Invisibility of Social Privilege to Those Who Have It

Kaidi Wu^{1*} and David Dunning^{1*}

Affiliations:

¹Department of Psychology, University of Michigan, 530 Church Street, Ann Arbor, MI, USA 48109.

*Correspondence to: kaidiwu@umich.edu or ddunning@umich.edu.

Classification:

Social Science

Abstract

The U.S. faces deep social divides, with socially dominant and subordinate groups clashing over how much privilege the former enjoys and how much hardship the latter endures. These differences arise in part because privilege is invisible to those who have it. Dominant groups are *hypocognitive* of privilege, having more fragmentary and impoverished cognitive representations of what the concept is, relative to subordinate group members. Across 13 studies, this difference revealed itself in impaired performance on cognitive tasks involving privilege. Relative to those from subordinate groups (women, Black and Asian Americans, left-handers), dominant group members (men, White Americans, right-handers) needed more information about everyday behavior to recognize themes of discrimination, generated fewer examples of discrimination, and remembered fewer discriminatory instances from a questionnaire or videotaped talk. They also categorized instances of discrimination on a reaction time task more slowly. These cognitive performance deficits predicted group differences in beliefs about whether privilege and discrimination exist. Performance differences persisted whether privilege was framed as the absence of disadvantages or presence of advantages and whether discrimination was made salient or not. After watching a transgender woman describe discrimination experienced as a woman, both men and women showed increased awareness of male privilege and gender discrimination. Findings suggest that the invisibility of one's privilege need not solely reflect identity-defensive motivations, but may also stem from cognitive deficits in conceptual knowledge about privilege and discrimination.

Significance Statement

A majority of Black Americans perceive racial discrimination in everyday living, but fewer than half of White Americans think similarly. Among women, 41% state men have easier lives, but only 28% men agree. Why do these groups diverge in their perception of social privilege and the hardships experienced by subordinate groups? Recent scholarship suggests that dominant group members are motivated to deny privilege, but we present a complementary view. Dominant group members do not have the conceptual expertise to identify, generate, and remember instances of discrimination and advantage. Thus, the advantaged may not consciously deny privilege, but instead have little working knowledge or conception of what it is. This *hypocognition* of the concept explains group differences in awareness of privilege and acknowledgement of discrimination. It shows why social advantaged and disadvantaged individuals walk away from discriminatory episodes with different memories of the experience.

Invisibility of Social Privilege to Those Who Have It

A majority of Black Americans perceive that racial discrimination exists in daily life, but fewer than half of White Americans agree (1). On views of White privilege, 92% of Blacks report that Whites benefit from social advantages that Blacks lack, but only 46% of Whites say so (2). A similar attitudinal chasm is found for gender. Women report personally experiencing discrimination twice as often as men. However, whereas 41% of women state that men have easier lives than women, only 28% of men agree (3).

Why do people from socially dominant groups perceive less privilege in their lives than that perceived by people from subordinate groups? We propose that this divergence arises from differences in conceptual expertise. Because of the particular experiences and challenges they face, members from subordinate groups become expert in the disadvantages and privileges that characterize different social groups.

In classic psychological terms, they become *schematic* for the concept of privilege. They possess rich and well-integrated knowledge structures of privilege that represent conceptual knowledge about the idea, including its typical examples, common features, and associations to related ideas (4–6). The way they develop and acquire the conceptual schema is much like how becoming a parent causes people to develop a rich cognitive representation of childhood disease that they may have had bare awareness beforehand. Their expertise would include examples (e.g., colic, croup, and roseola), underlying themes (e.g., what general symptoms to watch out for), connections to other ideas (e.g., uses for medications), and how to act (e.g., when to go to the doctor). Such schematic or conceptual knowledge aids in cognitive performance with new encounters with it—aiding in the recognition of illness, as well as comprehending, interpreting, and remembering encounters with it.

We term the absence of such schematic knowledge about privilege to be the *hypocognition* of it (7). To be hypocognitive is to lack conceptual knowledge about the idea, including its instantiations, defining features, and associations to other notions (8, 9). In cognitive psychological terms, it is lacking a knowledge structure, a cognitive schema, that organizes conceptual information and aids in the cognitive processing of new experience (4, 10). The notion of hypocognition comes from anthropologist Robert Levy, who observed that Tahitians expressed no explicit grief when faced with the death of a loved one. Levy postulated that Tahitians lack the concept of grief (11). Thus, they may express fragmented feelings of the emotion, describing their sorrow as feeling “sickness” or “strange”.

Not facing the same challenges and experiences as those from subordinate groups, dominant group members may be hypocognitive of the advantages they enjoy or the disadvantages other groups endure. Hence, they fail to acknowledge their privilege not necessarily because they actively deny it, but because they have little or no conception of what it is. They lack the intellectual scaffolding needed to recognize, generate, comprehend, and remember social privilege and its instantiations. For example, in *The Macho Paradox* (12), educator Jackson Katz described an exercise during which he drew a line down the middle of a chalkboard and asked men and women to write down on each side the steps they take to protect themselves from assault. Whereas men stared at the board in silence, women readily recounted safety precautions as a part of their daily routine (e.g., “hold my key as a potential weapon”, “don’t go jogging at night”, “check the back seat before getting into my car”).

Recent approaches to studying privilege blindness focus on defensive, motivated denial. When confronted with evidence of privilege, members of socially advantaged groups claim

personal hardships and victimhood, emphasize hard work and individual effort, downplay advantages conferred to them by society, and see acts of discrimination as isolated rather than systemic (13–16). According to this view, people are aware of the advantages their social group enjoys but engage in intentional “cloaking” of it (17). Social privilege is visible to those who have it, but the privileged actively minimize perceived discrimination toward others and dismiss having social advantage (15).

We resonate with this motivated account (16, 17), but suggest that denial of privilege may also arise from cognitive deficits existing outside of motivational defense. The advantages that members of the socially dominant groups enjoy are invisible to them. In cognitive terms, they have little cognitive representation, or schema, of them (4). If asked to generate examples of privilege, they will struggle with the task. If presented with examples of privilege, they will fail to identify them as such. They will also lack the framework of cognitive associations needed to affix those examples in memory when encountering new experiences related to privilege. Much like the literature on the *Marley hypothesis*, which highlights ignorance of racial history in denial of systemic racism, our analysis points to another way in which ignorance of the contemporary experience of disadvantaged groups leads to denial, one taking place outside of motivation and defensiveness (18, 19).

Thus, in our studies, we explored whether members from socially advantaged groups would show classic cognitive signatures indicating a lack of schematic knowledge or conceptual expertise about privilege, relative to those from disadvantaged groups. We tested whether they would show cognitive performance deficits in identifying the concept from instances of it, generate examples when asked about the idea, remember instances when their memory was probed, or be slower to categorize whether stimuli were examples of privilege.

Privilege as the Absence of Disadvantages

Why are socially dominant group members hypocognitive of privilege? Social privilege is defined as the rights or advantages people of the socially dominant groups enjoy based on their group membership (20).

However, privilege is as much about the absence of inconveniences borne by others as it is about the presence of benefits. Women’s studies scholar Peggy McIntosh likened privilege to an invisible knapsack of “special provisions, maps, passports, codebooks, visas, clothes, tools, and blank checks” (21). Yet, many examples of the advantages in the invisible knapsack include “*not* being followed while shopping” and “*not* being made aware that one’s shape or body odor will be taken as a reflection on one’s race”.

To be hypocognitive of social privilege, then, often involves having an impoverished knowledge of the disadvantages one does not have to confront. For example, most people will have difficulty recognizing the category that unites the following objects: school desk, scissors, spiral notebook, guitar, golf club, and can opener. However, a left-hander may readily identify the theme of what those objects represent: items designed for right-handers that produce daily hassles for left-handers. Right-handers likely have little conceptual or schematic knowledge of the category and, hence, are not aware of the privilege their handedness entails. They are novices to the expert knowledge that left-handers have developed of the category (22). This lack could lead to worsened performance at cognitive tasks, such as poor generation of examples of hassles, worse memory of these examples, and slower speed when classifying whether examples represent discrimination. We operationalize hypocognition through these signatures of degraded cognitive performance when thinking about privilege and discrimination.

Overview of Studies

Across 13 studies, we examined the hypocognition of privilege due to handedness (Study 1a-1b), gender (Studies 2a-2d), and race (Studies 3a-4). We hypothesized that right-handers, men, and Whites would be hypocognitive of the disadvantages typically experienced by left-handers, women, and non-Whites. We measured hypocognition by looking for its signatures in cognitive performance: failure to recognize, generate, or recall hassles or discrimination borne by non-privileged social groups (4, 23). Members of socially dominant groups would recognize the category more slowly from examples of discrimination and hassle, generate fewer examples given the category, recall fewer discriminatory instances from a list or from a video shown to them, and react more slowly in classifying whether actions were discriminatory.

We further predicted that hypocognition, as revealed by these cognitive deficits, would predict group differences in acknowledging privilege enjoyed by dominant groups and the extent of discrimination experienced by subordinate ones. We ended with an intervention to reduce hypocognition (Study 5) by showing a TEDx talk of a transgender woman recounting her experience living as a woman versus a man. We predicted that furnishing conceptual knowledge of male privilege will help increase awareness of privilege and perception of discrimination.

Study 1 Handedness Advantage

We began by examining hypocognition of advantage due to handedness, a topic lying outside major social discussion and political contention. We predicted that right-handers would have difficulty recognizing or generating hassles often encountered by their left-handed peers.

Study 1a. First, we examined whether right-handers would show difficulty recognizing the theme of handedness disadvantage relative to left-handers, as we presented an expanding list of difficulties involving objects that typically pose challenge for left-handers. We showed 108 right-handers and 91 left-handers instances of such hassles (e.g., using a spiral notebook, knocking elbows while eating). Instances were presented one at a time, up to 6, and participants suggested a theme that connected all the examples after the presentation of each instance.

Compared to left-handers, right-handers needed more examples to detect the relevant theme, according to a survival analysis, *Hazard Ratio* = .44, $z = -3.79$, $P < .001$ (Fig. 1A). At the end of the task, 63% of left-handers had successfully identified the theme, whereas only 35% of right-handers had, $z = 3.76$, $P < .001$.

Study 1b. Next, we reversed the task, presenting the concept of handedness disadvantage and asking participants to generate examples of it. These could be instances of difficulty typically experienced by left-handers when using particular objects or tools or dealing with unfavorable perceptions or remarks. A sample of 334 right-handers, on average, generated fewer instances of hassles than 166 left-handers ($M_s = 3.57$ vs. 5.72), $z = -10.84$, $P < .001$.

We further predicted that this hypocognition would mediate group difference in acknowledging handedness advantage and perception of handedness discrimination. Right-handers were less aware of their advantage than left-handers ($M_s = 2.77$ vs. 3.70), $t = 6.44$, $P < .001$. They also perceived less discrimination against left-handers ($M_s = 1.71$ vs. 3.31), $F = 56.86$, $P < .001$ (see *SI Appendix* for additional detail on results and Table S1 for correlations). The lack of handedness hassles generated by right- (versus left-) handers predicted their lower awareness of handedness advantage (indirect effect = $-.22$, 95% CI $[-.32, -.14]$; Fig. 2A). It also

predicted their lower perception of handedness discrimination (indirect effect = $-.29$, 95% CI $[-.47, -.14]$; Fig. 2B).

Study 2 Male Privilege

Studies 2a-2d extended our examination to gender privilege. We explored whether men would show worse performance in identifying and remembering disadvantages or hassles that women typically experience.

Study 2a. Using the examples suggested by *The Macho Paradox* (12), we explored if men would need more examples to recognize behaviors taken as precautions to avoid assault. Gender itself was not mentioned. We showed 145 men and 145 women instances of such precautions (e.g., watching what you wear, varying route from home to work) one at a time, up to 5. After the presentation of each instance, participants tried to identify the theme that the instances had in common.

Compared to women, men were less likely to detect the theme as precautions people take to protect themselves from assault, *Hazard Ratio* = $.55$, $z = -4.64$, $P < .001$ (Fig. 1B). For example, after seeing two examples, 61% of women had identified the theme, whereas only 37% of men had. After the presentation of all five examples, 13% more women than men had identified the underlying theme, $z = 3.03$, $P = .002$.

Study 2b. Study 2b reversed the task, giving men and women the category of gender discrimination and asking them to generate examples. A sample of 125 men generated fewer instances of gender discrimination on average than 145 women ($M_s = 4.66$ vs. 6.49), $z = -6.27$, $P < .001$.

We further predicted that this hypocognition would mediate gender differences in awareness of male privilege and perception of gender discrimination. Men were less aware of male privilege than women ($M_s = 3.72$ vs. 4.19), $t = 3.05$, $P = .002$, and perceived less gender discrimination compared to women ($M_s = 4.10$ vs. 4.85), $F = 4.38$, $P = .037$ (see *SI Appendix* for additional detail on results and Table S2 for correlations). The lack of discrimination instances generated by men (versus women) predicted their lower awareness of male privilege (indirect effect = $-.17$, 95% CI $[-.28, -.08]$) and lower perception of gender discrimination (indirect effect = $-.56$, 95% CI $[-.88, -.30]$).

We also tested political variables (party affiliation, political ideology) that may be associated with hypocognition in the current and subsequent studies (*SI Appendix*).

Study 2c. Study 2c examined hypocognition of male privilege via deficits in recall performance. We asked 85 men and 81 women to rate whether a series of behaviors were precautions people take to protect themselves from assault (12). Gender was not mentioned. Nevertheless, men rated the items to be less typical of self-protective behaviors compared to women ($M_s = 3.94$ vs. 4.76), $F = 16.15$, $P < .001$. We then surprised the participants by asking them to recall as many behaviors from the list as they could. Crucial to our measure of hypocognition, men recalled fewer items than women ($M = 3.99$ vs. 4.94), $z = -2.91$, $P = .004$, indicating weaker conceptual knowledge of these safety precautions (see *SI Appendix* for results on filler items).

We further predicted that this hypocognition would mediate gender gaps in awareness of male privilege and perceptions of gender discrimination. Men were less aware of male privilege than women ($M_s = 3.48$ vs. 4.43), $t = 4.41$, $P < .001$. They also perceived less gender

discrimination than women ($M = 4.30$ vs. 5.55), $F = 9.47$, $P = .002$, $\eta_p^2 = .06$ (see *SI Appendix* for additional detail on results and Table S3 for correlations). The lack of self-protective behaviors recalled by men (versus women) predicted their lower awareness of male privilege (indirect effect = $-.14$, 95% CI $[-.29, -.02]$) and lower perception of gender discrimination (indirect effect = $-.40$, 95% CI $[-.82, -.05]$).

Study 2d. Study 2d extended the recall findings related to safety precaution to gender discrimination more broadly. We also asked if men and women would come away from a common experience with a different memory of it, as would be predicted by differing levels of expertise versus hypocognition.

We showed 94 women and 134 men a TEDx talk of a transgender woman describing her experience from both sides of the gender divide, focusing on the daily hassles she now faced as a woman. We measured hypocognition first by asking participants to recall as many hassles mentioned in the talk as possible a day after they watched the talk. Men recalled fewer gender discrimination instances described in the TEDx talk than women ($M_s = 3.06$ vs. 4.06), $z = -3.99$, $P < .001$.

We then included a recognition memory test as an additional index of hypocognition, presenting participants with a list of hassles, some from the video and others new, asking whether the speaker had mentioned them in her talk. We conducted a signal detection analysis to assess whether men less accurately distinguished the hassles described in the TEDx talk from the ones not described. We calculated both sensitivity (d'), the ability to distinguish instances in the talk from unmentioned ones, and response bias (c), the overall bias for saying any hassle was mentioned (see *SI Appendix* for details on calculations of d' and c) (24).

Men showed less sensitivity (or accuracy) in their recognition of gender discrimination instances than women ($M_s = 1.54$ vs. 1.81), $t = 2.18$, $P = .030$, indicating less cognitive expertise about gender discrimination. However, women displayed a lower response threshold than men, indicating a greater bias toward remembering discrimination instances as being mentioned in the talk regardless of whether the discrimination instances were actually mentioned ($M_s = -.31$ vs. $-.17$), $t = -2.56$, $P = .011$. The latter finding is also consistent with classic schema work demonstrating that a false alarm bias in recognition performance indicates an underlying conceptual schema is present and activated (25).

We predicted that hypocognition, as either a lack of recall or recognition sensitivity (accuracy), would predict gender difference in attitudes related to awareness and discrimination. Men were less aware of male privilege than women ($M_s = 3.74$ vs. 4.63), $t = 4.82$, $P < .001$. They also perceived less gender discrimination than women ($M_s = 4.01$ vs. 5.37), $F = 12.73$, $P < .001$ (see *SI Appendix* for additional detail on results and Table S4 for correlations). Poorer recall performance among men (versus women) predicted their lower awareness of male privilege (indirect effect = $-.15$, 95% CI $[-.28, -.04]$) and acknowledgement of discrimination (indirect effect = $-.44$, 95% CI $[-.78, -.17]$).

We also tested whether recognition sensitivity (d') mediated gender differences in privilege awareness and discrimination perception. Lower recognition sensitivity among men predicted their lower awareness of male privilege (indirect effect = $-.07$, 95% CI $[-.16, -.002]$) and lower perception of gender discrimination (indirect effect = $-.27$, 95% CI $[-.42, -.15]$). Response bias (c) did not mediate gender difference in privilege awareness (indirect effect = $-.04$, 95% CI $[-.12, .02]$) or discrimination perception (indirect effect = $-.004$, 95% CI $[-.14, .13]$).

Study 3 White Privilege: Black versus White Perceptions

Studies 3a-3e moved to hypocognition regarding racial privilege. We hypothesized that White participants would identify, generate, and recall fewer discriminatory behaviors compared to Black participants, and this hypocognition would explain lacking awareness of White privilege and perceived racial discrimination. We further tested whether these effects held when hypocognition was framed as the presence of advantage versus the absence of disadvantage, and whether the theme of racial discrimination was made salient or not.

Study 3a. Would White Americans need more examples to recognize the theme of racial discrimination relative to Black Americans? Using the examples of everyday discrimination discussed in previous research (26, 27), we showed 145 White and 129 Black participants 5 examples of discrimination (e.g., ignored by a receptionist; asked to show credentials at own workplace) one at a time. Participants tried to identify the theme linking the examples after each instance.

Compared to Black respondents, Whites took longer and were less likely to detect the theme as discrimination, *Hazard Ratio* = .39, $z = -5.76$, $P < .001$ (Fig. 1C). After seeing three examples, 67% of Black but only 37% of White respondents had identified the theme. After the presentation of all five examples, 29% more Black than White respondents had identified the discrimination as the unifying theme underlying the examples, $z = 4.81$, $P < .001$.

Study 3b. We reversed the task, giving White and Black Americans the category of racial discrimination and asking them to generate examples. A sample of 154 White Americans generated fewer instances of racial discrimination than 144 Black Americans ($M_s = 4.89$ vs. 5.93), $z = -3.86$, $P < .001$. White Americans were less aware of White privilege ($M_s = 4.18$ vs. 5.25), $t = 7.91$, $P < .001$, and perceived less racial discrimination than Black Americans ($M_s = 5.57$ vs. 6.80), $F = 13.74$, $P < .001$ (see *SI Appendix* for additional detail on results and Table S5 for correlations).

As predicted, hypocognition among Whites (versus Blacks) predicted the lower awareness of White privilege (indirect effect = -.08, 95% CI [-.15, -.03]) and lower perception of racial discrimination among Whites versus Blacks (indirect effect = -.30, 95% CI [-.56, -.07]).

Study 3c. We have conceptualized privilege as the absence of disadvantage. But what if privilege is framed instead as the presence of advantage for the dominant group? We randomly assigned 245 White Americans and 284 Black Americans to generate either instances of racial discrimination faced by Blacks or of racial privilege experienced by Whites.

Replicating previous studies, Whites generated fewer racial disadvantages than Blacks ($M_s = 5.37$ vs. 6.43), $z = -3.53$, $P < .001$. When asked to generate instances of racial privilege experienced by Whites, Whites also generated fewer such instances than Blacks ($M_s = 4.85$ vs. 5.80), $z = -3.33$, $P < .001$. Overall, White Americans generated fewer overall instances than Black Americans ($M_s = 5.10$ vs. 6.11), $z = -4.85$, $P < .001$, and this trend did not differ by framing privilege as advantage versus disadvantage, given a non-significant frame x race interaction, $z = -.04$, $P = .970$.

We predicted that hypocognition of privilege—framed either in terms of advantage or disadvantage—would mediate racial differences in beliefs related to awareness and discrimination. As in previous studies, White Americans were less aware of White privilege (M_s

= 4.38 vs. 5.29), $t = 8.04$, $P < .001$, and perceived less racial discrimination than Black Americans ($M_s = 5.38$ vs. 6.54), $F = 22.93$, $P < .001$ (see *SI Appendix* for additional detail on results and Table S6 for correlations).

Looking at disadvantage versus advantage separately, when measured via listed instances of Black discrimination, hypocognition among Whites (versus Blacks) predicted lower awareness of White privilege (indirect effect = $-.08$, 95% CI $[-.15, -.02]$) and lower perception of racial discrimination among Whites versus Blacks (indirect effect = $-.20$, 95% CI $[-.42, -.03]$). When measured via advantage, hypocognition also predicted lower privilege awareness (indirect effect = $-.13$, 95% CI $[-.23, -.04]$) and lower discrimination perception (indirect effect = $-.42$, 95% CI $[-.69, -.18]$).

Study 3d. Study 3d tested hypocognition via worsened recall performance. 139 White Americans and 106 Black Americans rated a series of behaviors on the extent to which they represented discrimination. As in Study 2b, we then surprised them with a task to recall as many behaviors from the list as they could. Whites rated the discrimination instances to be less prototypical of experiences of everyday racial discrimination than Blacks ($M_s = 3.97$ vs. 4.54, $SE = .16$), $F = 7.29$, $P = .007$. Regarding hypocognition, Whites recalled fewer discrimination instances than Blacks ($M_s = 3.91$ vs. 4.58), $z = -2.54$, $P = .011$ (see *SI Appendix* for results on filler instances).

We further predicted that this hypocognition would mediate group differences in awareness of White privilege and perceptions of racial discrimination. Whites were less aware of White privilege than Blacks ($M_s = 4.23$ vs. 5.25), $t = 6.42$, $P < .001$. They also perceived less discrimination than Blacks ($M_s = 5.63$ vs. 7.00), $F = 16.92$, $P < .001$ (see *SI Appendix* for additional detail on results and Table S7 for correlations). Conceptually replicating Study 3a, hypocognition as indexed by the lack of recall by Whites (versus Blacks) predicted their lower awareness of White privilege (indirect effect = $-.14$, 95% CI $[-.29, -.01]$) and lower perception of racial discrimination across decades (indirect effect = $-.23$, 95% CI $[-.47, -.06]$).

Study 3e. We have framed hypocognition as a cognitive phenomenon. However, one might argue that because the theme of racial discrimination was salient in certain studies above (e.g., Studies 3b, 3d), Whites may be motivated to provide fewer instances or be less willing to commit them to memory.

Thus, in this study, we tested this account by manipulating the salience of racial discrimination when presenting instances of it. We presented 255 White and 238 Black Americans again with a list of discrimination instances, but randomly assigned them to rate whether those instances represent examples of *everyday racial discrimination* (salient condition) or of *daily hassle* (nonsalient condition). We then surprised participants with a request to recall as many behaviors from the list as they could.

If inferior memory performance was due to motivated denial, we should observe an racial difference in the discrimination-salient condition, but less so in the nonsalient condition. However, if inferior memory stemmed from hypocognition, salience of the discrimination label should not affect group differences in memory.

In the discrimination-salient condition, examples were rated to be less prototypical of racial discrimination by White rather than Black participants ($M_s = 4.50$ vs. 5.31), $t = 4.44$, $P < .001$. In the nonsalient condition, examples were rated to be similarly prototypical of daily hassles by Whites and Blacks ($M_s = 4.36$ vs. 4.54), $t = .91$, $P = .633$.

Replicating previous studies, when racial discrimination was made salient for the presented instances, Whites recalled fewer such instances than Blacks ($M_s = 4.75$ vs. 5.66), $z = -3.83$, $P < .001$. However, when there was no mention of racial discrimination for the instances presented, Whites still recalled fewer instances than Blacks ($M_s = 4.84$ vs. 6.01), $z = -3.22$, $P = .001$ (see *SI Appendix* for results on filler instances). Overall, White Americans recalled fewer discrimination instances than Blacks ($M_s = 4.79$ vs. 5.83), $z = -4.99$, $P < .001$, with this difference unaffected by salience condition, salience $\times$ race interaction, $z = .52$, $P = .604$.

We predicted that this hypocognition would mediate difference in attitudes related to awareness and discrimination, regardless of whether the theme of racial discrimination was cued or not prior to recall. As in previous studies, White Americans were less aware of White privilege ($M_s = 4.15$ vs. 5.29), $t = 10.27$, $P < .001$, and perceived less racial discrimination than Black Americans ($M_s = 5.47$ vs. 6.66), $F = 27.66$, $P < .001$ (see *SI Appendix* for additional detail on results and Table S8 for correlations). When racial discrimination was made salient, hypocognition among Whites (versus Blacks) predicted lower awareness of White privilege (indirect effect = $-.08$, 95% CI $[-.15, -.02]$) and lower perception of racial discrimination among Whites versus Blacks (indirect effect = $-.23$, 95% CI $[-.47, -.03]$) as in previous studies.

Importantly, when there was no mention of racial discrimination for the presented instances, hypocognition still predicted lower privilege awareness (indirect effect = indirect effect = $-.07$, 95% CI $[-.14, -.01]$) and lower discrimination perception (indirect effect = $-.24$, 95% CI $[-.49, -.04]$).

Study 4 White Privilege: Asian versus White Perceptions

We then turned to the Asian American experience, examining the invisibility of discriminatory actions experienced by Asian Americans, which often include racial microaggressions emphasizing their cultural foreignness (28, 29). As in previous studies, we measured hypocognition by asking White Americans and Asian Americans to generate as many instances of racial discrimination against Asian Americans as they could. We also assessed reaction time via a more covert measure of hypocognition, predicting that White Americans would classify instances as discriminatory behavior more slowly than Asian Americans.

White Americans generated fewer instances of racial discrimination than Asian Americans ($M_s = 4.26$ vs. 5.23), $z = -3.51$, $P < .001$. White Americans also reacted more slowly in the classification task than Asian Americans ($M_{\ln(\text{Reaction Time})} = .57$ vs. $.49$), $t = 2.18$, $P = .030$, after controlling for baseline reaction time for filler instances.

We predicted that this hypocognition would mediate racial difference in awareness of White privilege and perceptions of racial discrimination directed at Asians (relative to Whites). White Americans were less aware of White privilege than Asian Americans ($M_s = 3.88$ vs. 4.48), $t = 3.96$, $p < .001$. Whites also perceived less racial discrimination than Asians ($M_s = 4.43$ vs. 5.53), $F = 11.77$, $P < .001$ (see *SI Appendix* for additional detail on results and Table S9 for correlations). As before, the lack of discrimination instances generated by Whites (versus Asians) predicted their lower awareness of White privilege (indirect effect = $-.07$, 95% CI $[-.14, -.01]$) and lower perception of racial discrimination across decades (indirect effect = $-.20$, 95% CI $[-.40, -.05]$). Slower reaction time in the classification task among Whites (versus Asians) also predicted their lower awareness of White privilege (indirect effect = $-.06$, 95% CI $[-.14, -.004]$) and lower perception of racial discrimination (indirect effect = $-.07$, 95% CI $[-.09, -.06]$).

Study 5 Intervention

Study 5 aimed to reduce hypocognition of privilege through an intervention, in which 141 women and 170 men listened to the transgender TEDx speaker from Study 2c. We expected that learning about the discrimination experience and loss of male privilege from the perspective of a transgender woman would help ameliorate hypocognition and raise awareness of gender privilege and acknowledgement of gender discrimination.

The intervention raised participants' awareness of male privilege, $t = 4.54$, $P < .001$. In particular, not only did the intervention increase male privilege awareness for men ($M_s = 3.99$ vs. 4.35), but also for women ($M_s = 4.16$ vs. 4.54) to a similar extent, given a non-significant intervention $\times$ gender interaction, $t = -.09$, $P = .931$. The intervention raised also participants' acknowledgement of gender discrimination, $t = 3.92$, $P < .001$. This effect was equivalent for both genders, given the non-significant intervention $\times$ gender interaction, $t = -.06$, $P = .951$ (Fig. 3; see *SI Appendix* for the effect of decade).

Discussion

Across 13 studies, we presented evidence that people of socially dominant groups are hypocognitive of their privilege. The data also suggested potential social implications for these group-based differences in conceptual expertise. Hypocognition, as indexed by degraded cognitive performance across a number of tasks, explained group differences in the awareness of social privilege and beliefs about the prevalence of discrimination.

Further, our memory studies suggested that dominant and subordinate group members may come to different memories of common events, setting the stage for subsequent confusion and misunderstanding. In Study 2d, men and women held different memories of the TEDx talk about the experiences of women versus men a day after they had viewed it.

Could it be that advantaged group members actually have as much conceptual knowledge of the disadvantages faced by subordinate group members, but simply have less available experience of being disadvantaged, and are hence slower to retrieve such instances? Our studies suggest against such a possibility. Our data suggest, first, that members of advantaged and disadvantaged groups has a different notion in mind when the category of privilege or discrimination is evoked. In Study 2c, men rated typical steps women take of self-protection to be less prototypical of the category than did women. If men had just as fully-developed a category of self-protection associated with being female as did women, no difference in ratings should have arisen. Similarly in Study 3d, White respondents rated common examples of racial discrimination as less prototypical of discriminatory acts than did Black respondents. Second, even when asked to generate examples of racial advantages—an experience more available to White Americans (Study 3e), White Americans still generated fewer examples than Black Americans.

Interplay between hypocognition and motivation. We have argued that a cognitive approach may explain differences between social groups in how much they view the prevalence of privilege and discrimination in contemporary life. Most existing theoretical accounts of these social differences are motivational in nature (12). Can people still argue that the impaired cognitive performance of the dominant group members in our studies was motivational in nature, in that such participants may have been less energized to generate examples of discrimination or to remember them once presented?

In thinking through the potential role of motivation, it is important to distinguish motivational dynamics that might occur in the moment that participants took part in our studies versus long-term influences. Concerning the former, data from our studies speak against this hypothesis. A motivational hypothesis suggests that dominant group members should be especially reluctant to generate or remember instances of discrimination when those instances are explicitly labeled as such. However, we found group differences in memory for such instances even when their discriminatory nature was left unmentioned. Varying whether or not such instances were explicitly labeled as discriminatory had no effect on observed group differences in impaired memory (Study 3e). Similarly, some have argued that dominant group members are especially reactive to the notion of privilege as opposed to discrimination (14, 30, 31). Even though dominant group members may concede that others experience discrimination, they may rebel against the idea that they themselves are privileged. Our data did not support this explanation. We found instead that group differences in cognitive performance arose to the same degree whether or not we asked participants to generate examples of their own privilege versus the discrimination faced by others (Study 3c).

Although our data speak against motivational influences in the immediate moment, we do not dismiss the notion that motivation has influence on cognitive expertise and hypocognition over the long term. This is a possibility for future empirical research. Subordinate group members may be more motivated to learn about discrimination and privilege over a lifetime because it represents experiences they commonly confront and challenges they must negotiate. Dominant group members fail to encounter these hassles, and so have fewer needs to learn about them. Dominant group members may also be actively motivated not to think about privilege and discrimination when directly confronted with it (32), and thus, over time, fail to develop cognitive expertise about the concept.

Further, beyond the individual level, motivation may play a role at an institutional or societal level. Dominant group members may reside in a society motivated not to let them know about social advantage and disadvantage (8), living in societies that afford what philosopher Charles Mills refers to as an *epistemology of ignorance* (18, 33), in which wrongdoing, discrimination, and privilege are scarcely mentioned in popular media, historical textbooks, and academic scholarship (34, 35). As such, individuals do not need to intentionally “cloak” their privilege by pretending it does not exist. They simply reside in a society that ensures and perpetuates such ignorance.

Hypocognition-based interventions. A hypocognition approach to understanding privilege blindness also informs avenues of intervention to boost awareness of privilege without necessarily evoking defensive reactions. Research has shown that directly addressing privilege, such as telling people explicitly that they have privilege or asking them to “check their privilege,” often incites backlash (16), particularly among conservatives or Whites who strongly identify with their racial identity (36, 37). We instead tested an intervention (Study 5) that allowed men and woman to peer into the world of a transgender woman, as she told her story of navigating everyday hassles as female (e.g., being mansplained to, not being taken seriously) in contrast with her previous experience as male. By inviting people to experience the other side of the gender divide through the eyes of a transgender woman, this cognitive intervention succeeded in reducing hypocognition and increasing awareness (albeit not entirely perfectly) of male privilege and perception of gender discrimination.

It remains an interesting question why the TEDx talk intervention in Study 5 not only reduced hypocognition among men but also among women. Having more expertise about privilege does not mean a person knows all about it, and the TEDx talk may have presented women with instances they themselves were not aware of. As Paula Stone Williams explained in her talk, “There is no way a well-educated white male can understand how much the culture is tilted in his favor... because it's all he's ever known... and there's no way that a woman can understand the full import of that because being a female is all she's ever known.” Each group is a position to learn more. Thus, cisgender women and subordinate group members in general are not entirely immune to some hypocognition themselves. It remains to be seen how hypocognition plays out in how subordinate groups perceive their lack of privilege.

Group asymmetry in hypocognition. Some caveats are in order. Although we present evidence of hypocognition among members of socially dominant groups, we do not imply that they face no unique obstacles themselves. Nor do we suggest that subordinate groups are immune to hypocognition. Each social group is, to a certain extent, unaware what barriers their own groups and other groups may encounter (38). There are other comparisons of interest when it comes to hypocognition. Do members of one disadvantaged group fail to know how members in another disadvantaged demographic confront discrimination? If so, they may fail to recognize areas of common cause.

That said, there is a wealth of research suggesting that dominant group members in particular may fail to comprehend the scope of discrimination experienced by members of other group, not the other way around. First, the lives and experiences of members from socially dominant groups are more available in the mainstream culture than those of members from subordinate groups (39). Members of dominant groups may also fail to see their identities as privileged because their group identities are often regarded as normative, neutral, or unmarked. Second, people from dominant social groups also hold more power in society, which means they can afford being inattentive to the circumstance of others, are more likely to stereotype subordinate groups, and are less compassionate to their sufferings (40–42). Further research can explore whether such psychological dynamics are in play.

In her famous “Blue Eyes, Brown Eyes” exercise, educator and antiracism activist Jane Elliot split the students up by their eye color and treated the brown-eyed students as privileged and the blue-eyed students as inferior. The next week, she reversed the privilege status of the groups. “I found out what it felt like to be on the bottom, and I did not want to make anyone feel like that ever again,” the students remarked post-exercise (43). Few of us have traversed multiple social worlds. Few of us have lived as White and Black, male and female, able-bodied and disabled. Yet, we can do so in our imagination—to learn to acknowledge that which we have no knowledge, to try to comprehend the difficulties which we do not experience, to become a little less hypocognitive of our own hypocognition.

Material and Methods

Study 1 Handedness.

Study 1a. Participants were 108 right-handers and 91 left-handers recruited from the Prolific crowdsourcing platform ($M_{\text{age}} = 33.14$, 47.7% female, 60.3% non-Hispanic White). See *SI Appendix* for exclusion criteria for all studies.

Participants were presented with 6 instances that include usage of objects typically designed for right-handers (e.g., struggling with a can openers). These instances were presented one by one, cumulatively. Participants were randomly assigned to one of six orders in which the instances were presented (see *SI Appendix*, A1 for a full list of instances and order conditions). After the presentation of each instance, participants were asked to write down what the theme of what the objects represent, based on the objects they have seen so far.

We conducted a survival analysis using the R package *survival* to predict the likelihood of failure to detect the theme of “objects that pose difficulty for left-handers” from 1) the number of presented objects it took for them to detect the theme (coded by two research assistants: $\kappa = 1.00$), 2) whether they succeeded in detecting the theme (coded by two research assistants: $\kappa = 1.00$), and 3) order condition.

Study 1b. Participants were 334 right-handers and 166 left-handers recruited from the TurkPrime crowdsourcing platform ($M_{\text{age}} = 39.31$, 54.0% female, 75% non-Hispanic White). We worked with the TurkPrime panel service to prescreen and sample as many left-handers as right-handers as possible.

Participants generated as many instances of everyday hassles or inconveniences experienced by left-handers as they could. Two research assistants coded the number of handedness-related hassles generated by each participant ($\kappa = .92$). Discrepancies among coders were resolved through discussion. Participants also filled out two attitudinal measures. They rated their awareness of handedness advantage (e.g., “Right-handed people have it easier than left-handed people”; $\alpha = .84$; *SI Appendix*), a measure adapted from the White Privilege Attitudes Scale—White Privilege Awareness subscale (1 = *strongly disagree* to 6 = *strongly agree*) (44). They also indicated how much right-handers and left-handers are or were subject to discrimination in the United States in each of the decades from 1950s to 2010s (1 = *not at all* to 10 = *very much*) (45).

We performed a Poisson regression here (and in subsequent studies) predicting the number of handedness-related hassles listed from handedness (left-handed = -0.5, right-handed = +0.5), given that the number of hassles is a count variable. Regarding perceived discrimination, we computed difference scores (discrimination for left-handers – discrimination for right-handers) for the each of the seven decades. We subjected the discrimination difference scores to a 2 handedness (right-handed vs. left-handed) x 7 decades (1950s thru 2010s) mixed-design ANOVA.

We tested whether the number of listed hassles mediated the relationship between handedness (left-handed = -0.5, right-handed = +0.5) and awareness of handedness advantage using the *mediation* package in R. We then examined whether the number of listed hassles mediated the relationship between handedness and perceiving the extent of discrimination faced by left-handers relative to right-handers (discrimination difference score) while including the moderating effects of decade (1950s to 2010s = -3, -2, -1, 0, 1, 2, 3).

Study 2 Male Privilege.

Study 2a. Participants were 145 men and 145 women recruited from Prolific ($M_{\text{age}} = 33.56$, 50.0% female, 72.1% non-Hispanic White).

Participants were presented with 5 instances that include safety precautions people take to protect themselves from assault (e.g., pretending to be on the phone when walking home). These instances were presented one by one, cumulatively. Participants were randomly assigned to one of five orders in which the instances were presented (see *SI Appendix*, A2 for a full list of instances and order conditions). After the presentation of each instance, participants were asked to write down what the theme of what the instances represent, based on the instances they have seen so far.

We conducted a survival analysis predicting the likelihood of failure to detect the theme related to protection from assault from 1) the number of presented instances it took for them to detect the theme (coded by two research assistants: $\kappa = .92$), 2) whether they succeeded in detecting the theme (coded by two research assistants: $\kappa = .85$), and 3) order condition. Participants were coded as successful in detecting the theme if their response mentioned any of the following components: safety/caution (e.g., trying to be safe when out), fear (e.g., fear of being attacked), assault (e.g., avoiding sexual assault).

Study 2b. Participants were 145 were women and 125 were men recruited from TurkPrime ($M_{\text{age}} = 36.53$, 53.7% female, 80.4% non-Hispanic White). Participants followed a similar procedure as in Study 1 and wrote down instances of gender discrimination experienced by women in everyday living, which were coded by two research assistants ($\kappa = .96$). Participants rated their awareness of male privilege ($\alpha = .84$; 1 = *strongly disagree* to 6 = *strongly agree*) (44) and how much men and women are or were subject to discrimination in the United States from 1950s to 2010s (1 = *not at all* to 10 = *very much*) (45).

Study 2c. Participants were 81 were women and 85 men recruited from TurkPrime ($M_{\text{age}} = 36.37$, 48.8% female, 77.1% non-Hispanic White). They were presented with a list of 10 safety precaution items adapted from *The Macho Paradox* (12) (set I: e.g., hold one's key as a potential weapon; set II: e.g., book flights that arrive during the day) and 5 filler items (set I: e.g., drink eight glasses of water per day; set II: e.g., turn off the faucet when brushing teeth; see *SI Appendix*, A3 for the full list of items). Participants were randomly assigned to one of the two item sets. They rated the extent to which each action represented an example of how people protect themselves from being assaulted ($\alpha_{\text{Safety Precaution}} = .84$, $\alpha_{\text{Filler Action}} = .87$; 1 = *not at all* to 7 = *very well*). Next, participants completed a two-minute numerical distraction task, counting backwards by 3 in writing from the number 5486. Afterwards, participants were asked to write down as many items as they could recall from the previous item list. The recall instruction made no mention of gender or safety. Two research assistants coded the number of safety precautions ($\kappa = .89$) and filler actions ($\kappa = .96$) correctly recalled by each participant. As in Study 2a, participants rated their awareness of male privilege ($\alpha = .87$) and how much men and women are or were subject to discrimination in the United States from 1950s to 2010s.

We performed similar analyses as in previous studies while controlling for item set in models involving safety precautions and filler actions. Means reported are estimated marginal means averaged across item set.

Study 2d. 94 women and 134 men recruited from TurkPrime ($M_{\text{age}} = 36.67$, 41.2% female, 66.7% non-Hispanic White) completed the survey in a two-session study. In the first session, participants rated their awareness of male privilege ($\alpha = .89$; 1 = *strongly disagree* to 6 = *strongly agree*) and how much men and women are or were subject to discrimination in the United States from 1950s to 2010s (1 = *not at all* to 10 = *very much*) as before. They then watched a TEDx talk in which a transgender woman described how her experience of everyday living differed from that when she was living as male. She recounted a series of daily inconveniences and instances of discrimination that she has encountered now living as female and acknowledged the male privilege she once had (46).

A day later, during the second session, participants were asked to write down as many instances described in the TEDx talk as they could recall, which were coded by two research assistants ($\kappa = .93$). Participants also completed a recognition task, during which they were presented with a list of 11 instances mentioned in the talk (e.g., being explained things—in which they have knowledge—by a man) and 11 instances not described in the talk (e.g., being told to smile by a stranger or male colleague; see *SI Appendix*, A4 for the full list of items). Participants were asked to indicate their level of certainty regarding whether each instance was mentioned in the talk (1 = *definitely not mentioned* to 6 = *definitely mentioned*).

Study 3 White Privilege: Black versus White Perceptions.

Study 3a. Participants were 145 White Americans and 129 Black Americans recruited from the TurkPrime ($M_{\text{age}} = 39.59$, 52.2% female).

Participants were presented with 5 instances of everyday racial discrimination (e.g., being asked to show credentials at their own workplace; see *SI Appendix*, A5 for a full list of instances and order conditions). As in Studies 1a and 2b, they were asked to identify the theme of what the instances have in common, after the presentation of each instance.

We conducted a survival analysis predicting the likelihood of failure to detect the theme related racial discrimination from 1) the number of presented instances it took for them to detect the theme (coded by two research assistants: $\kappa = .97$), 2) whether they succeeded in detecting the theme (coded by two research assistants: $\kappa = .98$), and 3) order condition. Participants were coded as successful in detecting the theme if their response mentioned experience of being black or a person of color (e.g., prejudice against black people, being a minority) or racial discrimination (e.g., being disrespected because of skin color, racism, microaggressions).

Study 3b. Participants were 154 White and 144 Black Americans recruited from TurkPrime ($M_{\text{age}} = 38.22$, 62.1% female). Participants followed a similar procedure as in Studies 1 and 2a and wrote down instances of racial discrimination experienced by Blacks in everyday living, which were coded by two research assistants ($\kappa = .93$). Participants also rated their awareness of White privilege ($\alpha = .87$; 1 = *strongly disagree* to 6 = *strongly agree*) (44) and how much White and Black Americans are or were subject to discrimination in the United States from 1950s to 2010s (1 = *not at all* to 10 = *very much*) (45).

Study 3c. Participants were 245 White and 284 Black Americans recruited from TurkPrime ($M_{\text{age}} = 39.53$, 57.8% female). Participants were randomly assigned to one of two framing conditions. In the discrimination framing condition, participants followed a similar procedure as in Study 3a and wrote down instances of racial discrimination or disadvantages experienced by Black Americans in everyday living. In the privilege framing condition, participants wrote down instances of racial privilege or advantages experienced by White Americans in everyday living. Responses were coded by two research assistants ($\kappa = .90$). As in previous studies, participants rated their awareness of White privilege ($\alpha = .89$) and how much White Americans and Black Americans are or were subject to discrimination in the United States from 1950s to 2010s.

We performed a moderated mediation analysis examining whether the number of generated instances mediated the relationship between race and awareness privilege, including the moderating effect of framing condition. We conducted a similar analysis for discrimination perception.

Study 3d. Participants were 139 White and 106 Black Americans recruited from TurkPrime ($M_{\text{age}} = 38.18$, 60.4% female). Participants were presented with a list of 10 discrimination instances (set I: e.g., “being followed by security while shopping”; set II: e.g., “being questioned about their presence in their own neighborhood”) and 5 filler instances (set I: e.g., “being asked to drink eight cups of water per day”; set II: e.g., “being advised to turn off the lights before leaving home”). These items were gathered and adapted from the modern racism and microaggression literature (34–37; see *SI Appendix*, A6 for the full list of items). Participants were randomly assigned to one of the two item sets. They rated the extent to which each instance represented an example of everyday racial discrimination ($\alpha_{\text{Discrimination Instance}} = .89$, $\alpha_{\text{Filler Instance}} = .75$; 1 = *not at all* to 7 = *very well*). Next, participants completed a two-minute numerical distraction task, counting backwards by 3 in writing from the number 5486. Afterwards, participants were asked to write down as many items as they could recall from the previous item list. The recall instruction made no mention of racial discrimination so as to minimize memory intrusions. Two research assistants coded the number of discrimination instances ($\kappa = .93$) and filler instances ($\kappa = .95$) correctly recalled by each participant. As in Study 3a, participants rated their awareness of White privilege ($\alpha = .90$), how much White and Black Americans are or were subject to discrimination in the United States from 1950s to 2010s.

We performed similar analyses as in previous studies while controlling for item set in models involving discrimination and filler instances. Means reported are estimated marginal means averaged across item set.

Study 3e. Participants were 255 White and 238 Black Americans recruited from TurkPrime ($M_{\text{age}} = 40.21$, 55.8% female). Participants were presented with a list of 17 discrimination instances and 5 filler instances. Instances were similar to those in Study 3b, excluding those that made explicit references to

race (see *SI Appendix*, A7 for the full list of items). However, they were randomly assigned to one of two conditions. In the discrimination-salient condition, participants rated the extent to which each instance represented an example of *everyday racial discrimination*. In the discrimination-nonsalient condition, participants rated the extent to which each instance represented an example of *daily hassle* ($\alpha_{\text{Discrimination Instance}} = .95$, $\alpha_{\text{Filler Instance}} = .86$; 1 = *not at all* to 7 = *very well*). The discrimination-nonsalient condition made no explicit mention of discrimination throughout the survey. Next, participants completed a two-minute numerical distraction task, counting backwards by 3 in writing from the number 5486. Afterwards, participants were asked to write down as many items as they could recall from the previous item list. Two research assistants coded the number of discrimination instances ($\kappa = .87$) and filler instances ($\kappa = .90$) correctly recalled by each participant. As in previous studies, participants rated their awareness of White privilege ($\alpha = .89$), how much White and Black Americans are or were subject to discrimination in the United States from 1950s to 2010s.

We performed similar moderated mediation analyses as in Study 5.

Study 4 White Privilege: Asian versus White Perceptions.

Participants were 145 White and 104 Asian respondents recruited from TurkPrime within the United States ($M_{\text{age}} = 36.84$, 62.2% female). Participants followed a similar procedure as in Studies 1, 2a, and 3a and wrote down instances of racial discrimination experienced by Asian Americans in everyday living, which were coded by two research assistants ($\kappa = .91$).

Next, participants completed a reaction time task, judging as quickly as possible whether they think an instance represents an example of everyday racial discrimination faced by Asian Americans in the U.S. by pressing the F key (*yes*) or the J key (*no*). The reaction task consisted of 20 discrimination instances (e.g., being asked where they are really from) and 10 filler instances (e.g., being advised to turn off the lights before leaving home; see *SI Appendix*, A8 for the full list of items). Prior to the actual task, participants completed 16 practice questions to get used to pressing F and J keys as a way to agree or disagree with simple statements (e.g., “1 + 2 = 3”) as well as 4 trial questions, which included 2 discrimination instances and 2 filler instances different from those included in the actual reaction time task. As in previous studies, participants rated their awareness of White privilege ($\alpha = .78$; 1 = *strongly disagree* to 6 = *strongly agree*) and how much White Americans and Asian Americans are or were subject to discrimination in the United States from 1950s to 2010s (1 = *not at all* to 10 = *very much*).

All reaction time responses were natural log transformed to correct for skewness. White Americans and Asian Americans did not differ in the proportion of “yes” responses to identifying a discrimination instance as an example of everyday racial discrimination faced by Asian Americans (70% vs. 69%), $b = -.02$, $SE = .23$, $z = -.08$, $p = .936$. Nor did they differ in responding “yes” to identifying a filler instance as an example of racial discrimination (3% vs. 8%), $b = -.89$, $SE = .90$, $z = -1.00$, $p = .319$. In addition, whether participants responded “yes” or “no” did not interact with racial difference in reaction time (*SI Appendix*). Therefore, in the analyses that we report, we computed aggregated scores for reaction time (natural log transformed) across 20 discrimination instances ($\alpha = .97$) and across 10 filler instances ($\alpha = .95$). We examined whether Whites and Asians differed in reaction time to discrimination instances while controlling for baseline reaction time to filler instances.

Study 5 Intervention.

Participants were 141 women and 170 men recruited from TurkPrime ($M_{\text{age}} = 38.93$, 45.3% female, 72.3% non-Hispanic White). Participants rated their awareness of male privilege ($\alpha = .86$; 1 = *strongly disagree* to 6 = *strongly agree*) and how much men and women are or were subject to discrimination in the United States from 1950s to 2010s (1 = *not at all* to 10 = *very much*) as baseline measures.

Two weeks later, they were randomly assigned to watch one of two TEDx talks. In the intervention condition, participants watched a TEDx talk as in Study 2c, in which a transgender woman described the everyday inconveniences and discrimination she now faces living as female (46). In the control condition, participants watched a TEDx talk in which a productivity consultant described ways to focus one’s attention in a world of distraction (49). Each original video was around 15 minutes and edited

to 9 minutes for the purpose of our survey to contain central instances and key points. The edited videos included only the speaker's experience of living as female versus male, not her discrimination experience of being transgender because discrimination toward transgender people was out of the scope of the focus of our paper. After watching the TEDx talk, participants completed 4 comprehension checks and 4 engagement questions (e.g., "How engaging was the TEDx talk?", $\alpha = .81$; 1 = *not at all* to 7 = *very much*; see *SI Appendix*). Afterwards, they completed the same privilege awareness ($\alpha = .87$) and discrimination perception questions as before.

Comprehension checks and engagement measures indicate equal comprehension engagement with both TEDx talks (*SI Appendix*). To examine the effect of intervention on awareness of male privilege, we conducted a linear model predicting privilege awareness at Time 2 from condition (control = -0.5, intervention = +0.5), participant gender (women = -0.5, men = +0.5), and their interaction while controlling for baseline privilege awareness at Time 1. To examine the effect of intervention on perception of gender discrimination, we conducted a linear mixed model predicting perceived discrimination against women (versus men) at Time 2 from the fixed effects of participant gender (women = -0.5, men = +0.5), condition (control = -0.5, intervention = +0.5), decade (1950s to 2010s = -3, -2, -1, 0, 1, 2, 3), their interaction while controlling for baseline privilege awareness at Time 1, along with the random effect (random intercept) of participant.

Fig. 1. Cumulative distribution of number of items needed to identify target concept. A. Right- and left-handers identifying handedness-related hassles. B. Men and women identifying safety precautions against assault. C. White and Black respondents identifying instances of everyday racial discrimination.

A.

B.

Fig. 2. Mediation models. A. The effect of handedness on privilege awareness via the number of handedness-related hassles generated. B. The effect of handedness on perceived discrimination via the number of handedness-related hassles generated, controlling for the moderating effects of decade (Study 1b).

Fig. 3. The effect of intervention (versus control) on perceived gender discrimination from 1950s to 2010s among men and women (Study 5).

References

1. Parker K, Horowitz J, Mahl B (2016) *On view of race and inequality, Blacks and Whites are worlds apart* Available at: http://assets.pewresearch.org/wp-content/uploads/sites/3/2016/06/ST_2016.06.27_Race-Inequality-Final.pdf.
2. Oliphant B (2017) Views about whether whites benefit from societal advantages split sharply along racial and partisan lines. 5–9.
3. Menasce Horowitz J, Parker K, Stepler R (2017) *Wide partisan gaps in U.S. over how far the country has come on gender equality* Available at: <http://www.pewsocialtrends.org/2017/10/18/wide-partisan-gaps-in-u-s-over-how-far-the-country-has-come-on-gender-equality/#women-have-made-gains-in-the-labor-force-while-men-have-seen-losses-still-inequality-persists>.
4. Neisser U (1976) *Cognition and reality: Principles and implications of cognitive psychology* (W.H. Freeman, New York, NY) Available at: [file:///Users/baumann/Documents/Mendeley Desktop/Neisser_1976_CognitionAndReality.pdf](file:///Users/baumann/Documents/Mendeley%20Desktop/Neisser_1976_CognitionAndReality.pdf) [Accessed November 27, 2018].
5. Minsky M (1975) A framework for representing knowledge. *The Psychology of Computer Vision*, ed Winston PH (McGraw-Hill, New York, NY), pp 211–277.
6. Rumelhart DE (1981) *Understanding understanding* (Center for Human Information Processing, San Diego, CA).
7. Wu K, Dunning D (2020) Hypocognition and the invisibility of social privilege. *Advances in Group Processes*, eds Thye SR, Lawler EJ (Emerald Publishing, Bingley, UK), pp 1–24.
8. Wu K, Dunning D (2019) *Hypocognitive mind: How lack of conceptual knowledge confines what people see and remember* doi:<https://doi.org/10.31234/osf.io/29ryz>.
9. Wu K, Dunning D (2018) Hypocognition: Making sense of the landscape beyond one's conceptual reach. *Rev Gen Psychol* 22(1):25–35.
10. Bartlett FC (1932) *Remembering: A study in experimental and social psychology* (Cambridge University Press, New York, NY).
11. Levy RI (1973) *Tahitians: Mind and experience in the Society Islands* doi:<http://dx.doi.org/10.1016/j.cmet.2014.03.003>.
12. Katz J (2006) *The macho paradox: Why some men hurt women and how all men can help* (Sourcebooks).
13. Young IF, Sullivan D (2016) Competitive victimhood: A review of the theoretical and empirical literature. *Curr Opin Psychol* 11:30–34.
14. Taylor Phillips L, Lowery BS (2015) The hard-knock life? Whites claim hardships in response to racial inequity. *J Exp Soc Psychol* 61:12–18.
15. Unzueta MM, Lowery BS (2008) Defining racism safely: The role of self-image maintenance on white Americans' conceptions of racism. *J Exp Soc Psychol* 44(6):1491–1497.
16. Phillips LT, Lowery BS (2020) I ain't no fortunate one: On the motivated denial of class privilege. *J Pers Soc Psychol*. doi:10.1037/pspi0000240.
17. Phillips LT, Lowery BS (2018) Herd invisibility: The psychology of racial privilege. *Curr Dir Psychol Sci* 27(3):156–162.
18. Bonam CM, Nair Das V, Coleman BR, Salter P (2019) Ignoring history, denying racism: Mounting evidence for the Marley hypothesis and epistemologies of ignorance. *Soc Psychol Personal Sci* 10(2):257–265.

19. Nelson JC, Adams G, Salter PS (2013) The Marley hypothesis: Denial of racism reflects ignorance of history. *Psychol Sci* 24(2):213–218.
20. Black LL, Stone D (2005) Expanding the definition of privilege: The concept of social privilege. *J Multicult Couns Devel* 33(4):243–255.
21. McIntosh P (1989) White privilege: Unpacking the invisible knapsack. *Peace Free* 49:10–12.
22. Chi MTH, Glaser R, Farr MJ eds. (1988) *The nature of expertise* (Lawrence Erlbaum Associates, Inc., Hillsdale, NJ).
23. Barsalou LW (1983) Ad hoc categories. *Mem Cognit* 11(3):211–227.
24. Stanislaw H, Todorov N (1999) Calculation of signal detection theory measures. *Behav Res Methods, Instruments, Comput* 31(1):137–149.
25. Cantor N, Mischel W (1977) Traits as prototypes: Effects on recognition memory. *J Pers Soc Psychol* 35(1):38–48.
26. Swim JK, Hyers LL, Cohen LL, Fitzgerald DC, Bylsma WH (2003) African American college students' experiences with everyday racism: Characteristics of and responses to these incidents. *J Black Psychol* 29(1):38–67.
27. Sue DW, Capodilupo CM, Holder AMB (2008) Racial microaggressions in the life experience of Black Americans. *Prof Psychol Res Pract* 39(3):329–336.
28. Zou LX, Cheryan S (2017) Two axes of subordination: A new model of racial position. *J Pers Soc Psychol* 112(5):696–717.
29. Sue DW, et al. (2007) Racial microaggressions in everyday life: Implications for clinical practice. *Am Psychol* 62(4):271–286.
30. Murdoch A, McAloney-Kocaman K (2019) Exposure to evidence of white privilege and perceptions of hardships among white UK residents. *Race Soc Probl* 11(3):205–211.
31. Branscombe NR (1998) Thinking about one's gender group's privileges or disadvantages: Consequences for well-being in women and men. *Br J Soc Psychol* 37(2):167–184.
32. Wagenaar WA (1986) My memory: A study of autobiographical memory over six years. *Cogn Psychol* 18(2):225–252.
33. Mills CW (1997) *The racial contract* (Cornell University Press, Ithaca, NY).
34. Hein LE, Selden M (2000) *Censoring history: Citizenship and memory in Japan, Germany, and the United States* (M.E. Sharpe, Armonk, NY).
35. Nagata DK, Kim JHJ, Wu K (2019) The Japanese American wartime incarceration: Examining the scope of racial trauma. *Am Psychol* 74(1):36–48.
36. Egan Brad LC, Spisz TJ, Tanega CG (2018) Does “privilege checking” make us less racist, or more? Generation and political orientation matter. *Race Soc Probl* 0(0):0.
37. Branscombe NR, Schmitt MT, Schiffhauer K (2007) Racial attitudes in response to thoughts of white privilege. *Eur J Soc Psychol* 37(2):203–215.
38. Davidai S, Gilovich T (2016) The headwinds/tailwinds asymmetry: An availability bias in assessments of barriers and blessings. *J Pers Soc Psychol* 111(6):835–851.
39. Pratto F, Stewart AL (2012) Group dominance and the half-blindness of privilege. *J Soc Issues* 68(1):28–45.
40. Fiske ST (2001) Effects of power on bias: Power explains and maintains individual, group, and societal disparities. *use Abus power Mult Perspect causes Corrupt*:181–193.
41. Stellar JE, Manzo VM, Kraus MW, Keltner D (2012) Class and compassion: Socioeconomic factors predict responses to suffering. *Emotion* 12(3):449–459.
42. Kraus MW, Keltner D (2009) Signs of socioeconomic status: A thin-slicing approach.

- Psychol Sci* 20(1):99–106.
43. Bland K (2017) Blue eyes, brown eyes: What Jane Elliott's famous experiment says about race 50 years on. *Arizona Repub*. Available at: <https://www.azcentral.com/story/news/local/karinabland/2017/11/17/blue-eyes-brown-eyes-jane-elliotts-exercise-race-50-years-later/860287001/>.
 44. Pinterits EJ, Poteat VP, Spanierman LB (2009) The White Privilege Attitudes Scale: Development and initial validation. *J Couns Psychol* 56(3):417–429.
 45. Norton MI, Sommers SR (2011) Whites see racism as a zero-sum game that they are now losing. *Perspect Psychol Sci* 6(3):215–218.
 46. Williams PS (2017) I've lived as a man and a woman. Here's what I learned. Available at: https://www.ted.com/talks/paula_stone_williams_i_ve_lived_as_a_man_a_woman_here_s_what_i_learned?language=en.
 47. Utsey SO, Ponterotto JG (1996) Development and Validation of the Index of Race-Related Stress (IRRS). *J Couns Psychol* 43(4):490–501.
 48. Nadal KL (2011) The racial and ethnic microaggressions scale (REMS): Construction, reliability, and validity. *J Couns Psychol* 58(4):470–480.
 49. Bailey C (2019) How to get your brain to focus. Available at: <https://www.tedxmanchester.com/speakers/chris-bailey/>.