

The Moral Costs of Growth Mindset: Blaming People for Their Intellectual Struggles

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Abstract

Research on growth mindsets, emphasizing the malleability of intelligence through effort, often highlights their benefits of boosting performance and reducing achievement gaps. Across four studies ($N = 785$), we investigated the unintended consequences of the growth mindset, hypothesizing that its emphasis on intelligence as controllable would lead to greater blame toward others for intellectual failure, compared to the fixed mindset, which views intelligence as largely innate. Study 1 found that participants primed with the growth mindset assigned more blame for low-difficulty intellectual failures than those primed with the fixed mindset. Study 2 showed this effect diminished when intellectual failures involved highly challenging tasks. Study 3 highlighted the harm caused by an individual's intellectual failures and found that participants in the growth mindset condition still assigned greater blame than those in the fixed mindset condition. Study 4 explored a possible mechanism, finding that a growth mindset, compared to a fixed mindset, increased blame by leading participants to perceive less effort from the protagonist in the vignettes, even when both conditions were faced with identical intellectual failures. These findings underscore the need for nuanced implementations of the growth mindset.

Keywords: growth mindset; intelligence; lay theories; psychological interventions; blame; moral reasoning

Introduction

Growth mindsets, which posit that human attributes, including intelligence, are malleable through effort and practice (Dweck, 2000), have garnered significant attention for its promise in addressing achievement gaps in educational settings (Blackwell et al., 2007; Steele & Aronson, 1995), as this belief fosters perseverance and encourages embracing challenges (Yeager et al., 2019). However, some researchers have argued that growth mindset programs have limited real-world impact due to weak replicability and small effect sizes (Burnette et al., 2022; Sisk et al., 2018). Beyond these limitations, the current study aims to explore the unintended consequences of growth mindsets.

One emerging concern is that growth mindset beliefs can shape moral judgments about failure, increasing blame placed on individuals for their shortcomings. People constantly seek to identify the causes of events to assign responsibility (Heider, 1958), with perceived controllability playing a particularly significant role in blame judgments

(Weiner, 1995). When a failure is perceived as within an individual's control, people are more likely to assign blame, whereas failures seen as uncontrollable are judged more leniently. Growth mindsets, which emphasize effort and personal agency, may amplify perceptions of controllability, potentially leading to greater blame for one's shortcomings.

Indeed, Hoyt et al. (2019) found that participants exposed to growth mindsets about obesity blamed obese individuals more for their condition than those receiving the fixed mindset intervention. Similar results have been observed in other stigmatized contexts, such as addiction (Hoyt & Burnette, 2020) and poverty (Graczyk et al., 2024).

To our knowledge, none have examined this phenomenon within intelligence, the domain where growth mindset interventions were originally developed. This omission is significant, given that intelligence can be viewed as both malleable and partially heritable (Plomin & von Stum, 2018). The tension between these perspectives complicates judgments about intellectual failures, as individuals must reconcile with differing views on the controllability of intelligence.

There are also reasons to believe that growth mindsets may not lead to blame for intellectual failure. First, while immoral people are often judged incompetent (Stellar & Willer, 2018), it seems nonsensical – let alone socially undesirable – to claim that being unintelligent is morally wrong. Second, growth mindsets emphasize the ability to learn and improve, which may encourage seeing intellectual failures as temporary rather than fixed traits, softening moral judgments. Finally, growth mindsets may shift attention away from failures entirely, focusing instead on efforts to address them, making such shortcomings seem less morally relevant.

Nonetheless, we predicted that growth mindsets, compared to fixed mindsets, are more likely to lead people to blame individuals for their intellectual failures. By emphasizing effort and personal control, growth mindsets suggest that such failures stem from a lack of effort or persistence rather than inherent traits. This perspective shifts attention away from external factors, framing failures as avoidable and more directly attributable to the individual, which may heighten blame.

Overview of Experiments

We conducted four studies examining how growth versus

fixed mindsets affect blame judgments for intellectual failures in others. Study 1 tested whether participants primed with a growth mindset, compared to a fixed mindset, assigned more blame for intellectual failures on basic tasks. Study 2 investigated whether this pattern persisted when evaluating failure in more challenging tasks. Extending Study 1, which only asked whether someone should be blamed for their intellectual failure, Study 3 examined whether the effect of mindset on blame reflects genuine moral judgments when the failure causes harm to others (Malle et al., 2014). Finally, Study 4 explored whether effort appraisals mediate the effects of mindset condition on blame.

This research was approved by the Institutional Review Board at Yale University. Studies 1 and 2 are pre-registered and are available at <https://osf.io/p3uq2> and <https://osf.io/ce6jp> respectively. Studies 3 and 4 followed the same methods and analysis plans as the pre-registered plans. The raw data from all studies is at <https://tinyurl.com/cogsci25data> and all vignettes used in this study are provided at <https://tinyurl.com/cogscivignette>. The minimum sample sizes were calculated using G*Power version 3.1.9.7 (Faul et al., 2007) to achieve 80% power for detecting a small-to-medium effect size at $\alpha = .05$. The final target sample sizes were increased to be more conservative and to account for data exclusions. Participants were recruited through Prolific and completed the experiments on Qualtrics. Demographics were collected at the end of each experiment. Participants scoring below five out of six on the attention check or providing irrelevant answers to the CAPTCHA question about their Saturday activities were excluded from the final analyses.

Study 1

Method

Participants After excluding three for failing the attention check, the remaining 120 participants were 63% female and 78% white ($M_{age} = 43.27$, $SD_{age} = 13.37$).

Procedure Participants, randomly assigned to either the growth ($N = 64$) or fixed mindset ($N = 56$) condition, watched the condition-specific videos and answered open-ended and attention check questions. Next, all participants read four vignettes describing individuals facing intellectual failures and rated their accountability and blame for these failures.

Mindset Manipulation For the growth mindset condition, Part I of the “Growth Mindset Lesson Plan” developed by Khan Academy and PERTS, Stanford University’s Applied Research Center on Academic Motivation, was used. The plan included two videotapes: “Growing Your Mind” (3:04, <https://www.youtube.com/watch?v=WtKJrB5rOKs>) developed by Khan Academy and “Neuroplasticity” (2:03, <https://www.youtube.com/watch?v=ELpfYCZa87g>) developed by Sentis. The videos explained the malleability of our brains (e.g., “the brain can, and does change throughout our lives: it is adaptable, like plastic, hence neuroscientists

call this neuroplasticity”). Each video was followed by four open-ended questions (e.g., “How do people become more intelligent?”, “How are our brains like muscles?”).

For the fixed mindset condition, two videos similar in length (2:42 and 2:13) were used, but they explained how genes determine our traits and behaviors. The first video (<https://www.youtube.com/watch?v=JMIJcOSRX-8&t=5s>) featuring Nancy Segal, was developed by the British Broadcasting Channel, explaining how twin studies showed that many behaviors, including general intelligence, mental abilities, job satisfaction, have genetic components. The second video (<https://www.youtube.com/watch?v=MWhA-VTXe9k&t=12s>) taken from a DNews video explained the findings by Krapohl et al. (2014) that “learning is inherently more difficult for some children and that differences in children’s educational achievement are more a matter of genes than schools or home environments.” As in the growth mindset prime condition, four open-ended questions were presented for each video (e.g., “Besides height and weight, what are the traits that are genetically based?”, “Why is learning inherently more difficult for some children?”).

Participants then completed a 6-item true-false attention check on the video content they watched, with those scoring below five excluded from the final analyses.

Blame Vignettes and Measures Participants received four vignettes, with two covering linguistic and literacy challenges and two covering mathematical and quantitative challenges. These challenges involved basic intellectual tasks (e.g., “Michael is 25 years old. He is a college graduate, but he struggles with math. For instance, let’s assume there are 200 marbles in a jar. Out of these, 80 are red and 120 are blue. Michael is unable to calculate the percentage of red marbles in the jar”).

For each vignette, participants were asked, “How much do you think [person in vignette] is responsible for this?” (0 = Not at all responsible, 50 = Moderately responsible, 100 = Fully responsible), and “How much should [person in vignette] be blamed for this?” (0 = Not blamed at all, 50 = Moderately blamed, 100 = Fully blamed).

Results

Scale reliability for the eight judgments across four vignettes was high (*Cronbach’s* $\alpha = .94$). A composite blame score was calculated for each participant by averaging the eight ratings, with higher scores indicating greater blame attributed.

An independent-samples *t*-test over the composite blame scores showed that participants in the growth mindset condition ($M = 58.30$, $SD = 20.63$) attributed significantly more blame to the individuals in the vignettes than those in the fixed mindset condition ($M = 38.35$, $SD = 21.65$), $t(118) = 5.16$, $p < .001$, 95% CI [12.29, 27.59].

Study 2

Study 1 used vignettes depicting intellectual challenges with very easy tasks that an average person would not typically struggle with and found that growth mindset priming,

compared to fixed mindset priming, led participants to attribute more blame. Study 2 examines whether this pattern of blame extends to more challenging intellectual tasks. Tasks perceived as inherently too difficult to overcome may be seen as exceeding personal control, potentially reducing blame, even under growth mindset priming.

Method

The methods were the same as Study 1 except for the following. After excluding nine from the final analyses for failing the attention check, the remaining 174 participants were 55.7% female and 69.5% white ($M_{age} = 36.4$, $SD_{age} = 12.00$). Participants, randomly assigned to either the growth ($N = 92$) or fixed mindset ($N = 82$) condition, received four blame vignettes, two classified as low difficulty and two as high difficulty, based on ratings from a separate pretest group¹. Within each level, one vignette depicted a protagonist facing mathematical difficulties and the other facing literacy challenges. An example of a high-difficulty vignette is:

J.K., a 38-year-old physicist, regularly works with differential equations in research on fluid dynamics. During a collaborative session, J.K. is expected to derive a solution for a non-linear equation on the spot. Despite expertise, maintaining precision without rechecking each step and referencing advanced texts is challenging for J.K.

An example of a low-difficulty vignette is:

A.L., a 28-year-old project coordinator, is responsible for tracking project expenses. When asked to determine the average cost per project phase, given five amounts that vary in size, A.L. becomes visibly flustered, unable to accurately add up and divide the numbers. Despite having a calculator, A.L. second-guesses the calculations.

Results

Scale reliabilities for the four blame judgments across two vignettes were high (*Cronbach's* $\alpha = .87$ and $.85$ for the low- and the high-difficulty, respectively). A 2 (Condition: fixed vs. growth) x 2 (Difficulty: high vs. low) mixed ANOVA on the composite blame scores with Difficulty as a repeated measure revealed that participants in the growth mindset condition ($M = 59.90$, $SD = 16.98$) blamed the characters in the vignettes significantly more compared to participants in the fixed mindset condition ($M = 52.41$, $SD = 22.03$), $F(1, 172) = 6.38$, $p = .012$, $\eta^2_p = .036$. Participants also blamed more in the low difficulty vignettes ($M = 59.71$, $SD = 22.08$) than in the high difficulty vignettes ($M = 53.03$, $SD = 21.75$), $F(1, 172) = 21.53$, $p < .001$, $\eta^2_p = .111$. Importantly, these main effects were qualified by a significant interaction between Condition and Difficulty, $F(1, 172) = 9.154$, $p = .003$, $\eta^2_p = .051$ (see Figure 1). Figure 1 shows the means for each version.

¹ In the pretest, OpenAI's ChatGPT 4.0 was used to create 12 vignettes depicting varying levels of intellectual challenge. Thirty participants rated the extent to which an average adult could overcome the challenge on a 0 (virtually impossible) to 100 (easily overcome) scale. Two vignettes were selected for each category:

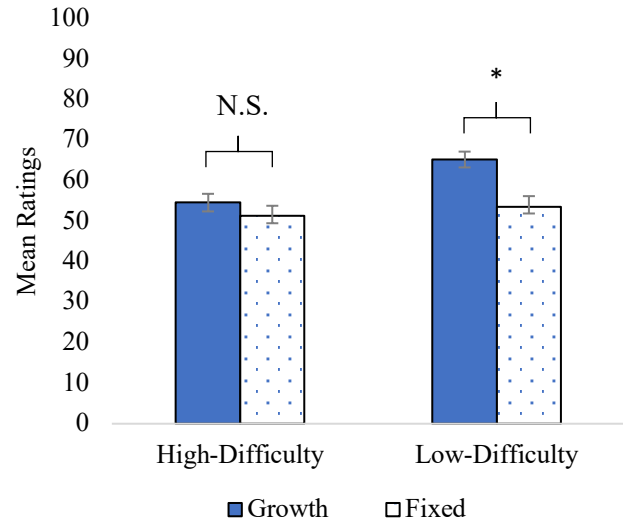


Figure 1. Blame Judgments Across Mindset and Levels in Study 2. Error bars indicate standard errors. * $p < .05$

Post-hoc analyses with Bonferroni correction indicated that the interaction effect occurred because the effect of Condition occurred only with the low difficulty vignettes ($M = 65.22$, $SD = 18.71$ for the growth vs. $M = 53.53$, $SD = 23.98$ for the fixed mindset condition, $p < .001$) and not within the high difficulty vignettes ($M = 54.58$, $SD = 20.85$ for the growth and $M = 51.29$, $SD = 22.73$ for the fixed mindset condition, $p = .321$). Thus, the effect of growth mindset on blame judgments disappeared when the tasks causing difficulty were beyond the ability of an average person, demonstrating the boundary condition of the main phenomenon.

Study 3

The first two studies showed that participants primed with a growth mindset attributed much more blame to individuals for intellectual failures on tasks that an average person should reasonably be able to handle, compared to those primed with a fixed mindset. However, it could be argued that these judgments did not reflect true moral evaluations but merely assessments of responsibility for or controllability of intellectual deficiencies. To better align the judgments with genuine moral judgments, participants in Study 3 were informed that these failures had caused harm to others and were asked to evaluate how responsible the individuals were for the resulting harm.

Method

The methods were the same as in Study 1 except for the following. After excluding 12 from the final analyses for failing the attention check, the remaining 191 participants

low difficulty ($M = 63.98$, $SD = 15.25$) and high difficulty ($M = 37.05$, $SD = 21.71$). Paired *t*-tests confirmed they were significantly different, $t(29) = -6.05$, $p < .001$, 95% CI $[-36.04, -17.82]$, and significantly above or below than the midpoint of 50 on the scale, all p 's $< .01$.

were 54.5% female and 63.4% white ($M_{age} = 38.62$, $SD_{age} = 11.65$). Participants were randomly assigned to either the growth ($N = 102$) or fixed mindset condition ($N = 89$).

Each vignette was initially presented without mentioning how the protagonists' struggle caused harm. For example:

Sarah is a native English speaker but has struggled with reading and writing. For example, in high school, after reading 'To Kill a Mockingbird,' she was unable to fully comprehend the plot or write an essay about it, unlike many of her classmates. Even crafting a simple thank-you note proves challenging for her.

After making responsibility and blame judgments on this unspecified-harm version, participants were shown the same vignette on a separate screen, now explicitly highlighting the harmful repercussions of the protagonist's intellectual failure on those around them (e.g., "*Her struggle with English now inconveniences her colleagues at work, often delaying their projects and burdening others*" for the Sarah vignette). To ensure participants noticed the added sentence, it was highlighted in bold, and they were informed about this change. They were then asked to make responsibility and blame judgments given the additional information.

Following that, participants made the same judgments on the unspecified-harm and specified-harm versions of the second vignette.

Although the unspecified-harm version always preceded the specified-harm version within the same vignette, the order of the vignettes was counterbalanced across participants to check whether the harmful consequences of the first vignette influenced their interpretation of the unspecified-harm version of the second vignette (e.g., assuming it also entailed harm). Though, the results reported below did not interact with the order of the vignettes, $p = .91$.

Results

Across the two vignettes, the ratings for the four unspecified-harm questions and those for the four specified-harm questions each had high reliability (*Cronbach's* $\alpha = .88$ and $.90$, respectively), so the composite blame scores were obtained for each version. A 2 (Condition) x 2 (Version: specified- vs. unspecified-harm) mixed ANOVA on the composite scores with Version as a within-subject variable revealed no significant interaction effect, $F(1, 189) = .42$, $p = .52$, $\eta^2_p = .002$. Replicating Study 1, participants blamed the characters in the vignettes significantly more in the growth ($M = 56.92$, $SD = 22.60$) than in the fixed mindset condition ($M = 43.14$, $SD = 24.75$), $F(1, 189) = 19.32$, $p < .001$, $\eta^2_p = .093$. They also demonstrated greater blame in the harm versions ($M = 56.79$, $SD = 23.97$) than in the no-harm versions ($M = 44.21$, $SD = 23.61$), $F(1, 189) = 140.61$, $p < .001$, $\eta^2_p = .427$. To further confirm that the mindset effect persisted in the specified-harm version, an independent-samples *t*-test conducted exclusively on this version revealed that participants assigned greater blame in the growth than in the fixed mindset condition when harm was explicitly stated, $t(189) = 3.90$, $p < .001$, 95% CI[6.47, 19.70]. See Figure 2 for means broken down by each version.

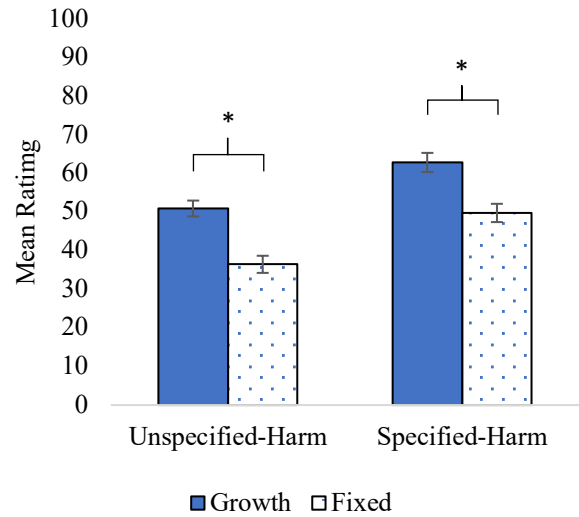


Figure 2. Blame Judgments Across Mindset Conditions and Unspecified/Specified-Harm Versions in Study 3. Error bars indicate standard errors. * $p < .05$

Study 4

Study 4 investigated the mechanisms underlying the effect of mindset on moral judgments shown so far. We hypothesized that the growth mindset leads people to automatically assume that a significant portion of intellectual difficulties results from a lack of effort, and that the reduced perceptions of effort exerted by the protagonist with intellectual failures mediate blame judgments.

Method

The methods were identical to those in Study 1, with the following exceptions. After excluding 16 for failing attention check and another 8 for missing data, 300 participants remained (63% female, 70% white, $M_{age} = 39.72$, $SD_{age} = 11.83$) with 154 and 146 for the growth and fixed mindset conditions, respectively.

For the generalizability of the main findings, two new vignettes, focusing on work-related intellectual challenges, were used. For instance:

James, a 35-year-old marketing professional, is asked during a meeting to estimate the percentage increase in sales from \$40,000 in Q1 to \$50,000 in Q2. James struggles to calculate the percentage without assistance, slowing down the discussion.

For each vignette, in addition to blame judgments, two questions assessed participants' perception of the efforts taken by the protagonist in the vignette: "How much effort do you think [protagonist in vignette] has put into improving the skills that are lacking in the vignette?" (0 = No effort, 100 = Maximum effort), and "To what extent do you think [protagonist in vignette] has worked on enhancing their [lacking skill]?" (0 = Not at all worked on enhancing skill, 100 = Fully and consistently worked on enhancing skills").

The presentation order of effort and blame questions as well as the order of vignettes were counterbalanced.

Results

Across the two vignettes, the ratings for the four blame questions and those for the four effort questions each had high reliability (*Cronbach's* $\alpha = .87$ and $.91$, respectively), so the composite scores were created for each.

Two 3-way 2 (Condition) \times 2 (Question order: Effort-first vs. Blame-first) \times 2 (Vignette order) ANOVAs were conducted over the composite blame scores and composite effort scores separately to investigate the potential order effects of question and vignette presentation across blame and effort judgments. There were main effects of Condition in both blame, $F(1, 292) = 6.93, p = .009$, and effort judgments, $F(1, 292) = 75.49, p < .001$. No significant two-way or three-way interactions were found, so the order variables were excluded from the subsequent analyses.

Replicating Study 1, an independent-samples *t*-test showed that participants in the growth mindset condition blamed individuals ($M = 53.26, SD = 22.17$) in the vignette more than those in the fixed mindset condition ($M = 46.73, SD = 21.79$), $t(298) = 2.57, p = .011, 95\% CI [1.53, 11.53]$. Additionally, participants in the growth mindset condition also believed that the individuals in the vignette put in significantly less effort ($M = 37.35, SD = 19.43$) to overcome their intellectual challenges than those in the fixed mindset condition ($M = 56.98, SD = 19.77$), $t(298) = -8.67, p < .001, 95\% CI [-24.09, -15.18]$.

A mediation analysis was conducted using the *lavaan* package (Version 06-19; Rosseel, 2012) in R to test whether the effort judgments mediated the effect of mindset condition on the blame judgments. The total effect of the model was significant, $b = 6.53, z = 2.58, 95\% CI [1.57, 11.49], p = .005$. There was no significant direct effect, $b = -0.93, z = -0.35, 95\% CI [-6.16, 4.29], p = .726$, but a statistically significant indirect effect, $b = 7.47, z = 5.07, 95\% CI [4.58, 10.35], p < .001$. The model explained a moderate proportion of variance in blame ($R^2 = .134$) and effort evaluations ($R^2 = .202$). See Figure 3 for the mediation path coefficients. The results support the hypothesis that the effect of mindset condition on blame judgments is fully mediated by effort judgments.

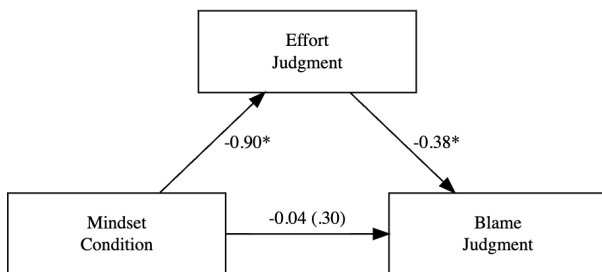


Figure 3: Partial standardized regression coefficients for the relationship between mindset condition and blame judgment as mediated by effort judgment. $* p < .05$

Discussion

The current study revealed the moral costs of a growth mindset in blame attribution for intellectual shortcomings. Studies 1 and 2 found that participants primed with a growth mindset assigned greater blame to individuals for their intellectual failures compared to those primed with a fixed mindset when observing relatively low-level intellectual challenges. Study 3 generalized this finding even when participants were making blame judgments involving harms caused by intellectual failures. Lastly, Study 4 further demonstrated that the growth mindset, compared to the fixed mindset, led people to assume that others exerted less effort even when evaluating identical intellectual failures, and this discounting of effort mediated the effect of growth mindset on blame judgments.

The results suggest that the growth mindset's focus on effort and personal agency, while potentially advantageous in fostering motivation in the individual receiving the intervention, can inadvertently promote harsher moral evaluations of others by emphasizing controllability when they fail. When individuals believe that outcomes are largely within personal control, they may over-attribute responsibility and blame, overlooking systemic, contextual, or inherent factors, and this resulting judgment could be entirely untrue and unfair.

Additionally, the results of Study 4 revealed that a growth mindset, compared to a fixed mindset, led individuals to assume that others exerted less effort in cases of intellectual failure. While a growth mindset emphasizes the importance of effort for success, the findings suggest that participants primed with the growth mindset automatically attributed others' failures to insufficient effort, even when such failures, as depicted in our vignettes, may not necessarily stem from a lack of effort. This echoes the findings of Hoyt et al. (2019) and others, where mindset interventions contributed to increased stigmatization in contexts such as obesity, addiction, and mental illness.

The current findings are also consistent with literature on the effects of free-will beliefs in moral reasoning. When the free-will view of human nature is weakened, people tend to endorse less retributive attitudes toward the punishment of criminals (Shariff et al., 2014). Conversely, when people wanted to punish someone for wrongdoings, they reported greater belief in free will (Clark et al., 2014). Thus, emphasizing a growth mindset in environments where intellectual failures cause harm to others may intensify punitive attitudes compared to a fixed mindset. Taken together, these findings suggest the need for a more balanced narrative that attributes failure – and the potential to fail – to both personal effort and structural or intrinsic limitations.

Notably, the mindset manipulations used in our study were standard, well-established growth mindset interventions. In response to critiques regarding the lack of replicability and small effect sizes of the growth mindset program in academic achievements, Dweck (2017) introduced the term “false growth mindset,” which refers to the misunderstanding and misapplication of growth mindset interventions, where

excessive emphasis is placed on the idea that effort alone achieves results. However, the observed effects on blame evaluations in the current studies did not stem from such “extreme cases” or misapplied interventions, as we utilized the interventions that were demonstrated to be beneficial. Consequently, while the “true growth mindset” programs may succeed in encouraging effort and persistence, their potential to heighten blame and judgment calls for careful consideration of the messaging and context.

Limitations and Future Directions

While the current findings hold promise, several limitations exist. First, these findings are restricted to evaluations of other people’s intellectual failures. In contrast, the benefits of a growth mindset are associated with self-motivation and personal achievement. Thus, the growth mindset may not lead individuals to blame themselves for their own intellectual failures. However, in an ongoing study from the authors’ lab, similar effects of mindset on self-blame have been observed. When participants were asked to recall and give examples of their own intellectual challenges, those primed with a growth mindset blamed themselves more for these failures compared to those primed with a fixed mindset.

Secondly, the current study utilized only the two mindset conditions—growth and fixed—and the main findings concern the difference between these two. This design makes it difficult to determine whether the growth mindset increases blame on others’ intellectual failures or the fixed mindset decreases it. However, we believe this distinction is less critical, as beliefs about whether intelligence is malleable or fixed likely exist on a continuum, and the main takeaway is exactly the relative difference: the more one endorses the growth mindset, the more one tends to hold a person accountable for their intellectual challenges. If the goal is to determine whether the growth mindset causes more blaming compared to the truly neutral or agnostic position, an ideal control condition should employ an explicitly neutral or agnostic prime regarding the malleability of intelligence. Simply omitting a prime or using an unrelated prime as a control condition will result in participants with varying degrees of pre-existing growth and fixed mindsets of intelligence, potentially canceling each other out when the results of the control condition are aggregated rather than measuring a true neutral baseline.

Third, if growth mindset programs continue to be promoted, future studies should focus on developing interventions to address the unintended consequences identified in this study. One obvious approach is a simple blend of growth and fixed mindset interventions, though such a mix might undermine the benefits of the growth mindset. Indeed, Muenks et al. (2024) discovered that when instructors provide a mix of growth and fixed messaging, students suffer worse outcomes than fixed or growth messaging alone, as they now must grapple with the confusion of such inconsistency. Another approach, suggested by our results in Study 2, involves the reframing of challenges to be perceived as inherently difficult for the person experiencing the

difficulties. When the intellectual challenge was understood as something that an average person could not overcome, the negative effects of the growth mindset dissipated in Study 2. Even when the failure involves a task that an average person could avoid, highlighting the inherent challenges specific to an individual may help illuminate the inherent complexities of tasks and the influence of external factors. This, in turn, can foster a better understanding that failure is not always due to a lack of effort. This shift in perspective could reduce the tendency to harshly judge oneself or others based solely on perceived effort, while still promoting the benefits of perseverance and resilience.

Lastly, an underexplored area in the current paper is the role of structural factors in fostering a mindset of fixed capabilities. Although structural barriers such as systemic discrimination, unequal access to education, and economic disparities can profoundly constrain individuals’ opportunities, people often fail to recognize these structural causes when explaining inequality (Amemiya et al., 2023). As demonstrated by Study 4, individuals tend to attribute disparities to agent-focused traits such as personal effort. Thus, interventions that encourage recognition of structural factors may help reduce blame by contextualizing individual failures within broader systemic realities that are beyond one’s control. In doing so, they also challenge the assumption that growth is limitless, drawing attention to how structural constraints can cap opportunities for development despite individual effort.

Conclusion

Taken together, the findings underscore the importance of critical evaluation and application of psychological interventions like the growth mindset. The growth mindset has demonstrated its utility in educational settings, but as with any intervention, its impact may not be entirely positive. Acknowledging and addressing its potential downsides is essential to ensure that such interventions are embellished with the nuance it requires to be employed ethically and effectively in bridging achievement gaps.

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