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**How effective is online outrage?**

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In today’s polarized political climate, it is important to consider whether moral emotions like outrage can be harnessed for good. Spring et al. [1] thoughtfully examine the “upsides” of moral outrage, suggesting it can create positive social consequences by catalyzing collective action. To illustrate this, they argue that sharing outrage on social media creates common knowledge and organizes collective behavior around important moral issues. We agree that moral outrage can have positive social consequences [2], but suggest that online outrage has more downsides than upsides. In particular, online outrage may reduce the effectiveness of collective action, limit participation in the public square, and unproductively exacerbate intergroup conflict (Box 1).

**Reducing the effectiveness of collective action**

Outrage can undoubtedly motivate collective group behavior [1], but it may also make collective action less effective in fulfilling long-term group goals. Effective action requires both a motivation to act and the ability to act strategically (i.e., by aligning actions with goals). However, anger – a key component of outrage [3] – impairs strategic decision-making by reducing the ability to consider long-term consequences and assess risks [4]. Angry decision-makers are more likely to distrust and blame others, make dispositional attributions, and oversimplify complicated issues [4]. Thus, in the context of working toward social progress, anger induces a style of decision-making that could hamper the ability to resolve complex social conflicts.

Online outrage may be especially unlikely to lead to effective collective action. Social media lowers the threshold for expressing outrage by reducing its costs [2], and outrage spreads like wildfire online [5]. By increasing the volume on outrage, social media could make it more difficult for dissident voices to make an impact in an increasingly noisy public sphere [6]. If one function of outrage is to signal the worthiest causes for collective action, lowering the threshold for expressing outrage could make it harder to detect that signal among noise, preventing groups from coalescing their collective efforts around the most important issues. Through impairing strategic thinking, online outrage could even divert collective action towards issues that are immediately compelling, but ultimately ineffective or counterproductive. For example, as of this writing, 245 migrant children remain separated from their parents, while considerable public outrage is directed toward President Trump for calling alleged former lover Stormy Daniels “Horseface” in a tweet.

**Limiting participation in the public square**

Effective collective action for social change needs to involve a large number of diverse stakeholders. Spring et al. rightly point out that only privileged groups are “allowed” to express outrage [1], and we recognize that “calls for civility” are often used strategically to reinforce unjust social structures. Such “calls for civility” may even reflect outrage towards certain groups for daring to participate in public debates. Oppression of women and racial minorities often takes the form of punishing members of those groups for stepping out of line with gender and racial hierarchies [7]. We suggest social media aggravates this problem by making it easier than ever before to silence marginalized voices with coordinated harassment. For example, alt-right outrage over a woman of color playing a Ghostbuster drove Leslie Jones off Twitter. Thus, the same online platforms that harness outrage for collective action also amplify “oppressive outrage”.

In the context of modern political discourse, oppressive outrage may result in the exclusion of marginalized groups from participating in the public square. One in four Black Americans have faced racial harassment online, and 25% of young women report being sexually harassed online [8]. This has a chilling effect on participation: 27% of U.S. adults refrained from posting online, and 13% left social media altogether, after witnessing harassment [8]. If marginalized people are less likely to engage in online discussions, then online outrage disproportionately reflects privileged voices. Effectively harnessing the power of outrage while ensuring diverse participation remains an important challenge.

**Concluding remarks**

Can moral outrage have an upside? We agree with Spring et al. that it can, but question whether motivating collective action on social media is the key process through which it will. The architecture of social media may instead amplify the downsides of outrage, limiting the effectiveness of collective action aimed towards social progress and the participation of marginalized groups. Like empathy [9], outrage can be harnessed for good, but is not necessarily a good moral compass in itself.

We propose that outrage with an “upside” will ideally spark collective action that strategically pursues ingroup goals without excluding key stakeholders in the process. In practice, this may resemble what civil rights activist Audre Lorde described as the effective use of anger in social movements: “Focused with precision, it can become a powerful source of energy serving progress and change” [10]. Future research should consider how new technologies can help or hinder the precise focusing of outrage for moral progress. This requires measuring whether online outrage is associated with offline actions focused on specific causes (e.g., tweeting about #March4OurLives and then actually attending the march). In addition, it is worth examining how long the motivational force of online outrage can last by measuring the temporal distance between online expression and offline action.It will also be important to examine the extent of oppressive outrage, for example by measuring if the frequency or intensity of online outrage depends on whether the target is a minority group member. Finally, researchers should investigate whether expressing outrage online – and getting socially reinforced for those expressions – can perpetuate intergroup conflicts by increasing hostility toward outgroup members. By combining new computational tools for analyzing naturalistic data with behavioral experiments informed by psychological theory, we can make progress on these questions.

**Box 1: Does online outrage exacerbate and prolong social conflict?**

Outrage may create social benefits through motivating collective action, but this may come at the cost of productive relations between groups that must interact. The canonical literature on group emotion demonstrates that group-level anger motivates people to attack outgroup members [11], and moral emotions can motivate extreme violence [12]. Recent work shows that moralized expressions on social media are predictive of politically-motivated violence offline [13]. These emotions need not be reality based: outrage over a false news story about a Democrat-led child sex trafficking ring at a pizza parlor fueled the viral #Pizzagate movement that led to actual violence.

Outrage in an intergroup context may not just stoke but also prolong violent intergroup conflicts. Cikara [14] has compellingly argued that intergroup schadenfreude -- pleasure at outgroup members’ negative emotions -- may motivate participation in collective violence through reinforcement learning mechanisms. When one group’s antagonistic behaviors provoke outrage in a rival group, that outrage may reinforce those behaviors, increasing their likelihood in the future. Social media may accelerate this process by “gamifying” social conflict, turning outgroup outrage into points that can be scored. If outrage fails to serve its socially beneficial function of regulating harmful behavior, we all lose.

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