

# Heroism: A Conceptual Analysis and Differentiation Between Heroic Action and Altruism

Zeno E. Franco and Kathy Blau  
Palo Alto University

Philip G. Zimbardo  
Palo Alto University and Stanford University

Heroism represents the ideal of citizens transforming civic virtue into the highest form of civic action, accepting either physical peril or social sacrifice. While implicit theories of heroism abound, surprisingly little theoretical or empirical work has been done to better understand the phenomenon. Toward this goal, we summarize our efforts to systematically develop a taxonomy of heroic subtypes as a starting point for theory building. Next we explore three apparent paradoxes that surround heroism—the dueling impulses to elevate and negate heroic actors; the contrast between the public ascription of heroic status versus the interior decision to act heroically; and apparent similarities between altruism, bystander intervention and heroism that mask important differences between these phenomena. We assert that these seeming contradictions point to an unrecognized relationship between insufficient justification and the ascription of heroic status, providing more explanatory power than risk-type alone. The results of an empirical study are briefly presented to provide preliminary support to these arguments. Finally, several areas for future research and theoretical activity are briefly considered. These include the possibility that extension neglect may play a central role in public's view of nonprototypical heroes; a critique of the positive psychology view that heroism is always a virtuous, prosocial activity; problems associated with retrospective study of heroes; the suggestion that injury or death (particularly in social sacrifice heroes) serves to resolve dissonance in favor of the heroic actor; and a consideration of how to foster heroic imagination.

*Keywords:* heroism, altruism, moral courage, banality of heroism, heroic imagination

Heroism is frequently viewed as an apex of human behavior; watching a heroic act is compelling—literally commanding our attention. We often feel that while we as individuals would like to achieve heroic status, this goal must be a remote possibility reserved for an elect few with special skills or luck. Heroism is a concept that is simple at its surface. A straightforward definition that is—at first—satisfying is “to act in a prosocial manner despite personal risk.” However, this surface masks a number of subtle, interrelated paradoxes that arguably make heroism one of the most complex human behaviors to study. Further, it seems likely that the contradictory nature of heroism is precisely what makes it compelling. Heroism is a social attribution, never a personal one; yet the act itself is often a solitary, existential choice. It is

historically, culturally and situationally determined, thus heroes of one era may prove to be villains in another time when controverting evidence emerges; yet some heroes endure across the centuries. Moreover, the very same act accorded hero status in one group, such as suicide bombing, is absolutely abhorrent to many others.

Throughout this work, we advance four primary ideas: (a) The concept of heroism is a way to unify several types of courageous or brave actions that have largely been treated independently in the literature to date; (b) that the simple presence of risk accompanying prosocial behavior is not enough to define heroism; (c) heroism is viewed as distinct from other prosocial activities, such as compassion and altruism (and may represent an entirely different behavior); and (d) that while heroism is primarily a positive and prosocial act, a simplistic view of this behavior misses important (and sometimes negative) aspects of the phenomenon.

In an effort to present these ideas in a logical fashion, while also allowing navigation room for exploration, we organized these thoughts in three sections: First, we summarize our initial efforts at distilling implicit views of heroism to set the stage for this analysis. Second, a somewhat broader conceptual analysis of heroism is offered to explore both the paradoxical nature of heroic action and to begin the process of more rigorous theorizing in this arena. Third, using the findings of a preliminary, Internet-based study designed to evaluate our reflections on implicit theories of heroism held by the general public, we attempt to situate the specific idea of heroism (rather than related concepts) within the context of existing psychological theories. Finally, the discussion offers several arenas for further inquiry that we feel may serve to more deeply explicate the phenomenon of heroic action and its social construction.

---

This article was published Online First April 11, 2011.

Zeno E. Franco and Kathy Blau, Pacific Graduate School of Psychology, Palo Alto University; Philip G. Zimbardo, Pacific Graduate School of Psychology, Palo Alto University, Emeritus Professor, Stanford University.

Zeno E. Franco is now at the Department of Family & Community Medicine, Medical College of Wisconsin.

We would like to acknowledge the generous financial support of the Center for Compassion & Altruism Research & Education (CCARE) at Stanford University, Dr. James R. Doty, Director, which made portions of this work possible. Dr. George A. Quattrone contributed significantly to revisions to this paper, sharpening both the theoretical and analytical elements of this work. Matt Langdon, Director of the Hero Construction Company, assisted with participant recruitment.

Correspondence concerning this article should be addressed to Zeno E. Franco, Department of Family & Community Medicine, Medical College of Wisconsin, 8701 Watertown Plank Road, Box 26509, Milwaukee, WI 53226. E-mail: zfranco@mcw.edu

### Our Prior Work on Heroes

A brief review of our prior work in this area is in order. We have proposed a largely situationist view of heroism, asserting that contrary to the idea of the heroic elect (Hughes-Hallet, 2004), most people are capable of heroism with the right mindset and under certain conditions that call for heroic action. This idea, the “Banality of Heroism” argument initially offered as an essay response to the EDGE 2006 annual question, “what is your dangerous idea?” (Zimbardo, 2006) and later expanded in other works (e.g., Franco & Zimbardo, 2006–2007; Franco & Zimbardo, 2006; Zimbardo, 2007b), recalls Hanna Arendt’s (1963) *Eichmann in Jerusalem: A Report on the Banality of Evil*, which underscored the latent ability of even seemingly normal people to commit horrific acts. The banality of heroism argument takes us in the opposite moral direction, but similarly asks the question, “what if the capability to act heroically is also fundamentally ordinary and available to all of us?” In turn, this position led us to carefully reexamine the history of the ideal of heroic action, the categories of heroic types that are widely recognized by the public, and to explore the particular situations in which heroism seems most likely to occur.

### The Heroic Core in Overlapping Forms of Courage

To date, psychologists have seemed almost reluctant to confront heroism directly, instead discussing the phenomenon in terms of civil courage, courageous resistance, extreme altruism, moral courage, and the like. While some of these terms focus more on physical heroes and others on what Eagly and Becker (2005) termed “cultural heroes,” we assert that each of these concepts point to a shared, core idea of heroic action (Greitemeyer, Osswald, Fischer, & Frey, 2007; Shepela et al., 1999). In part, this stance reflects the criticisms offered by Martens (2005), who suggested that Becker and Eagly (2004) had examined prototypical physical risk heroes at the expense of addressing other forms of principle-driven courage that could equally be termed “heroism.”

In fact, historical views of heroism underscore the importance of nobility of purpose or the principle underlying the heroic act (see Zimbardo, 2007b). This sentiment is echoed in dictionary entries from the early part of the last century. For instance, Webster’s, 1913 dictionary stated, “Heroism . . . is a contempt of danger, not from ignorance or inconsiderate levity, but from a *noble devotion to some great cause*, and a just confidence of being able to meet danger in the spirit of such a cause” (emphasis added; Olson & LaRowe, n.d. from definition footnotes, pp. 334 & 689). While there are obvious differences between the various forms of bravery and courage, there are also several elements that can be viewed as binding them together conceptually. First, each involves a level of peril or sacrifice that goes well beyond what is expected in other prosocial behaviors. Second, each entails a willingness to enter a fraught situation despite clear barriers to entry and obvious paths of exit. Third, across all forms of heroics, the actor must transcend considerable fear to act decisively (Franco & Zimbardo, 2006–2007; Zimbardo, 2007b). From this position we attempted to reformulate the types of heroism more comprehensively, describing three broad forms of heroic action: martial (military) heroism, civil heroism, and social heroism (Zimbardo, 2007b).

### Martial Heroes: Archetypal Antecedents and Modern Military Heroism

Even contemporary research in this area has used terms like courage and heroism synonymously (Rate, Clark, Lindsay, & Sternberg, 2007). While the meanings are very close, older dictionaries were at pains to decompose these ideas (See Olson & LaRowe, n.d., 1913 Webster’s Revised Unabridged Dictionary). Courage was seen as necessary but insufficient to meet this archaic standard of heroism. In military terms, for example, a soldier might courageously face death, but this differed from choosing to go “into the heart of battle” or to act “above and beyond the call of duty” (for a detailed discussion, see Zimbardo, 2007b, pp. 461–462). This willingness to take conspicuous, bold action in a way that sets one apart from his already brave peers continues to serve as the high-water mark of heroism in modern warfare<sup>1</sup> (Armed Forces Act, 2000; Glanfield, 2005; Murphy, 2005; United States Army, 2005). The ideal of the war hero is clearly echoed in other contexts, including those who more routinely risk life and limb in the line of duty and who are bound to a code of conduct, such as police officers, firefighters and paramedics (Zimbardo, 2007b). Collectively, we also refer to this group as “physical risk, duty-bound heroes.”

### Heroism in the Civilian Sphere

*Civil heroism* is similar to martial heroism because it involves physical peril. However, there is no military code of conduct to fall back upon, the actor may not be trained to deal with the situation, and there is no specific script (e.g., an honor code) that guides the individual toward heroic action—as is the case for martial heroism (Zimbardo, 2007b). Thus, the standard for duty-bound and non-duty bound physical-risk heroism differs, but the style of engagement and potential sacrifices are comparable. Death, serious injury, disfigurement, and pain are all possible outcomes of acting on behalf of others in jeopardy. (Other authors have referred to this action as *civil courage*, but have not consistently distinguished between physical peril and social sacrifice e.g., Greitemeyer et al., 2007). A classic example is a civilian bystander who performs an emergency rescue. We also refer to this form of heroism as “physical risk, non-duty-bound heroism” later in this discussion.

*Social heroism*, in contrast, typically does not involve immediate physical peril. It is nonetheless associated with considerable risk and personal sacrifice in other dimensions of life, including serious financial consequences, loss of social status, possible long-term health problems, and social ostracism (Glazer & Glazer, 1999; Shepela et al., 1999). The goal of social heroism can be seen as the preservation of a community-sanctioned value or standard that is perceived to be under threat. In some cases, the actor is actually trying to establish a set of *extra-community standards*—pushing toward a new ideal that has not yet found wide acceptance. This is an important distinction, as hindsight bias makes it easy to assume that the value asserted by the heroic actor has always been an accepted social standard—which is often not the case. What we call social heroism here, to underline its similarities to martial and civil heroism, has also been conceived of by others as “courageous resistance” (Shepela et al., 1999), “rescue

<sup>1</sup> Note that only 464 U.S. combatants in World War II received the Medal of Honor, and of these just 211 had survived the engagement for which the Award was conferred (Murphy, 2005).

altruism” (Oliner & Oliner, 1988), “moral rebels” (Monin, Sawyer, & Marquez, 2008), or “moral courage” (Staub, 2011).

Further, although physical peril is not the most prominent feature of this form of heroism, involvement in prolonged social heroics may lead to eventual or insidious physical risk (Glazer & Glazer, 1999). By contrast, physical risk (martial and civil) heroes are most often viewed as the archetypal heroic figures (Eagly & Becker, 2005; Hughes-Hallet, 2004). Their actions are usually dramatic, occur rapidly, and are comparatively free from controversy. Physical risk heroism usually involves some *probability* of serious injury or death, but not certainty that either will occur—in fact the actor’s calculus may involve the expectation of a reasonable chance of exiting the situation unscathed. With some exceptions, the individual performing the act is usually completely removed from peril after a short period of time if they survive.

Social heroism is typically less dramatic, unfolds over a much longer time period, and is frequently undertaken in private rather than public settings. Yet, the costs associated with social heroism are often *certain* to occur and are willingly engaged in over these extended time frames (Franco & Zimbardo, 2006–2007; Glazer & Glazer, 1999). From this perspective, it has been argued that social heroism should be viewed as *more* heroic than physical risk forms of heroism (Howerth, 1935; Peterson & Seligman, 2004).

### A Preliminary Attempt at an Operational Definition of Heroism

The assertion that these forms of courage share a “heroic core,” modifies Becker and Eagly’s (2004) characterization in two ways. First, it suggests that the recognized risk and anticipated sacrifice should not be limited to immediate threats to physical integrity or death. Instead, it should be more comprehensive, also considering the sacrifices typically encountered in socially courageous actions. Second, because this broadens the idea of heroism to allow a multidimensional view of the phenomenon, it also seems necessary to rule out some forms of apparent heroism that might not, in fact, be heroic. Thus, anticipated gain at the time of the act necessarily disqualifies it from being heroic. However, if gains are subsequently accrued without prior anticipation or motivation to attain them, the act should still be upheld as heroic (Glazer & Glazer, 1999).

Our definition of heroism is as a social activity: (a) in service to others in need—be it a person, group, or community, or in defense of socially sanctioned ideals, or new social standard; (b) engaged in voluntarily (even in military contexts, heroism remains an act that goes beyond actions required by military duty<sup>2</sup>); (c) with recognition of possible risks/costs, (i.e., not entered into blindly or blithely, recalling the 1913 Webster’s definition that stated, “not from ignorance or inconsiderate levity”); (d) in which the actor is willing to accept anticipated sacrifice, and (e) without external gain anticipated at the time of the act.

### The Relationship Between 12 Heroic Types and Situations That Call for Heroism

Using this conceptual definition of heroism and an elementary model of heroic action (Zimbardo, 2007b, p. 480 & 482), we searched for figures who exemplified this broad conceptualization of heroism and who were deemed to be “heroic” by the general public and the media drawing from current and historical newspaper sources, books, and TV coverage focusing primarily on the last 100 years, and

occasionally on older examples where instructive. Next, we attempted to distill this list into a manageable set of categories of heroic action. Finally, we felt that while a number of dispositional attributes might influence one’s willingness or inclination to act in a heroic manner (e.g., Walker, Frimer, & Dunlop, 2010), the situational factors involved in heroism had not received sufficient attention and we attempted to draw a connection between the proposed heroic types and the situations that drove their heroic action (Franco & Zimbardo, 2006; Glazer & Glazer, 1999; Shepela et al., 1999; Zimbardo, 2007b). This effort resulted in a preliminary taxonomy of 12 heroic subtypes and the situations that “call for” heroic action (for a detailed explanation of the taxonomy, including definitions for each condition, risks and sacrifices encountered, and individual exemplars, see Zimbardo, 2007b, pp. 468–471). Our taxonomy, summarized in Table 1, includes martial and civil heroism (the two forms of heroism involving physical risk), as well as 10 variations of social heroism and their initiating, defining situations.

As is the case with most a priori and informal taxonomic processes, the resulting list of heroic types and situations is somewhat arbitrary, reflecting the considered views of the authors. It should be noted in the process of developing this taxonomy, the relative merits of various heroic exemplars were debated at length—revealing the importance of factors such as intention, success versus failure, presence or absence of onlookers, and so on. This served as a constant reminder of the degree to which the title “hero” is a social construction (Rankin & Eagly, 2008) that may or may not accurately reflect the actual merits of an individual’s actions. Though informal, we view this process as a form of “disciplined imagination” (Wieck, 1989) intended to stimulate wider exploration and critical discussion of the nature of heroism. As such, our working taxonomy is necessarily open to further development, refinement, and modification as part of the theory building process. Interestingly, as our work has progressed, we have encountered prior taxonomies that suggest these heroic categories are relatively stable over time and across researchers.<sup>3</sup>

### Moving From Implicit Theories of Courage Toward an Explicit Theory of Heroism: A Conceptual Analysis

In the prior section we presented an attempt to bring greater semantic clarity to the study of heroism by specifying the types of situations in which the term is used both by laity and researchers to illuminate the breadth of the conceptual space occupied by heroism, and by defining our terms. This is one of several approaches used in conceptual analysis (Machado & Silva, 2007). The presentation of three apparent “paradoxes” (using the term

<sup>2</sup> For example, a soldier volunteering for an especially dangerous mission, where all are told not volunteering is completely acceptable.

<sup>3</sup> For example, drawing on his own dissertation, Orrin Klapp (1954) stated, “The most common patterns or roles of heroism include: the Conquering Hero, an invincible figure of power who seemingly can do anything; the Clever Hero, a trickster who wins by cunning rather than force; the Cinderella or Unpromising Hero; the Quest Hero or idealistic seeker; the Deliverer, Defender or Avenger; the Popular Benefactor; the Culture Hero; and the Martyr” (p. 58). Also see Klapp (1948) for a more extensive discussion of the topic. More recently, just as this article was being submitted for publication, Allison and Goethals (2010) published a book on heroes that reflects similar categories.

Table 1  
*Twelve Heroic Subtypes and Situations That Call Forth Heroic Action*

Risk type	Heroic subtype	Definition/situation
Physical Peril	1. Military and other duty-bound physical risk heroes	Individuals involved in military or emergency response careers that involve repeated exposure to high-risk situations. Heroic acts must exceed the call of duty.
	2. Civil heroes—nonduty bound physical risk heroes	Civilians who attempt to save others from physical harm or death while knowingly putting their own lives at risk.
Social Sacrifice	3. Religious figures	Dedicated, life-long religious service embodying highest principles or breaking new religious/spiritual ground. Often serves as a teacher or public exemplar of service.
	4. Politico-religious figures	Religious leaders who have turned to politics to affect wider change, or politicians who have a deep spiritual belief system that informs political practice.
	5. Martyrs	Religious or political figures who knowingly (sometimes deliberately) put their lives in jeopardy in the service of a cause or to gain attention to injustice.
	6. Political or military leaders	Typically lead a nation or group during a time of difficulty, such as a war or disaster. Serve to unify nation, provide shared vision, and may embody qualities that are seen as necessary for the group's survival.
	7. Adventurer/explorer/discoverer	Individuals who explore unknown geographical areas or use novel and unproven transportation methods.
	8. Scientific (discovery) heroes	Individuals who explore unknown areas of science, use novel and unproven research methods, or discover new scientific information seen as valuable to humanity.
	9. Good Samaritan	Individuals who are first to step in to help others in need. Situation involves considerable disincentives for altruism. May/may not involve immediate physical risk.
	10. Odds beater/underdog	Individuals who overcame handicap or adverse conditions and succeed in spite of such negative circumstances, thereby provide a social, moral model for others.
	11. Bureaucracy heroes	Employees in large organizations in controversial arguments within or between agencies. Typically, involves standing firm on principle despite intense pressures to conform or blindly obey higher authorities.
	12. Whistleblowers	Individuals who are aware of illegal or unethical activities in an organization who report the activity publicly to effect change, without expectation of reward.

loosely) allows us to extend the conceptualization by relying on several of the strategies advanced by Machado and Silva as a part of the theorizing process. In particular, early efforts to characterize heroism (including our own) suffer from the nominal fallacy (calling something “heroism” does not explain the phenomenon), a lack of acknowledgment of subtle steps in the ascription of heroic status (which we begin to elucidate further in the first and second paradoxes), and unjustified extension of familiar concepts to an unfamiliar domain (addressed in detail in the third paradox). On their own, each of these observations provide some insight, but we also bring them together to suggest an explanatory model that goes beyond the simple “altruism plus risk” argument.

### Paradox 1: Elevation and Negation—the Role of Dissonance

When we see an individual acting with courage despite the risks—for example, the televised images of an average person racing into a burning building to rescue a child, we get a lump in our throat, are filled with a sense of the heights of compassion that humans can reach, and we might even wonder if we could aspire to such action if given that same set of circumstances—a sensation

akin to *elevation* (Algoe & Haidt, 2009). However, this is after the fact and at distance, with the successful outcomes known. An observer at the scene might very well describe the person running into that dangerous situation as “foolhardy” (Klapp, 1954).

Similarly, a news story about a corporate whistle-blower may lead the viewing audience to feel affinity and to acclaim the heroic figure, while those actually working with her experience disgust at her unwillingness to conform to established norms within the organization and keep the situation under internal wraps. The actions of the “moral rebel” can be conceptualized as offering implicit reproach toward her coworkers. In turn, the “rebel” is rejected for not being in communion with others in the organization—an almost preemptive move on the part of observers that stabilizes feelings of moral adequacy despite inaction (Monin et al., 2008). Monin and colleagues (2008) point to a fairly dichotomous outcome in which uninvolved observers ascribe higher ratings of morality and agency to moral rebels, while vested actors castigate these same individuals.

However, the picture is probably more nuanced. Anecdotal evidence, classical literature, and prior theorists all suggest that reactions to heroism in *both* the unvested public and vested non-heroic actors are fickle (Klapp, 1954; Šiklová, 2004). Even un-



vested observers may be quick to negate the hero's acts at the slightest hint of countervailing information about the hero's integrity, motives, or intentions—even if these aspersions have no real bearing on the heroic act itself. There is a constant tension between the desire to elevate and the desire to castigate the actions of heroes—especially social heroes because their actions are easily viewed as threatening, but also with physical risk heroes who have a checkered history (Franco & Zimbardo, 2006–2007).

### Paradox 2: The Public Stage Versus the Interiority of the Heroic Decision

Our reliance on social construction to identify whom among us is a “captain among men” points out another disconnection in our understanding of what is heroic. It can be argued that the *action* or behavior ultimately stands as heroic or not *in the absence of any social milieu* (Howerth, 1935). In fact, some of the most heroic actions in history are the work of the so-called “unsung hero,” those whose acts never come into the limelight. Military reviews of heroism acknowledge that the most heroic martial actions are undertaken in circumstances that do not favor overt recognition; situations in which no survivors are left to recount the action that took place, events that are forgotten because the required forms are not completed by commanding officers (a written record of the action is generally needed for later conferral of military honors), or cases in which soldiers with better political connections are acknowledged instead of those closest to the heart of combat (Murphy, 2005; Quaife, 1931). It should also be evident that heroes are more likely to be found among conquerors than those conquered, and, with a few notable exceptions, by those who are literate and who maintain written records for historical consumption than from those with oral traditions, and so on.

This points to an underlying premise we think is important to acknowledge: While heroism is generally considered to be a prosocial behavior and the act must be witnessed or evaluated by spectators to receive acclaim, the *decision to act* in a heroic manner does not necessarily emanate from prosocial motivation, nor does it require an audience. In fact, the decision to act is almost always a private, interior process that occurs before and in the absence of public knowledge about what is about to unfold. For many heroes, engaging heroically may have more to do with the individual's examination of their own deeply held standards for behavior in a given situation (Shepela et al., 1999), and that despite profound reservations about the actions they are about to take, these internalized standards are considered to be so inviolable as to compel action even in the face of peril (Glazer & Glazer, 1999; Shepela et al., 1999; Tangney & Dearing, 2002).

The intensely public nature of the ascription of heroic status—perhaps viewed by millions as a viral video on the Internet—belies the profound interiority of the decision to act in a heroic manner. While the hero may later be lauded by throngs, this moment of decision is often taken in complete aloneness, *even if it is in the presence of others*. Moreover, we argue that this tension between the public's interpretation of the event and the private decision process of the hero holds at least part of the key to understanding the social ascription of heroic status.

### Paradox 3: Altruism Versus Heroism—Differences in Risk, Velocity, and Barriers to Entry

The assertion that heroism is simply an extension of prosocial behaviors, such as altruism, is initially compelling and probably captures some of the contours of the phenomenon. However, it is worth noting several limitations of this perspective (see, e.g., Greitemeyer et al., 2007). Shepela and her colleagues underscored the importance of recognizing the limitations of altruism in explaining heroic behavior, arguing that, “A theory of courageous resistance must account for the observation that not all altruistic individuals were willing to engage in courageous resistance, and that even those who do so do not resist at every opportunity” (Shepela et al., 1999, p. 799). To further illuminate this observation, we offer several conceptual distinctions between altruism and heroism.

First, we assert that the level of risk incurred in altruism is considerably lower than the minimum risk threshold for heroic status. A few theorists have added a self-sacrifice criterion to the definition of altruism, bringing it closer to the notion of heroism, maintaining that altruism is defined by the helper incurring some cost for their helping act. This conception of altruism plus modest risk is anecdotally understood as a situation in which “everyone *should* act, but only some people do” (paraphrasing a sentiment expressed by Wesley Autrey as he demurred on the title of “hero” after dramatically rescuing a disabled man who had fallen onto the tracks New York subway; Cardwell, 2007).

Second, while prosocial behaviors such as volunteering appear to protect health in part at least by reducing social alienation (e.g., Oman, Thoresen, & McHahon, 1999; Thoits & Hewitt, 2001), social heroism often leads to the opposite outcome—rejection by valued social networks (Oliner & Oliner, 1988; Shepela et al., 1999). Similarly, while physical risk heroes may experience some later benefits, anecdotal accounts of increased suicide risk among heroic rescuers after their celebrity has faded are common (Braudy, 1997; Hopkins & Jones, 2003). The outcomes for the heroic actor are quite different than altruistic actors.

Third, most bystander research has been undertaken in the absence of real risks and rarely systematically manipulates the perception of risk to the participant, instead typically focusing the perceived threat on a confederate. Indeed, Shepela et al. (1999) noted, “It is difficult, indeed, very likely unethical, to test courageous resistance empirically . . . analog studies would not tap the motivations which support the leap to which courageous resistance entails” (p. 801). We are aware of only one study (Fischer, Greitemeyer, Pollozek, & Frey, 2006) that systematically varies the level of emergency-related danger focused on the *participant*, which addresses the risks of participant intervention in a way that is well aligned with the conceptualization of heroism offered here. Interestingly, Fischer's study found that empathy and feelings of personal responsibility were more central to general help-giving decisions (altruism) than those involving civil courage. Fischer points to this finding as an illustration of the danger in extrapolating from the classical Latané and Darley (1970) helping model in an attempt to explain courage.

Fourth, altruism and bystander intervention are typically accompanied by a period of deliberative indecision lasting from several seconds in fairly straightforward situations to several minutes in comparatively ambiguous contexts (Latané & Nida, 1981). In

contrast, anecdotal accounts of physical risk heroism suggest that individuals are impelled to engaged in split-second decisions that propel action *despite* situational complexity (Howerth, 1935; Shepela et al., 1999). Recalling the Webster's, 1913 view of heroism, which touches on the impetuous or impulsive quality of heroic action, we are reminded that martial and civil heroism may be partially defined by successful execution within a very small window of opportunity, and the ability to react *in the moment* is one of the defining characteristics of heroism. For example, Klapp (1954) observed, "the same act performed too soon or too late . . . may make a person a fool rather than a hero" (p. 59).

Finally, where possible most bystanders will resolve conflicting avoidance impulses by "finding ways to avoid having to choose a course of action" (Latané & Nida, 1981, p. 309)—bystander intervention is much more likely to occur when psychological exit of the situation is not easy. In contrast, heroic action is often undertaken in the *presence of clear paths to exit* the situation and despite the factors that are typically associated with the diffusion of responsibility (large crowds, passive bystanders, etc.; Fischer et al., 2006). Again, it is instructive here to refer to the definition of gallantry, which suggests that heroes are willing to step into the fray and deliberately approach dangerous situations despite the fact that barriers to *entering* these situations are steep (Shepela et al., 1999).

### Heroic Status: The Role of Choice and Insufficient Justification

Taken together, these apparent paradoxes begin to point, at minimum, to an extension of the "altruism plus risk" argument that we believe is more nuanced and offers greater explanatory power. Witnessing a heroic act—in which an individual enters a dangerous situation despite clear avenues for exit and substantial barriers to entry—must leave the observer with mixed feelings, indeed the action may seem irrationally risky (Walton, 1986). Further, because the actor's choice is deeply interior, the rationale is not readily accessible to the observer, leaving the impression that the action was not sufficiently justified (Festinger & Carlsmith, 1959). Yet, the observer must still make an attribution about the action—thus opening the situation to a wide range of interpretations (Klapp, 1954). If the actor is unsuccessful, he is quickly deemed a fool for having risked so much. However, in the very same situation in which chance looks favorably upon the actor, she is lauded as a hero for having succeeded despite the apparently unacceptable level of risk taken. Either interpretation successfully resolves the dissonance the situation has produced in observers.

From this vantage, we can assert that risk involved in heroism is one that the actor was under no moral obligation to accept—one is not morally or ethically bound to act in ways that will place one's self in imminent danger (Shepela et al., 1999). The role of insufficient justification in the ascription of heroic status is hinted at by Ludvik Vaculik, a Czech dissident reflecting on the resistance process, who stated, "Heroic deeds are alien to everyday life, they flourish in exceptional situations, but these must not be of long duration" (Vaculik, 1990, p. 32). Thus, we can say in contrast to altruism, heroism is a situation in which, "no one is *should* act, but a few do anyway."

### Summary of Key Points and Hypotheses

First, where others (Eagly & Becker, 2005; Shepela et al., 1999) have suggested a fundamental distinction between prototypical physical risk heroism found in martial and civil heroes and principle driven social heroism, we argue that there are fundamental elements of all three forms of action that are similar (e.g., acceptance of various forms of risk, willingness to step into the fray, etc.) and that all three forms of action point to a single, underlying heroic ideal held in common. To begin addressing this question, we tested how the general public would categorize the 12 heroic types we originally proposed.

Second, we speculated that given the duration and certainty of risk associated with social heroism, individuals engaging in this type of activity would be viewed as at least as heroic as the more readily accessible forms of martial and civil heroism. Further, we left open the possibility that in a few cases social heroes might be viewed as *more* heroic than the prototypical versions of heroism involving immediate physical risk (Howerth, 1935; Martens, 2005; Peterson & Seligman, 2004).

Third, we postulated that the ascription of heroic status on the part of uninvolved observers revolves not simply around the presence of any risk while performing a prosocial act, but the dissonance caused by the actor's choice to take on what is seen as an irrational or unjustified level of risk.

Fourth, we asserted that heroism is at minimum a special case within prosocial behaviors. At maximum, we speculated that heroism encompasses a fundamentally different class of behaviors that, while sharing some overlap with altruism, represents a difference *in kind* rather than a difference *in degree* (Greitemeyer et al., 2007). This is in contrast to Shepela (1999) and others who have posited that heroic behaviors are a natural subset of altruism.

### Method

To evaluate current public perceptions of heroism, to examine potential differences between heroism and altruism, and to begin a more systematic evaluation of the 12 heroic subtypes offered here, a pilot survey was developed. Because of the number of items we were interested in, the survey was divided into two forms, "A" and "B" to ensure that participants would not be overburdened with survey length.

The first portion of the survey was constructed by writing brief hypothetical scenarios based on the 12 proposed heroic subcategories, which we refer to as "generic situation items." These prompts ostensibly contained the essence of the heroic action without the potentially confounding factors of whether or not participants recognized particular heroes, or the emotional valence of particular stories that might distract from the core behaviors. The two physical-risk categories, martial (duty bound) heroism and civil (nonduty bound) heroism were further broken down into five martial and five civil heroism items to provide a deeper understanding of what is viewed as central to the heroic construct within each of these domains. Ten social heroism items were taken directly from the taxonomy. Participants responded to each situation item with a forced choice between three alternatives: "heroic," "altruistic," or "neither heroic, nor altruistic."

Next, a matching set of prompts was developed by identifying an actual figure who had been publicly conferred some level of

heroic status. The individual was named and a brief description of the situation and actions taken was provided. Each of these “narrative items” was drawn from exemplars offered in the initial taxonomy (Franco & Zimbardo, 2006; Zimbardo, 2007b), historical accounts, Medal of Honor recipients, Carnegie Medal Award-ees, and news stories. While the items were designed to address the same context described in the situation items, some categories had variations in wording across the two item types. For example, a generic situation might offer, “A civilian rescues someone from a burning building,” while the matching narrative item stated, “Robert G. Falconer rescued Fred Johnson from burning in his home. Seeing flames in Johnson’s house from his home across the street, Falconer went into Johnson’s home and dragged Johnson out of the house.”

To develop a finer grained analysis of how our participants viewed each of the items, the generic situation items and narrative items were presented as Likert-type questions. Participants responded to a 5-point scale, anchored by “not at all heroic” and “extremely heroic” at opposite poles with “somewhat heroic” as the midpoint.

A final question, which appeared on all forms of the survey, stated simply “Do you feel there is a difference between altruism and heroism?” followed by two open-ended items, asking, “If, so what is the difference?” and “If you had to define heroism, what would your definition be?” These items were designed to tap into the participants’ implicit views of altruism and heroism.

Though the intent of this study is illustrative rather than designed to establish a validated measure of heroism, a number of items were included to show at least a reasonable level of face validity and discriminant validity for the heroism items. Eleven items were included that were designed to be marked “altruistic” to the exclusion of the alternatives, and 19 items were intended to prompt a “neither” heroic nor altruistic response. All altruistic items were predominantly marked in the expected direction. Sixteen of the 19 “neither” items were also marked in the expected direction, with the remaining three items being viewed as more altruistic than anticipated.<sup>4</sup>

## Procedures

Participants were recruited using convenience sampling by advertising the survey on several Websites. At first the Websites used were related to the topic of heroism and morality.<sup>5</sup> Finally, in an effort to obtain a more varied and representative sample of participants not already interested in topics associated with heroism, a concerted effort was made to advertise the survey on a popular blog that has high traffic and international reach. These efforts led to the survey being advertised on a popular technology blog.<sup>6</sup> The gross majority of the participants were directed to the survey from the technology blog. Participants who navigated to the survey Website were randomly assigned to either form A or form B, and next assigned to one of four question order presentations. This allowed for a Latin Square presentation of questions within each form to control for ordering effects. Completion of the survey took ~30 min. Participants had the option of exiting the survey at any time. No compensation was offered.

## Participants

A total of 3,696 adults aged 18 and over responded. Because this was an Internet study, some participants viewed the consent form (thus creating an observation), but failed to complete any of the survey items. Individuals who did not complete the initial 5 questions were removed from analysis to exclude these incomplete observations. Visual inspection of the data showed that this was a reasonable decision rule that removed nearly all nonresponses, while including others who responded to at least some of the items. Participant demographics and comparisons between those who were assigned to Form A and Form B are summarized in Table 2.

## Analyses

Given that there were no significant differences between the demographic characteristics across Form A and B, the data were combined for analysis and display. A series of chi-square goodness of fit tests were conducted examining each of the situation items to measure whether the item was predominantly viewed as heroic, altruistic, or neither. Hypotheses 2 and 3 were also addressed through a regression model. Hypothesis 4 was addressed using the final survey item, which asked participants to state if they felt there was difference between heroism and altruism using chi-square and representative quotes pointing to potential themes in open-ended responses.

## Results

### Hypothesis 1: Core of Heroic Action Extends Beyond Prototypical Physical Risk Heroism to Encompass 12 Heroic Subtypes

Univariate analyses suggest that archetypal situations in the martial, civil, and social heroism domains are all seen as predominantly heroic. Interestingly, civilian fire rescue was viewed as the most “purely” heroic, with 96% of participants ascribing the heroism category to this type of activity, while just 4% saw it as altruistic, and less than 1% saw it as fitting in neither category. In contrast, one of the most archetypal forms of military heroism—a soldier laying down his life to allow others to escape, was seen by 88% of respondents as heroic, while about 9% saw this behavior as altruistic, and 3% said it was neither.

The contrast between highest heroism responses for civil and military heroism suggests that despite the strong historic association between heroism and military service, current perceptions ascribe more heroic value to actions that are taken when no specific duty to serve exists. Two items involving criminality and vigilantism were included to address the assertion offered here that heroic actions taken should be more important than social attributions about the individual’s intent or context. These included a

<sup>4</sup> The items included to demonstrate discriminant validity for the heroism concept are not discussed further here, but warrant future consideration in the development of a validated heroism survey instrument.

<sup>5</sup> <http://www.everydayheroism.org>; <http://heroworkshop.wordpress.com>, and <http://greatergood.berkeley.edu/>

<sup>6</sup> <http://www.boingboing.net>

Table 2  
Participant Characteristics

Characteristics	Survey form		<i>p</i> -value <sup>a</sup>
	A ( <i>n</i> = 1359)	B ( <i>n</i> = 1364)	
Age			
18–21	123	122	
22–29	368	357	
30–39	400	395	
40–49	168	202	.5011
50–59	75	86	
60+	28	24	
Decline to state	197	178	
Sex			
Female	477	481	
Male	690	715	.3584
Decline to state	192	168	
Ethnicity			
White	959	1006	
Hispanic/Latino/Latina	27	30	
Asian American	32	23	
African American	7	9	.2794
Pac. Island/Nat. American	12	8	
Other	46	29	
Mixed race	40	43	
Decline to state	236	216	
Country or continent responding from			
United States	867	865	
Europe	134	140	
Other North America	77	91	
Australia/New Zealand	55	58	
Asia	16	17	.9501
South America	6	6	
Africa	6	5	
Decline to state	198	182	

<sup>a</sup> For  $\chi^2$  test of homogeneity.

criminal who risks his own life to protect others and a rogue who ostensibly provides a prosocial service by capturing criminals. While the benevolent criminal was viewed as a heroic actor, the vigilante clearly was not. This suggests that in some situations individuals with negative personal histories can be positively re-appraised as heroic figures (Franco & Zimbardo, 2006–2007), while in others the contextual information overrides the heroic aspects of current actions. The data for civil heroism and martial heroism situations are displayed in Figure 1.

Overall, however, the picture for social heroism is more mixed. Even for those situations in which social activities are viewed as heroic, they are generally seen as less heroic than civil or martial heroism. Further, even for the most heroic situations in the social arena, these activities are seen as less “purely” heroic and are generally viewed as more altruistic. For example, in the politico-religious figure item most closely associated with heroism (a generic description of actions patterned after Dr. Martin Luther King, Jr.), 74% stated this was an example of heroism, 18% described it as altruism, and 7% felt the situation represented neither category. Interestingly, the whistleblower situation was viewed as heroic, but it was also clearly an item that resulted mixed reactions. Twenty-six percent of respondents stated that they viewed this form of action as neither heroic nor altruistic—

perhaps reflecting the level of controversy often associated with such individuals.

Finally, while we identified 10 forms of social heroism only 4 of these situations were supported as predominately heroic by the study participants. These included politico-religious figures, good Samaritans, individuals fighting an unjust bureaucracy, and whistleblowers. Six categories did not meet the criteria of being predominantly viewed as heroic. These included three subtypes seen as largely altruistic—religious figures, scientific or discovery figures, and odds beaters; and three categories viewed as neither heroic nor altruistic—martyrs, political/military leaders, and adventurers. The results of the situation items for social heroism are summarized in Figure 2.

### Hypothesis 2: Social Sacrifice Just as Heroic as Physical Peril

In contrast to our assertions, the descriptive results offer clear support for the notion advanced by Becker and Eagly (2004) that physical risk heroes are viewed as most prototypically heroic. Social courageousness items were marked as heroic less frequently, showed greater overlap with altruism, and were more frequently viewed as being motivated by neither heroic nor altruistic intentions on forced categorization items. Further inferential evidence rejecting the notion that social heroes are viewed as “just as heroic” as physical risk heroes is offered in the next section. These findings emphasize the role of physical risk as a determining element in the public’s view of prototypical heroic action.

### Hypothesis 3: Insufficient Justification as an Explanatory Factor in the Public’s Ascription of Heroic Status

As we considered this problem, it occurred to us that the 12 heroic categories we initially offered could be boiled down into four categories that adequately described all forms of heroism while also offering deeper insight into why some forms of action are accorded greater heroic stature by the general public (Table 3). The first two categories remained the same, martial (duty bound) heroism and civil (non-duty-bound) heroism, both involving physical risk but under somewhat different conditions. Social heroism was reconceptualized as having two primary forms (instead of the initial 10 offered)—those who defy systems (e.g., a bureaucracy hero) and those who “defy reality,” that is, the limits of the known world (e.g., an explorer who makes a discovery that changes humanity’s understanding of itself and/or the universe). Further, it can be argued that there are similarities between those who defy reality and martial heroics. Individuals in both categories have elected to take this as a career path, have probably received some training, and are following an established script that guides behavior. In contrast, those who defy systems are more similar to nonduty-bound physical risk heroes as they typically are not prepared for this type of engagement before a presenting problem that forces a decision about whether or not to take action and often there is no established path that guides behavior toward heroism. Thus, creating this distinction within social heroism provided an avenue for us to explore the role of justifiability of risk across both risk types (physical peril and social sacrifice).



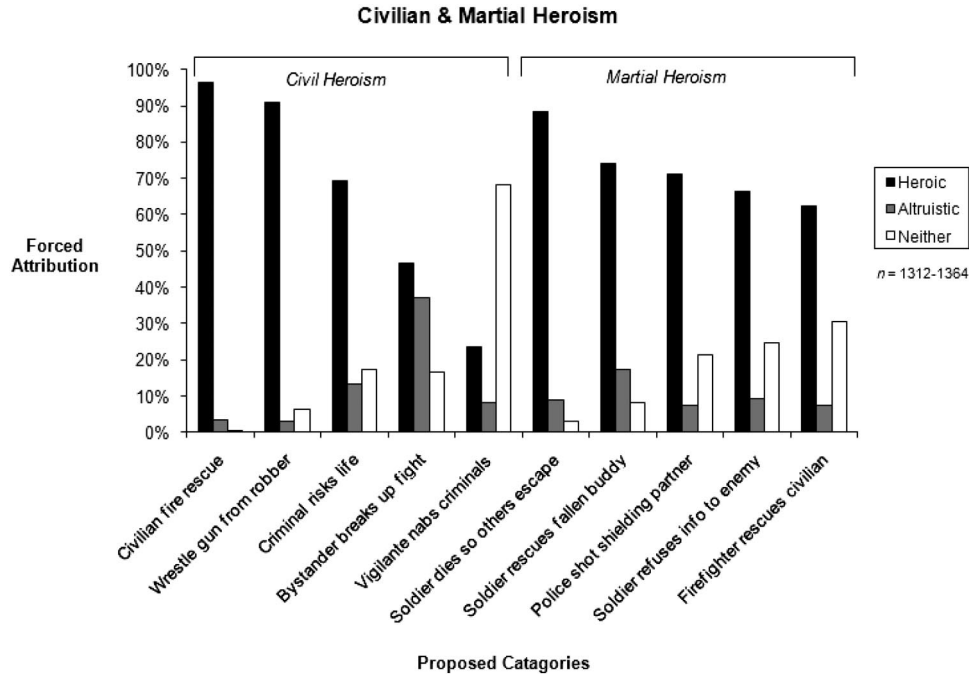


Figure 1. Civil and martial heroism categories.  $N$  for items differs based on which form the item appeared in. All within item  $\chi^2$  comparisons are significant at the .000 level in the direction of predominant bar.

In an effort to test this hypotheses, the response matrix was transposed so that we could examine potential predictors of the averaged responses to the combined generic situation and narrative ratings. Four items exploring the relationship between criminality and heroism were included in the survey on exploratory basis (two generic situation and two narrative items). As these were not conceptually representative of the prototypical physical risk hero, nor described in the original taxonomy, these items were omitted from the regression analysis. This allowed us to test the proposed model that the risk type combined with perceived justifiability would predict ascribed heroic status better than risk type alone. This approach also had the advantage of addressing the unintentionally overpowered sample<sup>7</sup>, dramatically reducing the likelihood of Type-I error, by attempting to predict the means for just 36 variables rather than scores across some 3,000 individuals, effectively leaving us with only the most robust findings.

The data were organized by risk type (physical peril vs. social sacrifice), and conditions that were assumed to violate levels of acceptable risk (nonduty bound physical risk actors and those who defy social systems) were coded into one group, while conditions assumed to represent levels of risk that are more readily understood as reasonable (duty-bound physical risk and those that attempt to defy reality) were coded into a second group. The global test of the model was significant,  $F(2, 33) = 20.22, p < .0001$ , and physical peril significantly predicted mean ratings of heroism. Moreover, as predicted, the covariate for justified risk was significant, with those in the justified risk category being rated as less heroic as compared to those in the unjustified risk condition (see Table 4). This model explained about 10% more of the variance than one involving risk type as a single predictor of ascription of heroic status.

#### Hypothesis 4: Heroism is Viewed as Different Than Altruism

Again, referring back to Figures 1 and 2, clear distinctions between heroism and altruism appear to be in evidence. For example, almost all respondents see a civilian fire rescue as heroic and not altruistic. Perhaps most importantly, the Bystander breaks up fight situation, which can be viewed as closely approximating the “extreme danger” condition in the study conducted by Fischer and his colleagues (2006) is viewed as heroic by only 46.5% of the participants in the present study. This item is separated by almost 50 percentage points from the most acute form of civil heroism, Fire rescue—thus underscoring our view that current experimental work on altruism in the face of substantial risk does not fully capture the phenomenon of heroic action and suggesting that further work is needed to explore these differences.

Further, the final survey question, which appeared on all forms of the survey, stated simply “Do you feel there is a difference between altruism and heroism?” followed by an open-ended item asking for an elaboration. The overwhelming majority responded that there was a difference ( $n = 2,347$  or 97.5%), while just 58 participants said they saw no difference between these two con-

<sup>7</sup> Once the call for participation was posted on the technology blog, response was overwhelming. Hundreds of responses were recorded in the hours following the listing and a decision was made to leave the survey open for several days to respect the efforts of the technology blog in assisting the recruitment process. Rather than excluding some participants (e.g., through random subsample, etc.), the approach described allows for use of all available data while resolving the problem of a dramatically overpowered sample.

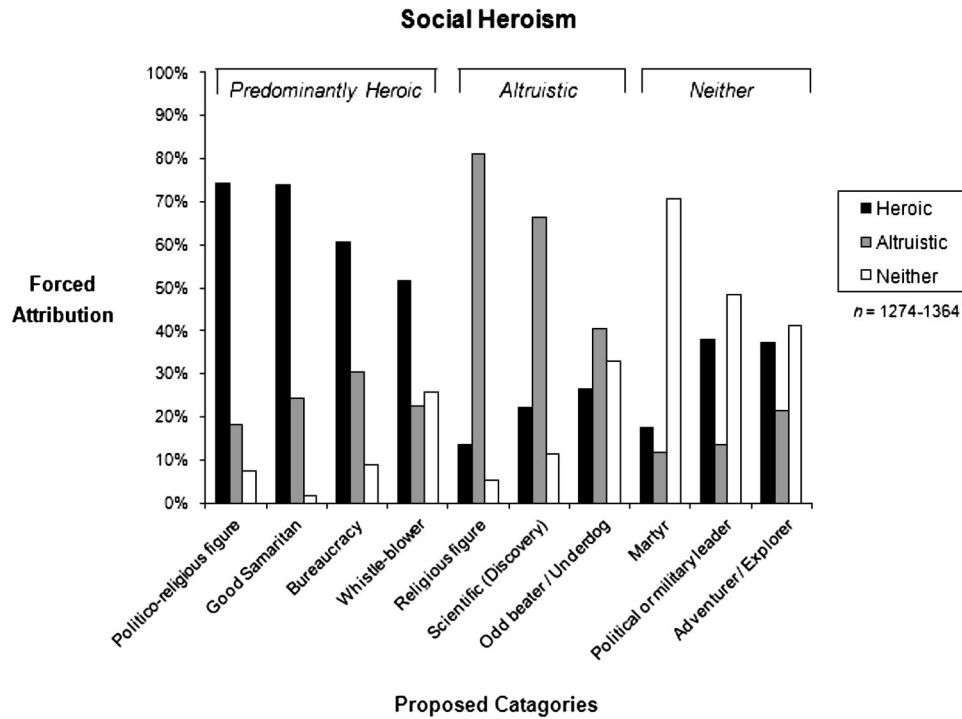


Figure 2. Social heroism categories. *N* for items differs based on which form the item appeared in. All within item  $\chi^2$  comparisons are significant at the .000 level in the direction of predominant bar.

cepts. The responses indicate that there is a significant perceived difference between the ideas of heroism and altruism,  $\chi^2(1) = 2178.60, p < .0001$ . Although a qualitative analysis of the open-ended answers is outside the scope of this paper, representative responses included sentiments such as, “Altruism you are helping others out of morality and unselfishness. Heroism is the same except in more extreme situations such as saving a life,” “Altruism seems to involve helping a group of people directly—there is a sacrifice, but it is more sharing what you have than sacrificing yourself,” and “While heroic acts are always in some sense altruistic, an act of altruism isn’t always heroic.” Both the inferential findings and descriptive information provide clear support for Hypothesis 4, our assertion that there are fundamental perceived differences between heroism and altruism.

## Discussion

### Study Limitations

Reliability and response rates of Internet-based surveys have been shown to be similar to that of more commonly used methods of survey research (Mathy, Kerr, & Haydin, 2003). These methods are able to reach more heterogeneous samples than is possible with student subject pools, however, clear problems with sampling bias, nonresponse rates, and generalizability remain (Birnbaum, 2004). The present study benefits from having ample participation across all age levels and robust responses from at least three continents. However, the sample largely overrepresents the views of a White American young adult males, limiting the generalizability of the results to the broader population. Another critique offered by

participants was the American-centric viewpoint as the majority heroic exemplars in the survey were drawn from American history and were not as familiar to international participants. Future research should focus on generating heroism instruments that can be used effectively with diverse, international samples, and efforts to replicate these findings across a range of other samples.

Further, some respondents noted in open-ended follow-up questions the desire to respond to each forced categorization item as having various degrees of each attribute (i.e., using slider scales). While the large sample in this study probably corrects for some of the measurement error associated with this problem, future efforts should examine if the proportions reported here are similar when participants are allowed to freely assign values to all three attribute categories.

### Justification of Risk Constrains the Taxonomy

The support offered here for the insufficient justification argument provides insight across at least two levels. First, it demonstrates that there are central criteria beyond risk type that are important in the public’s ascription of heroic status—as risk type alone explained less than half of the variance in the model. Second, it begins to meaningfully constrain the original taxonomy of 12 proposed heroic subtypes. While popular media often ascribe heroic status to explorers and discoverers, the risks involved are sufficiently justified. For example Amelia Earhart is frequently cited in the news media and opinion polling as a heroic figure (Williams, 1995), yet our findings suggest that the general public does not view such acts as representative of the most central idea of heroism. Even if these activities do not violate the operational

Table 3  
*A Priori Heroic Items From Survey and a Posteriori Category Reordering*

a Posteriori Categories	Situation item rating	Mean	SD	Narrative item rating	Mean	SD
Physical Peril, Not Duty Bound						
Unjustified risk	1. Civilian fire rescue	4.68	0.60	Robert Falconer	4.64	0.63
	2. Wrestling gun from robber	4.43	0.85	Charles Carbonell	4.39	0.81
	3. <i>Criminal risks life</i>	3.69	1.09	<i>Joaquin Murietta</i>	2.20	1.13
	4. Bystander breaks up fight	3.10	0.97	Richard Crafton	4.20	0.79
	5. <i>Vigilante nabs criminals</i>	2.44	1.17	<i>Nat N. Kinney</i>	2.36	1.01
Social Sacrifice, Defies Systems						
Unjustified risk	1. Good Samaritan	4.40 <sup>1</sup>	0.83	Holocaust Rescuer <sup>2</sup>	4.07 <sup>1</sup>	0.96
	2. Politico-religious figure	4.09	0.93	Martin L. King, Jr.	4.41	0.84
	3. Bureaucracy hero	3.67	0.93	Dr. Edward Tolman	3.48	1.04
	4. Whistleblower	3.31	1.14	Christina Maslach	3.06	1.12
	5. Religious figure	3.27	1.22	The Dalai Lama	2.66	1.26
	6. Martyr	2.31	1.28	Socrates	3.42	1.15
	7. Political or military leader	3.08	1.22	Abraham Lincoln	3.03	1.25
Physical Peril, Duty Bound						
Justified risk	1. Soldier dies so others escape	4.65	0.78	CPL. Jason Dunham	4.63	0.75
	2. Soldier rescues fallen buddy	4.16	0.96	SGT. Paul Smith	4.18	1.00
	3. Police shot shielding partner	3.85	1.11	Dept. Alan Inzer	3.27	1.24
	4. Soldier refuses info to enemy	3.54	1.11	Nathan Hale	3.49	1.18
	5. Fire fighter rescues civilian	3.68	1.11	Richard Rescorla <sup>3</sup>	4.28	0.96
Social Sacrifice, Defies Reality						
Justified risk	1. Scientific discovery	3.20	1.14	Marie Curie	2.46	1.25
	2. Odds beater/underdog	2.84	1.11	Lance Armstrong	2.48	1.15
	3. Adventurer/explorer	2.85	1.09	Lewis & Clark <sup>4</sup>	2.80	1.13

*Note.* Italicized items explore the relationship between criminality and heroism. These items were omitted from regression analysis.

<sup>1</sup> Both items recoded as physical risk, nonduty bound in later analyses after disagreement among authors and applying regression diagnostics. <sup>2</sup> Good Samaritan wording variation: situation item referred to individual holocaust rescuer, narrative item to a family assisting Jews in war-time. <sup>3</sup> Item wording variation: Rescorla not a firefighter, but he was duty bound to save individuals from fire. <sup>4</sup> Example of U.S. focus for many items limiting multicultural/multinational application.

definition of heroism offered here in terms of extrinsic gain, the level of intrinsic gain (satisfaction of achievement need, enjoyment of arousal associated with risk, etc.) is high enough that the choice to engage in these activities is seen as justified by the casual observer. Broadly speaking, the descriptive and inferential results suggest that the taxonomy can be reduced to six primary heroic types: civil, martial, good Samaritans, politico-religious figures, whistleblowers, and those who challenge problematic bureaucracies. The social heroism categories that remain in this condensed taxonomy have in common the perception of unjustified risk.

### Directions for Future Research

#### The Role of Prototypicality, Velocity, and Extension Neglect

We have argued that the less obvious form of heroism—social or principle driven heroism—involves risks that should result in the public rating actors in this category as being *at least as heroic* as those in the physical risk arenas. However, the data presented here and elsewhere (Rate et al., 2007) support the opposite conclusion—that the physical risk hero is viewed as *more* heroic than social heroes. These findings suggest that the prototypicality or centrality (Gärdenfors, 2004; Rosch, 1975, 1978) of the immediate physical risk associated with martial and civil heroism overrides considerations more closely associated with social heroism such as overall risk accepted, length of risk period, and so forth. Although

the connections to theories of prototype are clear, the underlying mechanisms that make the classical example of a person running into a burning building to save someone particularly representative are worth additional exploration, and offer some potential alternative explanations.

For instance, in the “burning building example” the events unfold rapidly, the problems are of vital importance to the potential victims, and the ultimate resolution is unknown. These are the very ingredients of suspense (Vorderer, Wulff, & Friedrichsen, 1996; Zillmann, 1991), they contain the cinematic elements that engender strong emotional responses in viewers and are compelling in part because they involve high velocity decisions and actions (Alwitt, 2002; Carroll, 1996; Chatman, 1978; de Wied, 1994; Nomikos, Opton, & Averill, 1968). Would we have viewed the New York Subway hero Wesley Autrey (Buckley, 2007) as heroic if the train was a minute or two further out from the station? Probably not. In fact, a very similar incident occurred about 2 years later, in which Chad Johnson hoisted a man who had fallen onto the tracks to get back up on the platform with some time to spare, yet this event received much less fanfare (Wilson, 2009). To be sure, the relative risk and the proximity of the risk event in time are related. However, can we really say that racing to save someone from an oncoming train is truly more heroic than the actions of Dr. Martin Luther King, Jr., who received frequent death threats, was nearly fatally stabbed early in his career as a civil rights leader, and was ultimately assassinated in an effort to

Table 4  
*Multivariate Model of Heroism: Risk Type and Risk Justification*

Model of risk type and risk justification (with Holocaust rescuers recoded to physical risk)			
Variable	Coefficient ( <i>SE</i> )	<i>t</i>	<i>p</i>
Intercept	3.25 (0.13)	25.22	<.0001
Physical peril	1.06 (0.17)	6.29	<.0001
Justified risk	-0.39 (0.17)	-2.32	0.0266
$R^2 = .55$			

*Note.* Although our goal was to test the theoretical model rather than develop an empirically driven model, two items involving Christian Holocaust survivors had been contentious among us. Where the concept should fall in terms of principle driven social heroism versus immediate physical risk dimension remained in question (see elementary model of heroism; Zimbardo, 2007b, p. 480). Using DFFITS to explore for points of influence in the model with the size adjusted cutoff recommended by Belsley, Kuh, & Welsch (2004) the generic situation Holocaust Rescuer item approximated this cut point. Both the generic situation item and narrative item for this concept were recoded as physical risk items. Three other items (generic situation bystander intervention, narrative politico-religious figure, and generic situation martyr) that approximated or exceeded this cut point were left unchanged because there was no disagreement amongst the authors about the conceptual space these items occupied. The final model presented here modestly reduced the influence of justifiable risk (though it was still a significant predictor), while increasing the explained variance over the initial model by 9%.

achieve equality for an entire group of people? A subtle alternative to risk-type as the primary driving force in prototypicality judgments may involve the observer's tendency to focus on the averaged risk and the peak/end risks associated with civil and martial heroism, while neglecting the duration, scope, and summative risks associated with social heroism (Kahneman, 2002).

### Is Heroism Always Positive?

Positive psychology has advanced a largely virtuous, prosocial view of heroism (Peterson & Seligman, 2004). The picture is probably more nuanced. While most newsworthy heroes comport with a fairly "clean" ideal of the heroic actor, the range of individuals who engage in heroic acts includes people who routinely engaged in malicious behavior, but in this *particular* instance did something positive (e.g., Jabar Gibson; see Franco & Zimbardo, 2006–2007; Harlow, 2005).

Further, the possibility that heroic action is actually a symptom of psychopathology or maladjustment should be seriously examined. For example, Pallone and Hennessey (1998) advanced the notion of "heroic rescue fantasy" as a motivating factor, and personality characteristics such as narcissism might also account for some proportion of civil heroism. Ludvik Vaculik pointed at the negative aspects of heroic dissent—particularly when engaged in without a comprehensive understanding of the situation, nor a reasonable expectation that these actions will afford political leverage:

It is one thing if they imprison someone who knows exactly what he is doing and why, and quite another when a young, immature person lands in jail, more or less by accident . . . A mass psychosis of heroism is a fine thing, provided there are in the vicinity some sober minds

who have access to information and contacts and who know what's to be done afterward. (1990, pp. 30 & 32).

Further negative views of heroism can be drawn from the military context. At least since WWII, deteriorating mental health in soldiers has been associated with a "period of overconfidence" that follows maximum combat efficiency and precedes emotional exhaustion (see Swank & Marchand, 1946, chart p. 238). The combination of intense group cohesion, dissociation, distorted time perspective, and rage toward the enemy may set the stage for heroic acts that dramatically exceed "normal" ability and that would probably not be undertaken if the combatant was not already stretched to a psychological breaking point (Dinter, 1985; Zimbardo & Boyd, 1999).

### The Call to Heroism, "Heroization," and Retrospective Bias

While the personality-interactionist-situationist debate will not be settled here, it remains important to stress the role of the societal and social tableau upon which the hero's story unfolds—if for no other reason than to better understand the interactions that may occur. Examining the American Civil Rights Movement, it is clear that there were numerous heroes—most unrecognized—who were integral to the effort. From our vantage of history, Martin Luther King, Jr., stands as the personified symbol of this heroic endeavor and the sacrifices of many are epitomized in his individual death. Yet, in the lead up to desegregation, any number of other figures might have taken on this mantle (e.g., Ella Baker; Barnett, 1993). In addition to the level of moral development and personality type, heroism most probably involves a number of other personal elements—leadership style (Bennis, 2007), aptitude to address the problem at hand (Glazer & Glazer, 1999) and whether or not the person "looks the part" (Klapp, 1954). There are also external elements—the presence or absence of a situation that calls for heroic action (Franco & Zimbardo, 2006–2007; Šiklová, 2004; Zimbardo, 2007b), the availability of resources, and capriciousness of chance. For example, Klapp (1954) noted that:

Rationality, therefore should not be stressed as a factor in recognition of heroes . . . most of such typing probably occurs by a spontaneous popular definition in which there is little reflective thought . . . indeed, rational procedures often only certify *ex post facto* a hero or anti hero who has already been chosen by the public. Among the important nonrational processes which help to form heroes and antiheroes are gossip, rumor, propaganda, journalism, "guilt by association," social crisis mentality, and the accidents of publicity and opportunity which have helped make some men famous and obscured others equally deserving of credit or infamy (p. 59).

Further, in social heroism in particular there appears to be a dynamic interaction between situations ostensibly "calling for" heroism and the hero, resulting in a gradual progression toward the acceptance of the heroic mantle (Howerth, 1935; Vaculik, 1990). For example in discussing the life trajectory of whistleblowers, Glazer and Glazer (1999) noted, "Theirs' were stories of women pushing aside feelings of vulnerability to forge links and create allies in the struggle to combat powerful adversaries . . . in turn, Penny Newman and hundreds of others like her found their lives transformed as they became recognized community leaders" (p. 290).



The process of “heroization” points to one obvious problem with retrospective studies—these efforts capture information about the hero at the end of a transformation toward intrepidity—one that may be powerful enough to affect personality. Further, utilizing major awards to retrospectively identify heroes (e.g., Walker, Frimer, & Dunlop, 2010), rather than independently defining and identifying heroic actors will inevitably fail to detect important exemplars who may systematically differ from those obtaining awards. This point cannot be underscored strongly enough. For example, Mohandas Gandhi, one of the most widely acclaimed heroes of the 20th century, did not receive the Nobel Prize despite being nominated five times—probably because of cultural differences or political pressures felt by the Nobel committee (Tønneson, 1999).

### Resolution of Dissonance as the Power of Heroic Action

While we have a historical appreciation of the controversy surrounding heroic political and religious figures like Dr. Martin Luther King, Jr., Gandhi, and Jesus, we easily forget the visceral reactions these individuals engendered in their time. Even their supporters questioned their motives, while their enemies loathed them (as witnessed by their untimely deaths). In each case, it was not until some time had passed that the full extent of their impact was understood, positively reappraised by society—ultimately leading to the label “hero” being posthumously accepted widely (and their tumultuous journeys and personal histories reified to comport with the label). The findings of Monin, et al. (2008) suggest that morally rebellious individuals are not successful in forcing involved actors to consciously acknowledge that their own involvement/performance may have been less than ethical. However, the true power (and perhaps the final measure of success) of a social hero is that their actions *can* ultimately guide us through the dissonance, *which they themselves produced*, to embrace a challenging new set of values that has the potential to drive further constructive action. It can be argued that at its most extreme, it is the hero’s death or serious injury that forces her opponents to reconsider the hero’s unpopular position and insufficiently justified actions—leaving a “soft-spot” for this individual that allows for reevaluation of the issue in contention, ultimately winning over some of her enemies to the justness of the cause in question.

### Fostering the Heroic Imagination

The construct of heroic imagination is central to our view of heroism, although it remains largely theoretical and has not been adequately characterized to date. Our initial work in this area suggests that the heroic imagination functions in three distinct ways: how heroes are imagined in classic writings and by the general public; a mental state of anticipation and readiness for any person to act heroically when opportunities arise calling for heroic actions—as a contrast with the “hostile imagination,” or the psychology of enmity, which instills fear and hatred of enemies; and, at least in some individuals, the ability to envision and communicate a new way of ordering a social system or an entire society.

Perhaps the most extreme views of heroism come from classic writers, such as Thomas Carlyle, in his treatise on “Heroes and Hero Worship,” written in 1840 (Carlyle, 1840). In such conceptions, heroes are divine; they are “the light that enlightens the darkness of the world . . . as a natural luminary shining by the gift of heaven.” (p. 2). Carlyle goes on to characterize how we should be imagining and worshipping heroes as God’s gift to humanity; “Hero-worship, heartfelt prostrate admiration, submission, burning, boundless, for a noblest godlike form of man—is not that the germ of Christianity itself?” This rather extreme view of the nobility and divinity of heroes is then extended to heroes as prophets, as poets, as priests, as men of letters, and finally as kings. Joseph Campbell (2003, 2008) modernized such views, but still put heroes on a tall pedestal typically featuring male warriors, like Achilles, and male adventurers, such as Odysseus, traveling on their heroic paths. Even in modern times, there probably remains a substantial divide between peoples’ assumptions about heroes and what these heroes are like in real life. We have argued that the perpetuation of the myth of the “heroic elect” does society a disservice because it prevents the “average citizen” from considering their own heroic potential.

When reviewing the propaganda that most nations use to instill hatred of their chosen enemies, Sam Keen (in “Faces of the Enemy,” Keen, 1991) coined the term “hostile imagination” as the desired outcome of these systemic attempts by nation states to make their citizens hate and then want to kill anyone who fits the characterization as “enemy.” Hostile imagination includes thinking of other people as objects, as unworthy, as less than human, in short, dehumanizing others. He argues that by instilling a psychological state of enmity in the general public they are more likely to support war against the enemy selected by their leaders and to send their sons into battle with that evil other. In this view, any of us can be seduced into becoming perpetrators of evil by situational and systemic forces acting upon us. The imperative becomes discovering how to limit, constrain, and prevent those situational and systemic forces that propel some of us toward social pathology, and moreover, we have argued that societies should foster a “heroic imagination” in their citizens as an antidote to evil (Zimbardo, 2007b; see also Franco & Zimbardo, 2006–2007; Zimbardo, 2006; Zimbardo, 2007a).

In this sense, the idea of “heroic imagination,” can be seen as mind-set, a collection of attitudes about helping others in need, beginning with caring for others in compassionate ways, but also moving toward a willingness to sacrifice or take risks on behalf of others or in defense of a moral cause. This conveys the message that every person has the potential to act heroically. Anecdotal evidence suggests that those who engage their heroic imagination are making themselves aware of opportunities where they can help others in need, and may be more prepared to accept and transcend the consequences associated with the heroic decision in complex situations (Franco & Zimbardo, 2006–2007).

Finally, a third sense of the term “heroic imagination” stems from the bold reinterpretations of societal order offered by some social heroes. For example, Martin Luther King, Jr.’s, statement, “I have dream” is at its core a reimagining of life without the constraints of apartheid. Moreover, he recognized that many of the people listening to that speech had lost the ability imagine a better

world, or to believe that their own acceptance of risky actions had the power to foster change.

Even in our moment in history, our heroes are not obvious, those that we may later uphold as the paragons of human behavior are currently subject to daily ebb and flow of support from their adherents and distain from those in opposition.<sup>8</sup> Our understanding of historic figures who have attained this status has been shaped by time, distance, and by the communal validation involved in the social construction of their heroism. The World Wars of the last century had a dramatic impact on our conceptualization of heroism and as our society shifts increasingly toward a highly networked, digitized future, the question of what the term "hero" will mean for this generation is yet to be answered.

<sup>8</sup> As this article was going to press, the issue of whether or not Mr. Julian Assange, founder of the whistleblower Website Wikileaks, was being widely discussed in the halls of government, in the press, and in social media forums. Several discussions of his actions posed headline questions like "Is Assange a Hero or Villain?" Some members of the U.S. Congress have called for his arrest for publishing state secrets, while faculty of journalism schools have called for him not to be prosecuted to preserve free speech rights. While we do not offer an opinion on if Julian Assange is a hero or not, it is an important and timely example of how contentious the ascription of nonheroic or heroic status is *in the moment*.

## References

- Algoe, S. B., & Haidt, J. (2009). Witnessing excellence in action: The 'other-praising' emotions of elevation, gratitude, and admiration. *Journal of Positive Psychology, 4*, 105–127.
- Allison, S. T., & Goethals, G. R. (2010). *Heroes: What they do and why we need them*. New York: Oxford University Press.
- Alwitt, L. F. (2002). Suspense and advertising responses. *Journal of Consumer Psychology, 12*, 35–49.
- Arendt, H. (1963/1994). *Eichmann in Jerusalem: A report on the banality of evil* (Revised and enlarged edition). New York: Penguin.
- Armed Forces Act, 10 U.S.C. § § 3741–3753 (2000).
- Barnett, B. M. (1993). Invisible southern black women leaders in the civil rights movement: The triple constraints of gender, race, and class. *Gender & Society, 7*, 162–182.
- Becker, S. W., & Eagly, A. H. (2004). The heroism of women and men. *American Psychologist, 59*, 163–178.
- Belsley, D. A., Kuh, E., & Welsch, R. E. (2004). *Regression diagnostics: Identifying Influential Data and Sources of Collinearity*. New York: Wiley.
- Bennis, W. (2007). The challenges of leadership in the modern world: Introduction to the special issue. *American Psychologist, 62*, 2–5.
- Birnbaum, M. H. (2004). Human research and data collection via the internet. *Annual Review of Psychology, 55*, 803–832.
- Braudy, L. (1997). *The frenzy of renown: Fame and its history*. New York: Vintage Books.
- Buckley, C. (2007, January 3). Man is rescued by stranger on subway tracks. *The New York Times*. Retrieved from <http://www.nytimes.com/2007/01/03/nyregion/03life.html>
- Campbell, J. (2003). *The hero's journey* (3rd ed.). Novato, CA: New World Library.
- Campbell, J. (2008). *The hero with a thousand faces* (3rd ed.). Novato, CA: New World Library.
- Cardwell, D. (2007, January 5). Subway rescuer receives the city's highest award. *The New York Times*. Retrieved from [http://www.nytimes.com/2007/01/05/nyregion/05life.html?\\_r=2&scp=5&sq=wesley%20autrey&st=cse](http://www.nytimes.com/2007/01/05/nyregion/05life.html?_r=2&scp=5&sq=wesley%20autrey&st=cse)
- Carlyle, T. (1840). *Heroes, hero worship: The heroic in history*. New York: A. L. Burt.
- Carroll, N. (1996). The paradox of suspense. In P. Vroederer, H. J. Wulff, & M. Friedrichsen (Eds.), *Suspense: Conceptualizations, theoretical analyses, and empirical explorations*. Mahwah, NJ: Laurence Erlbaum.
- Chatman, S. (1978). *Story & discourse: Narrative structure in fiction and film*. Ithaca, NY: Cornell University Press.
- de Weid, M. (1994). The role of temporal expectancies in the production of film suspense. *Poetics, 23*, 107–123.
- Dinter, E. (1985). *Hero or coward: Pressures facing the soldier in battle*. Totowa, NJ: Frank Cass & Company.
- Eagly, A., & Becker, S. (2005). Comparing the heroism of women and men. *American Psychologist, 60*, 343–344.
- Festinger, L., & Carlsmith, J. M. (1959). Cognitive consequences of forced compliance. *Journal of Abnormal and Social Psychology, 58*, 203–210.
- Fischer, P., Greitemeyer, T., Pollozek, F., & Frey, D. (2006). The unresponsive bystander: Are bystanders more responsive in dangerous emergencies? *European Journal of Social Psychology, 36*, 2, 267–278.
- Franco, Z., & Zimbardo, P. (2006–07, Fall–Winter). The banality of heroism. *Greater Good, 3*, 30–35.
- Franco, Z., & Zimbardo, P. (2006). *Celebrating heroism and understanding heroic behavior*. Unpublished manuscript, Department of Clinical Psychology, Pacific Graduate School of Psychology, Palo Alto, CA.
- Gärdenfors, P. (2004). *Conceptual spaces: The geometry of thought*. Massachusetts: MIT Press.
- Glanfield, J. (2005). *Bravest of the brave: The story of the Victoria Cross*. New York: Sutton.
- Glazer, M. P., & Glazer, P. M. (1999). On the trail of courageous behavior. *Sociological Inquiry, 69*, 276–295.
- Greitemeyer, T., Osswald, S., Fischer, P., & Frey, D. (2007). Civil courage: Implicit theories, related concepts, and measurement. *Journal of Positive Psychology, 2*, 115–119.
- Harlow, J. (2005). Teenager snatches bus to save dozens: Rescue hero. Retrieved from <http://www.timesonline.co.uk/tol/news/world/article562377.ece>
- Hopkins, J., & Jones, C. (2003, September 23). Disturbing legacy of rescues: Suicide. *USA TODAY*. Retrieved from [http://www.usatoday.com/news/nation/2003-09-22-legacy-usat\\_x.htm](http://www.usatoday.com/news/nation/2003-09-22-legacy-usat_x.htm)
- Howerth, I. W. (1935). Heroism as a factor in education. *Phi Delta Kappan, 18*, 18–24.
- Hughes-Hallett, L. (2004). *Heroes*. London: HarperCollins.
- Kahneman, D. (2002). Maps of bounded rationality: A perspective on intuitive judgment and choice. *Nobel Prize Lecture*.
- Keen, S. (1991). *Faces of the enemy: Reflections on the hostile imagination*. New York: HarperCollins.
- Klapp, O. E. (1948). *Heroes as a social type*. Doctoral dissertation, University of Chicago, 1948. *UMI Dissertation Services*.
- Klapp, O. E. (1954). Heroes, villains and fools, as agents of social control. *American Sociological Review, 19*, 56–62.
- Latané, B., & Darley, J. M. (1970). *The unresponsive bystander: Why doesn't he help?* New York: Appleton-Century-Crofts.
- Latané, B., & Nida, S. (1981). Ten years of research on group size and helping. *Psychological Bulletin, 89*, 2, 209–324.
- Machado, A., & Silva, F. (2007). Toward a richer view of the scientific method: The role of conceptual analysis. *American Psychologist, 62*, 671–681.
- Martens, J. (2005). Definitions and omissions of heroism. *American Psychologist, 60*, 342–343.
- Mathy, M., Kerr, D. L., & Haydin, B. M. (2003). Methodological rigor and ethical considerations in Internet-mediated research. *Psychotherapy: Theory, Research, Practice, Training, 40*(1/2), 77–85.
- Monin, B., Sawyer, P. J., & Marquez, M. J. (2008). Rejection of moral rebels: Resenting those who do the right thing. *Journal of Personality and Social Psychology, 95*, 76–93.
- Murphy, E. F. (2005). *Vietnam Medal of Honor heroes*. New York: Ballentine.

- Nomikos, M. S., Opton, E., & Averill, J. R. (1968). Surprise versus suspense in the production of stress reaction. *Journal of Personality and Social Psychology*, 8(2, Pt. 1), 204–208.
- Oliner, S. P., & Oliner, P. M. (1988). *The altruistic personality: The rescuers of the Jews in Nazi Europe*. New York: Free Press.
- Olson, M., & LaRowe, G. (n.d.). ARTFL Project 1913 Webster's Revised Unabridged Dictionary [on-line searchable dictionary]. Retrieved from University of Chicago, Project for American and French Research on the Treasury of the French Language Web site <http://machaut.uchicago.edu/websters>
- Oman, D., Thoresen, C. E., & McHahon, K. (1999). Volunteerism and mortality among the community-dwelling elderly. *Journal of Health Psychology*, 4, 301–316.
- Pallone, N. J., & Hennessy, J. J. (1998). Counterfeit courage: Toward a process psychology paradigm for the "heroic rescue fantasy." *Current Psychology*, 17, 197–209.
- Peterson, C., & Seligman, M. E. P. (2004). *Character strengths and virtues*. Washington, DC: American Psychological Association & Oxford University Press.
- Quaife, M. M. (1931). A forgotten hero of Rock Island. *Journal of the Illinois State Historical Society*, 23, 4, 652–663.
- Rankin, L. E., & Eagly. (2008). Is his heroism hailed and hers hidden? Women, men, and the social construction of heroism. *Psychology of Women Quarterly*, 32, 4, 414–422.
- Rate, C. R., Clarke, J. A., Lindsay, D. R., & Sternberg, R. J. (2007). Implicit theories of courage. *Journal of Positive Psychology*, 2, 80–98.
- Rosch, E. (1975). Cognitive representations of semantic categories. *Journal of Experimental Psychology*, 104, 192–233.
- Rosch, E. (1978). Principles of categorization. In E. Margolis & S. Laurence (Eds.) *Concepts: Core readings*. Massachusetts: MIT Press.
- Shepela, S. T., Cook, J., Horlitz, E., Leal, R., Luciano, S., Lutfy, E., . . . Warden, E. (1999). Courageous resistance. *Theory & Psychology*, 9, 787–805.
- Šiklová, J. (2004). Courage, heroism, and the postmodern paradox. *Social Research*, 71, 135–148.
- Staub, E. (2011). *Overcoming evil: Genocide, violent conflict, and terrorism*. New York: Oxford University Press.
- Swank, R. L., & Marchand, W. E. (1946). Combat neuroses: Development of combat exhaustion. *Archives of Neurology & Psychiatry*, 55, 236–247.
- Tangney, J. P., & Dearing, R. L. (2002). *Shame & guilt*. New York: Guilford Press.
- Thoits, P. A., & Hewitt, L. N. (2001). Volunteer work and well-being. *Journal of Health and Social Behavior*, 42, 115–131.
- Tønnesson, Ø. (1999). Mahatma Gandhi, the Missing Laureate. Retrieved from [http://nobelprize.org/nobel\\_prizes/peace/articles/gandhi/](http://nobelprize.org/nobel_prizes/peace/articles/gandhi/)
- United States Army. (2005). *Medal of Honor citations*. Retrieved from <http://www.army.mil/cmh-pg/moh1.htm>
- Vaculik, L. (1990). Four selections. *Cardozo Studies in Law and Literature*, 2, 25–36.
- Vroderer, P., Wulff, H. J., & Friedrichsen, M. (Eds.). (1996). *Suspense: Conceptualizations, theoretical analyses, and empirical explorations*. Mahwah, NJ: Lawrence Erlbaum.
- Walker, L. J., Frimer, J. A., & Dunlop, W. L. (2010). Varieties of moral personality: Beyond the banality of heroism. *Journal of Personality*, 78, 3, 907–942.
- Walton, D. (1986). *Courage*. Berkeley: University of California Press.
- Weick, K. E. (1989). Theory construction as disciplined imagination. *The Academy of Management Review*, 14, 516–531.
- Williams, L. (1995, June 18). *Ideas & trends; What it takes to make a hero*. New York Times. Retrieved from <http://www.nytimes.com/1995/06/18/weekinreview/ideas-trends-what-it-takes-to-make-a-hero.html>
- Wilson, M. (2009, March 17). Leap to track. Rescue man. Clamber up. Catch a train. *New York Times*. Retrieved from <http://www.nytimes.com/2009/03/18/nyregion/18subway.html?em>
- Zillmann, D. (1991). The logic of suspense and mystery. In B. Jennings & D. Zillmann (Eds.) *Responding to the screen: Reception and reaction processes*. Hillsdale, NJ: Erlbaum.
- Zimbardo, P. G. (2006, January 1). The banality of evil is matched by the banality of heroism [Web essay]. Retrieved from [http://www.edge.org/q2006/q06\\_index.html#zimbardo](http://www.edge.org/q2006/q06_index.html#zimbardo)
- Zimbardo, P. G. (2007a, April 12). The heroic imagination: A talk with Phil Zimbardo. [Web essay]. Retrieved from [http://www.edge.org/3rd\\_culture/zimbardo07/zimbardo07\\_index.html](http://www.edge.org/3rd_culture/zimbardo07/zimbardo07_index.html)
- Zimbardo, P. G. (2007b). *The Lucifer effect: Understanding how good people turn evil*. New York: Random House.
- Zimbardo, P. G., & Boyd, J. N. (1999). Putting time in perspective: A valid, reliable individual-differences metric. *Journal of Personality and Social Psychology*, 77, 6, 1271–1288.

Received October 20, 2010

Revision received December 20, 2010

Accepted December 23, 2010 ■