

Mind invasion – From individuals to nations

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Abstract: This paper details different ways in which people’s affective life and, in consequence, their behavior is negatively influenced by how others – from individuals to nations – have structured the environment, i.e., different facets of what Jan Slaby has called “mind invasion.” We start by introducing key ideas and concepts from the debate about situated affectivity relevant for the subsequent discussion. The main part explores a wide variety of settings in which people’s minds are invaded, ranging from rather localized offline interactions between two individuals over online interactions and *Onlife* environments where real-world interactions between some people merge with online activities to mind invasions at a national or even worldwide level.

Keywords: colorism, deepfakes, echo chambers, mind invasion, *Onlife* environments

1. Introduction

As human beings, we have both cognitive and affective skills. We store, retrieve and process information provided by our perceptual organs in order to react in (ideally) appropriate ways: We, for instance, interpret a moving spot on the retina with a certain size, shape and color together with a buzzing sound as an approaching insect and step back to avoid it. However, unlike a robot who has been trained to detect and avoid insects, we do not just react in a “detached” matter of “mere computation.” Our behavior is *affectively toned*: We not just cool-bloodedly react to our “cognitive” evaluation of something as dangerous, pleasant, repelling, friendly etc., but *care* about what is going on: We *fear* the insect might bite us, we are *distressed* by the thought that it might be poisonous, or *disgusted* by its hairy legs. Over the past decade or two, proponents of what has come to be called a “situated” approach to cognition (e.g., Robbins and Aydede 2009) and affectivity (e.g., Colombetti and Krueger 2015; Coninx and Stephan 2021; Griffiths and Scarantino 2009; Stephan and Walter 2020; Stephan *et al.* 2014; von Maur 2021) have pointed out that this is, albeit certainly true, only part of the story. Sometimes, our affective responses are indeed just reactions to environmental triggers elicited in us as quite passive observers, as when we are disgusted by the insect or feel cheerful when

running across an old friend. Sometimes, however, we play a more active role, *acting in* rather than merely *reacting to* our environment (e.g., Wilutzky 2015): We feel sad or alone, want to brighten our mood and *therefore* go and see an old friend, i.e., we actively structure the environment in such a way that we can *use* it as a *resource* that changes our affective life; we see that our partner feels disappointed, want to brighten their mood and *therefore* surprise them with a bouquet of their favorite flowers, i.e., we actively structure the environment in such a way that it *shapes* the other's affective life. This paper is about the various ways in which structuring the environment can affect how people feel (and, as a consequence, behave). In particular, it details different ways in which people's affective life is *negatively* influenced by how others – from individuals to nations – have structured the environment, i.e., different facets of what Jan Slaby (2016) has called “mind invasion.”

Section 2 sets the scene by introducing and disentangling some key ideas and concepts from the debate about situated affectivity relevant for the subsequent discussion. Section 3 describes and explores a wide variety of settings in which people's minds are invaded, ranging from rather localized offline interactions between two individuals over online interactions and *Onlife* environments where real-world interactions between a larger number of people or specific groups merge with online activities to mind invasions at a national or even worldwide level. Section 4 wraps up the main ideas and invites further scholarship.

2. *User-resource interaction vs. mind invasion*

When we “reach out” to natural, technological or social resources in the external world to initiate, change or enhance some of our affective states and processes, we exploit the environment as a “scaffold”: We “piggyback” on reliable external structures to modify or regulate our affective life while investing as little internal effort as possible (Clark 1997: 45).¹ We do so, for example, when we prepare a romantic candle light dinner to create a beguiling atmosphere for meeting a loved one, when we visit breathtaking landscapes or listen to our favorite playlist to brighten our mood. We also do so when we seek a psychotherapist to cope with past traumatic experiences (Coninx and Stephan 2021: 52-56; Stephan and Walter 2020: 305-307). In such cases, the scaffolding is initiated by those whose affective life is (supposed to be) af-

¹ As Clark's “007 principle” puts it: “In general, evolved creatures will neither store nor process information in costly ways when they can use the structure of the environment and their operations upon it as a convenient stand-in for the information-processing operations concerned. That is, know only as much as you need to know to get the job done” (1989: 64). Or, in Clark's other memorable words: We “make the world smart so that we can be dumb in peace!” (1997: 180).

affected: We exploit the scaffolds as resources either to be directly affected by them in a specific situation (as in the first examples) or to change our overall affective setup in a desired way (as in the last example). Such affective strategies are therefore paradigm examples of what Slaby has dubbed the “user/resource model” (2016: 5-7), according to which “a fully conscious individual cognizer (‘user’) [...] sets about pursuing a well-defined task through intentional employment of a piece of equipment or exploitation of an environmental structure (‘resource’)” (2016: 5). This take on environmental incorporation dominated the early days of the debate about situated cognition and affectivity, when researchers were primarily interested in how cognitive and/or affective systems “reach outward” to “offload” (Clark 1997: 94) part of their cognitive and affective burden onto the environment.²

As already indicated, some such “outward-reaching” activities go beyond a situational and temporary scaffolding in that they initiate “inward-reaching” activities that aim at a lasting influence on people’s minds through a modification of their overall affective setup: When someone recruits a therapist as an external resource for emotion regulation this might require or amount to the therapist’s eventually *shaping* their affective life. If that “inward-reaching” process of *mind shaping* (Walter and Stephan 2023) is successful, the client will, as intended, benefit from the scaffolding. When things go awry, however, it may actually harm them. If, for instance, the therapist projects their own traumata onto their client and talks them into having problems that they in fact don’t have, they might suffer rather than benefit from the scaffold they sought (see sect. 3.1). Another case where users are harmed by an environmental scaffold they have intentionally recruited is what Timms and Spurrett (2023) call “hostile scaffolds.” Gambling, for instance, is deliberately chosen for entertainment purposes, but casinos are set up in such a way as to make people eventually lose more and more money without them realizing what they are actually being drawn into. Such “hostile scaffolds” are *scaffolds* because they are deliberately sought in order to feel entertained, experience the pleasure of winning or the thrill associated with gambling etc., but *hostile* because they serve a third party’s interests, while effectively being detrimental for their users (Timms and Spurrett 2023: 53).

While both psychotherapies and “hostile scaffolds” are deliberately frequented by the individuals in question, many other longer lasting “inward-

² Much ink has been spilled on whether this kind of environmental incorporation means that cognition and affectivity are (merely) “embedded” (e.g., Adams and Aizawa 2008; Rupert 2009) or whether it entails that they are “extended” (e.g., Clark 2008). To sidestep the unrewarding, largely metaphysical quarrels that arise when one tries to arbitrate between these options (Walter 2014), we use the notion of an “environmental scaffold” that is intended to be neutral between embedded and extended approaches (Stephan 2018: 610-611; Stephan and Walter 2020: 303-305).

reaching” interactions with environmental resources that affect how individuals feel are also a result of some form of mind shaping, but *not* actively chosen by those affected. Educational processes, for instance, shape the minds of children, adolescents and young adults, be it in the family, kindergarten, school, work or universities (cf. Coninx and Stephan 2021: 56-60; Greenwood 2015: ch. 4 and passim; Stephan 2018: 612).³ Interactions of this kind are usually meant to be beneficial for the individuals whose mind is shaped (Walter and Stephan 2023: 7). Yet, not everybody always has the impression that they are so: Some children rebel against the influence of their parents, some pupils are extremely unhappy at school, and some students think that universities don’t hold what they promise. Sometimes, moreover, the external influence might not just be *perceived* as non-beneficial, but actually turn out to *be* harmful, for instance when the affective (e.g., bullying) environment at school causes a child to develop severe psychosomatic symptoms.

For quite some time, the exhibit A of a harmful external influence on people’s affective life has been what Slaby (2016) has called “mind invasion.” Slaby (2016) convincingly argued that a situated approach to human affectivity remains incomplete if we focus on user-resource interactions only. In addition to this kind of environmental incorporation, Slaby claimed, we also have to acknowledge the reverse direction, viz., cases where environmental influences are not deliberately sought by an individual, but created by others (deliberately or not). To consider Slaby’s example, interns or career starters gradually become accustomed to the working conditions at their novel workplace, where the long-established social etiquette has such a powerful impact that it can, subtly and imperceptibly, affect their emotional repertoire, modify their habits and attitudes, and eventually shape their personalities in potentially detrimental ways (see sect. 3.2). In such cases, the initial impetus does not stem from an individual user, the intern or career starter, but from the socially organized, stratified and formative members of the environmental structures in which they are situated who “effectively ‘seek out’ domain-naïve individuals in order to turn them into bona fide exponents of the domain’s operative processes” (2016: 2). If the conditions created by the social environment make individuals conform to, habituate to and eventually adopt affective schemes that go “discernibly against these individuals’ prior orientations” (ibid.) or needs – if, for example, “work time encroaches into what formerly were off-hours” (2016: 9), and tasks and activities spread into the employees’ homes – their activities will

³ Note that while schools, apprenticeships, universities etc. may of course be and often are deliberately chosen with specific educational goals in mind, exactly *how* peer groups, teachers, instructors, professors etc. eventually end up shaping an individual’s mind is usually not at the explicit discretion of the individual.

eventually go against their own personal flourishing, amounting to what Slaby dubbed “mind invasion.”

Initially, we adopted Slaby’s notion of “mind invasion” also for beneficial cases of mind shaping that Slaby does not discuss (Stephan and Walter 2020: 307-309), as in (successful) educational processes or therapies. Due to the negative connotations of “invasion,” however, we eventually decided to reserve the term “mind invasion” for harmful cases and use “mind shaping” as a general notion covering all scaffoldings (including beneficial ones) that “reach inward” and modify people’s affective setup – i.e., for environmental structures created by other members of society, by family, peers, schools, companies, organizations, parties, and social media (Coninx and Stephan 2021: 56 ff.; Walter and Stephan 2023: 5). It is not perfectly clear from Slaby’s original discussion whether he thinks it can always be unambiguously determined whether some particular instance of mind shaping is detrimental and therefore qualifies as a case of mind invasion. When introducing his paradigm scenario of a novice in a company, he at least created the impression that he thinks this question has a clear answer. In his concluding remarks, however, he refers to the “vexing” case that the “subjects whose evaluative outlooks are needed to make these critical assessments [e.g., ‘this is a case of mind invasion’] are themselves the targets – and ultimately, the ‘products’ – of these formative influences” (2016: 11), suggesting that things might be less straightforward. Yet, as we will see in section 3, the landscape of phenomena is even more complex and complicated than Slaby might have had in mind. There are many cases where opinions about whether a particular instance of mind shaping is a case of mind invasion might differ among those who are (quite differently) affected.

It is to Slaby’s immense credit that he has introduced a completely new perspective on the way environmental structures can impinge on the affective life of individuals. His pathbreaking contribution single-handedly changed the way we think about situated affectivity by directing our attention to environmental incorporations that are initiated “from the outside” to shape people’s mind rather than “from the inside.”⁴ It is only natural that a groundbreaking work like Slaby’s, which was the first to highlight a hitherto overlooked phenomenon, could not already thoroughly analyze all its various aspects in detail. Slaby’s main example is a workplace scenario where the mind of a newbie is

⁴ Recent investigations suggest, though, that the distinction between user-resource interactions on the one hand and mind invasion on the other is by no means exclusive. Rather, there are cases where the two are, as it were, two sides of the same coin (see Mossner and Walter 2025: sect. 4), for instance in the gambling scenario discussed by Timms and Spurrett (2023) or in areas such as colorism (Bajwa *et al.* 2023: sect. 6; see sect. 3.6) or right-wing radicalization (Valentini 2022: 196, 204-208; see sect. 3.4).

shaped in ways detrimental to their prior orientation about what it means to live a good life, and his general focus is on the “disabling social structures” that are “creating unhealthy dependencies, tie us to oppressive routines, sustain inequality, destroy communal bonds or lead to affective, and other mental habits *that are detrimental to us or our kin*” (2016: 11; emphasis added). As we will see in section 3, however, mind invasion can have harmful consequences not only for individuals and their kin, but also for uninvolved smaller or larger social groups, even for societies or humanity as a whole. Moreover, whether or not a process of mind shaping is to be seen as a case of mind invasion may also depend upon the values and norms of the scaffolding persons and groups, upon the values and norms of involved third parties, and upon the values and norms of (nearly) unaffected observers.

The goal of the remainder of this paper is to describe and explore the full variety of possible ways of *mind invasion*. We will see that mind invasion can happen in reciprocal relationships between two people only, both unintentionally and intentionally in companies, echo chambers, and *Onlife* environments where real-world interactions are interwoven with online activities. In all these cases not only the person or group of persons whose minds are invaded might be affected, regardless, importantly, of whether they themselves experience or regard themselves as having been harmed. As we will see, more or less uninvolved third parties – smaller and larger social groups, from other individuals to societies – might suffer as a result of others’ minds being invaded, even if their own minds are not manipulated. Eventually, we turn to nationwide government-driven mind invasions as they can currently be witnessed in Russia, and to worldwide developments, which might be the disastrous results of deepfakes and disinformation. The bottom line of the following is: Mind invasion is not a single, clearly delineable phenomenon that manifests itself in one and only one form. Instead, it is a ubiquitous feature of social influences at all levels of societies.

3. *Varieties of mind invasion*

As pointed out in section 2, paradigmatic user-resource interactions are “outward-reaching.” In contrast, mind invasion is an “inward-reaching” process through which people’s affective life is shaped by others with negative consequences. So understood, the common core of mind invasion is that someone is vulnerable or ready to being affected by an environmental structure others have created in a way that causes harm or suffering. Although this characterization captures Slaby’s (2016) initial idea, it is so broad that it glosses over a variety of interesting and important differentiations. It leaves open, for

instance, (1) what is responsible for someone's being vulnerable or ready to being invaded, (2) whether it is the mind of an individual that is invaded or the minds of the members of a (particular) group, (3) whether the environmental structure by or through which people's minds are invaded is set up deliberately or an unintended result of others' behavior, (4) whether it is created by individuals or a social community, (5) whether it draws on material, technological or social mechanisms or a mixture thereof, and (6) whether those who are harmed are the same as those whose minds are invaded or whether they suffer as a consequence of someone else's mind being invaded. In the remainder of this section we describe and explore different types or manifestations of mind invasion which, even if they by no means claim to be complete, effectively cover pretty much the full range of these possibilities in one respect or another.

In order to get a better grasp on the commonalities of and differences between the various examples we will at times draw on the taxonomy of environmental scaffolds provided by Coninx and Stephan (2021). Coninx and Stephan first of all distinguished *unidirectional* and *bidirectional* kinds of mind shaping: In unidirectional interactions an environmental structure influences a person's affective life without there being any feedback loop (2021: 56); in bidirectional interactions the person whose affective life is shaped in some way or other actively participates in or contributes to the shaping (2021: 59). Furthermore, Coninx and Stephan distinguished four different *temporal scales* on which mind shaping can take place (2021: 48): the phylogenetic, sociogenetic, ontogenetic, and microgenetic scale. While the phylogenetic scale that usually spans numerous generations is not applicable in cases of mind *invasion*, the other three will be recognizable in the examples below. The sociogenetic scale comprises interactions of social organizations with their environment that exceed the lifespan of individuals, the ontogenetic scale consists of developmental stages in the life of an individual, and the microgenetic scale comprises episodic interactions with a local environment. Lastly, Coninx and Stephan proposed *eight dimensions* that can help explain why environmental structures are more or less effective in modifying people's affective life (2021: 50-51): (a) *Trust* concerns the reliability of a scaffold; (b) *Robustness* characterizes the regularity with which a scaffold is recruited; (c) *Mineness* captures how closely the scaffold is experienced with respect to who we take ourselves to be; (d) *Individualization* characterizes the degrees to which a scaffold is adapted to individual users; (e) *Incorporation* indicates to what extent a scaffold is phenomenally integrated into the users' affective experience; (f) *Awareness* indicates the degree to which users are consciously aware of the scaffolding relation; (g) *Intent* indicates whether users explicitly intend to recruit environmental resources in order to shape either their own affective life or that of others;

(h) *Control* indicates the degree to which users can actively influence a scaffolding relation. Some of these dimensions will also help distinguishing the different kinds or manifestations of mind invasion in the examples below.

3.1 Single person mind shaping

In some social settings one person alone can shape and perhaps invade others' minds. We already mentioned the example of a psychotherapist who is intentionally sought by an individual to help shaping their overall affective setup. As said in section 2, the therapy will be beneficial if it works as expected, but will be harmful when the psychotherapist is not a master of their profession and occasionally projects own problems and traumata onto their client. In this case, the client's mind might be shaped, or rather invaded, in a way that is harmful for themselves or others: for example, if slight feelings of doubt towards the partner are amplified or even feelings of aversion and contempt are triggered with the result that they – for no real reason – end a relationship or accuse their partner of abusing their child, respectively. A therapeutic relationship that was explicitly sought for mind shaping might thus turn into a mind invasion, and it might be that the client's partner or third parties readily recognize it as such, whereas the client comes to realize how harmful it actually was only much later.

In a similar vein, one partner in a relationship might severely manipulate the other. Consider the relationship between Nyle Bellamy and Phileas Fogg in the 2021 TV series *Around the World in 80 Days*. For years, Bellamy subliminally sows doubt in Fogg's mind about his own abilities, causing him hesitate to make something of himself and seize his opportunities and thereby making him feel small and unimportant. In doing so, Bellamy harms not only Fogg's life, but also the life of Fogg's beloved Estella who experiences Fogg as a coward, but, unlike himself, sees through Bellamy's manipulations. Or consider Patrick Hamilton's 1938 play *Gas Light*, the namesake for the current debate on so-called "gaslighting," a form of psychological manipulation where someone seeks to make another person doubt their own perceptions, memories, or sanity (e.g., Johnson *et al.* 2021; March *et al.* 2023). In Hamilton's play, a husband wants to have his wife declared insane in order to get his hands on her fortune. Among other things, he hides a brooch and accuses her of having lost it and moves a painting and makes her believe that she did it, but can no longer remember it. Increasingly insecure, withdrawn and isolated, she notices that sometimes the gas lights in her room dim, as if somewhere in the house another lamp has been turned on. When the servants assure her no other lamp has been lit, she begins to think that perhaps she really is losing her mind (Thomas 2018). Such drastic effects can be achieved only if the invaded partner is ready

or vulnerable for being manipulated. Some people step out of such toxic relationships only after years of suppression, wondering why they accepted the manipulations for so long. In such cases, the harm primarily affects the very person whose mind is invaded, but can also have indirect negative effects on third parties, for example on their friends or children who have to watch the evolving disaster with their eyes open. But it can, again, take a long time until the victim notices that their mind has been invaded.

In terms of the taxonomy provided by Coninx and Stephan (2021), both kinds of mind invasion belong on the ontogenetic scale. The interaction with the psychotherapist is clearly bidirectional, whereas the manipulative influence of the partner might be more unidirectional. While the client is fully *aware* of their scaffolding relationship to the therapist and deliberately sought it, the victim of a gaslighting kind of manipulation is not aware of the mischief, and the relationship to the manipulator was not established in order to have their mind shaped. In both cases, though, the scaffolds seem to be *robust* and *trusted*, at least initially, although they are not adapted to the personal needs. Nevertheless, the manipulation can be so effective that the invaded start to experience the suggestive contents as actually belonging to them, so that it might take time until they can *control* them, if they ever manage to do so at all.

3.2 Evolved and designed workplace environments

As Slaby (2016) pointed out, mind invasion can also happen at the workplace (and in similar social settings such as clubs, societies, or the military). Slaby's focus was on cases where people's affective life is subtly and almost imperceptibly shaped by the work-life culture at their new company, where that culture has not been specifically designed to cause harm and detrimental behavior but has just *evolved* over the years. In many companies, for instance, some long-time employees might have unintentionally created a dull, grumpy, and uncooperative work environment with an attitude of "this is how we've always done it" that is marked by indifference, hostility, and inefficiency, often without realizing it, and new team members might unwittingly adopt this mindset (being initially, of course, open and ready to adapt to the new working place), losing their initial enthusiasm and openness to the disadvantage of themselves and potentially also their relationships to their friends and partners. And again, third parties might realize that their minds are being invaded long before they themselves come to realize it.

A striking contrast to such evolved workplace environments that have been created more or less accidentally are workplace environments that are specifically *designed* to affect how employees feel and behave. As a paradigm example consider Google European HQ, a vibrant campus with four buildings situated

in the historic docklands district at the heart of Dublin, pretty much a little city in its own. As its leading architect points out, the design challenge “was to find a smart solution for the nearly impossible – to create a stimulating and interactive campus within a bustling environment in the midst of the inner city” (Lyons 2013). Reflecting Google’s holistic work philosophy, the goal was to create a balanced and healthy work environment while fostering maximum interaction and communication among Googlers: “[T]he Masterplan required a successful organization of a multitude of additional functions, such as 5 restaurants, 42 micro kitchens and communication hubs, game rooms, fitness center, pool, wellness areas, conference, learning & development center, tech stops, over 400 informal and formal meeting rooms and phone booths, etc.” (Lyons 2013). Even if Google’s initial or main motivation was to create a healthy work environment, all the additional offers for leisure effectively transform the work place into a place for work and living. When there is no need anymore to live a life outside Google campus, work projects and apparent leisure time become inextricably intermingled, which, in the long run, might be detrimental to the employee’s mental and physical health and their ideas of what it means to live a good life. No matter whether they wholeheartedly endorse Google’s strategy or only reluctantly give in to living the life of a genuine Googler, discussing projects also in what ought to be free time, one might consider Google’s workplace design together with its Masterplan as clandestinely shaping and invading the mind of its employees: By integrating leisure and workspaces, the campus design can make them experience the distressing feelings that go along with being constantly “on call” or the feelings of alienation, inadequacy, or disempowerment that result from the restriction of their autonomy and the erosion of their individual identity.

Both evolved and designed workplace scenarios belong on the ontogenetic scale and are more, albeit not exclusively, of the unidirectional type. While the employees deliberately sought these working environments, they probably have not been *aware* of how they shape their minds, at least not initially. Moreover, it can be assumed that they *trusted* and accepted the workplace setup whose influence has been highly *robust*. Particularly in the case of the Googlers the corporate identity is also part of what the employee takes themselves to be, more so maybe than at other workplaces, and the Google campus is set up to be highly adaptive to the needs of all employees. How good employees are able to *control* their relationship heavily depends on how they are evaluating their working conditions: If they notice that the way their workplace is set up has (intendedly or not) detrimental effects on them, they might gain control, but controllability also depends upon the availability of alternative jobs.

3.3 Echo chambers

A quite different sort of social domain that is, however, also expressively designed to create a members-only space and to shape and possibly invade the mind of the members are so-called “echo chambers” (Sunstein 2017) – i.e., environments, often online, where individuals are deliberately exposed solely to opinions and information that reinforce their existing beliefs, creating a self-perpetuating cycle of confirmation bias. Echo chambers are something like the perfidious version of *epistemic bubbles*. An epistemic bubble is “a social epistemic structure which has inadequate coverage through a process of exclusion by omission” (Nguyen 2020: 142). Usually, epistemic bubbles emerge inadvertently and rather naturally when individuals, say, preferably read news from journals or blogs that are already close to their opinions or primarily engage with people that share their opinions, preferences, norms, values, lifestyle etc. As a consequence, people in such bubbles are scarcely confronted with opposing views and therefore easily neglect them. Importantly, though, their negligence and ignorance is not malicious and can, in principle, be corrected (2020: 144 f.). Echo chambers, in contrast, are epistemic communities deliberately and maliciously designed to create “a significant disparity in trust between members and non-members” by making a “general agreement with some core set of beliefs [...] a prerequisite for membership” and “excluding non-members through epistemic discrediting, while simultaneously amplifying members’ epistemic credentials” (2020: 146). This self-selection or algorithm-driven content curation triggers a self-perpetuating cycle of confirmation bias: “The result is a rather striking parallel to the techniques of isolation typically practiced in cult indoctrination... members are not just cut off, but are actively alienated from any of the usual sources of contrary argument... [and] prepared to discredit and distrust any outside sources” (2020: 147).⁵ In our digitally molded world echo chambers abound. To name just a few: ProAna Worlds (Osler and Krueger 2022); far right circles (Valentini 2021); platforms for recruiting new members for radical Islamic organizations (Valentini *et al.* 2020; Haq *et al.* 2020); the *Querdenker* or “lateral thinker” movement in Germany; radical Trumpists who refused to recognize the results of the 2020 U.S. presidential election (Stephan and Osler forthcoming); the recent media and propaganda politics of Russia. Let us have a closer look at some of them.

Pro-Anorexia online communities or websites are Janus-faced. On the one hand, they definitely provide support, solidarity, and a sense of community and

⁵ Nguyen approaches the dynamics underlying echo chambers mainly from a cognitive-epistemic perspective. His approach might have been even more convincing if he had also taken into account an affective perspective (see Watzlawek 2023: 9, 12, 52, and *passim*).

understanding to individuals with Anorexia Nervosa (Osler and Krueger 2022: 884), who often feel misunderstood by their parents and friends or by medical staff, and thus are vulnerable and open for communities that announce empathy and understanding and help them to finally experience feelings of belonging or security and a meaningful connectedness to others. On the other hand, however, those communities also provide tips, tricks, and methods to achieve extreme weight loss, and provide their visitors with “thinspiration,” i.e., with photos, stories etc. designed for maintaining anorexic behavior, advocating for the acceptance and normalization of anorexia as a lifestyle choice or even religion (“ANA is GOD”; Watzlawek 2023: 38-43) rather than recognizing it as a serious eating disorder (Osler and Krueger 2022: 886). Although they effectively function as echo chambers, excluding and discrediting voices outside the community, ProAna websites can be highly popular among anorexics (Osler and Krueger 2022: 884; Watzlawek 2023: 12-15). ProAna echo chambers exacerbate the risks associated with anorexia, such as malnutrition, organ damage, and other serious health complications. Compared to people of the same age, anorexics have a five times higher mortality rate (Arcelus *et al.* 2011) and also a much higher risk to develop certain comorbidities such as osteoporosis, cardiac complications, or infertility (Meczekalski *et al.* 2013). Indirectly, people close to anorexics like parents, relatives, and friends might also be harmed: They can be both anxious and worried about how their relative or friend’s illness will develop, experience a loss of trust or feelings of helplessness or maybe even guilt or self-blame, or be disappointed or embittered by the rejection they receive as parents or friends. From their external perspective, what ProAna sites do clearly is mind invasion (Watzlawek 2023: 17-19). In contrast, the anorexics who are in fact severely harmed do not view themselves as being harmed and mind invaded – most of them indeed feel understood and at home within their ProAna world.

Another example of an echo chamber is the one created by the so-called *Querdenker* or “lateral thinker” movement that opposed nearly all governmental COVID-19 restrictions, propagated skepticism towards vaccines and sometimes even conspiracy theories related to the pandemic that made them decry the government as a “Corona dictatorship.” Some of them appealed to material spread by right-wing extremists from QAnon’s internet platform 4Chan (Zehring and Domahidi 2023). Initially, some of the members might merely have had reservations regarding the state-imposed COVID-19 measures and might have formed epistemic bubbles that then, when they subsequently moved to and organized themselves on social media sites, effectively turned into echo chambers that deliberately sought to indoctrinate and radicalize their members by sowing anger and hate towards the government and trustworthy

medical institutions, and contempt towards particular politicians and medical advisors. The harmful effects of these infiltrations are not as clear and unambiguous as, say, a psychosomatic illness caused by Anorexia Nervosa, but they can have at least as worrisome effects, leading, for instance, to deep separations in society, to radicalization, and even to violent outbursts such as the fatal attack by a Covid-19 denier of an employee at a petrol station who asked him to comply with the obligatory mask regulations (Oltermann 2021). In contrast to ProAna worlds or the workplace environments considered above, it is not primarily the mind invaded *Querdenker* themselves who suffer as a consequence of mind invasion, but primarily other members of society. In the long run, the activities of the *Querdenker* movement might of course also be detrimental to their members, but currently that is at best the exception (although they might end up also harboring distress, experiencing a lack of trust in others, feeling betrayed, misunderstood, or unjustly persecuted). Importantly, the *Querdenker* themselves would definitely not regard themselves as having been mind invaded. For all others it seems plain that they have.

Both echo chambers discussed in this section are located on the ontogenetic scale and clearly of the bidirectional kind. Those who become members of ProAna sites do that *intentionally*; they *trust* the online spaces and have a *robust relationship* to them. There is also a high degree of *mineness*, since ProAna sites capture more of who they want to be than most other people, which also goes along with a strong form of *incorporation* while the site seems fully *adapted* to their needs, at least how they experience them. However, users of ProAna sites may not be fully *aware* of what these communities do with them, seemingly also lacking *control* over them. People who identify as *Querdenker* visit the respective echo chambers *intentionally*, *robustly* and *trustfully*. They experience their membership as fully expressing who they are and *phenomenally incorporate* the movement's ideas and actions such as political rallies into their experiences. They are *aware* of what they do and probably believe that they are in full *control* of what they do. Nevertheless, others, even close family members or friends, might heavily disagree, although it is outright impossible for them, in both cases, to convince those whose minds have been invaded of alternative positions.

3.4 *Onlife* environments on the way to radicalization

Nobody is born as a radical extremist ready for violent actions and terror. Part of the various routes to radicalization is always some sort of (mostly) purposeful mind shaping specifically devised by recruiters. If we want to prevent violent extremism or at least do something to counter it, it is essential that we understand how the social domains that support radical organizations are

designed and used to manipulate recipients' minds into accepting, even embracing, certain detrimental ideologies. According to Valentini *et al.* (2020), these social domains often successfully merge digital resources and real-world settings into so-called "*Onlife* environments" that serve to recruit new members for extremist organizations, be it the far-right or violent Islamist movements. ISIS, for example, provided its different target groups "with interacting physical and virtual environments (caliphates) that substantiated its own *us* vs. *them* ideology" (2020: 2). The term "caliphate" was used by Atwan (2015) as a label for both the area of land and the infrastructure controlled by ISIS (the physical caliphate) and the various internet domains ISIS used to spread its state-building project (the digital caliphate). The possibility of cross-referencing events happening in the two "caliphates" with different media chosen for particular target groups (those living in the physical caliphate and those to be recruited via the digital caliphate from countries abroad) is one of the secrets of ISIS' radicalization success (Ingram *et al.* 2020). In contrast to, say, ProAna echo-chambers, we find more complex echo-systems that contain and integrate *both digital and real-world elements* such as peers, families, and radical mosque associations. In such *Onlife* environments users complete their radicalization process surrounded by like-minded associates and media footage (Valentini *et al.* 2020: 2) that overtly and covertly manipulate them into accepting, embracing, defending, and potentially giving their lives for others' ideologies (e.g., El-Nashar and Nayef 2022). Besides fueling the mind of (possible) recruits with hatred, anger, contempt and disgust towards outgroups, radical organizations provide their followers also with various positive emotions such as hope for a better future, pride and feelings of power of being member of a feared group, and a sense of brotherhood among themselves (Haq *et al.* 2020: 2). As Haq *et al.* (2020) put it in their analysis of affective bonding mechanisms to radical organizations: "The use of social media, nasheeds, and video games, for example, as tools of mind invasion, over time facilitates the transfer of followers from a virtual caliphate to an active recruit either as fighter in ISIS claimed territories or as 'lone actor' fighters in other countries" (2020: 6).

In the case of the ISIS recruitment strategies, we can observe an extended mind shaping process over time strongly supported by matching *Onlife* environments. Those who were recruited as combatants for Syria and Iraq or who performed terrorist attacks as lone actors in Europe did initially not conceive of themselves as being harmed. Even the prospect of being killed would, after successful mind invasion, be wiped off as martyrdom and re-appraised as something positive. The harm is usually on the side of the others, those who are killed, wounded, or terrorized. Consider, as one among thousands of examples, the brutal execution of Khaled al-Asaad, one of the most important

pioneers of Syrian archeology who had worked as head of antiquities in Palmyra for more than forty years. Al-Asaad was beheaded by ISIS militants, his corpse hanging for days from one of the ancient columns (Shaheen and Black 2015). But harm comes also in indirect ways – to the families of those who were recruited if they do not sympathize with the ISIS caliphate, and there is also additional harm in societies, for instance when far-rights use attacks of lone actors to destabilize consensual living with migrants in Western Europe. Seen from such perspectives the results of the purposeful mind shaping processes are detrimental to a huge number of individuals, even societies, except perhaps for those who are mind invaded. But even among those whose minds are invaded there are some who later regret that they were tempted to join ISIS and disclose touching counter narratives in interviews (Speckhard and Ellenberg 2020). In retrospect, they would confirm that they had been mind invaded.

Another quite different but also well-known social domain is also best described as invading people's minds by an *Onlife* environment that combines both real-world groups and ringleaders and extensively relies on internet platforms and social media: Trumpism and its associated events and processes. The storming of the United States Capitol on January 6, 2021, by supporters of (then) former President Donald Trump who inflamed his followers with hate and anger towards the institutions and people involved in the 2020 U.S. presidential election is a particularly salient example of exaggerated and collective mind invasion. Trump and his political allies had deliberately fueled the atmosphere over months and weeks. Starting the day after the election, Trump continuously accused Biden and the Democrats of having stolen the presidential election and devised conspiracy theories based on the crazy superstition that millions of votes had illegitimately been suppressed or invalidated. Trump and several Republican members of Congress refused to publicly acknowledge Biden's victory, radicalizing Trump supporters to the point where many of them "coalesced around the idea that forceful protests and even violent direct action were necessary to stop the counting of fraudulent ballots and thereby to prevent Biden from taking office" (Duigan 2023). When a Facebook group calling itself "Stop the Steal" attracted some 320,000 members in less than 24 hours before Meta shut it down because of posts containing disinformation and calls for violence, the "Stop the Stealers" moved to other social media platforms, where they continued to propagate and expand on election conspiracy theories. They soon began to also organize in-person protests in various cities, including at polling stations where they claimed fraudulent vote counting was still taking place. Trump himself repeatedly encouraged them to take action against the counting of votes. On January 6, he stirred up a crowd of thousands at a public park near the White House "to 'walk down Pennsylvania Avenue'

to the Capitol building; and urged his audience to ‘fight like hell’ or ‘you’re not going to have a country anymore’” (Duignan 2023). Far-right activists together with thousands of Trump supporters penetrated the Capitol, damaged property of politicians, and caused the death of several people.

As many before him, Trump resorted to a kind of “Political Mind Engineering” (Shei and Schnell 2024: Part I) to fertilize the soil of discontent among his supporters. But in a way his use of social media to spread misinformation and hate and to accuse critical media of producing fake news was a new experience in the politics of Western democratic states. It amounted to a “Brainwashing through Social Media” (Nandy and Tewary 2024) that culminated in the storming of the Capitol. Trump and his political allies arguably *invaded* the minds of many members and sympathizers of the Republican party, holding great sway over their affective responses and actions. Importantly, though, Trump could not have had such an influence if people did not already resonate with his agenda and views to begin with (Mossner and Walter 2025: sect. 4). Large parts of the U.S. public shared values, norms, and affective stances with Trump (Stephan and Osler forthcoming). This diagnosis leads to an interesting fragmentation or bifurcation in the evaluation of Trumpists’ actions. While one side of the political spectrum regards the march on the Capitol to “Stop the Steal” as an attempt to protect the nation from infiltration by woke liberal forces the other regards it as an attack on America’s democracy and constitution – an attempted coup – that has caused immeasurable harm to American society as a whole, including indirect harm to other societies. Trump’s blunt accusations of upright traditional news media as a “Lying press” that distributes fake news while himself abandoning any orientation to truthful views is a blue print for populist and anti-establishment groups worldwide. From this perspective, Trump’s influence on his followers and supporters is clearly a case of mind invasion. Nevertheless, his followers, similar to ISIS recruits, probably see no severe damage done to themselves, particularly not with regard to things they value, and are thus unlikely to consider the influence of Trump’s *Onlife* environment as a case of mind invasion.

Both *Onlife* environments considered above are clearly of a bidirectional type. But while the one that supports the recruitment of fighters for the ISIS caliphate belongs to the ontogenetic scale, the one that incited the rabble to storm the Capitol belongs to the microgenetic scale. Moreover, those who are recruited by extremist groups via *Onlife* environments engage in *robust* and *trustworthy* interactions with recruiting agents, their supporters and related social media. During the different phases or stages of their involvement, which clearly is a longer lasting process, they more and more incorporate the extremist ideology, making them the persons they want to be with a high degree of

mineness. Most of the steps taken throughout this process are taken *intentionally* while being *aware* of what is going on. At the same time, though, in the moment in which they are recruited they lose nearly all *control*. Stepping out from an extremist organization is dangerous. The microgenetic activities – the storm of the Capitol – were those of an angry crowd who had been *robustly* mind invaded by Donald Trump and his allies over weeks, months, or even years. Their *trust* in Trump’s twisted perspective on the outcome of the elections made them incorporate Trump’s anger and experience it *as their own*. They *intentionally* joined the flock, were *fully aware* of what they were doing when they were storming the Capitol. They experienced their activities as fully expressing who they are and were in full *control* of what they did.

3.5 Russia – a nationwide echo chamber

The currently biggest – and arguably most radical – echo chamber worldwide is the news and propaganda machinery directed by the Russian government and associated institutions. They not only filter and manipulate what is broadcasted and available on social media platforms, they have – piece by piece over the last years – forbidden and criminalized *all* other resources that provided or could provide different views and opinions (Troianovski *et al.* 2023). Two months before the Russian army invaded Ukraine (on December 28, 2021), Russia’s supreme court ordered the closure of *Memorial International*, the country’s oldest human rights group, which was awarded the *Right Livelihood Award* (the alternative Nobel Prize) in 2004 and the *Nobel Peace Prize* in 2022. “The court ruled Memorial must be closed under Russia’s controversial ‘foreign agent’ legislation, which has targeted dozens of NGOs and media outlets seen as critical of the government” (Roth 2021). Since then the situation has worsened for both those who could provide different views and those who would like to inform themselves unbiasedly. On March 28, 2022, the last independent journal *Novaya Gazeta* announced its decision to suspend its online and print activities until the end of the “special operation on the territory of Ukraine.” It was the journal’s response to two official warnings from Roskomnadzor (the Russian federal agency responsible for censoring Russian mass media) after having first announced to publish in solidarity an edition in both Russian and Ukrainian languages with respect to the Russian invasion (Roth 2022). By end of July 2022, Roskomnadzor demanded that *Novaya Gazeta*’s license for its website and print edition be cancelled (Agence France-Presse 2022). In early September 2022, a court in Moscow stripped the newspaper of its print media license in Russia (Sauer 2022), and in the same month Russia’s Supreme Court revoked the online license of *Novaya Gazeta* (The Moscow Times 2022). On September 1, 2023, Dmitry Muratov, the former chief-editor

of Novaya Gazeta and Peace Nobel Prize laureate in 2021, together with two other journalists was declared a “foreign agent” (Agence France-Presse 2023). And the list goes on: One of the later developments is that on January 22, 2024, Russia’s State Duma registered a bill to confiscate property and valuables from persons who criticize the Ukraine war and are convicted of “discrediting the Russian army” (Roth 2024). On February 27, 2024, the Moscow court accused Oleg Orlov, former co-chair of Memorial, of being guilty of “repeatedly discrediting” the Russian armed forces and sent him for two years and six months in a penal colony (Rosenberg 2024). Russian universities (have to) suppress anti-war voices among faculty and students. Self-censorship has gained the upper hand over critical voices (Oleksiyyenko 2024): 200 rectors and other leaders of Russian universities have openly endorsed their country’s illegal aggression against the Ukraine (O’Malley, 2022), while a dissenting view by 7,750 Russian scientists decrying the “senseless war” was taken down from the internet after the Russian parliament criminalized calling the invasion of Ukraine anything other than a “special military operation” (Overbye 2022). With Russian universities pressing “academics to display their loyalty, these institutions are increasingly morphing into echo chambers supportive of Putin’s regime” (Chirikov 2023: 2).

Echo chambers as such are nothing new, especially not in Russia. The print coverage of the Ossetia conflict in 2008, for example, was one big echo chamber (e.g., Stolyarova 2008), and the attack on Ukraine is currently being euphemized in countless echo chambers on online platforms such as X or Facebook (e.g., Zhang *et al.* 2024). However, with enforced media conformity and limited to virtually no access to diverse viewpoints subjugating the media landscape, public discourse, and even educational institutions to one single narrative, Russia has effectively established *Gleichschaltung* for all areas of life (Gruska and Bürger 2022), creating an *echo chamber at the national level*. What people encounter in Russia is remarkably worse than what Nguyen (2020) had in mind: It is already quite awful to discredit other views and opinions, to dispel people from a social network, and to alienate in-group members from out-group members and their opinions, but to turn a complete nation into one huge echo chamber, criminalizing everybody who holds opposing views, preventing other information by sanctioning possible providers and possible users is beyond all limits, creating an extensive atmosphere of intimidation. One of the results is what Maxim Alyukov has characterized as political apathy: “Living in an authoritarian environment, citizens feel politically powerless and certain that engaging with political information cannot help them affect the course of political life” (Alyukov 2022). The affective sounding board are humiliation narratives (Majeed 2024), which seem to be widely believed and

shared by nearly all parts of the Russian society (Frevert in: Schuller 2023). They fall on so fertile grounds in Russian society in part because its members tend to, as Jurij Levada has diagnosed (cf. Gudkov 2017: 101-102) lack initiative and avoid any personal responsibility, be suspicious, and submit without complaint to any actions of the authorities, among other things – features of the so-called *Homo sovieticus*, which Lev Gudkov sees reproduced in current Russia (Gudkov 2017; Smilga 2024). Viewed from the outside, from the perspective of someone who does not belong to the governmental apparatus, or who is not already so profoundly mind invaded that they believe whatever their leaders want them to believe, this is *mind invasion of the most radical format*. Russia's governmental decisions harm everybody who opposes the state orders or criticizes the war, and also those who believe in the governmental propaganda, join the army, get wounded or killed, including the tens of thousands of families who are robbed of fathers, brothers, and husbands.

The Russian government's top-down orchestrated echo chamber belongs on the sociogenetic scale, reaching back to Zarist Russia and Stalinism. For most citizens it seems to be of a unidirectional type, although there may also be many who are engaged bidirectionally. The influence of the Russian propaganda machinery is extremely *robust*. For some citizens it is *trustworthy*, for others not at all. Some may experience what is broadcasted as belonging strongly to themselves, being part of their *mineness* and incorporating their values, norms, and language. Others feel alienated and could puke in the face of everything they are served up by the official media. Many might not be *aware* of what is being done with them, others are and try to avoid it. Some might *intentionally* seek the propaganda news and join the thoughts offered, while others still search for alternate information under dangerous circumstances. Neither of them is in *control* of the government's manipulations. While parts of the society are ready and open to this infiltration, others feel vulnerable and have nearly no means to resist.

3.6 Culturally accepted norms and values that are detrimental for some people

As mentioned in section 2, many long-lasting effects of social mind shaping on people at an early age – how their family reacts to their behavior, what norms and values they have been taught, their educational years in schools and universities etc. – are mostly not explicitly chosen by them. Over longer periods of time, some cultures have established discriminatory values and norms which many accept even if they are detrimental for themselves. Consider, as just one example of many, the colorism in South Asian communities, a form of discrimination based on skin tone that routinely privileges light-skinned people of color and penalizes darker-skinned people (Bajwa *et al.* 2023). In coun-

tries like India, Pakistan, and Bangladesh, skin color-based norms and values shape the minds of individuals from an early age on. Even within families siblings are often compared to one another according to their skin color. Daughters with a darker skin color might be advised to reduce outdoor activities (to avoid too much sun light) and constantly told that their darker skin means they have fewer chances on the marriage market (Dixit 2019). Later in school or other educational institutions, pupils and students with dark skin tone are often insulted, mocked and mobbed by peers and even discriminated by teachers (Samarajiva 2020). In the job market, people with light skin tone are often favored in many areas of work in the public sector, from flight attendants, over receptionists and managers in the hotel and tourism industry to readers for air news in journalism (Dixit 2019). Entertainment media cast mainly light skin color actors for leading roles, whereas dark-skinned actors are only offered minor roles like domestic help. Similarly, dark skin models are typically not allowed to represent luxury brands. Such colorist biases are systematically reproduced and reinforced when cosmetic companies purposefully advertise and glorify whiteness, depicting dark skin as the root cause of all problems: A typical commercial clip portrays a woman with dark skin color as unsuccessful and unhappy until someone suggests to apply the skin bleaching cream *Fair & Lovely*, which she dutifully does, transforming into a successful and confident person who, finally, starts to receive unlimited attention (Dixit 2019).

These societal norms and practices are passed on from generation to generation and shape the minds of all new members. The results are extremely harmful to those with darker skin color. Particularly in women, the ubiquitous experiences of skin color discrimination generate feelings of rejection and inadequacy (Landor and Smith 2019). “It is through feeling not being good enough, constant self-doubt, self-hatred, shame, low confidence, and low self-esteem that colorism is omnipresent” (Bajwa *et al.* 2023: 12). In addition to the explicit discriminations and disadvantages on the job market, those who experience them on a daily basis are more likely to develop hypertension, psychological distress, and are prone to more health-related issues (Landor and Smith 2019), especially in light of the fact that the bleaching creams usually contain mercury (Bajwa *et al.* 2023: sect. 5). Nevertheless, people of color seem to propagate the detrimental norms and values themselves by using a variety of skin whitening tools to match conventional beauty standards (Dixit 2019). Given the effects of complying with the traditional and conventional beauty standards, passing them on to the next generation has to be considered to be a form of *mind invasion* that harms millions of people who differ from others just by the color of their skin.

The colorism practices belong on the sociogenetic scale and manifest themselves in both a unidirectional and a bidirectional way. Usually, people of color

do not *intentionally choose* the life-long detrimental influences. They are subjected to them from birth on, having little *control*, perhaps not even being *aware* of what the generally accepted norms and values of whiteness do with them. The influences are extremely *robust*, being hammered into them through all channels (family, peers, educational system, media, work etc.), so that they might eventually even become fully *incorporated*. Those who become aware of the intolerable norms they are subjected to and decide to resist them probably face a hard life.

3.7 The ‘liar’s dividend’ – Synthetic disinformation as a challenge for trust in external information

By now, virtually everyone knows how to spruce up a photo before sharing it on Instagram (Mossner and Walter 2024). The motivation typically is a desire to be accepted and admired by others or a preference of attractiveness over authenticity. When it recently turned out that a “harmless-looking” Mother’s Day photograph of Catherine, Duchess of Cambridge, had been photoshopped, an unparalleled shitstorm erupted in the UK (which only died down when she shortly afterwards made her cancer public; Thorpe 2024a). Vanessa Thorpe (2024b) traces this unexpected, and apparently exaggerated, nationwide outrage to a profound *uncertainty* (sort of an “epistemic angst”; see sect. 4) about who can still be trusted: “a couple of clicks and cursor swipes have been enough to throw an already jittery, untrusting nation into a fresh zone of uncertainty” (Thorpe 2024b). Even if it was “just about a photo,” this episode was apparently enough to trigger people’s fear that dystopia is already knocking at our doors. Photos that are altered by amateurs, be it to appear in a better light or to preserve at least a minimum of privacy for them and their family, are one thing; media footage created or severely altered by advanced AI and machine learning algorithms that is so highly realistic that it is no longer possible to determine whether they are authentic quite another. Such synthetic media content – be it visual, auditory, or multimodal – where people seemingly communicate ideas or perform actions they, in fact, never endorsed or undertook, is referred to as a *deepfake* if it is used maliciously with the intention to deceive, that is, as *disinformation*. With just a few clicks, almost everyone is by now able to generate videos or sound recordings where people seemingly communicate ideas or perform actions that are not their own (CPA 2023: 12). While such deepfakes can be used for harmless entertainment purposes, such as creating funny videos or impersonating celebrities in movies, they can also be used maliciously to create fake news, misinformation, or manipulate and deceive people. Lamentably, some platform providers are deplorably slow or even averse to prevent the spreading of deepfakes. When

deepfake pornographic images of pop singer Taylor Swift were published on the internet, they “were viewed tens of millions of times on X and Telegram” (Beaumont-Thomas 2024), but the social media platform X, formerly Twitter, “was so slow to react that one image racked up 47m views before it was taken down” (Saner 2024).

The players behind the propagation of deepfakes and their motivation vary widely. They range from lone actors or small groups to state-sponsored specialists and state entities of totalitarian regimes. “These actors exploit an array of tactics such as employing advanced botnets, malicious automated networks, intricate troll farms leveraging both social media ad campaigns, and mainstream media vectors to disseminate their narratives” (CPA 2023: 9). As tools of active disinformation deepfakes can be used to distort democratic discourse on important policy questions, manipulate elections, erase trust in significant public and private institutions, enhance and exploit social divisions, and damage international relations (Chesney and Citron 2019: 1777).

According to a notorious proverb, every coin has two sides. Alas, the other side of the inexorably ubiquitous spreading of disinformation is not promising either – it is *the liar’s dividend* as Danielle Citron and Bobby Chesney dubbed the harmful result of a situation in which the authenticity of real audio and video clips is questioned: “Imagine a situation in which an accusation is supported by genuine video or audio evidence. As the public becomes more aware of the idea that video and audio can be convincingly faked, some will try to escape accountability for their actions by denouncing authentic video and audio as deep fakes” (2019: 1785). Various political actors, Donald Trump being the most salient, have relentlessly stoked distrust by accusing serious media of providing “fake news” when confronted with damaging factual assertions; the same holds for German far-right-politicians who accused media of having manipulated pictures of recent demonstrations against the AfD (and the re-migration ideology) and reported “fake news” about the real numbers of protesters (Sparrow 2024).

Synthetic media, deepfakes and disinformation spread by a modest number of persons and organizations (compared to the total number of human beings on earth) are about to change commonplace orientations for everybody: “We still tend to think of video and audio as authentic and incorruptible. As synthetic media become ubiquitous, however, we have to prepare for a world where seeing and hearing are no longer believing” (Schick 2020: 26). Deepfakes create an unreliable environment that makes discerning the truth difficult for all of us, which may result in a fading trust in media and political institutions, paving the ways for “alternative” or “manufactured” truths (Vision 2023). They thereby undermine political processes by “fostering doubt and destabilizing the common ground

that democratic societies require” (CPA 2023: 9, 17). Synthetic media used in deepfakes bring harm to everybody who wants to live in an open and liberal democratic society. They invade our minds by sowing doubts – justified skepticism concerning seemingly authentic sources, but also concerning truly authentic documentations. We no longer know for certain whom and what can be believed.

The changes we face through deepfakes and disinformation should also be located on the sociogenetic scale and seem to be bidirectional. We all face news on a *robust* daily basis. What is seriously at issue, though, is what information we can *trust*. Our trust is shattered or undermined by an increasing amount of disinformation. Many citizens are probably not yet *aware* of this development, which is mostly, or at least partly, beyond our *control*. Nobody, except usually those who create and spread disinformation, intends our trust in media to be undermined. Since we cannot prove in all cases what is correct and what is wrong, we all are *vulnerable* to be misled.

4. Conclusion

The examples examined above illustrate that the term “*mind invasion*” as a label for all detrimental and harmful cases of mind shaping is applicable to a wide variety of phenomena. Importantly, those whose mind is invaded are not always those who are harmed or who would regard themselves as having been harmed. In some cases, third parties are harmed, or co-harmed, as a consequence of others’ mind invasion. Also, there is quite a variety with regard to those who invade others’ minds or who create environments that lead to the invasion of others’ minds, be it individuals or entire groups.

We started with one-one-relationships, in which one person invades the mind of another, and where it may be the mind invaded agent who is harmed, people close to them or both. The mind invaded person need not be the one who first detects that their mind has been invaded and might even outrightly deny it. We then looked at workplace scenarios as an instance of a many-to-one relationship, which also happens to be Slaby’s paradigm case of mind invasion. In such cases, the minds of employees might be invaded rather inadvertently, but nevertheless with detrimental consequences for both them and the people close to them. In other cases, workplaces (e.g., the Google campus) are already specifically designed for employees to combine their own interests with those of the employer, fostering an environment that might make them sacrifice themselves for the company they are working for. The consequences of “enabling as much interaction and communication between the Googlers as possible” (Lyons 2013) are explicitly intended and they might be detrimental to the employees’ expectations as their hopes of leading a good life are being dashed.

Next, we looked at cases of mind invasion where the invading entity and its influence become more abstract, viz., at the influence of particular echo chambers on individuals. Some people may intentionally join a particular echo chamber, say a ProAna world, in order to feel supported by other members, who might not have the intention to harm the person with anorexia. But if they stick to their radical diet, not only they will eventually be harmed, but also those close to them. Again, recognizing an external influence as an invasion of a person's mind might differ between parents and friends on the one side and the mind invaded person on the other. In contrast, echo chambers with a political agenda are usually set up with a clear mind invading purpose in mind. Those who join and share such social communities are often already like-minded. Given the continuous influence of their echo-chambers, they might engage in protests or more radical activities, in worst case scenarios even harming societal cohesion. In such cases, it is rather the "others" who would characterize the influence of the echo chambers as mind invasion, not those who are invaded.

In more complex social settings the mind shaping influence stems from combinations of specific online media and real-life interactions, as in recruitment processes of extremist groups or the violent outbursts of misdirected Trump supporters. In both cases the harm is initially not on the side of those who are mind invaded and encouraged to engage in violent activities, but on the side of those against whom the activities are directed or whole societies. Rather rarely, those who in fact were mind invaded acknowledge how they have been misguided by those they initially were eager to follow.

A very special case of an all-embracing echo chamber that also spreads into all niches of life is Putin's current Russia. In a radical Orwell-1984 manner, all digressive voices have been banned and criminalized, so that expressing unwelcome thoughts may lead to charges, prison or loss of property. This causes harm for pretty much everyone who is not happily involved in the practices of the government. In this case, the minds of all citizens are purposefully invaded, beginning with families, but including educational and other institutions, and to such an extent that only a minority in Russia would recognize it as a case of mind invasion.

We next turned to a case of mind invasion that involves whole nations. In South Asian communities and over generations, colorism has been so deeply entrenched in people's minds that they pass it on to the next generation, even if they themselves belong to people of color and, as a consequence, are among those that have to bear the harm. The results make everyone suffer who is discriminated or who tries to use some of the advertised resources to whiten their skin. This is a case of mind invasion committed by nearly all members of the society: families, teachers, hiring practices of companies, marriage market, blue

prints in social media, etc. Lamentably, even those who are discriminated and harmed contribute to the invasion of their peers by accepting, embracing and imposing the norms and values through their own use of bleaching products.

Lastly, we looked at the effects of AI-generated synthetic media, when they are maliciously used as deepfakes. Misguided by disinformation, legitimate skepticism towards possible fake news will also extrapolate to skepticism towards authentic documentations, giving conspiracy theories ammunition to fight against true messages. In the end we might no longer have the tools to discern what of second-hand news is reliable and what is not. The result is a dissolution of an agreed upon common basis, which is extremely important for constructive solutions to political controversies – trust in what we are told and what we get to see. The harm would be everywhere when losing such an essential pillar of liberal democratic societies. But those who are responsible for this devastating outcome of an invasion that creeps in all our minds are a small minority compared to those who will suffer.

We would be delighted if the foregoing ideas and considerations would trigger further academic discussions both with regard to the literature on “mind invasion” in the narrower sense and with regard to various current discussions on the inevitably social situatedness of our affective experience. They might also be useful for recognizing and classifying less salient mind shaping invasion processes, which are more difficult to analyze with an unbiased gaze.

On the more narrow side, we already mentioned in section 2 that mind invasion arguably wouldn’t work (as well as it does) if the people whose minds are invaded wouldn’t be “vulnerable” or in some sense “ready” for it. While we have tackled this topic only in passing from time to time, it undoubtedly deserves more in-depth investigation (see also Mossner and Walter 2025). On the one hand, some people are obviously “ready” to have their minds shaped from the outset, for example those who seek out a psychotherapist to help them overcome their problems. On the other hand, however, there are those who may not be equally “ready” to have their minds manipulated, but who are nevertheless vulnerable in a way that others are not – some, after all, succumb to gaslighting, others don’t (see sect. 3.1). Moreover, what makes people “vulnerable” for mind invasion might differ: Syrian or Afghan youths, for example, may be vulnerable to the recruitment strategies of Islamic fundamentalists in very different ways and for very different historical, psychological and social reasons than, say, marginalized suburban teens in Paris or Brussels, not to speak of sheltered middle-class children from Western countries who pull up stakes to fight for ISIS or marry an ISIS fighter. Lastly, and importantly, while vulnerability to mind invasion is currently attracting a lot of attention (e.g., Figà-Talamanca 2024), vulnerability alone cannot be the whole explanation

for why some people are invaded and others not (Mossner and Walter 2025): Arguably, for many young people in the suburbs, for example, the ground is equally prepared for radicalization, but despite their common vulnerability (Shafieiou and Haq 2023), only a few of them dare to take the next steps towards final radicalization.

At a more general level, the examples discussed and the distinctions made above intersect with discussions of what has recently been called “affective injustice” by highlighting the ways in which emotional experiences are shaped, manipulated, and potentially violated within social and technological contexts (e.g., Archer 2024; Gallegos 2021). The connection between discussions of “situated affectivity” or “mind invasion” in particular with the debate about “affective injustice” is evident in situations where vulnerable or marginalized groups are disproportionately targeted by manipulative tactics initiated (deliberately or not) from the outside, exacerbating existing inequalities. Fricker (2007), for instance, has explored how testimonial injustice, where individuals are not believed or taken seriously due to prejudice or stereotypes, can lead to emotional harm and perpetuate systemic injustices. Nancy Fraser has expanded Fricker’s concept by examining emotional labor and care work, arguing that the undervaluing of such emotional contributions reproduces social hierarchies (Vincent 2019). And Ahmed (2004) has focused on the politics of emotion, analyzing how certain emotions are privileged or stigmatized within society, leading to the marginalization of certain groups based on their affective experiences. All these scholars highlight the importance of recognizing and addressing emotional dimensions of injustice that result from the ways our affective life is inevitably shaped by a plethora of factors beyond our individual conscious pursuit that go way beyond Slaby’s initial focus on the corporate workplace.

Among the issues that need to be explored if one takes the idea of mind invasion to scale up from individuals to societies as a whole is also what Pritchard (2015) has described as “epistemic angst,” i.e., a general sense of uncertainty or anxiety regarding one’s knowledge and beliefs, often stemming from the realization of potential epistemic limitations or vulnerabilities. In the context of AI developments like deepfakes, epistemic angst may manifest as a largescale and pretty much universal concern about the reliability and authenticity of information, leading individuals to question the trustworthiness of media content and their ability to discern truth from falsity. Deepfakes, by their ability to convincingly fabricate audiovisual content, have the hitherto unprecedented ability to exacerbate this angst by blurring the line between what is real and what is artificially generated, challenging our traditional methods of verifying information and fostering a climate of skepticism and uncertainty.

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