Disrupted Trust:

The Digital Erosion of Civic Norms

4/14/25

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WORD COUNT:
Title page and abstract: 302
Text, tables and figures: 6576
References: 1879

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References: Forgas trust References
Supplement

Abstract

This chapter presents a new theory and preliminary report of results from two national surveys on the role that social media plays in the erosion of trust in democracy. We introduce a *Model of Botification*, which refers to a process by which people using high amounts of social media can become increasingly automated or manipulated by algorithms (bot-like), and in turn, distort internal models of the self and the world, promote authoritarian tendencies, and ultimately disrupt trust in democratic institutions and civic norms. Study One evaluated the prevalence of *virtual civic disalignment*, in which disconnects between professed commitments to democracy in the abstract and willingness to support anti-democratic actions in practice are exacerbated among those high in social media use (SMU). Higher SMU was associated with less support for democracy, support for democracy in the abstract was not significantly correlated with endorsement of concrete democratic behaviors, and higher social media use was associated with greater willingness to violate basic principles of democracy. Study Two evaluated how *botification* is connected to *digital permission structures for political violence*, which refers to the use of social media to celebrate, glorify, and encourage political violence. We used a recent real-world case, the assassination of the UnitedHealthcare CEO in December 2024, and found that higher SMU, anxiety, zero-sum thinking, left-wing authoritarianism, and lower internal locus of control were correlated with endorsing justification for this murder. These patterns provide preliminary support for our Model of Botification and do not augur well for trust in American democracy.

Trust is a fundamental psychological and social construct that influences individual behaviors, group dynamics, and institutional cohesion (Evans & Krueger, 2009; Tanis & Postmes, 2005). Trust can be conceptualized along dimensions of competence, the belief that an individual or institution is capable of effective action and value alignment, and the belief that they share one's goals and ethical orientation (Cook, 2001; Kramer et al., 2014; Tanis & Postmes, 2005). Value alignment can encompass both shared aspirations (what we are aiming toward) and shared proscriptions (what we are aiming away from), combining perceptions of goodwill, integrity, and purpose. In civic life, trust functions across multiple domains, between individuals, in institutions, and within democratic norms, where its presence fosters societal cohesion and its absence can undermine institutional legitimacy and democratic participation (Kramer & Wei, 1999; Lewicki & Bunker, 1995). This chapter provides an embryonic theory and preliminary report of results from two surveys on connections of social media to erosion of commitment to, and, implicitly, trust in, democratic institutions and practices in the U.S.

SOCIAL MEDIA AND UNCERTAINTY

The Double-Edged Sword of Social Media

Social media has fundamentally altered the landscape of human interaction, shaping how individuals perceive themselves, engage with others, and participate in civic life (Boulianne, 2015; Gil de Zúñiga et al., 2012; Pérez-Torres, 2024). As a modern analog to the printing press, social media facilitates the rapid dissemination of ideas, emotions, and cultural narratives, offering unprecedented opportunities for connection and influence (Lin et al., 2013). However, like the printing press (the invention of which was followed by 200 years of European religious wars, see Supplement) and other transformative advancements like radio and television, social media's power comes with significant risks. Historically, such technologies have been linked to the propagation of violence, genocides, and societal upheaval, often through the weaponization of propaganda (Gulseth, 2004; Jones, 2011; Rapoport, 2019; see also the Supplement). Indeed, one recent study found that in countries high in affective polarization (such as the U.S.) social media simultaneously increased democratic participation and voting and also decreased satisfaction with democracy (Chan & Yi, 2024).

Uncertainty and Extremism

Uncertainty is a critical factor in understanding how social media and other technologies influence extremism. Increased access to information, while empowering in some contexts, can exacerbate uncertainty by overwhelming individuals with conflicting or ambiguous ideas (Hogg, 2007). Uncertainty is strongly linked to the adoption of extreme attitudes and behaviors, as individuals seek clarity and stability in rigid ideological frameworks or authoritarian structures (Kruglanski et al., 2006).

Uncertainty-driven cognitive strain creates fertile ground for polarization and radicalization (Hogg, 2014; Jussim et al., 2023; Pruyt & Kwakkel, 2014). As individuals struggle to make sense of conflicting narratives and incomplete data, they may turn to more extreme ideologies that offer simplistic, black-and-white explanations (Hogg, 2007, 2014; Hogg & Blaylock, 2011). Such ideologies can reduce uncertainty-driven strain not only by reducing ambiguity but also through simplistic emotional appeals and by filling psychological needs for certainty and belonging (Belavadi, 2017; Hogg, 2014; Hogg et al., 2013). Social media, by its design, has the potential to amplify this effect by presenting simplistic information in rapid and emotionally charged formats that exchange information accuracy for more engagement and virality (Carrasco-Farré, 2022; Wang & Inbar, 2021).

Social media algorithms tend to reinforce echo chambers and create ideological silos, exacerbating divisions and intensifying radical viewpoints (Barberá et al., 2020; Cinelli et al., 2021; Wahlström & Törnberg, 2021). These silos provide an environment in which users receive rapid and repeated validation of their beliefs, creating a false sense of certainty that further entrenches extreme ideologies and diminishes openness to alternative perspectives (Jiang et al., 2021; Sunstein, 2009).

The Role of Trust in Navigating Uncertainty

Trust serves as a stabilizing force that helps individuals navigate uncertainty (Colquitt et al., 2012; Pavlou, 2005). Trust systematically reduced key sources of uncertainty, information asymmetry, fears of opportunism, and privacy concerns (Pavlou et al., 2005). When individuals trust actors (whether they are sellers, institutions, or democratic systems), they perceive less hidden information, are less likely to suspect opportunistic behavior, and are more willing to accept potential vulnerabilities like data privacy risks (Mayer et al., 1995; Pavlou et al., 2005).

Across both interpersonal and informational domains, trust functions as a psychological and social tool to counteract the destabilizing effects of uncertainty. In democratic contexts, where citizens engage with information from government, media, and academia, declining institutional trust (Brady & Kent, 2022; Deane, 2024; Sharon & Encarnación, 2024) may leave individuals without the resources needed to tolerate ambiguity or uncertainty. This decline is particularly pronounced among Gen Z and Millennials (Gramlich, 2019), who rely heavily on digital platforms as primary sources of political information and social identity formation.

If trust is declining, particularly in contexts where individuals rely heavily on complex and mediated information environments, it is reasonable to suspect that this decline reflects deeper disruptions in how people process, interpret, and make sense of the information they encounter. Indeed, if individuals lose the ability to meaningfully reduce or integrate uncertainty, whether due to information asymmetry, cognitive overload, or fragmented information, their capacity to sustain trust may erode. This raises the possibility that contemporary declines in institutional trust are symptoms of a broader failure of information environments to support coherent sensemaking.

The rise of social media has transformed the way individuals engage with democratic institutions, with potential to both enhance civic engagement but also undermine trust in fundamental democratic norms. Next, therefore, we present a preliminary theoretical perspective on how this can occur.

A Botification Model of How Social Media Use Can Erode Democratic Norms

Botification

First, we introduce the term *botification,* which is a process by which people using social media can become increasingly automated, performative, or manipulated by algorithms. Bots are automated programs designed to interact autonomously on social media platforms, mimicking human users. Bots are often used by bad actors to promote propaganda and sew discord (Barone, 2022; Bondy, 2017; Howard, 2020; Ng & Carley, 2023, 2025). As a result, bots are often unleashed to shift online discourse away from genuine civic engagement and toward outrage, conflict, simplistic narratives, polarization, extremism, and authoritarian attitudes.

Botification, therefore, refers to a process by which people's social media interactions, and, we argue, their underlying psychology while using social media, becomes more bot-like. We propose that botification

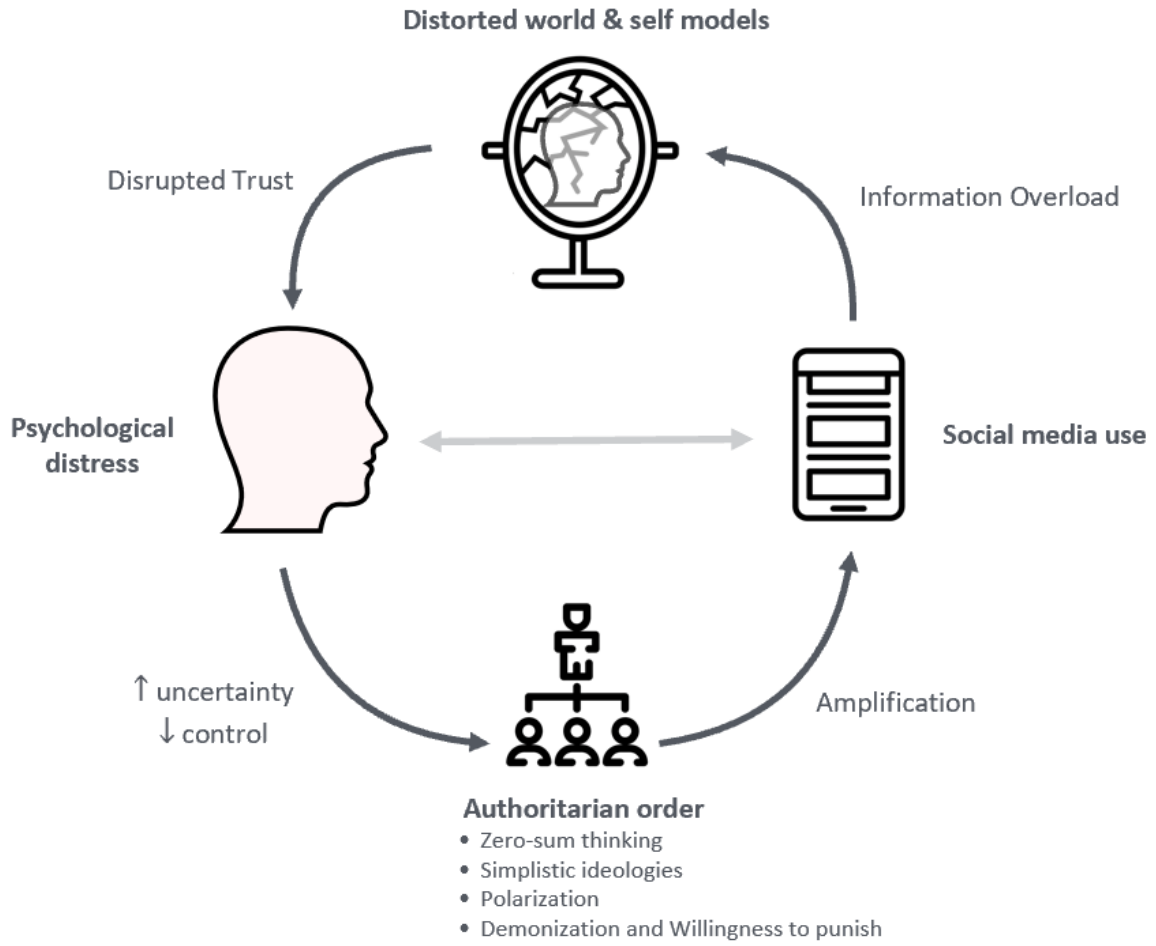
represents a cognitive state in which individuals rely heavily on mental shortcuts and heuristic-driven behaviors, mirroring the reactive and automated processes of a computer program or algorithmic bots. This includes sometimes enthusiastically or even gleefully promoting the erosion of trust in civic and democratic practices and institutions.

To conceptualize the psychological and sociopolitical role of social media in (anti)democratic behavior, we introduce a *The Botification Model* (Figure 1). This framework captures the recursive and mutually reinforcing dynamics through which digital platforms may disrupt trust, distort internal models of the self and society, and promote authoritarian tendencies. Each component of the loop not only leads to the next but amplifies the previous, creating a bot-like self-reinforcing system of cognitive, emotional, and civic decline.

According to the model, *social media use* immerses many people in a high-volume and often emotionally charged information environment. Importantly, the social media environment is not a neutral or organically emergent space. Platform content is structured by engagement-optimized algorithms. To maximize ad revenue, social media platforms often amplify and promote content that generates high levels of user engagement because such content tends to be more profitable – advertisers pay more for content that receives wider exposure (Reputation Sciences, 2024). Because content high in emotional or moral content often drives engagement (e.g., Brady et al., 2020), algorithms are more likely to amplify these sorts of posts than well-reasoned, nuanced, balanced, data-filled posts.

Furthermore, the vast amounts of information available on social media can be conflicting and overwhelming, making it hard to identify what is true, real, or correct, leaving the user in a fragmented state of *information overload* – a condition in which individuals face more information than they can meaningfully process. We hypothesize that the rise in social media use, characterized by its rapid and fragmented dissemination of information, disrupts individuals' ability to make coherent sense of their social and political environments. These platforms often flood users with emotionally charged, conflicting, or misleading content. The model proposes that this creates uncertainty not just about the world, but also about one's own place within it.

Figure 1. The Botification Model.



The Botification Model is preliminary and designed to heuristically guide empirical investigation of the potentially recursive and interactive nature of its component constructs.

The Good Regulator Theorem (Conant & Ashby, 1970) posits that to effectively regulate or navigate a system, an agent must have an internal model of that system. Applied psychologically, individuals must be able to maintain a working mental model of themselves (self model in Figure 1) and their environment (world model in Figure 1) in order to make informed decisions, act with intention, and remain psychologically stable. This kind of self-understanding requires a basic, coherent sense of "who I am," "what I believe," and "how I relate to others." A breakdown of this system can lead to psychological *distress*, which is marked by heightened uncertainty, anxiety, and a perceived loss of control (Hirsh et al., 2012).

According to the Figure 1 *Botification Model*, information overload, especially by the type of propaganda and simplistic and emotionally-charged content common on social media, can then create *distorted world and self models* that set the stage for the *disruption of trust in civic and democratic norms and institutions.* In a context of *high uncertainty and perceived lower personal control,* individuals are more likely to embrace *authoritarian order,* which is characterized by simplistic thinking, polarization, demonization, and willingness to punish perceived enemies (Jasko et al., 2017; Rast et al., 2013). These dispositions and beliefs may offer a temporary illusion of clarity and control, but in reality, they reinforce distress and deepen distrust.

As individuals return to social media to resolve their confusion or validate their views, the cycle begins anew. This return can be passive or active. By passive we mean viewing others' posts without actively engaging with them. But users may also actively engage on the platform to amplify their own views, not only as a means of making sense of their experiences but also to seek validation, perform identity, and garner social reinforcement. By sharing emotionally resonant or ideologically charged content shaped by distorted worldviews, bot networks, and authoritarian narratives, users participate in the recursive amplification of the types of beliefs and anxieties that can not only intensify their own distress, but erode trust in civic and democratic practices and principles.

Virtual Civic Disalignment

We use the term "*civic disalignment*" to refer to disconnects between individuals' professed civic ideals and their endorsement of real-world anti-civic behaviors. While individuals may say they endorse democratic principles when presented as abstractions (e.g., free speech, majority rule, etc.), many endorse anti-democratic actions when confronted with concrete situations (such as extremist speech or overturning an election won by an extremist – e.g., Prothro & Grigg, 1960). *Civic disalignment* has existed long before social media. In the 1950s, vast majorities of respondents in two surveys claimed to endorse democracy, even though majorities or large minorities also endorsed censorship of controversial speakers and overturning elections if the "wrong" type of person won (Prothro & Grigg, 1960).

A similar pattern holds internationally. Surveys conducted in each of 22 democracies found that not only do majorities or large minorities agree with some undemocratic practices (such as prohibiting pro- or anti-immigration public protests), 30-70% rationalize the undemocratic practices they support as actually

constituting democracy (Krishnarajan, 2023). These patterns (Krishnarajan, 2023; Prothro & Grigg, 1960) are exactly what we refer to here as *civic disalignment*.

Virtual civic disalignment refers to the role social media can play in catalyzing these sorts of disconnects between professed commitments to democracy in the abstract and willingness to support anti-democratic actions in the real world. Social media is justifiably not known for its ponderous content about abstract issues such as democracy; as such, we expect it to be largely unrelated to endorsement of democratic principles such as majority rule, minority rights, and rule of law.

Instead, social media is often a forum for simplistic and emotionally-charged content, often about recent concrete real world events. Abstract commitments to due process are easily forgotten in the heat of a social media mob denouncing someone for some supposedly horrendous moral transgression that has probably only been reported simplistically and incompletely. Abstract commitments to majority rule can easily be abandoned if the winner of a particular election is seen as evil incarnate. Abstract commitments to minority rights can easily be abandoned if that minority is deemed sufficiently dangerous or extreme. Thus, the *virtual civic disalignment* hypothesis is that those who spend more time on social media are also more likely to endorse anti-democratic actions in concrete instances in the real world.

These points are illustrated anecdotally by the dynamics on display in tweets shown in Figure 2. The person posting is retweeting an evidence-free propaganda post by Elon Musk seeking to demonize and delegitimize what he calls “the radical left.” However, Musk’s tweet is plausibly interpretable as referring to Democrats because actual radical leftists (e.g., communists, revolutionaries, etc.) do not win many elections in the U.S. and the tweet declares that when they lose (implying there are times they win) they abuse the legal system – potentially legitimizing a harsh and possibly illegitimate or illegal response. Such speech may be bad, but promotion of strong criticisms of one’s political opponents, including propaganda some might consider toxic, is legally protected speech in the U.S. (and for good reason – when governments get into the business of censorship, this “cure” is almost always worse than the disease; Mchangama, 2022).

Figure 2. Concrete example of civic disalignment and a digital permission structure encouraging political violence. First tweet found on X, formerly Twitter on April 1, 2025. Second tweet found 4/13/25 by the same account.

However, the substance of the comment by the person who retweeted Musk is even worse than Musk's tweet. The tweeter may well believe this is defending American democracy from "fascism," but, if so, it is being done by glorifying political violence, which is a key feature of fascist and other authoritarian movements. In this way, social media encourages *civic disalignment* – endorsement of anti-democratic principles in the name of advancing democracy (Figure 2 is for illustrative purposes; Study One assesses whether *civic disalignment* occurs beyond a pungently performative tweet or two).

Digital Permission Structures for Political Violence

Finally, we propose that over time, *botification* and *virtual civic disalignment* can create an environment in which *Digital Permission Structures for Political Violence* emerge. By *digital* we mean occurring on social media. By *permission structures* we mean ideas encouraging specific beliefs and behaviors that would typically be viewed as unacceptable. By *political violence* we mean illegal acts of physical aggression for political purposes. *Digital Permission Structures for Political Violence* refers to the use of social media to celebrate, glorify, and encourage political violence.

The first tweet shown in Figure 2 presents a clear example of just such a digital permission structure. Luigi Mangione is currently in custody for the murder of UnitedHealthcare CEO, Brian Thompson. The post shown above calls for the "Luigi Mangione-ing" of Elon Musk, a thinly-veiled call for political assassination.

Later in this chapter, we review the Luigi Mangione story in more detail, including the extent of the online glorification of the murder of the UnitedHealthcare CEO in December 2024. We then use that analysis as the springboard for a national survey of Americans assessing their support for this type of political violence and whether that is associated with evidence of *botification* (social media use, simplistic thinking, authoritarianism, etc.).

Overview of Studies

Next, we report results from two national surveys conducted in the U.S., providing a preliminary assessment of predictions generated by the processes and models described above. Specifically, Study One examined relationships between manifestations of *botification* and *virtual civic disalignment;* Study Two examined relationships between *botification* and *digital permission structures for political violence.*

Study One: Botification And Civic Disalignment

We propose that the process of *botification* and *virtual civic disalignment* are connected and mutually reinforcing. Although Study One was not designed to test causal hypotheses, its purpose was to explore whether such relationships exist, leaving causal questions for subsequent research. Accordingly, Study One tested the following hypotheses:

1. Social media use has little or no relation to general support for democratic principles in the abstract.
2. The *civic disalignment hypothesis:* Support for democracy in the abstract will have little or no relationship to endorsement of concrete democratic behaviors.
3. The *botification hypothesis:* Social media use predicts more endorsement of specific undemocratic behaviors.
    a. *The virtual civic disalignment hypothesis:* This relation will hold even among those expressing higher levels of general support for democracy.

Methods

Sample

We surveyed 1,906 U.S. respondents, including a core sample of 1,500 participants stratified to match U.S. Census benchmarks for age, gender, and race. We also intentionally oversampled around 400 Gen Z and Millennial respondents because younger users are more likely to use social media.

Measures

The survey assessed support for abstract principles of democracy, and also their support for specific anti-democratic actions. This distinction was based on work by Prothro & Grigg (1960) finding massive support for democracy in the abstract (over 90%) and far less support for specific concrete instances of democracy (often less than 50%). We also assessed general sentiment toward democracy in the U.S. The online Supplement presents all questions. All measures were coded so that, for data analysis, a higher score indicated higher support for democracy.

General democratic sentiment. Three questions assessed participants' general sentiment about American democracy (i.e., U.S. democracy has a bright future, U.S. democracy is currently working, democracy is the best form of government; see Supplement; Figures S1, S2, and S3). These were summed to create a general *sentiment toward democracy* scale.

Support for fundamental principles of democracy. Fundamental principles include things like majority rule, minority rights, and the rule of law. Therefore, questions assessed participants' support for two fundamental democratic principles in the abstract taken directly from Prothro and Grigg's (1960) classic study: elected officials should be chosen by majority vote, and the minority has the right to criticize majority decisions. An additional question assessed support for equality before the law. See Figures S4, S5, and S6.

Endorsement of (anti)democratic behaviors. Next, we assessed participants' willingness to endorse specific actions that challenge democratic principles (majority rule, free speech, rule of law; see Supplement for full details). Participants evaluated politically and morally charged concrete situations in which those very same democratic principles were in play. Two questions assessed support for protestors preventing controversial speech (one involving opposition to gender affirming care; one involving support for late term abortions). Two questions assessed support for overturning elections won by extremists (one referring to a White supremacist, the other to a Communist); these were summed. Two questions assessed support for banning extremists from voting (one Nazi, one Communist); these were summed. Two other questions assessed banning people from voting for other reasons (uninformed, not taxpayers). All questions were scored such that higher scores reflected the more democratic response (e.g., not overturning an election, not banning extremists from voting, etc.).

Authoritarianism. To assess ideological rigidity and authoritarian tendencies, participants completed both the Short Right-Wing Authoritarianism Scale (Zakrisson, 2005; α = .76) and a brief Left-Wing Authoritarianism scale, LWAI-13 (Costello & Patrick, 2022; α = .83).

Social media use (SMU). We also collected self-reports of time spent on social media.

Results and Discussion

Table S1 (Supplement) presents descriptive statistics for all variables. Because of the large N and large number of correlations, we used $p<.001$ as our significance threshold for both studies reported in this chapter. However, regardless of p-values, we also interpreted $|r| \leq .05$ as trivial and $|r| \leq .10$ as small.

Table 1 presents correlations among all variables. The first hypothesis was that social media use (SMU) would have little or no relation to general support for democracy. Although the correlations of SMU with the three principles (majority vote, minority rights, equality before the law) were not large (*r*s = -.05, -.05, -.11), they were consistently negative, meaning higher SMU was associated with less support for abstract principles of democracy. Two of the correlations were trivial by our standards. Determining whether these results meaningfully disconfirmed our first hypothesis or are mere "crud" (as Meehl, 1990, would have described it) will have to be left for future research.

Our second set of analyses tested the *civic disalignment hypothesis:* Support for democracy in the abstract would have little or no relation to endorsement of concrete democratic behaviors. This was consistently confirmed. The 15 correlations between support for the three abstract democratic principles and the five concrete democratic behaviors were all quite low ranging from $r=0$ to a high of $r=.09$. As Prothro & Grigg (1960) found over 60 years ago, there is little connection between people's professed endorsement of democratic principles and their application of those principles when they matter the most (e.g., when someone they find repulsive wins an office by majority vote).

Variable	Table 1: Correlations of Study One Variables												
	Social Media Use	LWA	RWA	Democracy Sentiment	**Chosen by Majority**	**Minority Right to Criticize Majority**	**Equality before the Law**	*Overturn Election*	*Illegal Protest (a)*	*Illegal Protest (b)*	*Ban Extreme Voters*	*Only Informed Vote*	*Only Taxpayers Vote*
Age	-.38***	-.31***	.13***	.25***	.17***	.17***	.18***	.07**	.17***	.07	.14***	.33***	.10**
Social Media Use		.32***	.05*	.00	-.05*	-.05*	-.11***	-.06**	-.14***	-.11***	-.15***	-.24***	-.05*
LWA			-.09***	.05*	.07**	.03	-.09***	-.19***	-.21***	-.15***	-.27***	-.29***	-.06**
RWA				.07**	-.06*	-.21**	-.01	-.09***	-.08***	-.16***	-.21***	-.14***	-.17***
Democracy Sentiment					.21***	.21***	.17***	-.05*	-.04	-.08***	-.04	.01	.01
Chosen by Majority						.17***	.25***	-.09***	.03	-.02	-.05*	.04	.00
Minority Right to Criticize Majority							.15***	.02	.03	.07**	.09***	.06*	.03
Equality before the Law								-.01	.09***	.04	.04	.09***	-.02
Overturn Election									.21***	.22***	.32***	.16***	.13***
Illegal Protest (a)										.26***	.17***	.18***	.11***
Illegal Protest (b)											.17***	.16***	.10***
Ban Extreme Voters												.33***	.28***
Only Informed Vote													.38***

N = 1906. *** <.001, ** <.01, * <.05. Because of the large N and the large number of correlations, we used p<.001 as our significance threshold. Illegal Protest (a) refers to an attempt to block speech opposing gender affirming care. Illegal Protest (b) refers to an attempt to block speech supporting late-term abortions. Questions measuring support for abstract democratic principles are displayed in bold. Questions measuring support for concrete (anti)democratic behaviors are italicized. Higher scores indicate more social media use, higher scores on left- and right-wing authoritarianism, and stronger support for democracy.

Our third set of analyses tested the *botification hypotheses,* that SMU predicts endorsement of specific undemocratic behaviors. Four of the six correlations of SMU with undemocratic behaviors were above our "small" threshold ($-.11 \leq r \leq -.24$) and reached the $p<.001$ level of statistical significance (see Table 1). All were negative, indicating that, as SMU went up, endorsement of the democratic option went down. The other two correlations with SMU (overturn election, only taxpayers allowed to vote) were also negative but trivial. When summed to create an overall index of support for anti-democratic behaviors, the correlation of SMU use was -.20 ($p<.001$) indicating that higher SMU was associated with lower support for democratic behaviors (greater willingness to violate basic principles of democracy).

It is also noteworthy, though not specifically predicted, that SMU was positively associated with left-wing authoritarianism ($r=.32$, $p<.001$). Although understanding why people high in LWA seem particularly attracted to SMU (or why SMU induces higher levels of LWA) is beyond the scope of the present research, understanding the nature of this relationship is an important direction for future research.

Last, we tested the *virtual civic disalignment hypothesis*, which predicted that even among people expressing strong support for democracy, SMU would correlate with endorsement of specific anti-democratic behaviors. This analysis focused only on participants scoring above the median on the democratic sentiment scale. Even within this seemingly high-democracy sentiment subgroup, SMU negatively correlated with each measure of support for democratic behaviors (see Table 2), and with the composite of the six endorsement of democratic practices items, $r = -.25$, $p < .001$. Even among those who otherwise express strong democratic values, higher SMU still predicted reduced support for democratic behaviors, supporting the *virtual civic disalignment hypothesis*.

Table 2: Correlations Within High Democratic Sentiment Participants

Variable	**Chosen By Majority**	**Minority Right to Criticize Majority**	**Equality Before the Law**	*Overturn Election*	*Illegal Protest (a)*	*Illegal Protest (b)*	*Ban Extreme Voters*	*Only Informed Vote*	*Only Taxpayers Vote*
Social Media Use	-.03	-.05	-.16***	-.10**	-.21***	-.18***	-.15***	-.30***	-.12***

*** $p<.001$. ** $p<.01$. N = 907. The questions measuring support for abstract democratic principles are displayed in bold. The questions measuring support for concrete (anti)democratic behaviors are italicized. Higher scores indicated more social media use and more endorsement of democratic principles or behaviors.

Because the study is nonexperimental, the causal direction of these correlations cannot be determined. Perhaps social media attracts particularly undemocratic people. Perhaps social media erodes democratic norms and values. Perhaps both. Furthermore, there are likely alternative explanations for the negative relationship between social media use and endorsement of undemocratic actions. Future research should address this issue.

Regardless of causality, though, these patterns suggest a striking disconnect between self-reported democratic ideals and support for concrete democratic behaviors. In essence, social media seems to foster an environment where individuals can simultaneously affirm democratic principles while actively supporting behaviors that erode them, whether by attracting such people who hold such beliefs independent of their social media experience or by leading them to adopt such beliefs, or both.

Although Study One addressed how SMU correlates with support for (anti-)democratic principles and behaviors, it did not address support for what is arguably the behavior most corrosive to democratic practices – accomplishing political goals through violence, including murder. Doing so was the purpose of Study Two.

Study Two: Botification and Digital Permission Structures for Political Violence

In this study we explored how manifestations of botification can play some role in what we term *Digital Permission Structures for Political Violence*: online mechanisms, ranging from viral memes to subcultural mythologies, that can normalize, romanticize, and incentivize political violence. These structures could enable users not merely to disengage from civic responsibility but to view endorsement of violence as a morally coherent and socially rewarded form of activism. After Luigi Mangione was arrested for the murder of UnitedHealthcare CEO, Brian Thompson, there was an explosion of support for Mangione on social media (see Supplement for more details). These digital dynamics might produce a dangerous feedback loop in which glorification, endorsement and encouragement of political violence converge to erode moral and democratic norms and, perhaps, embolden real-world violence. Figure 3 presents concrete examples found on social media of the glorification, endorsement, and encouragement of political violence. However, although these are vivid examples, they do not address the breadth or generality of such *digital permission structures for political violence*; doing so was one of the main purposes of Study Two.

Figure 3: Digital Permission Structures for Political Violence

Arrows in this figure represent manifestations, not causes. Images on right, from top to bottom, are memes found online as documented in NCRI reports on the glorification of Luigi Mangione's alleged murder of the UCH CEO (top, Mangione's deification; NCRI, 2024), celebration of anti-police violence in the U.S. during the social justice protests of 2020 (Finkelstein et al., 2020), and a call to engage in anti-Hindu rioting in Leicester, England (Sudhakar et al., 2022).

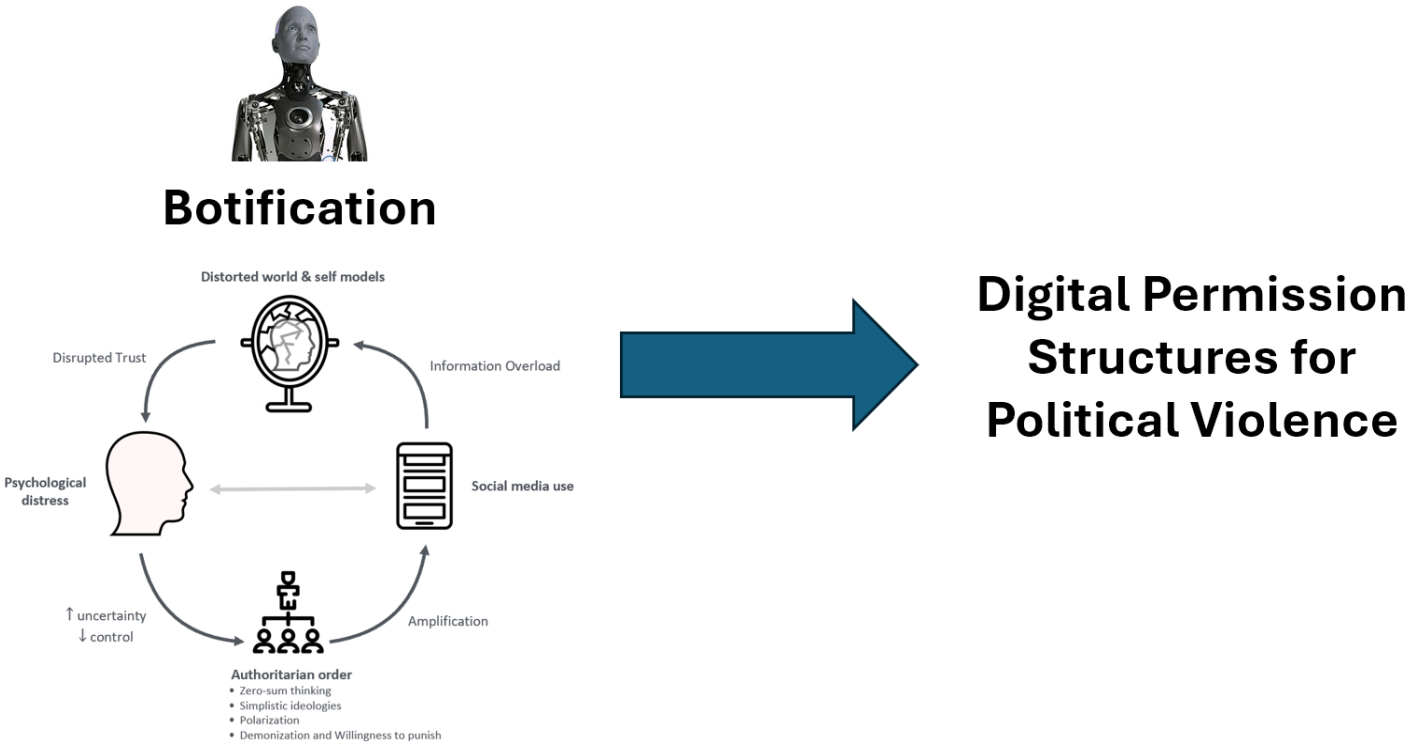
Botification and Digital Permission Structures for Political Violence

The working model for Study Two is shown in Figure 4. The core idea is that botification lays the groundwork from which digital permission structures for political violence emerge. It is possible that such a relation is causal – perhaps botification leads people to create social media content promoting political violence. Alternatively, perhaps botification leads people not to create such content, but to like, endorse, retweet, and promote such content. Yet a third alternative is that botification creates echo-chamber-like communities of like-minded people whose public pronouncements become progressively more extreme up to and including endorsing political violence. Furthermore, these are not mutually exclusive; perhaps more than one, or all of them, are in play. Study Two did not attempt to tease out which of these specific processes were occurring because our first goal was to determine whether there was even a phenomenon to be explained.

Constructs. In addition to assessing SMU and both left- and right-wing authoritarianism, Study Two assessed several psychological characteristics intended to capture aspects of the model's emphasis on heightened

uncertainty, perceived loss of agency, and a simplistic world view framed around winners and losers. Accordingly, Study Two included measures of generalized anxiety, locus of control, and zero- sum thinking. Finally, it also assessed endorsement of the type of political murder described in our case study of the Mangione incident.

Figure 4: Botification and Digital Permission Structures for Political Violence.



Working model: Botification helps lay the social, psychological, and political groundwork from which digital permission structures for political violence emerge. The model does not preclude the influence of factors beyond botification, but they are not the topic of this chapter.

Relations between social media use and these constructs can provide a preliminary assessment of the conceptual framework shown in Figure 4. Because Study Two was our initial attempt to assess and understand endorsement of political murder, we considered it exploratory. Thus, it is framed around open-ended research questions rather than hypothesis-testing. Study Two addressed the following research questions:

1. How many people endorse some justification for the murder of UnitedHealthcare CEO, Brian Thompson (support for political violence)?

2. Does social media use predict justification for this murder? A positive correlation is consistent with the digital permission structure hypothesis.
3. Is social media use correlated with
    a. authoritarianism?
    b. anxiety?
    c. zero sum thinking? For questions 3a-3c, positive correlations are consistent with botification.
    d. internal locus of control? For question 3d, a negative correlation is consistent with botification.
4. Does authoritarianism correlate with belief that the murder was justified? Positive correlations are consistent with botification.

Survey Overview

The Study Two survey examined how respondents perceived and morally evaluated the Mangione incident in particular and more generalized versions of it. For example, in addition to asking how justified Mangione was, another question asked about how justified it is to kill a CEO of a health insurance company that denied someone life-saving coverage (see Supplement for all questions). This study aimed to understand the extent to which social media use and psychological traits predict permissive attitudes toward violence, particularly in the context of anti-institutional narratives circulating online.

Method

Sample

1,068 U.S. adults were recruited through Amazon Prime Panels. The sample was matched to U.S. Census benchmarks for gender, age, race/ethnicity, political affiliation, and region. All participants completed an online survey in the two weeks following Mangione's arrest in December 2024, when public discussion and social media activity surrounding the case were at their peak.

Measures

All measures are reported in full in the supplement. The survey included questions on:

- Time spent on social media use.
- Right-Wing Authoritarianism (Zakrisson, 2005; α = 0.83) and Left-Wing Authoritarianism (Costello & Patrick, 2021; α = 0.86).
- Psychological traits:
    - Anxiety (Spitzer et al., 2006; α = 0.95)
    - Locus of control (Iles-Caven et al., 2020; α = 0.66)
    - Zero-sum thinking (Różycka-Tran et al., 2015; α = 0.89)
- Familiarity with the murder of UCH CEO Thompson.
- Moral permissiveness regarding murder. This was the sum of four questions assessing respondents' beliefs about justifications for this murder (α = 0.93).

Results and Discussion

Table S2 in the supplement presents descriptive statistics on all variables. Table 3 presents the correlations among all variables.

The first analysis was purely descriptive: How many people believed there was at least some justification for murdering the UnitedHealthcare CEO? This analysis, therefore, focused on responses to the first permissive murder question, which asked "How justified or not justified was the killing of the UnitedHealthcare CEO?" Those who had indicated that they had not heard about the murder were excluded (n=117), leaving 951 respondents who reported having heard at least something about it. Among those, we grouped responses based on those who said it was completely unjustified versus everyone else (i.e., those who reported believing there was at least some justification for the murder). We refer to this latter group below as those who reported believing the murder was "at least somewhat justified."

Variable	Table 3: Correlations of Study Two Variables						
	Social Media Use	**LWA**	**RWA**	**General Anxiety**	**Locus of Control**	**Zero-Sum Thinking**	**Permissive Murder**
Age	-.43**	-.35**	.17**	-.46**	.31**	-.34**	-.45**
Social Media Use		.35**	.04*	.29**	-.20**	.28**	.31**
LWA			-.14**	.40**	-.35**	.60**	.50**
RWA				-.15**	.02	-.08**	-.20**
General Anxiety					-.46**	.40**	.35**
Locus of Control						-.35**	-.32**
Zero-Sum Thinking							.44**

**p<.001, *p<.05. N = 951. Higher scores indicated higher LWA, RWA, General Anxiety, Zero-Sum Thinking, greater internal Locus of Control, and greater endorsement of the UnitedHealthcare CEO murder.

43% indicated that they believed the murder was at least somewhat justified (Figure S1 presents the full distribution). Thus, a substantial proportion of our respondents failed to categorically reject an extreme form of political violence – murder – directed at a civilian who was neither a combatant nor government official and who had not been accused of breaking any law.

The next analysis addressed the digital permission structure question: Was social media use correlated with endorsing justification for this type of political murder? For this analysis, we included all participants and used the sum of the four questions comprising the Permissive Murder Scale (see Supplement. It was (r = .31, p < .001). The more time respondents spent on social media, the more strongly they endorsed justification for this type of murder.

Although not specifically predicted by the *Botification Model,* two additional correlations provide information about the profile of those more strongly endorsing the murder. Age was negatively correlated both with Permissive Murder (r = -.45, p < .001) and SMU (r=-.43, p<.001). It was disproportionately younger people on social media who more strongly justified the murder.

The next analyses addressed the research questions about aspects of botification. Social media use was positively correlated with general anxiety ($r = .29$, $p < .001$), zero-sum thinking ($r = .28$, $p < .001$), and left-wing authoritarianism ($r = .35$, $p < .001$), and negatively correlated with locus of control ($r = -.20$, $p < .001$). Respondents who spent more time on social media platforms had elevated anxiety, lower internal locus of control, more zero sum thinking and higher levels of left-wing authoritarianism (see Table 3), all components of the *botification* hypothesis. Right-wing authoritarianism was trivially correlated with social media use (r=.04).

The correlations of the psychological variables with Permissive Murder were mostly consistent with *botification.* Higher scores on the Permissive Murder scale were strongly positively associated with general anxiety ($r = .35$, $p < .001$), zero-sum thinking ($r = .44$, $p < .001$), and left-wing authoritarianism ($r = .50$, $p < .001$) and negatively correlated with internal locus of control ($r = -.32$, $p < .001$).

The one striking exception was for right-wing authoritarianism (RWA), which was *negatively* correlated with Permissive Murder (r=-.20, p<.001). People high in RWA scored lower on the Permissive Murder scale than did those low in RWA. Explaining this unexpected relationship will have to await future research.

General Discussion

In this chapter, we described a preliminary theory, one which argues that social media and *botification* go hand-in-hand, and that *botification* is associated with both *civic disalignment* and *permission structures for political violence.* Taken together, the theory and findings from two national surveys suggest some role for social media in the erosion of civic values supporting democratic principles and practices.

Limitations

Several substantial limitations temper the strength of the conclusions we can draw. The studies presented are entirely correlational and cross-sectional, meaning causal inferences are not justified. Perhaps social media usage contributes to botification, civic disalignment, and permissiveness toward political violence. Perhaps individuals with pre-existing authoritarian tendencies, generalized anxiety, or anti-institutional attitudes are disproportionately drawn to certain social media environments. Indeed, our *Botification Model* proposes that these social and psychological phenomena exist in a recursive feedback loop,

so that it would not be surprising to discover that causality runs in multiple directions. Regardless, without longitudinal or experimental data, causal claims are speculative at best.

Second, we assessed beliefs and attitudes rather than behaviors. We are reasonably confident that precious few of the nearly 3000 respondents in our two surveys are likely to commit political murder or participate in overturning elections. Nonetheless, their expressed beliefs and attitudes in this survey reflect surprisingly high levels of cultural acceptance of political violence and anti-democratic behavior. Whether they personally engage in such acts may not be as relevant as whether they are contributing to a sociopolitical culture in which such acts are more likely to emerge. This possibility is consistent with *pyramid models of political extremism and violence*, which suggests that actual political violence, though usually perpetrated by only a few, is built upon a much larger base of ideologically-aligned supporters (e.g., Muro, 2016). The applicability of this perspective to the modern U.S. is an important question for future research.

Third, our aggregated measure of social media usage collapses across platforms with dramatically different affordances, user bases, and algorithms (e.g., TikTok, Twitter/X, Reddit, Instagram). Without disaggregating these effects, it is impossible to determine whether the observed patterns are driven by unique features of particular platforms or by general online engagement.

Fourth, the case study used to illustrate Digital Permission Structures for Violence, the Mangione incident, while vivid, may be atypical. The extraordinary virality of this event could reflect situational factors (e.g., the healthcare context, pandemic-era frustrations, or the cultural appeal of Mangione as a figure) rather than the broader processes we seek to generalize. Without replication across other cases of political violence, it is premature to claim this phenomenon is common or generalizable.

Finally, our theoretical model of botification is in its infancy and could benefit from greater specificity and clarity about causal mechanisms. Except for the present correlational studies, it is also empirically untested. Future research is needed to employ experimental, longitudinal, and cross-cultural designs to better isolate the causal role of social media, explore specific platform dynamics, and examine interventions that might restore civic trust and reduce the normalization of anti-civic and violent behaviors in digital spaces.

CONCLUSION

Rather than trusting lawful justice to address societal grievances, many of our respondents appeared to be transferring moral legitimacy to ideologically aligned actors, even when those actors endorse political violence. In this context, trust is no longer grounded in shared civic norms or institutional legitimacy. Instead, it is increasingly contingent on ideological alignment, potentially creating dangerous conditions under which violence becomes endorsed and celebrated. This appears to be a path toward declining trust in democratic institutions.

Despite the massive disruptions it facilitated, the printing press ultimately proved to be a gigantic boon to humanity because it made mass dissemination of knowledge and ideas possible for the first time in history. One can only hope that social media will ultimately provide a similar boon, preferably without a modern parallel to the 200 years of religious wars that followed the invention of the printing press.

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