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## **Self-enhancement and Counterproductive COVID-19 Behavior**

Ethan Zell<sup>a</sup> and Constantine Sedikides<sup>b</sup>

<sup>a</sup>University of North Carolina at Greensboro, USA

<sup>b</sup>University of Southampton, UK

Corresponding author: Ethan Zell, Department of Psychology, University of North Carolina at Greensboro, PO Box 26170, Greensboro, NC 27402, USA; e\_zell@uncg.edu

### **Abstract**

Self-enhancement is the motive to pursue, preserve, or amplify the positivity of self-views, and results in inflated self-views. For example, people believe they rank above average across a variety of characteristics. Additionally, they believe they have an above average likelihood of experiencing positive events and avoiding negative events. We argue that self-enhancement explains counterproductive behavior during the pandemic. People could believe that their ability to resist or recuperate from COVID-19 is above average, their knowledge of COVID-19 is above average, and they are less influenced by COVID-19 conspiracy theories than others. Further, they might believe that their likelihood of infection is lower than average, they would respond more favorably to treatment than others, and their country will quell the effects of COVID-19 more quickly than other countries. Such beliefs might engender less precautionary behavior such as social distancing, use of face masks, sanitizing, and vaccination. We summarize lessons learned and offer research directions.

**Keywords:** self-enhancement, better-than-average effect, unrealistic optimism, self-evaluation, positive illusions, pandemic behavior

The global COVID-19 pandemic has had enormous adverse effects on people, communities, and countries across the world. As of this writing (2021), it has resulted in millions of deaths, tens of millions of infections, countless job losses and resulting economic damage, not to mention detriments in mental health and social relationships.<sup>1</sup> These consequences are likely to last a generation. What makes the COVID-19 pandemic especially troubling, however, is that many of its consequences could have been mitigated if people adopted a small set of behaviors, such as social distancing, mask wearing, handwashing, and, more recently, vaccination.<sup>2</sup> Why have so many failed to adopt these simple behaviors and instead acted counterproductively (e.g., had large social gatherings, and refused to wear a mask, sanitize, or vaccinate)?

In this chapter, we describe how *self-enhancement*, characterized by unduly positive self-views, explains some of these counterproductive actions. Many people overestimated their hardiness and viewed preventative behaviors as unnecessary. Thus, inflated self-views, which are normative and often beneficial in non-pandemic times, might promote behaviors that exacerbate the consequences of the pandemic. Strategies that curtail self-enhancement, and facilitate more realistic self-views of vulnerability, might be key to addressing the harsh toll of the pandemic.

### **Self-Enhancement**

Self-enhancement is the motive to pursue, preserve, or amplify the positivity of the self-concept. The result is inflated self-views, that is, self-views that are more positive than objective criteria (e.g., knowledgeable others, experts, validated tests) warrant (Sedikides, 2020). Self-enhancement manifests in a variety of forms: for example, people attribute success internally to themselves but attribute failure externally to others or the environment (self-serving bias), people selectively remember positive information and forget threatening information about themselves (selective self-memory; see chapter ## for more on selective memory), and people claim to have knowledge about bogus topics (overclaiming; Sedikides & Alicke, 2019). Here, we focus on one of the most robust and oft-cited forms of self-enhancement: perceiving one's own characteristics as superior to average peers'.

### **Better-Than-Average Effect**

A common approach in self-enhancement research is to examine how people evaluate their own abilities, attributes, and traits in comparison to their average peer. By definition, the average person cannot be above average. However, a large literature on the *better-than-average effect* (BTAE) demonstrates that people perceive themselves as superior to their average peer (Alicke & Govorun, 2005; Zell et al., 2020). Ironically, they even believe they are less likely than their peers to fall victim to the BTAE (Pronin et al., 2002). The BTAE is a highly robust and replicable phenomenon. It obtains across many attribute and ability dimensions, and replicates across many age, cultural, and demographic groups (Sedikides et al., 2014; Zell & Alicke, 2011). The BTAE is considered one of the major pillars of self-enhancement.

Support for the BTAE comes from research that implements four methods. First, research using the *direct* method has participants evaluate themselves in comparison to an average other on a rating scale (“How considerate are you in comparison to the average person?”). A mean rating that is significantly more favorable than the scale midpoint (typically labelled “average”) reflects a BTAE. College students in one study evaluated themselves in comparison to the average student across several personality traits (Alicke et al., 1995, Study 1). Participants rated positive traits as more descriptive, and negative traits as less descriptive, of themselves than the average student.

Second, research using the *indirect* method has participants evaluate themselves (“How considerate are you?”) and an average person (“How considerate is the average person?”) on separate scales. Mean self-ratings and mean average-ratings are then compared to determine whether participants rated themselves significantly more (or less) favorably than the average person. In a representative study, college students provided separate evaluations of themselves and the average student across personality traits (Alicke, 1985). Participants’ self-evaluations were more flattering than those of the average student.

Third, research using the *forced-choice* method has participants indicate whether they rank above average or below average on a given dimension. When the percentage of participants who select above average significantly exceeds a neutral benchmark of 50%, the BTAE occurs.

For example, 65% of Americans in a nationally representative survey rated their intelligence as above average (Heck et al., 2018).

Fourth, research using the *percentile* method has participants indicate the percentage of people they outrank on a given attribute or ability dimension. Given that the 50<sup>th</sup> percentile means average (assuming a normal distribution), mean ranks that are significantly higher than the 50<sup>th</sup> percentile reflect a BTAE. Most people place their knowledge and skills above the 50<sup>th</sup> percentile, including those who rank in the bottom 25% of test-takers (Dunning, 2011).

Recently, we meta-analyzed the BTAE literature by aggregating data across 291 samples and over 950,000 participants (Zell et al., 2020). We obtained a large BTAE, with little evidence of publication bias (i.e., the selective publication of statistically significant results), for traits and abilities, positive and negative characteristics, and each of the above four methods. The meta-analysis further established the BTAE as a pillar of self-enhancement.

### **Unrealistic Optimism**

People perceive their future prospects more favorably than those of the average peer, a phenomenon termed unrealistic comparative optimism (Shepperd et al., 2017). Much of this work has focused on excessive optimism regarding the likelihood of negative events, especially adverse health events. For example, people believe that their personal risk of contracting a sexually transmitted disease, having an automobile accident, or being the victim of a crime is lower than the risk of their average peer.

Evidence for unrealistic optimism derives from several methods, including to compare participants' perception of event likelihood with objective estimates of likelihood (Shepperd et al., 2015). Another common method is to examine the perceived likelihood of events for the self relative to an average peer ("How likely is it that you [the average person] will get diabetes?"). If most people have accurate perceptions of event likelihood, mean perceptions of likelihood for the self should not differ from perceptions of likelihood for the average person. Although unique in its emphasis on future self-perception, unrealistic comparative optimism overlaps considerably with the BTAE, and so we use the latter as an umbrella term for much of this chapter.

## **Self-Enhancement Mechanisms**

Three cognitive mechanisms contribute to the BTAE (Chambers & Windschitl, 2004). First, people overweigh their own characteristics and underweigh the characteristics of the average person during comparative judgment. Thus, instructing participants to give greater consideration to the average person reduces the BTAE. Second, people place more emphasis on the self than the average person during comparative judgment, in part because the self is focal in comparative judgment questions. Accordingly, the BTAE is reduced when the average person is focal (“How kind is the average person in comparison to you?”). Third, people perceive concrete targets (e.g., people) more favorably than generalized targets such as the average person. Thus, the BTAE is reduced when judging concrete people.

However, as stated, the cognitive mechanisms serve only to attenuate or accentuate the BTAE. As such, the BTAE is fundamentally motivated, that, is driven by self-enhancement, and is a signature of self-enhancement (Sedikides & Alicke, 2019). For example, the BTAE is larger for abstract versus concrete dimensions, as people define abstract traits in a self-serving manner. Further, the BTAE is larger when examining traits that are personally and culturally important, as people are especially motivated to perceive themselves favorably on these traits. Finally, the BTAE is stronger among those who received negative feedback about their intelligence, suggesting compensation (Brown, 2012).

## **Critiques of Self-Enhancement**

A common critique of the BTAE is that some people who perceive themselves as above average actually are above average. For example, it would be correct for an award-winning scientist to perceive herself as having above average intelligence. Indeed, the BTAE reflects a bias at the group level, and people who perceive themselves as above average might not necessarily be doing so in error. Furthermore, some might publicly state they are above average, when privately they know they are not.

However, neither of these critiques poses a significant challenge to the BTAE. Research using objective measures of personality and ability (e.g., ratings from other people or a

standardized test) finds that, consistent with the BTAE, a majority of people have inflated self-views (Heck & Krueger, 2015). Moreover, a BTAE emerges even when people are offered financial incentives for providing accurate self-estimates (Williams & Gilovich, 2008). These findings indicate that the BTAE reflects unduly positive self-views. Further, although people are especially prone to exaggerating their prowess when responding publicly, even their private beliefs about their authentic self are inflated (Zhang & Alicke, 2021).

### **Adaptiveness of Self-Enhancement**

Self-enhancement has intrapersonal benefits. A meta-analysis found that self-enhancement is associated with psychological health (higher life satisfaction and positive affect, lower depression and negative affect; Dufner et al., 2019), and that this association is pronounced when self-enhancement is operationalized with the BTAE. Similarly, another meta-analysis revealed that the BTAE is associated with self-esteem and happiness (Zell et al., 2020). The positive association between self-enhancement and psychological health is present across cultures (Dufner et al., 2019; Sedikides et al., 2015).

We know far less about the link between self-enhancement and physical health. On the one hand, self-enhancement might conduce to improved physical health, given the connection between psychological and physical health. On the other hand, if self-enhancement encourages overconfidence about one's physical health, and thereby reduces precautionary behaviors or increases risky behaviors, it could worsen physical health. Thus, although inflated self-beliefs might generally benefit psychological health, they might induce a false sense of security and prompt counterproductive health behaviors.

### **Self-Enhancement and Pandemic Behavior**

Self-enhancement is relevant to many aspects of everyday life, such as overestimation of one's performance at school and work, one's social skills at a party, or one's physical fitness. Little research has examined the link between self-enhancement and pandemic behaviors. Nonetheless, inflated self-beliefs might underlie several maladaptive pandemic behaviors, including failure to socially distance, wear face masks, sanitize, and vaccinate.

## **Possible Links Between the BTAE and Risky Pandemic Behaviors**

The proclivity to perceive oneself as above average might manifest in a variety of ways during the pandemic and result in risky behaviors. First, people might have exaggerated views of their hardiness, believing that their own ability to resist infection is substantially greater than their average peer's. This belief could lead people to eschew social distancing recommendations or forgo wearing a face mask, under the assumption that such recommendations are excessively strict for them given their superior resistance. Additionally, self-enhancement could undermine vaccination by leading people to assume that they already have the ability to ward off infection.

Second, people might have exaggerated views of their immune system, believing that their own ability to recuperate from the virus is above average. Although self-enhancers recognize that others might suffer from severe symptoms, hospitalization, and even death due to COVID-19, they might be convinced that such outcomes will not occur for them given their superior immune response. As such, mitigation behaviors might be viewed as unnecessary by self-enhancers, as they assume that, even if they get the virus, they will be able to overcome it easily. Relatedly, people might have exaggerated beliefs about the speed with which they will recover from COVID-19, thinking that, although the virus might engender a prolonged struggle for others, they could dispense of it rather quickly.

Third, people might overestimate their COVID-19 knowledge, believing that their own grasp of the causes and consequences of the virus is superior to others. Scientific understanding of COVID-19 and its prevention is evolving, and thus citizens will do well to pursue updated information via credible news outlets, health professionals, and health organizations. However, people who overestimate their knowledge might arrive at a false sense of security. Given that they presume to master everything necessary about the virus, they might fail to pursue updated information about infection rates, death rates, new variants, and recommended preventative behaviors. Further, some might believe they know more than public health experts and therefore eschew scientifically informed advice from them. Indeed, prominent public health professionals have been sharply criticized, and even received death threats, for offering pandemic



recommendations that many people find unduly restrictive.<sup>3</sup> Even worse, those who lack knowledge, but believe they have it, might participate in the spread of misinformation that precipitates counterproductive behavior. Donald Trump, who often exalted his pandemic knowledge, mistakenly claimed that the pandemic was nearly over when it was just beginning, downplayed the significant risks of attending large indoor political rallies, and regularly proposed treatments that ranged from ineffective to deadly (e.g., drinking bleach).<sup>4</sup>

Fourth, people might believe they have a superior ability to resist the influence of fake news about COVID-19, when in fact fake news has influenced them. People believe they are less influenced by persuasive messages than others (the third-person effect; Davison, 1983). Many fraudulent messages about COVID-19—for example, that it was intentionally created by the Chinese government, is worsened by use of face masks, or was concocted as an excuse to insert microchips into one's arms—have gone viral on social media.<sup>5-7</sup> Although people might think that they can identify and discount dubious information of this sort, they might actually be susceptible to believing it. Moreover, confirmation biases might contribute to the perseverance of false beliefs about the pandemic even after exposure to disproving information (see also Chapter #).

### **Possible Links Between Unrealistic Optimism and Risky Pandemic Behaviors**

Unrealistic optimism has been documented during the pandemic. For example, students perceive their risk of infection with COVID-19 as lower than their average peer's (Dolinski et al., 2020; Kulesza et al., 2020). Unrealistic optimism about COVID-19 risk might contribute to counterproductive behaviors, such as gathering in large groups, neglecting to wear masks, and declining to vaccinate.

Unrealistic optimism might even occur among those who have COVID-19 and are undergoing treatment. People can be overly optimistic about the impact of health treatments on their future health, for example, believing that the treatment will contribute to faster or more complete recovery than it actually does (Sweeny & Andrews, 2017). Such beliefs are associated with disappointment and declines in well-being once reality hits. As such, it is crucial for people

receiving COVID-19 treatments, such as pharmaceuticals or use of a ventilator, to have accurate expectations regarding the speed of recovery and to recognize potential lingering effects of infection.

Moreover, people might have unrealistic optimism about their country's ability to address COVID-19 and resume normal activities. They might advocate, for example, that COVID-19 is more likely to spread in other countries and therefore poses a greater risk for other countries than their own. Relatedly, people might be convinced that their own country will be able to resume normal (pre-pandemic) activities more quickly than other countries. Consistent with this perspective, positively distorted beliefs extend from the self to the national group (Zell et al., 2021).

### **Literature Relevant to the Association Between Self-Enhancement and Pandemic Behavior**

The literature on the putative connection between self-enhancement and counterproductive pandemic behavior is nascent. Yet, a few studies have linked Dark Triad traits and assorted antisocial traits to such behaviors. We summarize the relevant findings below (see also Chapter # for other traits that relate to pandemic behaviors).

Dark Triad traits are narcissism, psychopathy, and Machiavellianism. People high (vs. low) on those traits are less likely to comply with government-mandated rules in regard to COVID-19 (Zajenkowski et al., 2020). Further, people high (vs. low) on narcissism are less likely to engage in preventive behavior (e.g., comply with lockdowns, wash hands; Nowak et al., 2020). Lastly, people high (vs. low) on antisocial traits (e.g., callousness, deceitfulness), are less likely to comply with preventive measures (Miguel et al., 2021). A thread underlying most of these Dark Triad or antisocial traits is inflated self-views. Thus, the BTAE might play a role in the observed behavioral noncompliance.

### **Lessons Learned: Curtailing Self-Enhancement**

Lessons from the self-enhancement literature are applicable to the current conundrum. For starters, rendering one accountable for their self-evaluations, that is, requiring them to explain, justify, and defend their self-evaluations to others, curtails self-enhancement (Sedikides

et al., 2002). Accountability curbs self-enhancement, in part, by making one aware of their weaknesses. Therefore, one strategy for reducing self-enhancement is to invite people who report inflated perceptions of COVID-19 resistance to defend these beliefs. Having to justify such beliefs to a jury of one's peers might encourage a more balanced perception of personal risk.

Also, having people generate reasons why they might or might not have a particular trait, termed explanatory introspection, curtails self-enhancement (Sedikides et al., 2007). Introspecting on why one might or might not have a particular trait, such as organized or patient, curbs self-enhancement by raising self-uncertainty. Therefore, if a friend, family member, or colleague reports inflated perceptions of their COVID-19 risk, a follow-up "why" question might be useful to nudge the self-enhancer toward a more balanced perspective. Further, those who strongly oppose vaccination might later report more moderate views, after being invited to explain and justify their position.

Moreover, providing people with pertinent information about others' behavior might curtail self-enhancement (Kruger et al., 2008). People might assume that they sanitize, socially distance, and wear face masks more than others, because they lack accurate information about how others are behaving during the pandemic.<sup>8</sup> Disseminating such information might quell self-enhancement and encourage conformity to social norms. Learning, for example, that most people in one's community are complying with COVID mandates or have been vaccinated could encourage normative behavioral change (local dominance effect; Zell & Alicke, 2010).

Lastly, messages that induce fear can motivate people to appreciate grievous risks (Tannenbaum et al., 2015), such as those posed by the pandemic (see also Chapters # and # for more on message construction). Therefore, information campaigns that clearly describe the adverse health effects (some long-term) of infection and the difficult treatment regimens they require, could awaken some to the urgency of complying with health mandates. In support of this idea, fear-inducing messages were found to be effective at counteracting antivaccination attitudes (Horne et al., 2015). Fear appeals are particularly potent when they are paired with a solution; hence, promoting vaccination alongside fear inducing messages might be promising, especially if

these appeals come from ingroup than outgroup members (Hornsey, 2020).

### **Future Research on Self-Enhancement and Pandemic Behavior**

Next, we outline research questions regarding self-enhancement and pandemic behavior that are in need of an answer.

#### **Do People Believe Their Resistance to COVID-19 Is Above Average?**

As we have shown, people believe they are above average across a wide array of characteristics, abilities, and traits. Thus, it appears likely that people perceive their ability to resist COVID-19, capacity to recuperate from COVID-19, and level of pandemic knowledge as above average. Further, people might exhibit a larger BTAE for pandemic-related dimensions than for other dimensions, given the enormous salience and importance of the former. People also moralize pandemic behaviors (e.g., perceive those who wear masks as immoral; Betsch et al., 2020), which could exacerbate the BTAE, given that it is pronounced in the moral domain (Epley & Dunning, 2000). Future studies could test these hypotheses in different age groups and cultures to determine if self-enhancing views of COVID-19 are stronger in some groups than others. People at an elevated risk (older adults, the immunocompromised) or who live in societies with more frequent exposure to pandemics (East-Asians) might manifest reduced self-enhancement.<sup>9</sup>

#### **Is Self-Enhancement Regarding COVID-19 Maladaptive?**

Evidence indicates that positively distorted views of the self are beneficial for psychological health (Dufner et al., 2019; Sedikides et al., 2015; Zell et al., 2020), but it remains unclear whether such benefits occur during a pandemic. We focused in this chapter on putative links between self-enhancement and counterproductive health behavior, but it is possible that self-enhancement serves an adaptive function as well. For example, self-enhancement might buffer pandemic-related stress or anxiety (Green et al., 2008) and thus help the person abstain from over-cautious pandemic behavior (e.g., excessive social isolation or hand washing). As such, research is needed to assess whether inflated views of one's hardiness lead to negligent pandemic behavior that increases one's risk of infection. Field studies could examine the

association of self-enhancement with behaviors such as social distancing, wearing face masks, and vaccination. Prospective studies could also test whether self-enhancement in an earlier stage of the pandemic predicts later COVID-19 infection, hospitalization, or death.

### **Are There Additional Ways to Reduce Self-Enhancement?**

The literature suggests that holding people accountable for self-evaluations and encouraging them to explain why they make the particular evaluations they do reduces self-enhancement in ratings of personality and ability (Sedikides et al., 2002, 2007). Thus, future work should explore whether such approaches decrease self-enhancement on COVID-19 related dimensions as well. In addition, future work should examine whether providing information about the pandemic behavior of others calibrates one's self-views and encourages those who are engaging in risky behaviors to conform to group norms. Also, self-enhancement is exacerbated among those who lack skill or knowledge (Dunning, 2011); thus, experiments could test whether increasing people's knowledge of COVID-19 reduces self-enhancement. Finally, future experiments could examine whether inducing empathy decreases self-enhancement leading to productive pandemic behaviors (Pfattheicher et al., 2020), or whether one's self-enhancement can be used to strengthen productive pandemic behavior ("You need to set an example for others").

### **Conclusions**

Self-enhancement can explain counterproductive pandemic behaviors, especially those that reflect an overestimation of one's hardiness. People might assume that they are more resistant to infection, and that they would recover more quickly and easily from infection, than others. Research is needed to examine whether self-enhancement is maladaptive during the pandemic, and if so, how to encourage more realistic views of health risk.

<sup>1</sup> <https://www.worldometers.info/coronavirus>

<sup>2</sup> <https://www.cnn.com/2021/03/27/politics/covid-war-deaths-preventable>

<sup>3</sup> <https://www.npr.org/sections/coronavirus-live-updates/2020/08/05/899415906>

<sup>4</sup> <https://www.vox.com/coronavirus-covid19/21497221>

<sup>5</sup> <https://www.pbs.org/newshour/politics/why-covid-19-conspiracy-theories-persist>

<sup>6</sup> <https://www.theatlantic.com/politics/archive/2020/10/can-masks-make-you-sicker/616641>

<sup>7</sup> <https://www.bbc.com/news/52847648>

<sup>8</sup> <https://www.ucl.ac.uk/news/2020/dec/majority-feel-they-comply-covid-19-rules-better-others>

<sup>9</sup> <https://www.piie.com/blogs/realtime-economic-issues-watch/lessons-east-asia-and-pacific-taming-pandemic>

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