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# Heroization and Ironic Funneling Effects

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In recent years, much of the American public has venerated military veterans as heroes. Despite overwhelmingly positive public attitudes toward veterans, veterans have experienced higher rates of unemployment and underemployment than their nonveteran peers. The current research leverages theory and research on positive stereotypes to shed light on this seeming inconsistency between the heroization of veterans and their heightened rates of unemployment and underemployment. We conceptualize the hero label as a pervasive positive stereotype, and we employ complementary methods and designs (correlational, quasi-experimental, experimental, and mediational) to investigate the consequences and implications of attaching this label to military veterans. We then extend our theorizing to other heroized groups (e.g., firefighters, paramedics, teachers, and social workers). The results across studies suggest that heroization leads the American public to funnel heroized individuals and groups into a limited set of lower paying jobs, organizations, and careers associated with selflessness. This research not only offers insights into an important real-world problem but also offers a first experimental investigation of the consequences and implications of labeling a group of people as heroes.

*Keywords:* military, stereotypes, ethics, hero, jobs

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Does being labeled a "hero" necessarily lead to positive outcomes? There is a pervasive tendency for Americans to label their military veterans as heroes. However, the overwhelmingly positive public sentiment toward military veterans has not always materialized into tangible benefits. There are millions of military veterans in the United States, and approximately 200,000 service members are discharged each year (U.S. Department of Veteran Affairs, 2020). These military veterans face significant obstacles when transitioning to the civilian life (Shepherd et al., 2021), and between 27% and 44% report that the transition was difficult (Morin, 2011). The unemployment rate has been high among military veterans in recent years (Fletcher, 2011; Loughran, 2014), and the COVID-19 pandemic has exacerbated these problems. Throughout the course of the pandemic, the unemployment rate has risen more rapidly for post-9/11 veterans than for their matched nonveteran peers (Bureau of Labor Statistics). When veterans do successfully obtain employment in the civilian workforce, they frequently experience lower earnings than their nonveteran counterparts, even when they have similar qualifications (Boatwright & Roberts, 2020). The discrepancy in earnings between veterans and their nonveteran peers is particularly high among those with college degrees (Boatwright & Roberts, 2020; Makridis & Hirsch, 2021). Despite high rates of unemployment and lower earnings than their age-matched nonveteran peers, most veterans report that the military gave them the requisite skills and training to successfully transition to civilian life (Parker et al., 2019).

Given the stark contrast between these negative life outcomes and the widespread public support for veterans (Kleykamp et al., 2018), the current research considers the following question: What are the potential negative consequences of "heroizing" social groups such as military veterans? Using complementary methods and designs, we leverage psychological research and theory on positive stereotypes to better understand the seeming inconsistency between the public's favorable attitudes toward veterans, on the one hand, and veterans' lower rates of employment and earnings, on the other hand. Despite growing academic interest in positive stereotypes and their consequences in the world (Czopp et al., 2015), no experimental research has examined possible consequences of labeling a group of people as heroes. This omission in the literature is surprising given the contemporary proclivity to heroize many

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different social groups (e.g., nurses, doctors, firefighters, teachers, social workers, police officers, and paramedics).

We argue that the "hero" label, although intended to honor military veterans, has become a pervasive positive stereotype that may (ironically) exacerbate some of the aforementioned problems that veterans face when transitioning to the civilian workforce. The hero construct likely comprises a constellation of traits and qualities (Allison & Goethals, 2011; Goethals & Allison, 2012; Kinsella et al., 2015; Zimbardo, 2007), but at least in contemporary American culture, a central one is selflessness. By labeling military veterans as heroes, they are broadly painted as selfless and focused on the needs of others, often at their own expense. Once a label is attached to an entire social category, stereotyping and funneling processes can ensue. As reflected in the literature on positive stereotypes, this can yield negative consequences for group members even when the label is meant to be positive, flattering, and appreciative (for a review, see Czopp et al., 2015). Although we do not suggest that heroizing veterans is *always* problematic for successfully transitioning to civilian life, the hero label could lead the public (and potential employers) to funnel veterans into a limited set of lower paying jobs, organizations, and careers associated with selflessness.

## Positive Stereotypes

The content and consequences of stereotypes have traditionally been seen as negative by both the public and the scientific community. Decades of research in social psychology have shed light on the detrimental effects of negative stereotypes on many different groups. For example, the proliferation of negative stereotypes about certain groups has been linked to interpersonal rejection (Crocker et al., 1991), poorer academic performance (Spencer et al., 1999; Steele, 1997; Steele & Aronson, 1995), suicidal ideation (Almeida et al., 2009), and lower pay and fewer opportunities for career advancement (Goldin, 2014; Heilman, 2012). In contrast, positive stereotypes are defined as positively valenced traits and qualities (e.g., intelligent, respectful, and athletic) attributed to some social group (Czopp et al., 2015; Eagly & Mladinic, 1989; Fiske et al., 2002; Ho & Jackson, 2001). Positive stereotypes represent the seemingly incongruent confluence of two processes: They are subjectively favorable and meant to be complimentary in their descriptions of group members, but they rely on a categorization process that limits the individualization, and heightens the depersonalization, of targeted people (Czopp et al., 2015; Siy & Cheryan, 2013). Although norms against the expression of negative stereotypes have strengthened over recent decades, norms against the expression of positive stereotypes have not (Eagly et al., 2020). Positive stereotypes often fly under the radar because they can be construed as a form of praise and appreciation (Kay et al., 2013). In fact, research has shown that when asked about which traits they associate with Black Americans (Madon et al., 2001), Asian Americans (Lin et al., 2005), and women (Fiske et al., 2002), people tend to report positive stereotypes far more (up to eight times more) than negative stereotypes.

Just as positive stereotypes represent a duality of complementariness and depersonalization, their influences on individual group members targeted by the stereotype are mixed. On the one hand, there are cases where positive stereotypes seem to yield some positive effects. For example, among older adults, priming positive age-related stereotypes associated with wisdom can boost performance on memory tasks (Levy, 2009). On the other hand, however, accumulating evidence suggests that positive stereotypes are often not received by individuals in targeted groups as praise or appreciation, and positive stereotypes can have insidious and harmful effects (Barreto et al., 2010; Cheryan & Bodenhausen, 2000; Czopp, 2010; Czopp et al., 2015; Jost & Kay, 2005; Kahalon et al., 2018; Kay et al., 2013; Siy & Cheryan, 2016). For example, positive stereotypes can interfere with targets' confidence and their ability to focus on tasks required of them (Czopp et al., 2015). In one study, for example, women who heard that "women were more cultured and sophisticated than men" performed worse on a working memory test than women who did not hear such statements (Dardenne et al., 2007). Positive stereotypes can also have adverse effects on the self-images and mental health of group members: Women who were exposed to benevolently sexist statements reported greater self-objectification and body shame (Calogero & Jost, 2011; Oswald et al., 2012).

## Stereotyping and Military Veterans

There may be many stereotypes—both positive and negative—attributed to military veterans. For example, veterans are seen as more likely to be violent and to suffer from mental illnesses (e.g., posttraumatic stress disorder, depression) than nonveterans (MacLean & Kleykamp, 2014; Shepherd et al., 2021; Stone & Stone, 2015; Tanielian & Jaycox, 2008); these stereotypes are more commonly applied to veterans who have been deployed to war zones (MacLean & Kleykamp, 2014). Veterans are also seen as rigid and as lacking tact and social skills, which are parts of a broader constellation of stereotypes about veterans lacking socioemotional skills (Shepherd et al., 2019). Some have argued that the difficulties veterans face in finding jobs are at least partly due to stigma stemming from these negative stereotypes (Keeling et al., 2018; MacLean & Kleykamp, 2014; Stone et al., 2018; Stone & Stone, 2015). Despite these arguments, survey results indicate that veterans are still seen as highly deserving of both government assistance and preferential treatment in hiring (MacLean & Kleykamp, 2014). Much of the public also reports that veterans are people they would like to have as neighbors, coworkers, and friends (MacLean & Kleykamp, 2014).

For military veterans, one consequence of dramatic structural, normative, and cultural differences between military and civilian life is that the average nonveteran American sees veterans predominantly as veterans, as opposed to complex individuals with other identities (Shepherd et al., 2019, 2021). Despite the significant number of veterans who have been created from 20 years of war in Afghanistan and Iraq, most Americans' attitudes toward active-duty personnel and veterans are not based on close contact with them, and the public is generally unaware of what military life is like (Hines et al., 2015; Liebert & Golby, 2017; Pfaff, 2016). This may contribute to the public's reliance on stereotypes to understand veterans. The critical implication is that stereotypes about veterans likely play a significant role in recruiting and hiring decisions, as well as in the career advice given to veterans as they transition out of the service.

As mentioned, a persistent positive stereotype about veterans is that they are heroes. We refer to this view of veterans as a positive stereotype because heroism is a positively valenced trait being applied to an entire social category. Although many veterans have acted heroically, they frequently eschew the label and are quick to assert that they are not heroes. Moreover, military service is

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often characterized by roles, tasks, and experiences that do not call for heroism (at least as Westerners use the language of heroism). Americans also report enlisting in the military for numerous reasons beyond serving others and sacrificing for others, including: pay and allowance, acquiring technical skills, family tradition, education benefits, family benefits, job security, travel, personal growth, and so forth (Burland & Lundquist, 2013). Nevertheless, veterans are routinely heroized simply because of the social category to which they belong.

## Heroism

The word "hero" can be traced back at least to the ancient Greeks. For the ancient Greeks, heroism was attributed to particularly extraordinary individuals who had done something far beyond the normal scope of human experience, pushing the limits of what seemed possible. Since the ancient Greeks, many different groups and cultures have appealed to the hero construct, perhaps because it offers some psychological value (Sullivan & Venter, 2005). The hero label has been extended to martyrs, religious leaders, political leaders, healers, scientists, whistleblowers, and others (Franco et al., 2011).

While extraordinariness was the central feature of heroism for the ancient Greeks, the construct has morphed over time based on cultural, historical, and situational forces. At least in contemporary Western cultures, heroism is closely tied to morality, and specifically, selfless behavior (Jayawickreme & Di Stefano, 2012; Kinsella et al., 2015, 2022; Kinsella & Sumner, 2022; Peterson & Seligman, 2004). This link between heroism and selflessness is illustrated throughout contemporary literature, plays, television, and movies (e.g., *Lord of the Rings*, *Superman, Harry Potter, and the Marvel Cinematic Universe*). In fact, Franco et al. (2011) offer one straightforward definition of heroism that intuitively seems to capture much of what Westerners currently label as heroic: "to act in a prosocial manner despite personal risk" (p. 99). It is noteworthy that this definition not only links heroism to contemporary conceptions of selflessness, but it also loosens the boundaries for what counts as extraordinary. Almost anyone can be a hero, according to the definition from Franco et al. (2011). Heroism seems attainable for the average person, and it has become a common social attribution for many individuals and groups. In accordance with these cultural shifts in the hero construct, scientists have also argued that most people are capable of heroism with the right mindset and under the right conditions (Zimbardo, 2007). Making the hero label more attainable for the average person has made it possible for hero to become a positive stereotype.

Selflessness as a core feature of contemporary heroism is also reflected in several definitions and taxonomies of heroism. For example, selflessness is one of Allison and Goethal's (2011) "Great Eight" traits of heroism. Across five studies, Kinsella et al. (2015) identify self-sacrifice, selflessness, saving others, and being helpful as four (of 12) critical traits of heroism. The concept of selflessness can be found across Franco et al.'s (2011) four broad forms of heroism, including putting oneself in physical peril (i.e., both duty bound and not duty bound) and social sacrifice (that which defies the system, and that which defies reality). Despite some differences across these accounts, one clear commonality is that selflessness is a core feature of heroism in contemporary Western cultures, such that heroes are people who sacrifice for others and serve others.

## Heroism and the Military

Attributing the hero label to military personnel is at least partly the product of their propensity for extremely selfless acts, and Western culture awards them for their selflessness in rituals and ceremonies. For example, Jason Dunham was posthumously awarded the U.S. Armed Forces' highest decoration, the Medal of Honor, in 2004 when he deliberated covered an enemy grenade to save nearby Marines in Iraq. Sal Giunta is a U.S. Army veteran who became the first living person since the Vietnam War to receive the Medal of Honor. In an ambush in the Korengal Valley of Afghanistan, several of Sal's squad members were shot. Sal put himself in harm's way to rescue his team members, running through enemy fire to reach his injured squad members and drag them to safety. Jason Dunham and Sal Giunta are exemplary cases of heroic action. But, of course, the hero label is not only attached to a select few military personnel. Military personnel as an entire group are now broadly labeled as heroes. Attributing heroism to this group is now a common features of everyday life in the United States: at sporting events, in advertisements, and on news and social media. Hiring agencies have also adopted the "hero" language: *Hire Heroes USA* is, for example, one of the largest organizations in the United States that helps veterans transition to the civilian workforce.

Although military personnel (both active-duty and veterans) as a group are frequently labeled as heroes, no experimental research has examined consequences of labeling a group as heroes. As they return to civilian life, we expect that the heroization of military veterans has led to a complex set of effects and implications. Some effects and implications might be positive. Heroizing veterans might, for example, be associated with more favorable attitudes toward them as neighbors, coworkers, and friends, and it might lead people to support policies and organizations that help veterans find employment. However, other effects and implications might, ironically, be negative. We focus on three ways in which people might judge military veterans—based on the positive stereotype that they are heroes—that could underlie their funneling into particular jobs, organizations, and careers; namely, those that are associated with selflessness. First, people might presume that veterans would find jobs, organizations, and career paths more closely associated with selflessness to be more *appealing*. Second, people might presume that veterans would find jobs, organizations, and careers more closely associated with selflessness to be a better *fit* for them. Third, people might presume that veterans would show greater *aptitude* working at jobs, organizations, and careers more closely associated with selflessness.[1] Because of the positive stereotype that military

[1] Measures of appeal, fit, and aptitude are conceptually orthogonal. For example, an employee can be extremely competent at a job but nevertheless be miserable at the job and feel like they do not fit in the work environment. Similarly, an employee can feel like they fit in at an organizations (share similar values and beliefs as the other employees) but nevertheless find the actual work unappealing and be quite bad at the job. Across studies, we also find that, while measures of appeal, fit, and aptitude are typically positively correlated with each other, less than half of the variance is shared between them, on average. So, not only are these measures conceptually orthogonal, but it is also empirically unlikely that they are indexing the same underlying construct.

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veterans are heroes, we expect people to presume that veterans would find more appealing, be a better fit at, and show greater aptitude at jobs and organizations more closely associated with selflessness. Despite intentions to honor and venerate veterans, heroizing them might also result in veterans being funneled into a limited set of lower paying jobs, organizations, and careers associated with selflessness. Given the many reasons that Americans enlist in the military (Burland & Lundquist, 2013), we should not assume that veterans want to make a career out of serving others, especially at the expense of others' needs and desires (e.g., financial security, providing for family, and education).

In a recent piece in *Perspectives on Psychological Science*, Shepherd et al. (2021) noted the lack of theoretically driven, systematic empirical research on military veterans' occupational opportunities, and outcomes (see Stone & Stone, 2015, for a similar point). Much of the social science literature on military veterans and their occupational opportunities and outcomes has focused on more descriptive population statistics (e.g., gender, race, ethnicity, education, and age), typically taking a bottom-up data driven approach, and more theory-driven fields like social psychology have given very little attention to this group. The consequences are not only missed applied insights but also missed conceptual and theoretical advances that studying different groups can afford. Our studies combine theory and research on positive stereotypes with contemporary concepts of heroism to systematically shed light on military veterans' occupational opportunities and outcomes, and to also offer the first conceptualization of the hero label as a positive stereotype that can be applied to social groups with important consequences. In doing so, we aspire to advance the psychological literature on stereotyping and discrimination, while investigating a surprisingly understudied population in social psychology (i.e., military veterans).

## Overview of Studies

Utilizing complementary methods and analyses (correlational, quasi-experimental, experimental, and mediational), our primary goal is to advance the science of positive stereotypes and to better understand the complex consequences and implications of these positive stereotypes. In the context of heroizing military veterans, we shed light on the seeming inconsistency between the public's favorable attitudes toward veterans and veterans' lower rates of employment and earnings. Heroizing military veterans may be one (ironic) way to reconcile this seeming inconsistency, if military veterans are indeed funneled into specific jobs, organizations, and careers associated with selfless people. But before turning to this goal, several foundational assumptions are examined in Studies 1 and 2: We find clear evidence that military veterans are, in fact, heroized and that judgments about the heroism of military veterans are closely related to judgments about their selflessness and their willingness to serve others and sacrifice for others.

We then turn to possible negative implications and effects of heroizing veterans, examining the role of the positive stereotype in Americans' beliefs and attitudes about veterans. Study 3 tests several specific predictions. First, we test whether people presume that veterans would find more appealing, be a better fit at, and show greater aptitude at specific jobs that are more versus less closely associated with selflessness. Second, we test whether the heroization of veterans positively predicts job appeal, job fit, and aptitude judgments for jobs closely associated with selflessness. Study 4 replicates Study 3 while statistically controlling for other possible stereotypes about veterans. Study 5 replicates Studies 3 and 4 while also testing whether groups known to hold especially favorable views of veterans (i.e., political conservatives) show these effects even more strongly.

Studies 3–5 have two limitations that are addressed in Studies 6 and 7. First, by focusing on general occupations (e.g., paramedic, home health aide, private banker, and bill collector) rather than organizations, our materials lacked organizational context. Studies 6 and 7 extend to specific organizations more versus less closely associated with selflessness. Second, the previous studies were correlational and quasi-experimental. By implementing experimental manipulations to exacerbate (Study 6) or reduce (Study 7) the processes that produce funneling, Studies 6 and 7 offer stronger causal evidence for the links between heroization and judgments about job appeal, job fit, and aptitude for organizations more versus less closely associated with selflessness. Study 8 then extends Studies 6 and 7 by offering positive evidence that selflessness is the component of the hero construct that tracks job appeal, job fit, and aptitude judgments for organizations more versus less closely associated with selflessness.

Studies 3–8 provide consistent evidence that the heroization of veterans predicts people's assumptions about appeal, fit, and aptitude for jobs and organizations more versus less closely associated with selflessness. But perhaps for any applicant, including those belonging to social groups that are not stereotyped as heroic, heroization could predict judgments about appeal, fit, and aptitude for jobs and organizations associated with more selflessness. The primary purpose of Study 9 is to ensure that the results of the previous studies reflect a process *specific* to how heroized groups are perceived, and not merely a process for how any applicant is perceived when applying to particular jobs and organizations. Matched nonveteran members of nonheroized groups should be viewed as significantly less heroic than veterans, and the positive relationships between heroization and job appeal, fit, and aptitude judgment for jobs associated with selflessness should be significantly larger for veterans, because of the positive stereotype.

Studies 3–9 investigate consequences of heroizing military veterans, but veterans do not have a monopoly on the hero label. Many other groups are heroized, and we expect our theorizing to extend to these other heroized groups. Study 10 investigates whether people report increased job appeal, job fit, and aptitude ratings for former firefighters and paramedics (two other heroized groups identified in Study 1) who are applying to organizations more versus less closely associated with selflessness. Study 11 extends to bonus packages for six different heroized groups (firefighters, paramedics, nurses, physicians, social workers, and teachers), testing the prediction that more heroic people judge these groups, the more people presume group members would prefer their bonuses to be given away to charity.

## Transparency and Open Practices

In all studies, we did not recruit additional participants once we obtained our target sample sizes, nor did we analyze data before reaching our target sample sizes. We recruited large samples to have sufficient powered to detect small-to-moderate effects. All participants in all studies were recruited through Prolific, offering samples that are more representative of the general population than typical

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convenience samples (e.g., samples from undergraduate subject pools). The samples from Studies 1 and 2 were also nationally representative. We report all data exclusions, all manipulations, and all measures in every study. We also provide successful preregistered replications of the critical findings from Studies 3 and 8 in the Supplemental Material. These are the only direct replications we conducted, and we selected these two studies for replication because they test foundational predictions using different dependent measures. Additional supplementary studies and exploratory measures are also provided in the Supplemental Material. Data were analyzed using R (R Core Team, 2022), and figures were created with the package *ggplot2* (Wickham, 2016). Deidentified data for all studies is publicly available: https://osf.io/9dvaw/?view_only=b1cfbe6c76c04f9d8753f8e4417d9260.

## Study 1

The primary purpose of Study 1 is to verify, with a large nationally representative sample, that U.S. military personnel and veterans are heroized by the American public. For exploratory purposes, we also compare the heroization of military personnel and veterans to other groups that seem to be heroized in the United States (e.g., nurses, social workers, firefighters, paramedics) and to the most common professions in the United States (according to the U.S. Bureau of Labor).

### Materials and Method

#### *Participants*

Three hundred American residents voluntarily participated in this study on Prolific for monetary compensation. The sample was nationally representative, stratified by age, sex, and race/ethnicity to approximate the demographic makeup of the United States. Seven participants failed the attention check at the end or did not answer all questions in the session, so data were analyzed with the remaining 293 individuals ($M_{age} = 46$ years, $SD = 17$, $range_{age} = [18, 94]$, 151 females, 141 males, one nonbinary, zero prefer not to answer). A sensitivity power analysis showed that the final sample of 293 participants provides sufficient power (.80) to detect small effects for a one-sample $t$ test ($d = .16$, two-tailed). All participants in all studies reported being fluent English speakers. No participants were permitted to complete more than one of our studies. All studies reported herein were approved by the university institutional review board.

#### *Procedure and Materials*

Participants were presented with 30 different groups in a randomized order. The critical two groups in this list are U.S. military personnel and U.S. military veterans. But, we also included the 20 most common professions in the United States, according to 2021 data from the U.S. Bureau of Labor, and a set of additional groups that may be heroized in the United States (social workers, counselors, police officers, firefighters, physicians, academics, rock stars, mothers, paramedics, and professional athletes).[2] The full set of 30 groups is presented in Table 1.[3] For each group presented, participants used a 7-point Likert-type scale (1 = *definitely no*, 7 = *definitely yes*) to judge whether the typical group member is a hero.

The study ended with an attention check question: "Do you feel that you paid attention, avoided distractions, and took the survey seriously?" Participants selected one of five answers: (1) no, I was distracted; (2) no, I had trouble paying attention; (3) no, I didn't take the study seriously; (4) no, something else affected my participation negatively; or (5) yes. Participants were assured that their responses would not affect their payment or their eligibility for future studies. Only those participants who selected (five) were included in the analyses. This same attention check has been used in recent published work (e.g., Stanley, Marsh, & Kay, 2020; Stanley, Whitehead, et al., 2020). Upon completion, participants were monetarily compensated for their efforts.

### Results

The primary purpose of Study 1 is to offer evidence that U.S. military personnel and veterans are heroized. Ratings of 1, 2, and 3 on the 7-point Likert-type scale (1 = *definitely no*, 7 = *definitely yes*) indicate that the participant believes the typical group member is *not* heroic; ratings of 5, 6, and 7 indicate that the participant believes the typical group member is heroic. Ratings of four indicate uncertainty. Seventy-four percent of participants ($n = 217$) reported that the typical U.S. military personnel is heroic, and 77% of participants ($n = 225$) reported that the typical U.S. military veteran is heroic. In contrast, only 12% of participants ($n = 36$) reported that the typical U.S. military personnel is *not* heroic, and only 13% of participants ($n = 39$) reported that the typical U.S. military veteran is *not* heroic. The remaining participants reported being unsure of whether the typical group member was heroic (14% for U.S. military personnel and 10% for U.S. military veterans).

We conducted one-sample chi-square goodness of fit tests to determine whether participants were statistically more likely to report that U.S. military personnel and veterans are heroic versus not heroic. Ratings of 1, 2, and 3 on the 7-point Likert-type scale were binned as judgments that the typical group member is not heroic; ratings of 5, 6, and 7 were binned as judgments that the typical group member is heroic. Participants who chose the midpoint (four) were removed from these analyses. Participants were, in fact, more likely to report that the typical U.S. military personnel, $\chi^2(1, N = 293) = 129.49$, $p < .001$, and the typical U.S. military veteran, $\chi^2(1, N = 293) = 131.05$, $p < .001$, is heroic than not heroic. As complementary analyses to the one-sample chi-square goodness of fit tests, we also conducted one-sample $t$ tests to investigate whether participants' judgments were significantly above the midpoint (four) on the 7-point scale. Participants' judgments were significantly above the midpoint, on average, for both the typical U.S. military personnel, $M = 5.35$, $SD = 1.64$, $t(292) = 15.37$, $p < .001$, $d = .90$, and the typical U.S. military veteran, $M = 5.48$, $SD = 1.65$, $t(292) = 14.13$, $p < .001$, $d = .83$. Taken together, these results offer strong evidence that U.S. military personnel and veterans are heroized.

As an exploratory objective, we also investigated whether other groups in the United States are heroized. Table 1 presents both descriptive and inferential statistics for each group. Ratings for the

[2] Although "miscellaneous healthcare support occupations" is included in the top 20 most common professions in the U.S., the ambiguity of what belongs in that category led us to remove it from our list.

[3] Teachers, registered nurses, and home health aides are among the 20 most common professions in the U.S. *and* likely to be heroized.

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**Table 1**
*Descriptive (Ms and SDs) and Inferential Statistics (One-Sample t Tests With the Midpoint [4] as Reference) for Each Group in Study 1*

| Group | *M* | *SD* | *t*(292) | *p* | *d* |
|---|---|---|---|---|---|
| U.S. military personnel | 5.35 | 1.64 | 14.13 | <.001 | .83 |
| U.S. military veterans | 5.48 | 1.65 | 15.37 | <.001 | .90 |
| Laborers | 3.22 | 1.60 | −8.34 | <.001 | −.49 |
| Retail salespersons | 2.72 | 1.46 | −14.94 | <.001 | −.87 |
| Truck drivers | 3.62 | 1.76 | −3.66 | <.001 | −.21 |
| Home health aides | 4.89 | 1.63 | 9.30 | <.001 | .54 |
| Cashiers | 2.86 | 1.57 | −12.48 | <.001 | −.73 |
| Secretaries and admin assistants | 2.93 | 1.53 | −11.96 | <.001 | −.70 |
| Fast food and counter workers | 2.84 | 1.57 | −12.62 | <.001 | −.74 |
| Registered nurses | 5.64 | 1.54 | 18.17 | <.001 | 1.06 |
| General and operations managers | 2.72 | 1.42 | −15.51 | <.001 | −.91 |
| Customer service representatives | 2.96 | 1.59 | −11.23 | <.001 | −.66 |
| Building cleaning workers | 3.37 | 1.77 | −6.07 | <.001 | −.36 |
| Office clerks | 2.69 | 1.46 | −15.38 | <.001 | −.90 |
| Cooks | 3.19 | 1.74 | −7.92 | <.001 | −.46 |
| Elementary and middle school teachers | 5.14 | 1.69 | 11.55 | <.001 | .68 |
| Software and web developers | 2.92 | 1.58 | −11.71 | <.001 | −.68 |
| Waiters and waitresses | 3.09 | 1.66 | −9.43 | <.001 | −.55 |
| Bookkeeping, accounting, and auditing clerks | 2.65 | 1.43 | −16.13 | <.001 | −.94 |
| Manufacturing and wholesale sales representatives | 2.51 | 1.37 | −18.73 | <.001 | −1.09 |
| First-line supervisors | 3.13 | 1.71 | −8.72 | <.001 | −.51 |
| Counselors | 4.56 | 1.71 | 5.64 | <.001 | .33 |
| Social workers | 4.85 | 1.70 | 8.57 | <.001 | .50 |
| Police officers | 4.92 | 1.82 | 8.68 | <.001 | .51 |
| Firefighters | 6.12 | 1.21 | 29.92 | <.001 | 1.75 |
| Physicians | 5.17 | 1.62 | 12.39 | <.001 | .72 |
| Academics | 3.28 | 1.67 | −7.41 | <.001 | −.43 |
| Rock stars | 2.35 | 1.41 | −20.01 | <.001 | −1.17 |
| Mothers | 5.50 | 1.65 | 15.58 | <.001 | .91 |
| Paramedics | 5.98 | 1.37 | 24.67 | <.001 | 1.44 |
| Professional athletes | 2.60 | 1.56 | −15.36 | <.001 | −1.56 |

*Note*. $N = 293$. All statistically significant effects survive Bonferroni correction for multiple comparisons (.05/30 = .002).

typical home health aide, registered nurse, elementary and middle school teacher, counselor, social worker, police officer, firefighter, physician, mother, and paramedic were all significantly above the midpoint on the 7-point scale (all *p*s < .001), offering evidence that these groups are heroized to some extent.

Overall, the results of Study 1 indicate that military personnel and veterans are, in fact, heroized by the American public. Although exploratory, the results also indicate that many other groups are heroized by the American public (e.g., home health aides, nurses, social workers, firefighters, and police officers). We expand the scope of our project to many of these other heroized groups in Studies 10 and 11.

## Study 2

In Study 2, we recruit another nationally representative sample to address two foundational questions. First, is the typical U.S. military veteran perceived to be more heroic than the typical nonveteran American? Second, are judgments about the heroism of U.S. military veterans related to judgments about their selflessness, willingness to sacrifice for others, and willingness to serve others? As an exploratory objective, we also investigate whether certain other stereotypes (both positive and negative) are attributed to U.S. military veterans.

### Materials and Method

#### *Participants*

Three hundred two American residents voluntarily participated in this study on Prolific for monetary compensation. The sample was nationally representative, stratified by age, sex, and race/ethnicity to approximate the demographic makeup of the United States. Three participants failed the attention check at the end or did not answer all questions in the session, so data were analyzed with the remaining 299 individuals ($M_{age} = 46$ years, $SD = 16$, $range_{age} = [18, 93]$, 149 females, 146 males, three nonbinary, one prefer not to answer). A sensitivity power analysis showed that the final sample of 299 participants provides sufficient power (.80) to detect small effects for a paired-samples *t* test ($d = .16$, two-tailed).

#### *Procedure and Materials*

Participants were presented with 15 different traits/qualities in a randomized order. The critical traits/qualities in this list are heroism, selflessness, willingness to sacrifice for others, and willingness to serve others. We also included several possible negative stereotypes about U.S. military veterans that have been addressed in previous research (MacLean & Kleykamp, 2014; Shepherd et al., 2019, 2021;

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Stone & Stone, 2015): violent, aggressive, unemotional, and of poor psychological health. In addition, we included several more traits/qualities: conscientious, open to experience, extroverted, agreeable, neurotic, intelligent, and studious. For each trait/quality presented, participants used a 7-point Likert-type scale (1 = *definitely no*, 7 = *definitely yes*) to indicate whether the typical U.S. military veteran possesses the trait/quality and whether the typical nonveteran American possesses the trait/quality.

Participants then answered the same attention check question at the end as in Study 1. Upon completion, participants were monetarily compensated for their efforts.

## Results

We first investigated whether the typical U.S. military veteran is judged to be more heroic than the typical nonveteran American. A paired samples *t* test revealed that the typical U.S. military veteran ($M = 5.00$, $SD = 1.16$) was, in fact, judged to be more heroic than the typical nonveteran American, $M = 3.29$, $SD = 1.18$; $M_{diff} = 1.71$, $t(298) = 20.06$, $p < .001$, 95% CI [1.54, 1.88], $d_z = 1.16$. Importantly, the effect size for the difference between the typical U.S. military veteran and the typical nonveteran American was larger for heroism than any other trait/quality investigated (see Table 2).

Based on contemporary conceptualizations of the hero construct (Allison & Goethals, 2011; Franco et al., 2011; Kinsella et al., 2015), selflessness, sacrifice, and service should be critical features of what it means to be a hero. This entails that hero judgments about U.S. military veterans should closely track judgments about their selflessness, willingness to sacrifice for others, and willingness to serve others. Supporting these predictions, hero judgments about U.S, military veterans were significantly and positively correlated with judgments about their selflessness, $r(297) = .49$, $p < .001$, 95% CI [.40, .57], willingness to sacrifice for others, $r(297) = .52$, $p < .001$, 95% CI [.43, .60], and willingness to serve others, $r(297) = .52$, $p < .001$, 95% CI [.42, .59].

Finally, we offer a broader investigation of possible traits/qualities attributed to U.S. military veterans. The largest effect sizes for the difference between the typical U.S. military veteran and the typical nonveteran American were for heroism, selflessness, willingness to sacrifice for others, and willingness to serve others (see Table 2). In addition, judgments about the typical U.S. military veteran were significantly above the midpoint on the scale (4) for heroism, $M = 5.00$, $SD = 1.15$, $t(298) = 14.85$, $p < .001$, $d = .86$, selflessness, $M = 4.85$, $SD = 1.18$, $t(298) = 12.52$, $p < .001$, $d = .72$, willingness to sacrifice for others, $M = 5.43$, $SD = .85$, $t(298) = 28.98$, $p < .001$, $d = 1.50$, and willingness to serve others, $M = 5.35$, $SD = .93$, $t(298) = 25.15$, $p < .001$, $d = 1.46$. Overall, these results suggest that people, on average, see the typical U.S. military veteran as heroic, selfless, willing to sacrifice for others, and willing to serve others, and more so than the typical nonveteran American. Participants also judged the typical U.S. military veteran to be significantly more conscientious, intelligent, aggressive, studious, open to experience, unemotional, and agreeable (but less neurotic) than the typical nonveteran American (see Table 2).

Overall, the critical results from Study 2 indicate that the typical U.S. military veteran is perceived to be more heroic than the typical nonveteran American and that judgments about the heroism of U.S. military veterans closely tracks judgments about their selflessness, willingness to sacrifice for others, and willingness to serve others.

## Study 3

In Study 3, we begin to investigate possible negative implications and effects of heroizing veterans. Despite intentions to honor and venerate veterans, we suspect that heroizing this group might also result in veterans being funneled into a limited set of lower paying jobs, organizations, and careers associated with selflessness. We address the following predictions in Study 3. First, we test whether people presume that veterans would find more appealing, be a better fit at, and show greater aptitude at specific jobs that are more versus less closely associated with selflessness. Second, test whether the

**Table 2**
*Descriptive (Ms and SDs) and Inferential Statistics (Paired-Samples t Tests) for Each Trait/Quality in Study 2*

| | Veteran | | Nonveteran | | | | |
|---|---|---|---|---|---|---|---|
| Trait/quality | *M* | *SD* | *M* | *SD* | *t*(298) | *p* | $d_z$ |
| Heroism | 5.00 | 1.16 | 3.29 | 1.18 | 20.06 | <.001 | 1.16 |
| Willingness to sacrifice for others | 5.43 | .85 | 3.80 | 1.23 | 19.96 | <.001 | 1.15 |
| Willingness to serve others | 5.35 | .93 | 3.90 | 1.17 | 18.43 | <.001 | 1.07 |
| Selflessness | 4.85 | 1.18 | 3.59 | 1.17 | 13.67 | <.001 | .79 |
| Conscientiousness | 4.76 | 1.11 | 4.14 | 1.11 | 8.27 | <.001 | .48 |
| Intelligence | 4.82 | 1.02 | 4.28 | 1.11 | 7.74 | <.001 | .45 |
| Aggressive | 4.06 | 1.38 | 3.57 | 1.20 | 5.23 | <.001 | .30 |
| Studious | 4.28 | 1.13 | 4.01 | 1.01 | 3.45 | <.001 | .20 |
| Open to experience | 4.88 | 1.09 | 4.59 | 1.09 | 3.36 | <.001 | .20 |
| Unemotional | 3.16 | 1.41 | 2.88 | 1.08 | 3.26 | .001 | .19 |
| Agreeable | 4.37 | 1.03 | 4.21 | 1.05 | 2.13 | .034 | .12 |
| Violent | 3.32 | 1.41 | 3.21 | 1.28 | 1.25 | .21 | .07 |
| Poor psychological health | 3.95 | 1.51 | 3.89 | 1.33 | .62 | .54 | .04 |
| Extroversion | 4.22 | 1.02 | 4.35 | .85 | −1.73 | .085 | −.10 |
| Neurotic | 3.22 | 1.32 | 3.72 | 1.23 | −5.60 | <.001 | −.32 |

*Note*. $N = 299$. All statistically significant effects survive Bonferroni correction for multiple comparisons (.05/15 = .003) except for the effect on agreeableness. The order of presentation for the traits/qualities in the table accords with effect size for the difference between the typical veteran versus nonveteran.

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heroization of veterans positively predicts job appeal, job fit, and aptitude judgments for jobs more closely associated with selflessness.

To address these predictions, we took a bottom-up approach with a separate sample of participants to identifying sets of jobs that people more versus less closely associate with selflessness. We operationalize jobs that people closely associate with selflessness as *other-focused jobs*, and we operationalize jobs that people closely associate with selfishness as *self-focused jobs*. The self-focused jobs offer a useful contrast to the other-focused jobs in testing our predictions. After identifying sets of jobs that fit within these categories, with a new sample of participants, we measured beliefs about military veterans being heroes as well as beliefs about the extent to which veterans would find these self-focused and other-focused jobs to be appealing and a good fit. We also conducted a preregistered replication of Study 3, which is available in Supplemental Study 1.

## Materials and Method

### Participants

Three hundred eighteen American residents voluntarily participated in this study on Prolific for monetary compensation. Seven participants failed the attention check at the end or did not answer all questions in the session, so data were analyzed with the remaining 311 individuals ($M_{age} = 37$ years, $SD = 14$, $range_{age} = [18, 76]$, 152 females, 154 males, five nonbinary, zero prefer not to answer). A sensitivity power analysis showed that the final sample of 311 participants provides sufficient power (.80) to detect small-to-moderate correlations ($r = |.14|$, two-tailed) and small-to-moderate effects from a paired samples $t$ test ($d_z = .16$, two-tailed).

### Pretesting

We conducted a pretest with a separate sample of participants on Prolific ($N = 149$, after excluding one participant for failing to answer all questions). All participants were American residents (same population as in the actual study). The purpose of this pretest was to identify five jobs that people tend to associate with a focus on the self, and another five jobs that people tend to associate with a focus on others. Participants were presented with 32 different common jobs in the United States. (e.g., private banker, bill collector, insurance agent, information technology manager, compliance officer, fundraiser, plumber, paramedic, social worker, and electrician), one at a time and in a random order. For each job, participants judged the selfishness of the typical person doing that job on a 7-point Likert-type scale from 1 (*not at all selfish*) to 7 (*extremely selfish*); participants were also provided with a separate "I don't know" option for each job presented.

Ultimately, we selected the five jobs with the highest scores on the selfishness scale, and the five jobs with the lowest scores on the selfishness scale. The final set of 10 jobs is listed in Table 3, along with descriptive statistics for selfishness judgments from the pretest. Selfishness judgments were significantly above the midpoint for each of the five jobs with the highest selfishness scores, and significantly below the midpoint for each of the five jobs with the lowest selfishness scores ($ps < .001$). It is worth noting that the final set of "self-focused" jobs are higher paying, on average, than the final set of "other-focused" jobs. However, it is not required for our logic that other-focused jobs be lower paying than self-focused jobs. It just happens to be the case that, in the world, jobs associated with selflessness are lower paying than jobs associated with selfishness. In subsequent studies, we find the same pattern of effects when equating pay.

**Table 3**
*The Final Set of Self-Focused and Other-Focused Jobs Based on the Pretest, With Descriptive Statistics for Selfishness Judgments*

| Job | *M* | *SD* | % "I don't know" responses |
|---|---|---|---|
| Self-focused jobs | | | |
| Real estate agent | 5.15 | 1.38 | 2.01 |
| Bill collector | 5.05 | 1.44 | 2.68 |
| Private banker | 5.41 | 1.31 | 3.36 |
| Insurance agent | 5.00 | 1.48 | 2.01 |
| Private wealth advisor | 5.18 | 1.51 | 4.03 |
| Other-focused jobs | | | |
| Home health aide | 2.15 | 1.10 | 2.01 |
| Firefighter | 1.78 | .97 | 0.67 |
| Fundraiser | 2.93 | 1.49 | 2.67 |
| Paramedic | 1.86 | 1.03 | 1.34 |
| High school teacher | 2.39 | 1.16 | 0 |

*Note*. $N = 149$. Selfishness judgments were made on a 7-point Likert-type scale (1 = *not at all selfish*, 7 = *extremely selfish*).

### Procedure and Materials

We randomized the order in which participants made hero judgments and job appeal, fit, and aptitude judgments, to ensure that making hero judgments before job appeal, fit, and aptitude judgments does not artificially inflate subsequent funneling effects. To measure the heroization of military veterans, participants answered the following question: "Is the typical U.S. military veteran a hero?" (1 = *definitely no*, 7 = *definitely yes*).

Participants were asked to consider a U.S. military veteran who is actively trying to transition to the civilian workforce after 4 years of serving in the military. The set of 10 jobs from the pretest (five self-focused, five other-focused) were presented, one at a time and in a random order. For each job presented, participants completed three scales, and they responded to all items on all scales using a 7-point Likert-type scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*).

First, participants responded to three items assessing how appealing U.S. military veterans would find each job ("The U.S. military veteran would enjoy working as a [job]"; "The U.S. military veteran would be happy working as a [job]"; "The U.S. military veteran would be satisfied working as a [job]"). Responses to these three items were averaged to form a job appeal measure for each of the 10 jobs. Job appeal ratings for the five self-focused jobs were then averaged to form a job appeal composite for the self-focused jobs; job appeal ratings for the five other-focused jobs were also averaged to form a job appeal composite for the other-focused jobs. See Table 4, for descriptive statistics and reliabilities.

Second, participants responded to four items assessing U.S. military veterans' anticipated job fit ("The U.S. military veteran would fit in well working as a [job]"; "The U.S. military veteran would be similar to the other people who work as a [job]"; "The values of the U.S. military veteran would be similar to the values of other people who work as a [job]"; "The types of people who would apply to be a [job] are very different from the U.S. military veteran"

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**Table 4**
*Descriptive Statistics and Range of Reliability Estimates Across Jobs for Study 3*

| | Other-focused jobs | | | Self-focused jobs | | |
|---|---|---|---|---|---|---|
| Measure | *M* | *SD* | α range | *M* | *SD* | α range |
| Job appeal | 4.77 | .83 | [.95, .97] | 3.80 | 1.01 | [.96, .96] |
| Job fit | 4.69 | .78 | [.80, .87] | 3.69 | .97 | [.84, .87] |
| Aptitude | 5.35 | .89 | [.96, .98] | 4.62 | 1.01 | [.97, .97] |

*Note*. $N = 311$.

reverse-scored). This four-item measure of anticipated job fit was adapted from Gaucher et al. (2011). Responses to these four items were averaged to form an anticipated job fit measure for each of the 10 jobs. Anticipated job fit ratings for the five self-focused jobs were then averaged to form an anticipated job fit composite for the self-focused jobs; anticipated job fit ratings for the five other-focused jobs were also averaged to create an anticipated job fit composite for the other-focused jobs. See Table 4, for descriptive statistics and reliabilities.

Third, participants responded to three items assessing beliefs about U.S. military veterans' aptitude for working each job ("The U.S. military veteran would be competent working as a [job]"; "The U.S. military veteran would be proficient working as a [job]"; "The U.S. military veteran would be effective working as a [job]"). Responses to these three items were averaged to create an aptitude measure for each of the 10 jobs. Aptitude ratings for the five self-focused jobs were then averaged to form an aptitude composite for the self-focused jobs; aptitude ratings for the five other-focused jobs were also averaged to form an aptitude composite for the other-focused jobs. See Table 4, for descriptive statistics and reliabilities.

Participants then answered the same attention check question at the end as in the previous studies.

## Results

We first computed a one-way repeated measures multivariate analysis of variance (MANOVA) with job focus (self-focused vs. other-focused) on job perceptions (job appeal, job fit, and aptitude). This revealed a statistically significant effect of job focus, $F(3, 308) = 119.93$, $p < .001$; Wilk's $\Lambda = 0.46$, $\eta_p^2 = .54$. Below, we report the effects of job focus on each outcome variable.

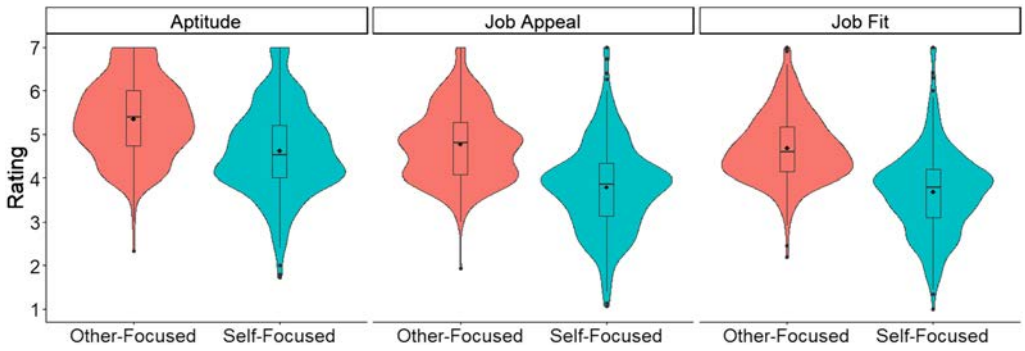
### *Job Appeal*

First, a paired samples *t* test revealed that participants anticipated that the other-focused jobs would be more appealing for the U.S. military veteran than the self-focused jobs, $M_{diff} = .97$, $t(310) = 16.83$, $p < .001$, 95% CI [.86, 1.09], $d_z = .95$; Figure 1. Second, while there was a significant and positive relationship between hero judgments and perceived job appeal for the other-focused jobs, $r(309) = .30$, $p < .001$, 95% CI [.20, .40], there was no significant relationship between hero judgments and perceived job appeal for the self-focused jobs, $r(309) = .05$, $p = .43$, 95% CI [−.06, .16]. Figure 2 visually depicts these relationships. A subsequent Steiger's *Z* test revealed that the correlation between hero judgments and perceived job appeal was significantly larger for the other-focused jobs than for the self-focused jobs ($Z = 4.11$, $p < .001$).

### *Job Fit*

First, paired samples *t* test revealed that participants anticipated that the U.S. military veteran would better fit at the other-focused jobs than at the self-focused jobs, $M_{diff} = .99$, $t(310) = 18.20$, $p < .001$, 95% CI [.89, 1.10], $d_z = 1.03$; Figure 1. Second, while there was a significant and positive relationship between hero judgments and anticipated fit for the other-focused jobs, $r(309) = .23$, $p < .001$, 95% CI [.12, .33], there was no significant relationship between hero judgments and anticipated fit for the self-focused jobs, $r(309) = .01$, $p = .81$, 95% CI [−.10, .12]. Figure 2 visually depicts these relationships. A subsequent Steiger's *Z* test revealed that the correlation between hero judgments and anticipated fit was significantly larger for the other-focused jobs than for the self-focused jobs ($Z = 3.60$, $p < .001$).

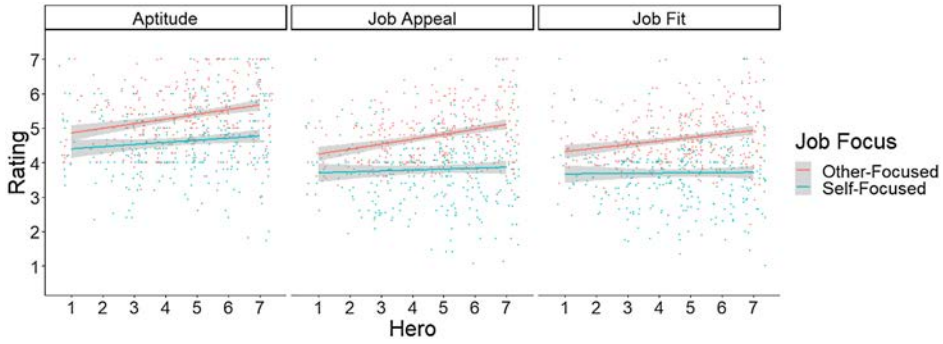
**Figure 1**
*Violin Plots Depict Distributions of Ratings for Job Appeal, Job Fit, and Aptitude as a Function of Job Focus (Self-Focused vs. Other-Focused) in Study 3*




*Note*. Boxplots are embedded within the violin plots. The averages across participants are represented with the black diamonds. See the online article for the color version of this figure.

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**Figure 2**
*The Relationships Between Hero Judgments and Job Appeal, Job Fit, and Aptitude Judgments in Study 3*




*Note*. Separate least squares lines and 95% confidence bands are depicted for self-focused and other-focused jobs. Individual data points were jittered slightly for visualization purposes. See the online article for the color version of this figure.

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### *Aptitude*

First, paired samples *t* test revealed that participants anticipated that the U.S. military veteran would exhibit higher aptitude at the other-focused jobs than at the self-focused jobs, $M_{diff} = .73$, $t(310) = 16.80$, $p < .001$, 95% CI [.64, .81], $d_z = .95$; Figure 1. Second, while there was a significant and positive relationship between hero judgments and aptitude judgments for the other-focused jobs, $r(309) = .26$, $p < .001$, 95% CI [.15, .36], there was no significant relationship between hero judgments and aptitude judgments for the self-focused jobs, $r(311) = .11$, $p = .066$, 95% CI [.00, .22]. Figure 2 visually depicts these relationships. A subsequent Steiger's *Z* test revealed that the correlation between hero judgments and aptitude was significantly larger for the other-focused jobs than for the self-focused jobs ($Z = 3.42$, $p < .001$).

In sum, the results of Study 3 support our critical predictions. Participants presumed that military veterans would (a) find jobs to be more appealing when those jobs are more versus less closely associated with selflessness, (b) better fit at jobs when they are more versus less closely associated with selflessness, and (c) display greater aptitude at jobs more versus less closely associated with selflessness. The perceived heroism of military veterans was also positively related to anticipated job appeal, job fit, and aptitude for those jobs associated with selflessness. These effects were successfully replicated in a preregistered replication (see Supplemental Material), offering evidence of the robustness of these results.

## Study 4

Study 4 replicates Study 3 and extends it in the following way: we attempt to ensure that the relationships between hero judgments and job appeal, job fit, and aptitude judgments for other-focused jobs remain statistically significant when controlling for other stereotypes identified in Study 2 that could conceivably explain our effects (i.e., agreeableness, conscientiousness, and openness to experience).

### Materials and Method

### *Participants*

Three hundred sixteen American residents voluntarily participated in this study on Prolific for monetary compensation. Eight participants failed the attention check at the end or did not answer all questions in the session, so data were analyzed with the remaining 308 individuals ($M_{age} = 37$ years, $SD = 14$, $range_{age} = [19, 91]$, 149 females, 151 males, seven nonbinary, and one prefer not to answer). A sensitivity power analysis showed that the final sample of 308 participants provides sufficient power (.80) to detect small-to-moderate correlations ($r = |.16|$, two-tailed) and small-to-moderate effects from a paired samples *t* test ($d_z = .14$, two-tailed).

### *Procedure and Materials*

Study 4 is identical to Study 3 but with the following exceptions. In addition to judging the heroism of the typical military veteran, participants also judged the agreeableness, conscientiousness, and openness to experience of the typical military veteran: "Is the typical U.S. military veteran agreeable [conscientious, open to experience]?" (1 = *definitely no*, 7 = *definitely yes*). These additional measures were included as variables to control for when assessing the relationship between hero judgments and job appeal, job fit, and aptitude judgments. See Table 5, for descriptive statistics and reliabilities for all measures.

**Table 5**
*Descriptive Statistics and Range of Reliability Estimates Across the Set of Jobs in Study 4*

| | Other-focused jobs | | | Self-focused jobs | | |
|---|---|---|---|---|---|---|
| Measure | *M* | *SD* | α range | *M* | *SD* | α range |
| Job appeal | 4.78 | .85 | [.95, .97] | 3.73 | 1.02 | [.95, .96] |
| Job fit | 4.69 | .80 | [.73, .84] | 3.60 | .97 | [.83, .84] |
| Aptitude | 5.34 | .90 | [.95, .96] | 4.55 | 1.02 | [.95, .97] |

*Note*. $N = 308$.

**Table 6**
*Correlation Coefficients for All Variables in Study 4*

| Measure | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|---|
| 1. Hero | — | | | | .06 | .00 | .16** |
| 2. Agreeableness | .50*** | — | | | .21*** | .19*** | .19*** |
| 3. Conscientiousness | .58*** | .49*** | — | | .06 | .02 | .18** |
| 4. Openness to experience | .34*** | .50*** | .42*** | — | .12* | .07 | .16** |
| 5. Job appeal | .31*** | .24*** | .27*** | .20*** | — | .71*** | .67*** |
| 6. Job fit | .33*** | .25*** | .34*** | .22*** | .77*** | — | .61*** |
| 7. Aptitude | .37*** | .27*** | .38*** | .31*** | .70*** | .75*** | — |

*Note*. $N = 308$. Correlation coefficients below the diagonal correspond to job appeal, job fit, and aptitude judgments for *other*-focused jobs. Correlation coefficients above the diagonal correspond to job appeal, job fit, and aptitude judgments for *self*-focused jobs.
* $p < .05$. ** $p < .01$. *** $p < .001$.

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## Results

Descriptive statistics and reliabilities are provided in Table 5, and a full correlation table is provided in Table 6. We first computed a one-way repeated measures MANOVA with job focus (self-focused vs. other-focused) on job perceptions (job appeal, job fit, and aptitude). This revealed a statistically significant effect of job focus, $F(3, 305) = 116.09$, $p < .001$; Wilk's $\Lambda = 0.47$, $\eta_p^2 = .53$. Below, we report the effects of job focus on each outcome variable.

### *Job Appeal*

First, a paired samples *t* test revealed that participants anticipated that the other-focused jobs would be more appealing for the U.S. military veteran than the self-focused jobs, $M_{diff} = 1.04$, $t(307) = 17.16$, $p < .001$, 95% CI [.93, 1.16], $d_z = .98$; Supplemental Figure 1. Second, while there was a significant and positive relationship between hero judgments and perceived job appeal for the other-focused jobs, $r(306) = .31$, $p < .001$, 95% CI [.20, .41], there was no significant relationship between hero judgments and perceived job appeal for the self-focused jobs, $r(306) = .06$, $p = .29$, 95% CI [−.05, .17]. Supplemental Figure 2 visually depicts these relationships. A subsequent Steiger's *Z* test revealed that the correlation between hero judgments and perceived job appeal was significantly larger for the other-focused jobs than for the self-focused jobs ($Z = 3.97$, $p < .001$). Partial correlations (controlling for agreeableness, conscientiousness, and openness to experience) revealed that there was a significant and positive relationship between hero judgments and job appeal judgments for other-focused jobs, $r(303) = .17$, $p = .002$, but no significant relationship for self-focused jobs, $r(303) = -.03$, $p = .58$.

### *Job Fit*

First, a paired samples *t* test revealed that participants anticipated that the U.S. military veteran would better fit at the other-focused jobs than at the self-focused jobs, $M_{diff} = 1.09$, $t(307) = 17.89$, $p < .001$, 95% CI [.97, 1.21], $d_z = 1.02$; Supplemental Figure 1. Second, while there was a significant and positive relationship between hero judgments and anticipated fit for the other-focused jobs, $r(306) = .33$, $p < .001$, 95% CI [.23, .43], there was no significant relationship between hero judgments and anticipated fit for the self-focused jobs, $r(306) = .00$, $p = .97$, 95% CI [−.11, .11]. Supplemental Figure 2 visually depicts these relationships. A subsequent Steiger's *Z* test revealed that the correlation between hero judgments and anticipated fit was significantly larger for the other-focused jobs than for the self-focused jobs ($Z = 4.95$, $p < .001$). Partial correlations (controlling for agreeableness, conscientiousness, and openness to experience) revealed that there was a significant and positive relationship between hero judgments and job fit judgments for other-focused jobs, $r(303) = .15$, $p = .010$, but no significant relationship for self-focused jobs, $r(303) = -.08$, $p = .16$.

### *Aptitude*

First, a paired samples *t* test revealed that participants anticipated that the U.S. military veteran would exhibit higher aptitude at the other-focused jobs than at the self-focused jobs, $M_{diff} = .79$, $t(307) = 16.34$, $p < .001$, 95% CI [.69, .88], $d_z = .93$; Supplemental Figure 1. Second, there were significant and positive relationships between hero judgments and aptitude judgments for both the other-focused jobs, $r(306) = .37$, $p < .001$, 95% CI [.27, .46], and the self-focused jobs, $r(306) = .16$, $p = .007$, 95% CI [.05, .27]. Supplemental Figure 2 visually depicts these relationships. However, a subsequent Steiger's *Z* test revealed that the correlation between hero judgments and aptitude was significantly larger for the other-focused jobs than for the self-focused jobs ($Z = 4.41$, $p < .001$). Partial correlations (controlling for agreeableness, conscientiousness, and openness to experience) revealed that there was a significant and positive relationship between hero judgments and aptitude judgments for other-focused jobs, $r(303) = .17$, $p = .002$, but no significant relationship for self-focused jobs, $r(303) = .03$, $p = .61$.

Overall, Study 4 successfully replicated the critical findings of Study 3 while also statistically controlling for other stereotypes about military veterans.

## Study 5

In recent years, politics has operated as one of the strongest predictors of attitudes toward war, the troops, and veterans, with conservatives exhibiting more favorable attitudes than liberals (Elliott et al., 2014). While veterans of the wars in the Middle East have generally been viewed quite favorably by Americans across the political spectrum, survey evidence indicates that there is still a division between liberals and conservatives (Burris, 2008; Elliott et al., 2014). Given that conservatives tend to hold more favorable views of veterans than liberals, they might be more likely to attribute a host of positive traits and qualities to veterans, including the "hero" label. If this is the case, then a political division in heroizing military veterans would allow us to test whether those more likely to view veterans favorably (i.e., conservatives) are also

more likely to funnel veterans into a limited set of lower paying jobs and organizations associated with selflessness, because of the positive stereotype. Recruiting large samples of liberals and conservatives, Study 5 utilizes a quasi-experimental mediational design to test whether the mediating effect of heroizing for the relationship between politics and job appeal, job fit, and aptitude judgments is larger when the jobs are other-focused relative to a self-focused. But before addressing this mediational hypothesis, we attempt to replicate key findings from the previous studies.

## Materials and Method

### Participants

Using Prolific's custom prescreening, we recruited 400 self-reported liberals and 400 self-reported conservatives to participate in this study for monetary compensation. Twenty-two participants failed the attention check at the end or did not answer all questions in the session, so data were analyzed with the remaining 778 individuals ($M_{age}$ = 36 years, $SD$ = 14, $range_{age}$ = [18, 78], 368 females, 395 males, 14 nonbinary, and one prefer not to answer). A sensitivity power analysis showed that the final sample of 778 participants provides sufficient power (.80) to detect small correlations ($r = |.10|$, two-tailed) and small effects from a paired samples $t$ test ($d_z = .10$, two-tailed).

### Procedure and Materials

The materials and procedure in Study 5 were the same as Study 3.

## Results

Descriptive statistics and reliabilities for job appeal, job fit, and aptitude judgments are provided in Table 7. Supplemental Table 1 provides descriptive statistics for job appeal, job fit, and aptitude judgments split by political orientation (liberal vs. conservative). We first computed a one-way repeated measures MANOVA with job focus (self-focused vs. other-focused) on job perceptions (job appeal, job fit, aptitude). This revealed a statistically significant effect of job focus, $F(3, 775) = 324.48$, $p < .001$; Wilk's $\Lambda = 0.44$, $\eta_p^2 = .56$. Below, we report the effects of job focus on each outcome variable.

### Job Appeal

First, a paired samples $t$ test revealed that participants anticipated that the other-focused jobs would be more appealing for the U.S. military veteran than the self-focused jobs, $M_{diff} = 1.04$, $t(777) = 28.56$, $p < .001$, 95% CI [.99, 1.13], $d_z = 1.02$; Supplemental Figure 3. Second, there were significant and positive relationships between hero judgments and perceived job appeal for both the other-focused jobs, $r(776) = .32$, $p < .001$, 95% CI [.26, .38], and the self-focused jobs, $r(776) = .14$, $p < .001$, 95% CI [.07, .21]. Supplemental Figure 4 visually depicts these relationships. However, a subsequent Steiger's $Z$ test revealed that the correlation between hero judgments and perceived job appeal was significantly larger for the other-focused jobs than for the self-focused jobs ($Z = 5.16$, $p < .001$).

**Table 7**
*Descriptive Statistics and Range of Reliability Estimates for All Participants Across Jobs for Study 5*

| | Other-focused jobs | | | Self-focused jobs | | |
|---|---|---|---|---|---|---|
| Measure | *M* | *SD* | α range | *M* | *SD* | α range |
| Job appeal | 4.87 | .88 | [.95, .96] | 3.81 | 1.12 | [.96, .97] |
| Job fit | 4.72 | .79 | [.75, .84] | 3.68 | .98 | [.83, .85] |
| Aptitude | 5.35 | .98 | [.97, .97] | 4.61 | 1.14 | [.97, .97] |

*Note.* $N = 778$.

### Job Fit

First, a paired samples $t$ test revealed that participants anticipated that the U.S. military veteran would better belong at the other-focused jobs than at the self-focused jobs, $M_{diff} = .96$, $t(777) = 30.19$, $p < .001$, 95% CI [.97, 1.11], $d_z = 1.08$; Supplemental Figure 3. Second, there were significant and positive relationships between hero judgments and job fit for both the other-focused jobs, $r(776) = .29$, $p < .001$, 95% CI [.22, .35], and the self-focused jobs, $r(776) = .10$, $p = .005$, 95% CI [.03, .17]. Supplemental Figure 4 visually depicts these relationships. However, a subsequent Steiger's $Z$ test revealed that the correlation between hero judgments and job fit was significantly larger for the other-focused jobs than for the self-focused jobs ($Z = 5.18$, $p < .001$).

### Aptitude

First, a paired samples $t$ test revealed that participants anticipated that the U.S. military veteran would exhibit higher aptitude at the other-focused jobs than at the self-focused jobs, $M_{diff} = .83$, $t(777) = 24.88$, $p < .001$, 95% CI [.68, .80], $d_z = .89$; Supplemental Figure 3. Second, there were significant and positive relationships between hero judgments and aptitude judgments for both the other-focused jobs, $r(776) = .33$, $p < .001$, 95% CI [.27, .39], and the self-focused jobs, $r(776) = .22$, $p < .001$, 95% CI [.15, .29]. Supplemental Figure 4 visually depicts these relationships. However, a subsequent Steiger's $Z$ test revealed that the correlation between hero judgments and aptitude was significantly larger for the other-focused jobs than for the self-focused jobs ($Z = 4.13$, $p < .001$).

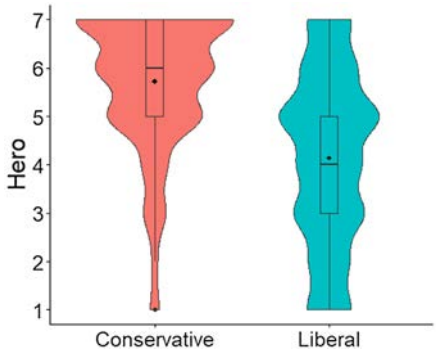
## Mediations

We predicted that the mediating effect of heroization for the relationship between political orientation (liberal vs. conservative) and job appeal, job fit, and aptitude would be larger when the jobs were associated with an "other-focus" relative to a "self-focus." To begin to address this prediction, we first computed an independent samples $t$ test with politics on hero judgments. Conservatives were more likely to heroize military veterans than liberals, $M_{diff} = 1.58$, $t(776) = 13.73$, $p < .001$, 95% CI [1.36, 1.81], $d = .99$; Figure 3. Then, we computed a difference score for each participant for each of the three outcome variables (job appeal, job fit, and aptitude). Each difference score was computed by subtracting the self-focus score from the other-focus score, meaning that positive values are indicative of higher job appeal, job fit, and aptitude ratings for the other-focused jobs than for the self-focused jobs. These difference scores served as the outcome variables in the three respective mediation models. To compute indirect effects, we used the PROCESS macro from Hayes (2017) with 5,000 bootstrap resamples. The indirect effect of political

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**Figure 3**

*Violin Plots Depict Distributions of Hero Judgments Made by Liberals and Conservatives*




*Note.* Boxplots are embedded within the violin plots. The averages across participants are represented with the black diamonds. See the online article for the color version of this figure.

orientation through heroization was significant for the job appeal ($b$ = .16, $SE$ = .04, 95% CI [.08, .24]), job fit ($b$ = .16, $SE$ = .04, 95% CI [.09, .24]), and aptitude ($b$ = .07, $SE$ = .03, 95% CI [.02, .14]) difference scores. These results fully corroborate our predictions. See Figure 4, for details.

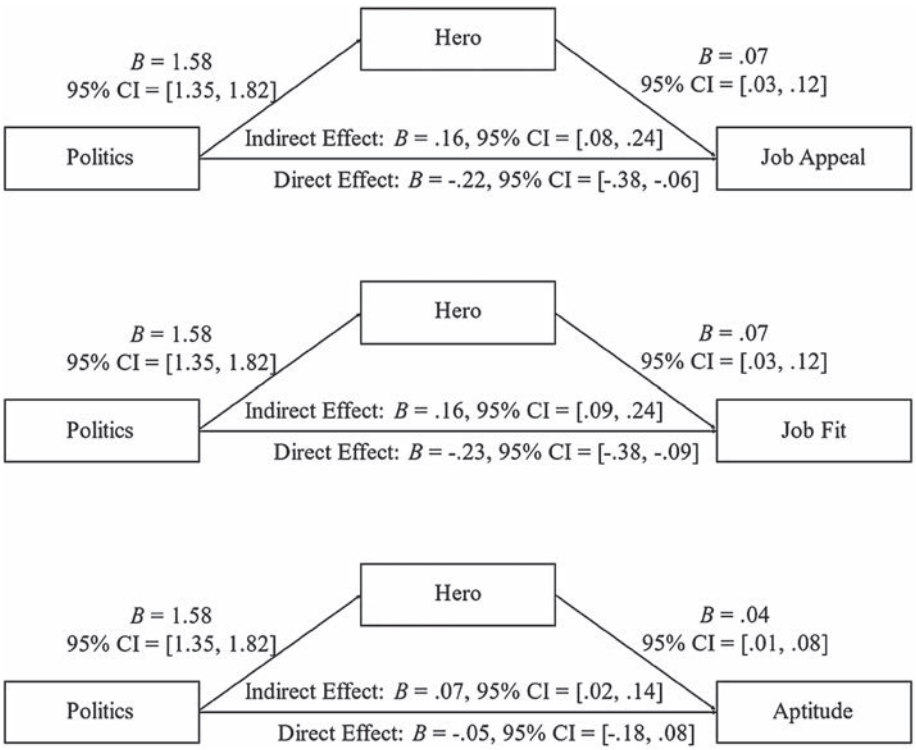
## Study 6

Study 6 extends the previous studies in two ways. First, the materials from Studies 3–5 made use of general occupations (e.g., paramedic, home health aide, private banker, and bill collector) rather than specific organizations. Study 6 extends to specific organizations associated with more versus less selfless people. We adopt a bottom-up approach with a separate sample of participants to identify organizations that best fit within the self-focused and other-focused categories. After identifying organizations that fit within these categories, with a new sample of participants, we measured the heroization of U.S. military veterans as well as participants' assumptions about whether veterans would find these self-focused and other-focused organizations appealing and a good fit. We test the prediction that people presume that military veterans would find jobs to be more appealing and better fit when the organizations are associated with more versus less selflessness.

Second, while the previous studies measured hero judgments, Study 6 attempts to experimentally manipulate the heroization of military veterans. By implementing an experimental manipulation that randomly assigns participants to hero salience conditions, Study 6 offers stronger causal evidence for the links between heroizing and judgments of job appeal and job fit. This hero salience manipulation makes use of imagery used by organizations that try to help veterans transition to civilian life (Appendix A). We expect this hero salience manipulation to strengthen the positive stereotype that veterans are

**Figure 4**

*Separate Mediation Models Are Depicted With Job Appeal (Top), Job Fit (Middle), and Aptitude (Bottom) Difference Scores (Other-Focused Jobs Minus Self-Focused Jobs)*




*Note.* Heroization mediated the relationship between politics (liberal vs. conservative) and job appeal, job fit, and aptitude difference scores for other-focused jobs over self-focused jobs.

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heroes. By strengthening the positive stereotype, we expect to exacerbate funneling effects into organizations more (relative to less) closely associated with selflessness.

## Materials and Method

### *Participants*

Six hundred twenty-five American residents voluntarily participated in this study on Prolific for monetary compensation. Twenty-one participants failed the attention check at the end or did not answer all questions in the session, so data were analyzed with the remaining 604 individuals ($M_{age}$ = 31 years, $SD$ = 11, $range_{age}$ = [18, 73], 265 females, 331 males, six nonbinary, and five prefer not to answer). A sensitivity power analysis showed that the final sample of 604 participants provides sufficient power (.80) to detect small effects ($\eta_p^2 = .01$, two-tailed) with a 2 × 2 between-subjects analysis of variance (ANOVA).

### *Pretesting*

We conducted a pretest with a different sample of participants on Prolific ($N$ = 148, after excluding two participants for failing to answer all questions). All participants were American residents (same population as in the actual study). The purpose of this pretest was to identify an organization at which employees are typically perceived to be self-focused, and an organization at which employees are typically perceived to be other-focused. Participants were presented with 26 different organizations (e.g., Bank of America, Goldman Sachs, Facebook, Nestle, Exxon, Apple, Habitat for Humanity, American Red Cross, United Way), one at a time and in a random order. For each organization, participants judged the selfishness of the typical marketing associate at the organization on a 7-point Likert-type scale from 1 (*not at all selfish*) to 7 (*extremely selfish*); participants were also provided with a separate "I don't know" option for each organization presented. For the 26 different organizations presented, we a priori selected organizations that we expected to vary on the 7-point scale. Employees at Goldman Sachs were judged to be the most selfish ($M$ = 5.87, $SD$ = 1.17), and employees at Habitat for Humanity were judged to be the least selfish ($M$ = 2.38, $SD$ = 1.21). Selfishness judgments were significantly above the midpoint for Goldman Sachs, and significantly below the midpoint for Habitat for Humanity ($ps < .001$). Fifteen percent of participants provided "I don't know" responses for Goldman Sachs, and 8% of participants provided "I don't know" responses for Habitat for Humanity. Employees at Goldman Sachs constituted the self-focused condition, and employees at Habitat for Humanity constituted the other-focused condition.

### *Procedure and Materials*

Participants were randomly assigned to make judgments about a U.S. military veteran in a 2 (hero imagery: present vs. absent) × 2 (job focus: self-focus vs. other-focus) between-subjects design. Participants were told that the purpose of the study was to assess people's opinions about veterans who are attempting to transition to the workforce. Participants were randomly assigned to view hero imagery or not (see Appendix A, for materials). This hero imagery was obtained from the marketing materials of actual organizations that try to help U.S. military veterans find employment, and the imagery was incidentally presented as part of the instructions. The imagery was not attributed to, or connected to, either organization (Goldman Sachs or Habitat for Humanity) in any way.

Participants were then presented with an abridged resume of a U.S. military veteran named Peter Miller with a relevant college degree and a good grade point average (GPA; adapted from Shepherd et al., 2019; see Appendix B, for materials), and they were informed that Peter would be applying for a marketing associate job at either Goldman Sachs (self-focused condition) or Habitat for Humanity (other-focused condition). In case some participants were unfamiliar with either organization, participants in the self-focused condition read that "Goldman Sachs is an investment bank and financial services company," and participants in the other-focused condition read that "Habitat for Humanity is a nonprofit organization that helps families build and improve places to call home."

Regardless of the organization to which participants were assigned, participants completed two scales, and they responded to all items on both scales using a 7-point Likert-type scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). First, participants responded to three items assessing how appealing the U.S. military veteran would find job ("Peter Miller would enjoy working as a marketing associate at Goldman Sachs [Habitat for Humanity]"; "Peter Miller would be happy working as a marketing associate at Goldman Sachs [Habitat for Humanity]"; "Peter Miller would be satisfied working as a marketing associate at Goldman Sachs [Habitat for Humanity]"). Responses to these three items were averaged to form a job appeal composite (Goldman Sachs: $M$ = 4.06, $SD$ = 1.18, α = .92; Habitat for Humanity: $M$ = 4.55, $SD$ = 1.13, α = .91).

Second, participants responded to four items assessing job fit at the organization ("Peter Miller would fit in well working as a marketing associate at Goldman Sachs [Habitat for Humanity]"; "Peter Miller would be similar to the other people who work as marketing associates at Goldman Sachs [Habitat for Humanity]"; "The values of someone like Peter Miller would be similar to the values of other people who work as marketing associates at Goldman Sachs [Habitat for Humanity]"; "The types of people who would apply to be marketing associates at Goldman Sachs [Habitat for Humanity] are very different from someone like Peter Miller" reverse-scored). Responses to these four items were averaged to form a job fit composite (Goldman Sachs: $M$ = 3.43, $SD$ = 1.05, α = .78; Habitat for Humanity: $M$ = 4.19, $SD$ = 1.01, α = .74).

At the end, participants answered the same attention check question as in the previous studies.

## Results

We first conducted a 2 (hero imagery: present vs. absent) × 2 (job focus: self-focus vs. other-focus) between-subjects MANOVA, with job perceptions as the outcome variable (job appeal, job fit). There was no significant effect of hero imagery, $F(2, 602) = .11$, $p < .89$; Wilk's $\Lambda = 1.00$, $\eta_p^2 = .000$, but there was a significant effect of job focus, $F(2, 602) = 42.19$, $p < .001$; Wilk's $\Lambda = 0.88$, $\eta_p^2 = .12$, and a significant interaction between hero imagery and job focus, $F(2, 602) = 7.28$, $p = .001$; Wilk's $\Lambda = 0.98$, $\eta_p^2 = .02$. Below, we conduct 2 (hero imagery: present vs. absent) × 2 (job focus: self-focus vs. other-focus) between-subjects ANOVAs for the job appeal and job fit outcome variables, respectively. Tables 8 and 9 provide descriptive

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**Table 8**
*Means (SDs) for Job Appeal Ratings by Condition in Study 6*

| | Hero imagery | |
|---|---|---|
| Job focus | Present | Absent |
| Self-focused job | 3.92 (1.19) | 4.23 (1.16) |
| Other-focused job | 4.77 (1.03) | 4.38 (1.18) |

statistics for job appeal and job fit variables, respectively, within each cell of the 2 × 2 design. Figure 5 visually depicts the results.

### *Job Appeal*

With job appeal as the outcome variable, there was no significant main effect of hero imagery, $F(1, 603) = .20$, $p = .66$, $\eta_p^2 = .000$, but there was a significant main effect of job focus, $F(1, 603) = 28.75$, $p < .001$, $\eta_p^2 = .046$, and a significant interaction between hero imagery and job focus, $F(1, 603) = 14.25$, $p < .001$, $\eta_p^2 = .023$. Subsequent tests of simple main effects revealed, among participants who were presented with hero imagery, those in the other-focused job condition provided *higher* job appeal ratings, on average, than those in the self-focused job condition, $M_{diff} = .85$, $t(296) = 6.54$, $p < .001$, 95% CI [.60, 1.11], $d = .76$. However, among participants who did not see hero imagery, there was no significant difference in job appeal ratings between participants assigned to self-focused job condition versus the other-focused job condition, $M_{diff} = .15$, $t(307) = 1.11$, $p = .27$, 95% CI [−.11, .41], $d = .13$. Although the means were moving in the predicted directions, the difference between conditions did not reach statistical significance. The difference in job appeal judgments between self- and other-focused organizations was larger in magnitude when the hero imagery was present relative to when it was absent. See Table 8, for descriptive statistics.

### *Job Fit*

With job fit as the outcome variable, there was no significant main effect of hero imagery, $F(1, 603) = .17$, $p = .68$, $\eta_p^2 = .000$, but there was a significant main effect of job focus, $F(1, 603) = 84.16$, $p < .001$, $\eta_p^2 = .122$, and a trending interaction effect between hero imagery and job focus, $F(1, 603) = 3.81$, $p = .051$, $\eta_p^2 = .006$. Subsequent tests of simple main effects revealed that, among participants who were presented with hero imagery, those in the other-focused job condition provided *higher* job fit ratings, on average, those in the self-focused job condition, $M_{diff} = .93$, $t(296) = 8.18$, $p < .001$, 95% CI [.71, 1.15], $d = .96$. For participants who did not see hero imagery, those assigned to the other-focused job condition provided higher job fit ratings, on average, than those assigned to the self-focused job condition, $M_{diff} = .61$, $t(307) = 4.98$, $p < .001$, 95% CI [37, .85], $d = .57$. The difference in job fit judgments between self- and other-focused organizations was larger in magnitude when the hero imagery was present relative to when it was absent. See Table 9, for descriptive statistics.

**Table 9**
*Means (SDs) for Job Fit Ratings by Condition in Study 6*

| | Hero imagery | |
|---|---|---|
| Job focus | Present | Absent |
| Self-focused job | 3.37 (1.00) | 3.50 (1.09) |
| Other-focused job | 4.30 (.94) | 4.11 (1.06) |

## Study 7

The results of Study 6 provide evidence that the presentation of hero imagery—the purpose of which was to make salient the hero stereotype for veterans—can exacerbate our effects. In Study 7, we introduce a different experimental manipulation to attempt to reduce heroization, and consequently, reduce the effects on job appeal, job fit, and aptitude judgments for an other-focused organization over a self-focused organization. This new manipulation takes advantage of the fact that people join the military for numerous reasons beyond serving others and sacrificing for others, including: pay and allowance, acquiring technical skills, family tradition, education benefits, family benefits, job security, travel, personal growth, etc. (Burland & Lundquist, 2013). When people learn that a military veteran enlisted for a reason other than serving others (e.g., to acquire certain technical skills), we expect them to view that veteran as less heroic, which, in turn, should dampen our effects.

### Materials and Method

#### *Participants*

Four hundred twenty American residents voluntarily participated in this study on Prolific for monetary compensation. Thirteen participants failed the attention check question at the end or did not answer all questions in the session, so data were analyzed with the remaining 407 individuals ($M_{age} = 36$ years, $SD = 13$, $range_{age} =$ [18, 80], 201 females, 200 males, four nonbinary, two prefer not to answer). A sensitivity power analysis showed that the final sample of 407 participants provides sufficient power (.80) to detect small-to-moderate correlations ($r = |.14|$, two-tailed) and small-to-moderate effects from an independent samples $t$ test ($d = .28$, two-tailed).

#### *Procedure and Materials*

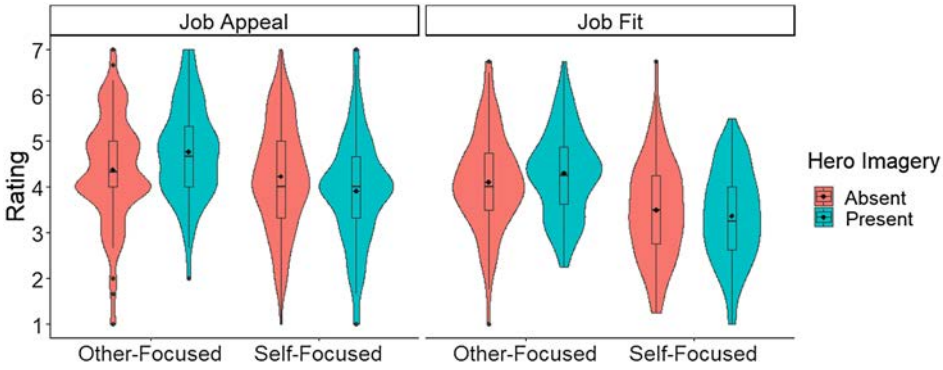
All participants were introduced to a U.S. military veteran named Peter Miller, who was transitioning to the civilian workforce after serving in the military for 10 years. Participants were also told that Peter is a 28-year-old male with brown hair and brown eyes who grew up in a midsized city in the United States; Peter joined the military immediately after graduating from high school, and while he was in the military, he received formal training in information technology (IT). Participants were then randomly assigned to the de-heroization condition or the control condition. In the de-heroization condition, participants were told that the reason Peter joined the military was to get training in IT; participants in the control condition were not presented with any information about why Peter initially joined the military. All participants then made the following judgment about Peter: "Do you believe Peter Miller is a hero?" (1 = *definitely no*, 5 = *definitely yes*).

Regardless of the condition to which they were assigned, participants were told that Peter Miller had applied for IT specialist jobs at Goldman Sachs and Habitat for Humanity. In case some participants were unfamiliar with either organization, participants read that

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**Figure 5**

*Violin Plots Depict Distributions of Ratings for Job Appeal (Left Panel) and Job Fit (Middle Panel) Judgments as a Function of Job Focus (Self-Focused vs. Other-Focused) and Hero Imagery (Present vs. Absent) in Study 6*




*Note*. Boxplots are embedded within the violin plots. The averages across participants are represented with the black diamonds. See the online article for the color version of this figure.

"Goldman Sachs is an investment bank and financial services company" and that "Habitat for Humanity is a nonprofit organization that helps families build and improve places to call home." Participants were explicitly told that Peter was qualified for each job and that the starting salaries were the same.

All participants then completed three scales, and they responded to all items on all three scales using a 5-point Likert-type scale ranging from 1 (*definitely Goldman Sachs*) to 5 (*definitely Habitat for Humanity*). Each individual item on each scale was contrastive between Goldman Sachs and Habitat for Humanity. First, participants responded to three items assessing job appeal ("Which organization would Peter Miller enjoy working at more as an IT specialist?"; "Which organization would Peter Miller be happier working at as an IT specialist?"; "Which organization would Peter Miller be more satisfied working at as an IT specialist?"). Responses to these three items were averaged to form a job appeal composite (de-heroization condition: $M = 2.95$, $SD = 1.00$, $\alpha = .91$; control condition: $M = 3.30$, $SD = .89$, $\alpha = .88$).

Second, participants responded to three items assessing job fit ("At which organization would Peter Miller fit in better working as an IT specialist?"; "At which organization would Peter Miller be more similar to the other people who work as IT specialists?"; "At which organization would Peter Miller's values be more similar to the values of other people who work there as IT specialists?"). Responses to these three items were averaged to form a job fit composite (de-heroization condition: $M = 2.89$, $SD = .74$, $\alpha = .86$; control condition: $M = 3.13$, $SD = .72$, $\alpha = .83$).

Third, participants responded to three items assessing aptitude ("At which organization would Peter Miller be more proficient working as an IT specialist?"; "At which organization would Peter Miller be more competent working as an IT specialist?"; At which organization would Peter Miller be more effective working as an IT specialist?"). Responses to these three items were averaged to form an aptitude composite (de-heroization condition: $M = 2.88$, $SD = .83$, $\alpha = .91$; control condition: $M = 3.07$, $SD = .78$, $\alpha = .90$).

At the end, participants answered the same attention check question as in the previous studies.

## Results

We predicted that when people learn that a military veteran enlisted for a reason other than serving others, they will see that veteran as less heroic, which should, in turn, dampen funneling effects. To begin to address this prediction, we computed a series of independent samples *t* tests to investigate whether participants in the de-heroization condition provided *lower* hero judgments and lower job appeal, job fit, and aptitude judgments (for Habitat for Humanity over Goldman Sachs) than participants in the control condition. Participants in the de-heroization condition ($M = 2.79$, $SD = 1.13$), relative to participants in the control condition ($M = 3.20$, $SD = 1.10$), did provide significantly lower hero judgments, $M_{diff} = .41$, $t(405) = 3.75$, $p < .001$, 95% CI [.20, .63], $d = .37$; Figure 6. Participants in the de-heroization condition, relative to participants in the control condition, also provided lower judgments of job appeal related to Habitat for Humanity over Goldman Sachs, $M_{diff} = .35$, $t(405) = 3.69$, $p < .001$, 95% CI [.16, 153], $d = .37$, lower judgments of job fit related to Habitat for Humanity over Goldman Sachs, $M_{diff} = .23$, $t(405) = 3.23$, $p = .001$, 95% CI [.09, .38], $d = .32$, and lower judgments of aptitude related to Habitat for Humanity over Goldman Sachs, $M_{diff} = .19$, $t(405) = 2.37$, $p = .018$, 95% CI [.03, .35], $d = .24$, judgments (see Figure 6).

To compute indirect effects, we used the PROCESS macro from Hayes (2017) with 5,000 bootstrap resamples. The indirect effect of condition (de-heroization vs. control) through heroization was significant for job appeal judgments related to Habitat for Humanity over Goldman Sachs ($b = -.07$, $SE = .03$, 95% CI [−.14, −.03]), for job fit judgments related to Habitat for Humanity over Goldman Sachs ($b = -.06$, $SE = .03$, 95% CI [−.11, −.03]), and for aptitude judgments related to Habitat for Humanity over Goldman Sachs ($b = -.03$, $SE = .02$, 95% CI [−.07, .00]). These results fully corroborate our predictions.

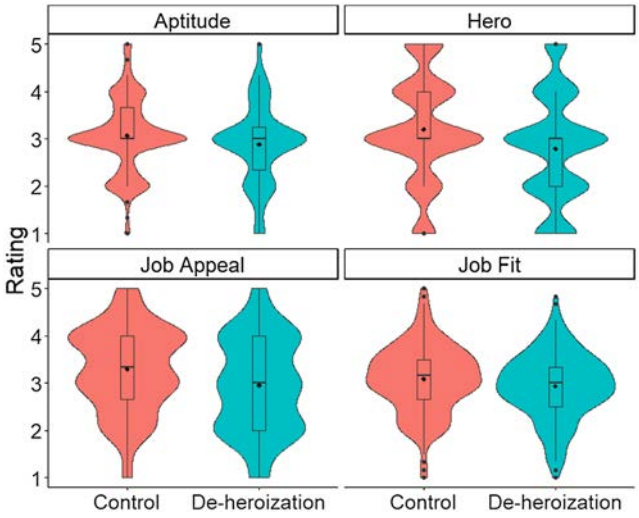
Overall, these results indicate that when people learn that a military veteran enlisted for a reason other than serving others (e.g., to acquire certain technical skills), they view that veteran as less heroic, which, in turn, dampens the effects on job appeal, job fit, and aptitude judgments for Habitat for Humanity over Goldman Sachs.

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**Figure 6**

*Violin Plots Depict Distributions of Ratings for Hero, Job Appeal, Job Fit, and Aptitude Judgments as a Function of Condition (De-Heroization vs. Control) in Study 7*




*Note.* Boxplots are embedded within the violin plots. The averages across participants are represented with the black diamonds. See the online article for the color version of this figure.

## Study 8

We have argued that selflessness is the critical component of hero construct that produces the effects obtained in previous studies. Study 8 offers more direct evidence of this underlying assumption for our account.

### Materials and Method

#### *Participants*

Two hundred one American residents voluntarily participated in this study on Prolific for monetary compensation. Six participants failed the attention check question at the end or did not answer all questions in the session, so data were analyzed with the remaining 195 individuals ($M_{age}$ = 35 years, $SD$ = 14, $range_{age}$ = [18, 75], 94 females, 96 males, four nonbinary, and one prefer not to answer). A sensitivity power analysis showed that the final sample of 195 participants provides sufficient power (.80) to detect small-to-moderate correlations within each between-subjects condition ($r = |.20|$, two-tailed).

#### *Procedure and Materials*

Participants made two judgments about the typical U.S. military veteran using a 7-point Likert-type scale (1 = *definitely no*, 7 = *definitely yes*). First, "Is the typical U.S. military veteran a hero?" Second, "Is the typical U.S. military veteran unselfish?"

Participants were then presented with an abridged resume of a U.S. military veteran named Peter Miller with a relevant college degree and a good GPA (adapted from Shepherd et al., 2019; see Appendix B, for materials), and they were informed that Peter would be applying for a marketing associate job at either Goldman Sachs or Habitat for Humanity. In case some participants were unfamiliar with either organization, participants in the self-focused condition read that "Goldman Sachs is an investment bank and financial services company," and participants in the other-focused condition read that "Habitat for Humanity is a nonprofit organization that helps families build and improve places to call home." Participants then completed the same contrastive job appeal, job fit, and aptitude judgments (between Habitat for Humanity and Goldman Sachs) as in Study 7, but with one difference: Peter Miller was applying to be a marketing associate instead of an IT specialist. See Table 10, for descriptive statistics and reliabilities.

At the end, participants answered the same attention check question as in the previous studies.

### Results

We predicted that hero judgments and selflessness judgments would be significantly and positively related to appeal, fit, and aptitude judgments. Supporting these predictions, hero judgments were in fact significantly and positively related to job appeal, $r(193) = .31$, $p < .001$, 95% CI [.18, .43], job fit, $r(193) = .30$, $p < .001$, 95% CI [.17, .42], and aptitude, $r(193) = .18$, $p = .013$, 95% CI [.04, .31], judgments related to Habitat for Humanity over Goldman Sachs; in addition, selflessness judgments were significantly related to job appeal, $r(193) = .34$, $p < .001$, 95% CI [.21, .46], job fit, $r(193) = .40$, $p < .001$, 95% CI [.27, .51], and aptitude, $r(193) = .23$, $p = .001$, 95% CI [.09, .36], judgments related to Habitat for Humanity over Goldman Sachs. Table 10 offers pairwise correlations between all variables.

We also predicted that hero judgments would be indirectly related to job appeal, job fit, and aptitude judgments for Habitat for Humanity over Goldman Sachs through selflessness judgments. To compute indirect effects, we used the PROCESS macro from Hayes (2017) with 5,000 bootstrap resamples. The indirect effect of heroization through selflessness was significant for job appeal ($b$ = .12, $SE$ = .05, 95% CI [.03, .21]), job fit ($b$ = .18, $SE$ = .04, 95% CI [.10, .28]), and aptitude ($b$ = .09, $SE$ = .04, 95% CI [.01, .17]) judgments for Habitat for Humanity over Goldman Sachs. Although hero judgments were significantly related to job appeal, job fit, and aptitude judgments, when variance attributed to selflessness was partialed out, the relationships between hero judgments and job appeal, job fit, and aptitude judgments were all rendered nonsignificant (job appeal: $r = .13$, $p = .076$; job fit: $r = .06$, $p = .40$; aptitude: $r = .04$, $p = .58$).

**Table 10**

*Descriptive Statistics, Reliabilities, and Bivariate Correlations in Study 8*

| Measure | *M* | *SD* | α | 1 | 2 | 3 | 4 |
|---|---|---|---|---|---|---|---|
| 1. Hero | 3.45 | 1.04 | | — | | | |
| 2. Selflessness | 3.38 | .96 | | .65*** | — | | |
| 3. Job appeal | 3.39 | .82 | .85 | .31*** | .34*** | — | |
| 4. Job fit | 3.29 | .83 | .82 | .30*** | .40*** | .66*** | — |
| 5. Aptitude | 3.08 | .74 | .84 | .18* | .23** | .60*** | .63*** |

*Note.* $N$ = 195.
* $p < .01$. ** $p < .01$. *** $p < .001$.

Overall, these findings provide positive evidence that selflessness is the component of the hero construct responsible for our effects.

## Study 9

The primary purpose of Study 9 is to ensure that the results of the previous studies reflect a process specific to how members of a heroized group are perceived, and not merely a process for how any applicant is perceived when applying to particular jobs and organizations. To make the case for specificity of process for heroized group members, we addressed the following questions: (a) are veterans heroized more than matched nonveterans?; (b) are there significant relationships between heroization and job appeal, job fit, and aptitude for veterans, but not for matched nonveterans?; and (c) are the relationships between heroization and our dependent variables larger in magnitude for veterans than nonveterans? The answers to these three questions should be *yes*, if our funneling effects are specific to members of heroized groups. We also conducted a preregistered replication of Study 9, which is available in the Supplemental Material (Supplemental Study 2).

### Materials and Method

#### *Participants*

Nine hundred thirty American residents voluntarily participated in this study on Prolific for monetary compensation. Twenty-three participants failed the attention check question at the end or did not answer all questions in the session, so data were analyzed with the remaining 907 individuals ($M_{age}$ = 33 years, $SD$ = 12, $range_{age}$ = [18, 77], 416 females, 456 males, 28 nonbinary, and seven prefer not to answer). A sensitivity power analysis showed that the final sample of 907 participants provides sufficient power (.80) to detect small-to-moderate correlations within each between-subjects condition ($r$ = |.13|, two-tailed) and small-to-moderate effects from an independent samples $t$ test ($d$ = .19, two-tailed).

#### *Procedure and Materials*

Participants were randomly assigned to either the veteran condition or the nonveteran condition (between-subjects). Participants in the veteran condition made four judgments about the typical U.S. military veteran, and participants in the nonveteran condition made four judgments about the typical U.S. college student. While the target of these judgments differed between conditions, the content of these questions was otherwise the same. The critical judgment was the following: "Is the typical U.S. military veteran [college student] a hero?" (1 = *definitely no*, 7 = *definitely yes*). Using 7-point scales (1 = *definitely no*, 7 = *definitely yes*), participants also answered the following two questions: (a) "Is the typical U.S. military veteran [college student] extraverted?"; (b) "Is the typical U.S. military veteran [college student] studious?" These two items were included for three reasons. First, they help to conceal the aims of the study. Second, they offer potentially useful contrasts to the hero judgments in predicting job appeal, job, and aptitude judgments about veterans and nonveterans. Third, in investigating the relationship between hero judgments and judgments of job appeal, job fit, and aptitude, statistically controlling for studiousness and extraversion may be useful.

Participants in the veteran condition were then presented with an abridged resume of a U.S. military veteran named Peter Miller with a relevant college degree and a good GPA (see Appendix C, for exact materials); participants in the nonveteran condition were presented with the same abridged resume of Peter Miller, but all veteran-related information was omitted. So, participants were presented with target individuals who graduated from the same university in the same year with the exact same degrees and GPAs and applying for the exact same job types (marketing associate); the only difference between conditions was that one applicant was a veteran and the other was not. Regardless of the condition to which they were assigned, participants were told that Peter Miller had applied for marketing associate jobs at Goldman Sachs and Habitat for Humanity. In case, some participants were unfamiliar with either organization, participants read that "Goldman Sachs is an investment bank and financial services company" and that "Habitat for Humanity is a nonprofit organization that helps families build and improve places to call home."

All participants then completed the same contrastive job appeal, job fit, and aptitude scales implemented in Study 8 (see Table 11, for descriptive statistics and reliabilities). At the end, participants answered the same attention check question as in the previous studies.

### Results

Table 11 provides descriptive statistics and reliabilities split by condition (veteran vs. nonveteran). Figure 7 visually depicts distributions of responses for each variable split by condition (veteran vs. nonveteran).

#### *Heroization*

An initial independent samples $t$ test revealed that participants judged the typical U.S. military veteran to be more of a hero than the typical U.S. college student, $M_{diff}$ = 1.33, $t(905) = 18.25$, $p < .001$, 95% CI [1.18, 1.47], $d$ = 1.21.

#### *Job Appeal*

While there was a significant and positive relationship between hero judgments and perceived job appeal judgments for participants in the veteran condition, $r(446) = .16$, $p = .001$, 95% CI [.07, .25], there was no significant relationship between hero judgments and perceived job appeal judgments for participants in the nonveteran condition, $r(457) = -.09$, $p = .054$, 95% CI [−.18, .00]. Figure 8 visually depicts these relationships. The correlation between hero judgments and perceived job appeal judgments was significantly larger among participants in the veteran condition than in the nonveteran condition ($Z = 3.78$, $p < .001$).

**Table 11**
*Descriptive Statistics and Reliabilities by Condition (Veteran vs. Nonveteran) in Study 9*

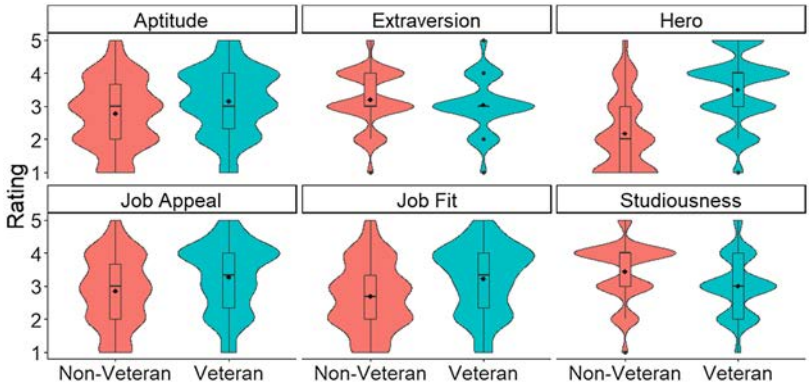
| | Veteran condition | | | Nonveteran condition | | |
|---|---|---|---|---|---|---|
| Measure | *M* | *SD* | α | *M* | *SD* | α |
| Hero | 3.50 | 1.07 | | 2.18 | 1.12 | |
| Studiousness | 3.00 | .90 | | 3.44 | .90 | |
| Extraversion | 3.04 | .81 | | 3.20 | .85 | |
| Job appeal | 3.27 | 1.02 | .88 | 2.85 | 1.04 | .87 |
| Job fit | 3.22 | 1.02 | .87 | 2.69 | 1.01 | .87 |
| Aptitude | 3.16 | .98 | .91 | 2.79 | 1.02 | .93 |

*Note*. Veteran condition: $N$ = 448; nonveteran condition: $N$ = 459.

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**Figure 7**

*Violin Plots Depict Distributions of Ratings for Aptitude Extraversion, Hero, Job Appeal, Job Fit, and Studiousness Judgments as a Function of Condition (Veteran vs. Nonveteran) in Study 9*




*Note*. Boxplots are embedded within the violin plots. The averages across participants are represented with the black diamonds. See the online article for the color version of this figure.

As points of contrast, for participants assigned to the veteran condition, there was no significant relationship between extraversion judgments and job appeal judgments, $r(446) = -.04$, $p = .40$, 95% CI [−.13, .05], but there was a significant and positive relationship between studiousness judgments and job appeal judgments, $r(445) = .15$, $p = .002$, 95% CI [.06, .24]. However, after partialing out variance attributable to both extraversion and studiousness, the relationship between hero judgments and job appeal judgments remained statistically significant, $r(443) = .11$, $p = .021$. Only partialing out variance attributable to studiousness, the relationship was $r(444) = .10$, $p = .029$.

### *Job Fit*

While there was a significant and positive relationship between hero judgments and job fit judgments for participants in the veteran condition, $r(446) = .25$, $p < .001$, 95% CI [.16, .33], there was no significant relationship between hero judgments and job fit judgments for participants in the nonveteran condition, $r(457) = -.03$, $p = .53$, 95% CI [−.12, .06]. Figure 8 visually depicts these relationships. The correlation between hero judgments and job fit judgments was significantly larger among participants in the veteran condition than in the nonveteran condition ($Z = 4.28$, $p < .001$).

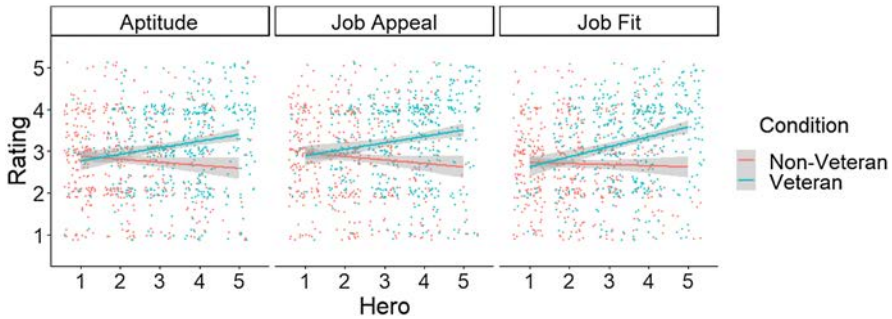
As points of contrast, for participants assigned to the veteran condition, there was no significant relationship between extraversion judgments and job fit judgments, $r(446) = .01$, $p = .77$, 95% CI [−.08, .10], but there was a significant and positive relationship between studiousness judgments and job fit judgments, $r(445) = .16$, $p = .001$, 95% CI [.07, .25]. However, after partialing out variance attributable to both extraversion and studiousness, the relationship between hero judgments and job fit judgments remained statistically significant, $r(443) = .20$, $p < .001$. Only partialing out variance attributable to studiousness, the relationship was $r(444) = .20$, $p < .001$.

### *Aptitude*

While there was a significant and positive relationship between hero judgments and aptitude judgments for participants in the

**Figure 8**

*The Relationships Between Hero Judgments and Job Aptitude, Job Appeal, and Job Fit Judgments in Study 9*




*Note*. Separate least squares lines and 95% confidence bands are depicted for veteran and nonveteran conditions. Individual data points were jittered slightly for visualization purposes. See the online article for the color version of this figure.

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veteran condition, $r(446) = .17$, $p < .001$, 95% CI [.08, .26], there was no significant relationship between hero judgments and job fit judgments for participants in the nonveteran condition, $r(457) = -.08$, $p = .091$, 95% CI [−.17, .01]. Figure 8 visually depicts these relationships. The correlation between hero judgments and aptitude judgments was significantly larger among participants in the veteran condition than in the nonveteran condition ($Z = 3.78$, $p < .001$).

As points of contrast, for participants assigned to the veteran condition, there was no significant relationship between extraversion judgments and aptitude judgments, $r(446) = -.01$, $p = .76$, 95% CI [−.10, .08], but there was a significant and positive relationship between studiousness judgments and aptitude judgments, $r(445) = .10$, $p = .035$, 95% CI [.01, .19]. However, after partialing out variance attributable to both extraversion and studiousness, the relationship between hero judgments and aptitude judgments remained statistically significant, $r(443) = .14$, $p = .003$. Only partialing out variance attributable to studiousness, the relationship was $r(444) = .14$, $p = .004$.

Overall, the results from Study 9 provide evidence for specificity of process. Veterans were heroized more than matched nonveterans, there were significant, positive relationships between heroization and job appeal, job fit, and aptitude for veterans but not for matched nonveterans, and the relationships between heroization and our dependent variables was larger in magnitude for veterans than nonveterans.

## Study 10

While the previous studies focus on the consequences of heroizing military veterans, Study 10 investigates whether our effects extend to other heroized groups. Specifically, we test whether firefighters and paramedics (the two most heroized groups from Study 1) are presumed to find more appealing, be a better fit, and display greater aptitude at organizations more versus less closely associated with selflessness. We also test whether the heroization of firefighters and paramedics, respectively, predicts job appeal, job fit, and aptitude judgments for organizations more versus less closely associated with selflessness.

### Materials and Method

#### *Participants*

One thousand two hundred sixty American residents voluntarily participated in this study on Prolific for monetary compensation. Thirty-three participants failed the attention check question at the end or did not answer all questions in the session, so data were analyzed with the remaining 1,227 individuals ($M_{age} = 42$ years, $SD = 14$, $range_{age} = [18, 93]$, 599 females, 608 males, 15 nonbinary, and five prefer not to answer). A sensitivity power analysis showed that the final sample of 1,227 participants provides sufficient power (.80) to detect small-to-moderate correlations within each between-subjects condition ($r = |.16|$, two-tailed) and small-to-moderate effects from an independent samples $t$ test ($d = .23$, two-tailed).

#### *Procedure and Materials*

Participants were randomly assigned to one of four target applicants: the veteran, the firefighter, the paramedic, or the college student (between-subjects). Participants first made a judgment about the heroism of their assigned target applicant's group: "Is the typical U.S. military veteran [firefighter, paramedic, college student] a hero?" (1 = *definitely no*, 5 = *definitely yes*).

Participants were then presented with an abridged resume the target applicant named Peter Miller with a relevant college degree (BSc in Business Administration from the University of Nebraska) and a good GPA (3.6/4.0). Participants assigned to the veteran target applicant were told that Peter served in the U.S. marines before attending college, participants assigned to the firefighter target applicant were told that Peter worked as a firefighter before attending college, participants assigned to the paramedic target applicant were told that Peter worked as a paramedic before attending college, and participants assigned to the college student target applicant were not provided with any information about a job before attending college. Regardless of the condition to which they were assigned, participants were told that Peter Miller had applied for marketing associate jobs at Goldman Sachs and Habitat for Humanity. In case, some participants were unfamiliar with either organization, participants read that "Goldman Sachs is an investment bank and financial services company" and that "Habitat for Humanity is a nonprofit organization that helps families build and improve places to call home." All participants were told that Peter met the basic qualifications for each job. Participants were explicitly told that Peter was qualified for each job and that the starting salaries were the same.

The same three scales indexing job appeal, job fit, and aptitude that were used in Study 9 were also used in Study 10. As before, participants responded to all items on all three scales using a 5-point Likert-type scale ranging from 1 (*definitely Goldman Sachs*) to 5 (*definitely Habitat for Humanity*), and each individual item on each scale was contrastive between Goldman Sachs and Habitat for Humanity. Descriptive statistics and reliabilities are provided in Table 12.

At the end, participants answered the same attention check question as in the previous studies.

### Results

Table 12 provides descriptive statistics and reliabilities for each target applicant condition (veteran, firefighter, paramedic, and college student). Figure 9 graphically depicts distributions of job appeal, job fit, and aptitude judgments for each condition, and Figure 10 graphically depicts the relationships between hero judgments and job appeal, job fit, and aptitude judgments for Habitat for Humanity over Goldman Sachs for each target applicant condition.

#### *Job Appeal*

Initial independent samples $t$ tests revealed that participants judged that, relative to the college student control condition, the military veteran, $M_{diff} = .29$, $t(609) = 3.73$, $p < .001$, 95% CI [.14, .45], $d = .30$, firefighter, $M_{diff} = .78$, $t(613) = 11.11$, $p < .001$, 95% CI [.64, .92], $d = .90$, and paramedic, $M_{diff} = .70$, $t(615) = 9.44$, $p < .001$, 95% CI [.56, .85], $d = .76$, would all find the other-focused job to be more appealing than the self-focused job. While there were significant and positive relationships between hero judgments and perceived job appeal judgments for participants in the veteran condition, $r(301) = .16$, $p = .005$, 95% CI [.05, .27], firefighter condition, $r(305) = .27$, $p < .001$, 95% CI [.16, .37], and paramedic condition, $r(307) = .18$, $p = .001$, 95% CI [.07, .29], there was no significant relationship between hero judgments and perceived job appeal judgments for participants in the college student condition, $r(306) = -.04$, $p = .51$, 95% CI [−.15, .07]. Compared to the college student condition, the correlations between hero judgments and perceived job appeal judgments were significantly larger among participants in

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**Table 12**
*Descriptive Statistics and Reliabilities by Target Applicant Condition (Veteran, Firefighter, Paramedic, and College Student) in Study 10*

| | Veteran | | | Firefighter | | | Paramedic | | | College student | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Measure | *M* | *SD* | α | *M* | *SD* | α | *M* | *SD* | α | *M* | *SD* | α |
| Job appeal | 3.48 | .95 | .89 | 3.97 | .72 | .89 | 3.89 | .84 | .89 | 3.18 | 1.00 | .88 |
| Job fit | 3.33 | 1.00 | .89 | 3.98 | .72 | .82 | 3.86 | .87 | .84 | 2.73 | .90 | .88 |
| Aptitude | 3.18 | .89 | .92 | 3.59 | .73 | .89 | 3.48 | .88 | .91 | 2.84 | .97 | .93 |

*Note*. Veteran condition: $N = 303$; firefighter condition: $N = 307$; paramedic condition: $N = 309$; college student condition: $N = 308$.

the veteran condition ($Z = 2.48$, $p = .013$), the firefighter condition ($Z = 3.91$, $p < .001$), and the paramedic condition ($Z = 2.74$, $p = .006$).

### *Job Fit*

Initial independent samples *t* tests revealed that participants judged that, relative to the college student control condition, the military veteran, $M_{diff} = .59$, $t(609) = 7.71$, $p < .001$, 95% CI [.44, .74], $d = .62$, firefighter, $M_{diff} = 1.25$, $t(613) = 18.96$, $p < .001$, 95% CI [1.12, 1.37], $d = 1.53$, and paramedic, $M_{diff} = 1.12$, $t(615) = 15.72$, $p < .001$, 95% CI [.98, 1.26], $d = 1.27$, would all find the other-focused job to be a better fit than the self-focused job. While there were significant and positive relationships between hero judgments and perceived job fit judgments for participants in the veteran condition, $r(301) = .28$, $p < .001$, 95% CI [.17, .38], firefighter condition, $r(305) = .31$, $p < .001$, 95% CI [.21, .41], and paramedic condition, $r(307) = .18$, $p = .002$, 95% CI [.07, .28], there was no significant relationship between hero judgments and perceived job fit judgments for participants in the college student condition, $r(306) = .04$, $p = .49$, 95% CI [−.07, .15]. Compared to the college student condition, the correlations between hero judgments and perceived job fit judgments were significantly larger among participants in the veteran condition ($Z = 3.05$, $p = .002$) and the firefighter condition ($Z = 3.45$, $p < .001$), but not in the paramedic condition ($Z = 1.74$, $p = .081$).

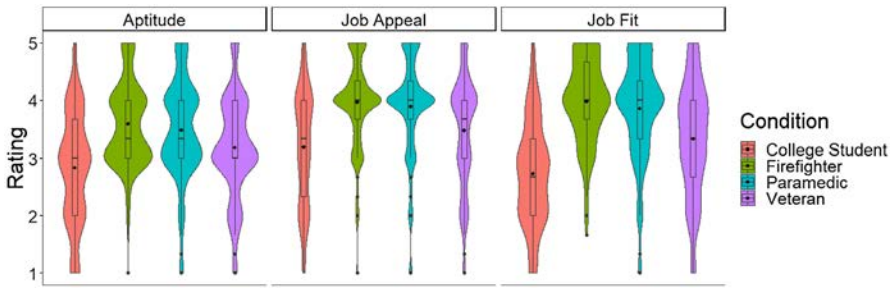
### *Aptitude*

Initial independent samples *t* tests revealed that participants judged that, relative to the college student control condition, the military veteran, $M_{diff} = .34$, $t(609) = 4.52$, $p < .001$, 95% CI [.19, .49], $d = .37$, firefighter, $M_{diff} = .76$, $t(613) = 10.94$, $p < .001$, 95% CI [.62, .89], $d = .88$, and paramedic, $M_{diff} = .65$, $t(615) = 8.68$, $p < .001$, 95% CI [.50, .79], $d = .70$, would all show greater aptitude at the other-focused job relative to the self-focused job. There were significant and positive relationships between hero judgments and perceived aptitude judgments for participants in the veteran condition, $r(301) = .18$, $p = .002$, 95% CI [.07, .29], and the firefighter condition, $r(305) = .26$, $p < .001$, 95% CI [.15, .36], but not the paramedic condition, $r(307) = .10$, $p = .080$, 95% CI [−.01, .21]. There was also no significant relationship between hero judgments and perceived aptitude judgments for participants in the college student condition, $r(306) = -.02$, $p = .75$, 95% CI [−.13, .09]. Compared to the college student condition, the correlations between hero judgments and perceived aptitude judgments were significantly larger among participants in the veteran condition ($Z = 2.48$, $p = .013$) and the firefighter condition ($Z = 3.53$, $p < .001$), but not in the paramedic condition ($Z = 1.48$, $p = .14$).

## Study 11

The results of Study 10 provide positive evidence for extension to other heroized groups. Study 11 further examines the implications of heroizing many different groups (firefighters, paramedics, nurses, physicians, social workers, and elementary school teachers), but Study 11 extends to bonus money allocation for group members. We expect that the more heroic people judge these groups, the more people presume members of these groups would prefer their bonuses to be given away to others in need. Specifically, we tested the more

**Figure 9**
*Violin Plots Depict Distributions of Ratings for Aptitude, Job Appeal, and Job Fit, Judgments for Each Target Applicant Condition (College Student, Firefighter, Paramedic, and Veteran) in Study 10*

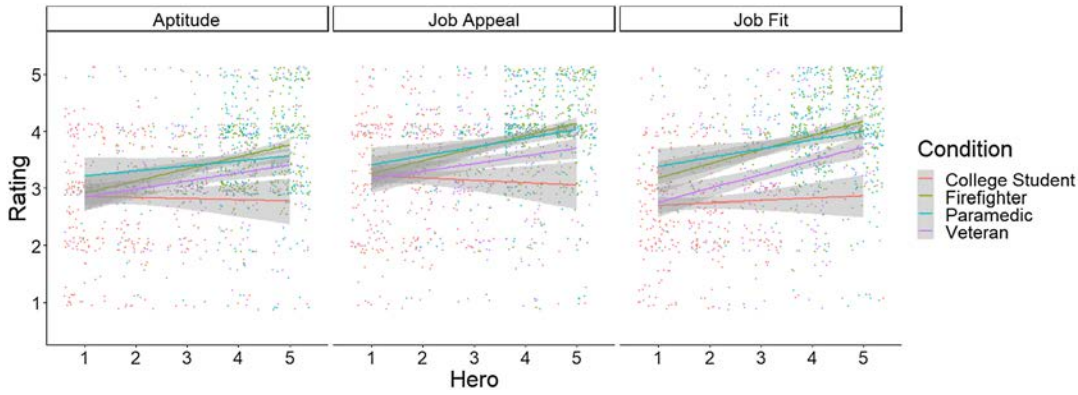



*Note*. Boxplots are embedded within the violin plots. The averages across participants are represented with the black diamonds. See the online article for the color version of this figure.

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**Figure 10**

*The Relationships Between Hero Judgments and Job Aptitude, Job Appeal, and Job Fit Judgments in Study 10*




*Note*. Separate least squares lines and 95% confidence bands are depicted for the different target applicants: college student, firefighter, paramedic, and veteran. Individual data points were jittered slightly for visualization purposes. See the online article for the color version of this figure.

heroic participants judge a target group, the more they expect them to devote more of their bonus to local charities at the expense of money for a personal vacation.

## Materials and Method

### *Participants*

One thousand two hundred seventy American residents voluntarily participated in this study on Prolific for monetary compensation. Twenty-five participants failed the attention check question at the end or did not answer all questions in the session, so data were analyzed with the remaining 1,245 individuals ($M_{age}$ = 37 years, $SD$ = 13, $range_{age}$ = [18, 84], 607 females, 612 males, 23 nonbinary, and three prefer not to answer). A sensitivity power analysis showed that the final sample of 1,245 participants provides sufficient power (.80) to detect small-to-moderate correlations within each between-subjects condition ($r$ = |.19—.20|, two-tailed).

### *Procedure and Materials*

Participants were randomly assigned to one of six heroized groups (based on the results of Study 1): firefighter, paramedic, elementary school teacher, nurse, physician, and social worker (between-subjects). Participants first made a judgment about the heroism of their assigned group: "Is the typical U.S. firefighter [paramedic, paramedic, elementary school teacher, nurse, physician, social worker] a hero?" (1 = *definitely no*, 5 = *definitely yes*).

Participants were then told that some members of their assigned group were to receive an end-of-year bonus. This bonus totaled $5,000 for each group member, and group members were tasked with divvying up the $5,000 into two funds. One fund can only be used for their own personal vacation, and the other fund can only be used for donating to local charities of their choosing. The personal vacation fund is less selfless, and the local charities fund is more selfless. In addition, participants were told that the money allocated to charity would be matched by their employers. So, for example, if someone allocated $2,000 to their personal vacation fund and $3,000 to the local charities fund, the money given to local charities ($3,000) would then be doubled to $6,000 because the employer matches. Participants were asked: "How do you think the typical firefighter [paramedic, elementary school teacher, nurse, physician, and social worker] would choose to divide the $5,000 into the two different funds?" They responded by typing in monetary values for each fund (between $0 and $5,000), with the total having to equal $5,000.

At the end, participants answered the same attention check question as in the previous studies.

## Results

We expected that the judged heroism of the target group would predict participants' judgments about how they would expect group members to divvy up the end-of-year bonus. The more heroic participants judged the target group, the more we expected them to presume that target group members would devote more of their bonus to local charities at the expense of their personal vacation fund. As the outcome variable, we computed the percentage of the $5,000 that participants presumed the target group members would allocate to charity. There were significant and positive relationships between the judged heroism of the target group and the percentage of money participants presumed the target group members would allocate to charity for firefighters, $r(210) = .17$, $p = .015$, 95% CI [.04, .30], elementary school teachers, $r(212) = .33$, $p < .001$, 95% CI [.21, .44], nurses, $r(206) = .27$, $p < .001$, 95% CI [.14, .39], physicians, $r(208) = .30$, $p < .001$, 95% CI [.17, .42], and social workers, $r(201) = .23$, $p < .001$, 95% CI [.10, .36]. For paramedics, the relationship between the judged heroism of the target group and the percentage of money participants presumed the target group members would allocate to charity did not reach statistical significance, $r(196) = .12$, $p = .082$, 95% CI [−.02, .26]. Figure 11 graphically depicts these relationships.

## General Discussion

Military veterans are venerated as heroes by much of the American public. Despite this adulation, veterans have experienced higher rates of unemployment and lower earnings than their age-matched

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nonveteran peers. The current research leverages theory and research on positive stereotypes to systematically shed light on this seeming inconsistency between heroization, on the one hand, and higher rates of unemployment and underemployment, on the other hand. This research not only offers insights into an important real-world problem affecting millions of people but also offers a first experimental investigation of the consequences and implications of labeling a group of people as heroes.

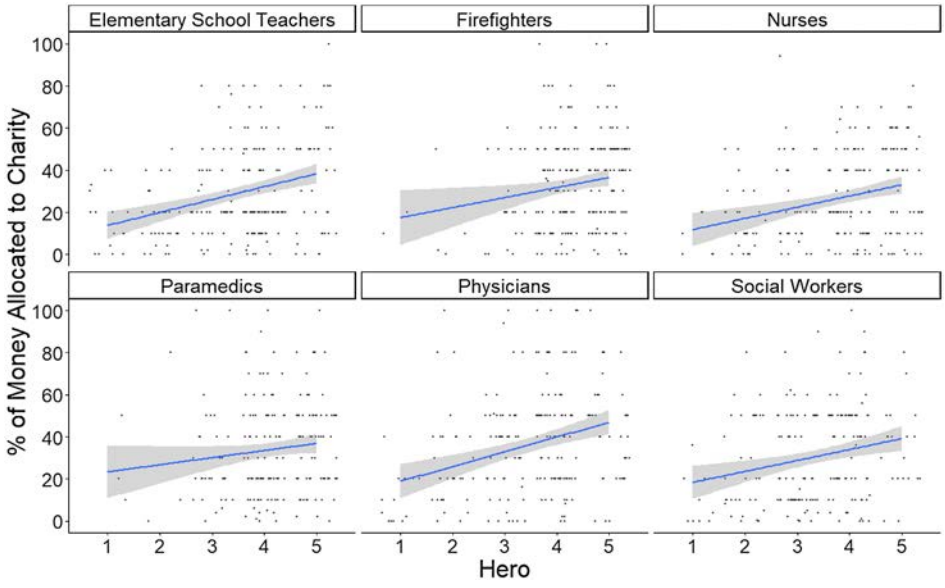
Employing complementary methods and analyses (correlational, quasi-experimental, experimental, and mediational), we found that heroizing veterans might result in them being funneled into a limited set of lower paying jobs, organizations, and careers associated with selflessness. Participants tended to provide higher ratings of appeal, fit, and aptitude for veterans considering employment at jobs and organizations more closely associated with selflessness. An experimental manipulation that made salient the hero stereotype also increased funneling into organizations associated with selflessness, and another experimental manipulation that de-heroized a target veteran reduced funneling into organizations associated with selflessness. The heroization of veterans was also positively related to appeal, fit, and aptitude ratings for jobs and organizations associated with selflessness (and more so than for jobs and organizations associated with selfishness). These effects were consistently larger for judgments about veterans than matched nonveterans. In addition, the heroization of veterans positively predicted participants' support for veterans' educational ambitions when the veteran intended to use the degree to work for organizations associated with selflessness (and more so than for organizations associated with selfishness). The consistency of our findings across many well-powered studies using different but complementary methods, as well as multiple successful replications of critical results (see Supplemental Studies), provide strong evidence for the robustness of our effects.

We have argued that while the "hero" label is meant to honor military veterans, it might (ironically) exacerbate the unemployment and underemployment problems that veterans face. On our view, by labeling military veterans as heroes, they are broadly painted as selfless and focused on the needs of others, often at their own expense. Our conceptualization of the "hero" label received more direct, empirical support from the results of Study 2: We found that the judgments about the heroism of military veterans closely track judgments about their selflessness, their willingness to sacrifice for others, and their willingness to serve others. Once a label is attached to an entire social category, funneling processes can ensue. Our results across studies indicate that heroizing military veterans is closely related to people's judgments about appeal, fit, and aptitude for more (vs. less) selfless jobs, organizations, and career paths. Although we provide considerable correlational and causal evidence that heroization leads to exacerbated judgments of job appeal, job fit, and aptitude for jobs and organizations associated more (vs. less) closely with selflessness, it remains possible that selflessness is related to other characteristics of military service that are not necessarily linked to heroism. Other variables associated with selflessness may also produce similar effects on job appeal, job fit, and aptitude, but it is worth noting that it does not then follow that heroism does not produce effects on job appeal, job fit, and aptitude.

People join the military for many different reasons. These reasons include: pay and allowance, acquiring technical skills, family tradition, education benefits, family benefits, job security, travel, personal growth, etc. (Burland & Lundquist, 2013). We should not assume that all people who serve in the military do so to selflessly serve and sacrifice for others. But even among those who do join the military to selflessly serve and sacrifice for others, we should not assume that after returning to civilian life, they want to work at a job that requires selflessness (especially at the expense of other needs).

**Figure 11**

*For Each Group, the Relationships Between Hero Judgments and the Percentage of the Money Participants Expected Group Members to Allocate to Charity Over Their Own Personal Vacations*




*Note*. Least squares lines and 95% confidence bands are depicted for each group. Individual data points were jittered slightly for visualization purposes. See the online article for the color version of this figure.

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The assumptions that people make about veterans—stemming from the positive stereotype that veterans are heroes—may produce funneling into limited set of lower paying jobs, organizations, and careers associated with selflessness. This limits veterans' career prospects in civilian life in a way that may be in opposition to what they actually want.

Social science research on military veterans and their occupational opportunities and outcomes has traditionally been more data-driven than theory-driven. For example, numerous studies have used demographics (e.g., gender, race, age, and marriage status) and military experiences (e.g., deployment to an active war zone) as predictors of labor-market outcomes (Gade et al., 1991; Hirsch & Mehay, 2003; Kleykamp, 2013). As Shepherd et al. (2021) recently noted, little psychological theory has been utilized to understand factors that affect hiring decisions and veterans' perceived suitability for certain jobs, organizations, and careers. This is surprising given that there are millions of veterans living in United States today who are often seen as veterans, as opposed to complex individuals with other identities (Shepherd et al., 2019, 2021).

The limited psychological research on stereotyping military veterans has focused predominantly on negative stereotypes. For example, veterans might be stereotyped as violent and as suffering from mental illness (MacLean & Kleykamp, 2014; Shepherd et al., 2021; Stone & Stone, 2015; Tanielian & Jaycox, 2008). More recent work suggests that veterans are also stereotyped as robotic and unfeeling (Shepherd et al., 2019). These negative stereotypes may also have implications for hiring decisions and veterans' perceived suitability for certain jobs. For example, the stereotype that veterans are unemotional and robotic may discourage employers from hiring them to do jobs that seem to require warmth and interpersonal skills (Shepherd et al., 2019).

Our work extends the positive stereotypes literature to positive stereotypes about military veterans, and our findings complement this literature in several additional ways. To start, people frequently appeal to the hero construct in contemporary American culture. It plays a role in political discourse, marketing and advertising, ceremonies and rituals, movies, television, and literature. More recently, at least in Western cultures, the hero label has become attainable for the average person, and it has become a common social attribution to entire groups. We are, however, the first to conceptualize the hero label as a positive stereotype and the first to experimentally examine consequences of this label for members of social groups. This, in and of itself, is important because it might help in understanding antecedents of unfair treatment and discrimination, even among those who are motivated to be fair and egalitarian.

In addition, the hero label is particularly unique among positives stereotypes, in that it is publicly used in an explicit way to celebrate and venerate social groups. That is, people are clearly encouraged to use the label, and much of America leans into the positive stereotype. People use the stereotype without any worry about admonition or punishment. Explicit endorsement of the hero label attributed to certain groups frequently plays out in politics, in marketing and advertising, and in ceremonies and rituals. In contrast, other positive stereotypes examined in the literature (e.g., that Asians are particularly good at math, or that Black men are great athletes) are more likely to be communicated symbolically, and their use is rarely (if ever) encouraged so explicitly. Because the public is encouraged to use the hero label to venerate certain social groups, this positive stereotype may be more widely used and culturally present than other positive stereotypes.

Moreover, relatively little work on positive stereotypes has investigated the role of those stereotypes in potentially funneling group members toward certain jobs, organizations, or careers (Czopp, 2010; Lee et al., 2018). Other relevant work on positive stereotypes has focused on aspects of identity that are not tied to personal choice (e.g., race). In contrast, the hero stereotype stems from choices people make for their lives and their careers. Heroized groups (e.g., military personnel, firefighters) are seen as living a life, out of choice, of being a hero. This is likely different than learning about one specific heroic act someone did, like jumping into a river to save someone drowning. When people encounter someone who has chosen to join the military (or has chosen to serve others through their profession by becoming a nurse, teacher, firefighter, social worker, etc.), they make assumptions about that person's values and beliefs. These assumptions are captured within the hero construct, and they influence people's judgments about what stereotyped group members would find appealing, where they would fit in, and what they would be good at.

Finally, it is worth noting that the heroization of social groups likely has far more consequences than those we examine. Heroization is not only associated with selflessness; it is also associated with other traits like strength and resilience, and these other associated traits may also produce ironic negative effects (e.g., that health care workers are so heroic, and therefore, strong and resilient, that they can happily endure burnout, extreme stress, and exhaustion). In other words, the hero stereotype is a particularly unique stereotype because it comprised a constellation of complex traits and qualities that likely lead to different outcomes.

Although veterans seem to be particularly heroized in contemporary American culture, we do not mean to suggest that veterans have a monopoly on the hero label. Other individuals and groups have been heroized as well. As our results from Study 1 show, teachers, firefighters, police officers, physicians, nurses, paramedics, social workers, counselors, and others are lauded as heroes. We chose to focus on veterans for several reasons, including the stark discrepancy between veterans' negative life outcomes and the public's professed support for them, the absence of research on this massive group of people in social and organizational psychology, and a lack of work on veteran stereotypes in general (particularly, *positive* stereotypes about veterans). With that being said, the results of Study 10 indicate that these ironic funneling effects may extend to other heroized groups, like firefighters. Study 11 then shows that the more heroic people judge many different groups (firefighters, nurses, teachers, social workers, and physicians), the more they presume members of these groups would prefer their work bonuses be given away to charity.

Positive stereotypes also play a role in perpetuating undesirable outcomes for members of other groups. For example, stereotypes characterizing women as pure, warm, and fragile encourage people to think that women lack the traits necessary to be leaders (Glick & Fiske, 1997, 2001a, 2001b; Hideg & Shen, 2019). These stereotypes can even legitimize paternalistic attitudes that limit women's options and freedoms (including whether they should be hired for certain positions), because limiting options and freedoms are judged to be in their "best interest" (Glick & Fiske, 2001a, 2001b; Hideg & Ferris, 2016). Some demographic attributes are even judged as fair to incorporate into hiring decisions, because they are perceived to be

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relevant to some positions and occupations (Tomova Shakur & Phillips, 2022). So, certain groups may be discriminated against in hiring decisions, not despite beliefs that discrimination is unfair, but because people actually believe it is fair. Research on positive stereotypes and occupational outcomes, coupled with findings that people perceive discrimination to be fair when demographic attributes seem relevant to the job, suggests that more attention should be directed at how individuals, organizations, and institutions can intervene to reduce these negative consequences of positive stereotypes.

## Limitations and Future Directions

Gender, race, ethnicity, socioeconomic status, etc., all intersect with the military veteran identity. The salience of different identities and accompanying stereotypes may depend on the lens that perceivers are using, which can be the result of various features of the context and/or perceiver (Petsko et al., 2022). Whereas U.S. military service has historically been dominated by White men (especially in combat roles), more and more women and minorities are serving (Meade, 2020). In fact, the U.S. has approximately 2 million women veterans as of 2020 (Meade, 2020). The effects of heroizing military veterans could be moderated by intersectional identities, and there are many opportunities for substereotyping to occur. This entails that other stereotypes applied to women and minority groups could amplify or reduce the consequences of heroization. For example, communal traits commonly attributed to women (e.g., kind, helpful, and devoted to others), coupled with increased expectations to be selfless from the hero label, could exacerbate funneling effects for women veterans (relative to men) into specific lower paying jobs, careers, and organizations.

Another potentially fruitful avenue for future research is to investigate whether, and under what conditions, our observed effects persist cross-culturally. Most stereotype effects—or at least those that examine content—are culturally bounded. Some effects might extend to similar cultures and others might not, but stereotypes are always embedded within larger cultural and historical contexts. While, generally speaking, certain traits/qualities might be valued across cultures, the groups that are associated with them are typically culture specific. For instance, hardworking or friendliness are two attributes that are valued in the United States and China. However, which groups are considered hardworking and friendly are different in the United States compared to China. In fact, the culturally bounded nature of stereotypes is a core assumption of prominent models of stereotyping in psychology (e.g., the stereotype content model; Fiske et al., 2002). We do not expect heroization to be any different. In cultures that do not heroize veterans (because military service is mandatory for all citizens, or for whatever other reason) or lack the link between heroism and selflessness, there should be no funneling effects.

Studies 10 and 11 extend our theorizing to several additional heroized groups (firefighters, paramedics, nurses, physicians, social workers, and teachers). The groups examined in these two studies are heroized in a very deep and essential way. That is, they are seen as living a life of being a hero. Future work might look more deeply at how the specific way in which someone is heroized plays a role in this process. If someone learned that an individual jumped into a pool to save a drowning baby, but works in a profession unrelated to being a hero, would these effects persist? We expect our observed effects to apply only to groups that are heroized in a more chronic (as opposed to acute) fashion.

Positive stereotypes can serve a system-justifying function (Czopp et al., 2015). That is, they can operate as a powerful vehicle by which societal norms and expectations are legitimized and perpetuated over time. For example, exposure to benevolent sexist stereotypes for women (e.g., refined) lead women to perceive norms surrounding gender relations as more legitimate (Jost & Kay, 2005), and increasing people's need to see a social system as legitimate tends to increase positive stereotyping (Jost et al., 2005; Kay et al., 2005). Although our studies do not probe a system-justifying function of the hero stereotype, heroizing disadvantaged groups could legitimize certain problems facing those group members like underemployment and poor working conditions.

Our results have clear implications for members of heroized groups who are attempting to find employment. But our results might also hint at other possible implications once members of heroized groups are actually hired at an organization. They might be funneled into certain positions and tasks after entering organizations, because of the positive stereotype. When a group is stereotyped as heroic, and therefore, expected to be selfless, leaders in organizations might ask members of heroized groups to complete tasks that require more personal sacrifice, take on new positions that require more personal sacrifice, and even experience more financial hardship for sake of the organization. Specific examples might include: working extra hours, taking on additional clients, mentoring additional employees, or taking pay-cuts for the "good of the company." These possible expectations and outcomes are not necessarily exclusive to military veterans. Leaders might disproportionately expect members of other heroized groups—for example, doctors, nurses, first responders, and teachers, —to selflessly make similar sacrifices.

## Conclusion

This work has attempted to advance the science of positive stereotypes, and to better understand some of the complex consequences and implications of positive stereotypes. Several social groups have been given the hero label in recent years, but perhaps none more than military veterans. Although the hero label is meant to honor and venerate veterans, it may not always yield positive consequences. We offer evidence that heroizing this group might result in people of certain groups being funneled into a limited set of lower paying jobs, organizations, and careers associated with selflessness. Given the nature of contemporary struggles over social mobility and inequality, we believe this is an important and timely insight.

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(*Appendices follow*)

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## Appendix A

## Hero Imagery







*Note.* See the online article for the color version of this figure.

## Appendix B

## Peter Miller

### Education

BSc, Business Administration, University of Nebraska (2017–2021)
GPA: 3.40

### Experience

I have worked overseas in a combat role in the United States Marines (2012–2017):

- Team leader of 4–5 men; responsible for their training and performance.
- Directed the day-to-day operations of over 80 personnel.
- Electronically monitored base perimeters to secure the incident-free processing of thousands.
- Inspected equipment and weapons to ensure proper working order and storage.
- Assisted the Platoon Leader in all technical and tactical planning, leading to 100% success.

## Appendix C

## Peter Miller

### Education

BSc, Business Administration, University of Nebraska (2017–2021)
GPA: 3.40

### Experience

I have worked overseas in a combat role in the United States Marines (2012–2017).

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