violence in the case of universal contents is not specific to social networks. It is also applicable to the Bourdieusian school system: Teachers of physics, mathematics, chemistry, or biology are supposed to teach non-arbitrary content.

Limitations and objections

It may be argued that symbolic cryptoviolence is not real symbolic violence, let alone violence *tout court*. A potential argument here may be that violence requires a perpetrator and a victim, but who is the perpetrator of symbolic cryptoviolence is unclear and the alleged victims are unlikely to acknowledge their condition. Indeed, in social networks, there are many actors and none of them wields single-handed power to impose meanings on others. On the other hand, if one asks users, most of them will not self-identify as victims, not even those that are seriously addicted. Users are likely to be convinced they freely chose the influencers they follow, so that nothing is imposed on them. In reality, homophily guides the choice of users, and choosing to follow people similar to yourself may seem far away from any violence.

Supporters of this objection may also find arguments in Greek philosophy. Aristotle wrote in his *Physics*

(Aristotle 2008) that there is violence when the natural tendency of something is counteracted, like when a stone is thrown upward. A user, especially an addicted one, may claim that their natural tendency is to spend as long as possible on the social network following like-minded people and hence that no violence is exerted on them.

Of course, we could respond with several arguments. First, the alienation and control built into current social networks bend the will of users to stay in session. Hence, they are as unfree as addicted people are. Second, the fact that the perpetrator's role is distributed among many actors does not mean that there is no perpetrator. Third, the double arbitrariness of symbolic violence is still present in symbolic cryptoviolence: Users are imposed arbitrary meanings by an arbitrary and distributed power.

However, this objection has valid points that may justify a deep debate on freedom and self-determination on social media.

Another potential objection is that imposing meanings as pursued by symbolic violence is necessary to transmit knowledge, preserve culture, and maintain civilization. Culture can be viewed as a continuous choice among several possible languages, traditions, beliefs, etc. If, in addition, the alleged victims on whom meanings are imposed do not feel like victims, we are in the best possible situation. For these reasons, one should not talk about "imposing" meanings, but rather about transmitting meanings, and the process by which this is done should not be called violence.

A possible reply is that there is no symbolic violence or cryptoviolence when the meanings are universal, that is, undisputable. However, meanings that involve a cultural choice or that concern opinions or tastes are not universal. Therefore, favoring one option for those meanings over another is not natural; it is a constraint that comes close to violence in the symbolic domain, even if enforced in the name of (a certain) culture.

It can also be contended that symbolic cryptoviolence is nothing more than symbolic violence, because it amounts to imposing arbitrary symbolic meanings on people. However, we have argued above that the notion of authority plays a central role in Bourdieu and Passeron's theory. Therefore, the fact that no actor in social media is invested with *auctoritas* and that the power relations are largely hidden to users entails a significant change with respect to the school system. Furthermore, the homophily mechanism is key in symbolic cryptoviolence, but does not play a role in Bourdieu and Passeron's symbolic violence.

Conclusions and future research directions

Symbolic cryptoviolence in social networks is a new form of symbolic violence much more hidden and decentralized than the original Bourdieu and Passeron notion. In fact, the blind nature of symbolic cryptoviolence and its replacement of authority with a combination of alienation, control, and homophily are a novelty and certainly a cause of concern. Whereas a religion or a state have a —perhaps questionable, but consistent and publicly known— project for their entire community when they exercise symbolic violence, social networks only have a project for their shareholders.

In a social network, alienation and control are tools that facilitate symbolic cryptoviolence. Alienation and control help keep users in session longer, even if this turns them into addicts. The longer the sessions, the more symbolic cryptoviolence can be deployed on the users. Our digital society has prompted the updating of philosophical and sociological concepts, or the adaptation of pre-existing ones. Our concept of symbolic cryptoviolence is part of this effort and is the result of adapting Bourdieu and Passeron's concept to a context in which power is highly distributed and even hidden. The literature is rich in other updated concepts. The alienation described by Marx in industrial capitalism has taken new forms of round-the-clock living and leisure in digital capitalism (Wark 2021; Fisher 2022). The Foucauldian notion of control, which was circumscribed to bodies and physical environments, encompasses the entire individual in the digital society, including the mind (Zuboff 2019; Kellogg et al. 2020). The concept of digital capital has been introduced as a new form of capital that complements Marxian and Bourdieusian theories. Some authors understand by digital capital the information assets accumulated by tech companies (Tambe et al. 2020; Verwiebe and Hagemann 2024) whereas others use the name to denote the individual digital skills accumulated by individuals (Ragnedda et al. 2020; Calderon Gomez 2021). Digital labor is yet another variant of the Marxian industrial labor concept, and is studied in works such as Fuchs (2014); Wark (2021); Dijck et al. (2018); Kellogg, Valentine and Christin, (2020). Symbolic cryptoviolence feeds on those updated concepts of alienation, control, digital capital, and digital labor. Furthermore, the description of the impact of platforms on public values in Dijck et al. (2018) can be viewed as a domain-specific symbolic cryptoviolence.

The added value of minting a new concept of symbolic cryptoviolence is to increase awareness that social media are an extremely powerful means to impose arbitrary symbolic contents on people and create social polarization. Although awareness is certainly an important step, it is not sufficient to address the problem.

Future research may include the following lines: i) compare the effectiveness of symbolic cryptoviolence in social networks with the effectiveness of symbolic violence used concurrently by religions and states; ii) assess the impacts of symbolic cryptoviolence on mental health; and iii) design strategies that can mitigate the negative impacts of symbolic cryptoviolence on people. A non-exhaustive list of mitigation strategies could be as follows:

1. *Access restriction*. Restricting the access of the mentally vulnerable population (possibly including all children and teenagers) to social networks is an obvious, albeit difficult and unpopular measure.
2. *Fiscal policy*. Just as nation states are taxing tobacco and alcohol to help finance the costs these drugs cause to the healthcare system, a tax on social networks that helps support the care required by the mental pathologies they cause would also make sense.
3. *Primacy of the democratic state*. In the philosophical and political arena, the arguments of Hobbes, Spinoza, and Rousseau on the primacy of the state over the church could be updated to defend the primacy of *democratic* states over social networks and large Internet companies.

The above mitigations and others that may be proposed would, of course, require societal and academic debates to ponder their suitability and the best way to implement them.

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