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Heroism as Moral Intuition

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Synonyms

Moral judgment; Moral reasoning

Definition

Moral intuition is one basis for heroism that has evolved for conflict resolution in social groups.

Definition of Heroism and Heroism Studies

Heroism and heroic virtues, like courage, have been discussed since ancient times. Many thinkers have suggested different definitions of heroism and courage, from Aristotle (Broadie and Rowe 2002; Hobbes 1978; Plato et al. 1997; Walton 1986) to existential philosophers (e.g., Tillich and Gomes 2000) and modern psychologists (e.g., Dick 2010). Some philosophers have attempted to define them with their components and degrees, sometimes seeing them in terms of the conflict between fear and confidence (Putman 2001) and sometimes as the mid-point of cowardice and recklessness (Broadie and Rowe 2002). Even today, the lack of consensus on the definition hinders research on heroism and courage (Allison et al. 2017; Rate et al. 2007).

Just as there are different definitions, several models and questionnaires attempt to explain and measure heroism and heroic virtues (Rate et al. 2007). For example, Rate et al. (2007) offered a four-dimensional model of courage. These dimensions include intentionality/deliberation, personal fear, noble/good act, and personal risk. As another example, Kinsella et al. (2015) modeled the lay perception of heroic traits with 13 central (brave, courageous, protective, selfless, self-sacrificial, life-saver, determined, altruistic, helpful, honest, moral, dedication, and inspiring) and 13 peripheral (intelligent, talented, strong, powerful, exceptional, leader, fearless, risk-taker, proactive, humble, caring, personable, and compassionate) components. On the other hand, the model of Allison and Goethals (2011) has offered "the great eight traits" of heroes: inspiring, charismatic, reliable, selfless, caring, smart, strong, and resilient. These researchers further developed a need-based model to explain why heroes exist in societies (Allison and Goethals 2016), introducing two main functions of heroism: heroes satisfy the *epistemic needs* of people by sharing their wisdom and emotional intelligence and *energize* crowds by being moral models, using their charisma. Allison (2022) has since expanded these functions to include a total of 12 functions of heroism. Heroes give us hope, energize us, help

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us develop, promote healing, share wisdom, set a moral example, provide safety, evoke positive emotions, add meaning and purpose, reduce loneliness, assist in reaching personal goals, and help society achieve its goals.

Although heroism has been studied in the psychology literature for more than a century (e.g., Lord 1919), there is still no agreed-upon definition and model of heroism. Heroism is still puzzling and continues to attract attention in social psychology (Rusch 2022). Philip Zimbardo (2011) has defined a hero as a person who willingly takes risks to help another person or group while the heroic action may have significant damage to the self. Perhaps because of this self-damage risk in heroism, heroes are rare in the population (Franco and Zimbardo 2006). However, they are highly beneficial to society, considering their epistemic and energizing functions (Allison and Goethals 2016). It is not surprising that heroes are valued by society (Becker and Eagly 2004) and rewarded with medals of honor and bravery as a distinction (Mandel and Litt 2013; Nawata 2020; Walsh 2014).

Many past studies on heroism were conducted using a quasi-experimental design with medals of honor recipients to understand war heroism and altruistic suicide (Blake 1978; Riemer 1998; Rusch 2013, 2016). Some studies attempted to predict who sacrifices themselves for others in the military, and some focused on the comparison of the medal of honor awardees and nonawardees (Rusch 2013). When researchers compared the US Medal of Honor awardees with a control group, they found that awardees had higher lifetime reproduction success (Rusch et al. 2015). In addition, awardees, as well as volunteer (vs. drafted) soldiers, reported higher self-reported leadership, risk-taking, and loyalty values (Wansink et al. 2008). Some research also found that volunteers have a higher likelihood of being awarded medals than drafted soldiers, even though the death rate does not differ between the two groups (Birchenall and Koch 2015).

Not only war heroism but also civil heroism (e.g., organ donorship) and heroism in daily life are topics studied widely in psychology. Researchers have studied the effect of cognitive styles on heroic behavior (Rand and Epstein 2014), heroes' brain activation (Brethel-Haurwitz et al. 2018; O'Connell et al. 2019; Stupar 2010; Xie et al. 2020), their responses to fearful face stimuli (Stupar 2010), memory (Xie et al. 2020), empathy (Brethel-Haurwitz et al. 2018), backgrounds, and gender (Johnson 1996). For instance, it was found that most heroes are males, from lower socioeconomic status, and from small towns (Lyons 2005; Johnson 1996). Although statistical records of the Medal of Honor and Carnegie Medal of Bravery show that heroes are predominantly male, some criticisms of that literature question the robustness of gender differences in heroism (Becker and Eagly 2004; Rankin and Eagly 2008). For example, Becker and Eagly (2004) argue that the numbers of female heroes are at least equal to males depending on the definition of heroism. When heroism is operationalized as less risky altruistic behavior, such as organ donation and volunteering in charity organizations (compared to war heroism), no male dominance is found in general, and females are predominant in many types of heroism. Another perspective on gender differences in heroism focuses on the different versions of heroic and courageous actions.

A developmental study, for example, clustered different courage behaviors: (1) physical courage, in which a heroic act includes physical risk, (2) moral courage, which requires a protective act for others in a difficult social situation, (3) psychological courage, which is related to the acts against threats concerning personal well-being, and (4) the combination of psychological and physical courage (Santilli et al. 2021). This study found gender differences in physical and psychological courage among 592 children. Girls reported higher physical courage than boys, while boys reported higher psychological courage than girls. Although this result indicates a reverse pattern in adult samples (Pury et al. 2007), it is consistent with some other trends of boys and girls (Santilli et al. 2021). For example, this result can be interpreted as in line with girls' social orientation to help others requiring physical courage in many cases, which is more frequent in girls than boys (Cuddy et al. 2015), and boys' fear of ghosts

and monsters (related to psychological courage), which is more frequent in boys than girls (Gullone 2000).

Ultimate Explanations of Heroism

The studies in literature generally take heroism as high-stake altruism for the greater good of others (Rusch 2022). Whether heroism is an adaptation or a by-product of another evolved mechanism (Kurzban et al. 2015; Rusch 2016), it is clear that it may be risky for the hero but beneficial to society (Allison and Goethals 2016) and rewarding for heroes, too, if they can be successful in their actions (Becker and Eagly 2004; Mandel and Litt 2013; Nawata 2020; Walsh 2014). Although reputation-based theories of indirect reciprocity and costly signaling explain some mechanisms of heroic behavior (Barclay 2011), the literature still needs an overarching theory to comprehensively understand heroic behavior. Here, we use the Theory of Morality as Cooperation (MAC, Curry 2016) as a comprehensive attempt to explain heroism and heroic virtues.

The Theory of Morality as Cooperation

Morality has been thought to be linked with cooperation for centuries, from Aristotle (1992) to modern social and behavioral scientists (e.g., Haidt 2012; Fiske and Rai 2015; Greene 2013; Tomasello 2009). Indeed, humans have evolved in social groups cooperating for food and shelter (Tooby and DeVore 1987), and the problems of cooperation have had to be solved for better interactions among group members. MAC (Curry 2016) suggests that moral values have evolved to solve the problems of cooperation (e.g., division of resources) commonly faced during the ancestral environment.

MAC (Curry 2016; Curry et al. 2019a) identifies seven main cooperative problems and seven solutions to these problems (e.g., moral values) using an evolutionary game-theoretical perspective based on nonzero-sum games (Table 1). According to the game theoretical analysis of MAC, the seven main cooperation problems include (1) kinship, (2) mutualism, (3) exchange, (4) contest (hawkish displays), (5) contest (dovish displays), (6) division, and (7) possession. Since the resources are limited, cooperative problems arise during social interactions. Seven moral values (defined by MAC as moral "elements") have evolved as solutions to these problems: (1) family values, (2) group loyalty, (3) reciprocity, (4) heroism, (5) deference, (6) fairness, and (7) property rights.

These seven moral elements have been found to be endorsed with a positive valence (found as "good") in 60 societies (Curry et al. 2019a) in a study based on Human Relations Area Files (eHRAF) ethnographic archives. MAC's seven-factor questionnaire also has been validated by confirmatory factor analyses in WEIRD (Western, Educated, Industrialized, Rich, Democratic; Henrich et al. 2010) and non-WEIRD societies (Curry et al. 2019b; Yilmaz et al. 2021). The MAC questionnaire has better statistical fit values than other tools based on alternative theories, such as Moral Foundations Questionnaire (Graham et al. 2009, 2011), even while MAC has a higher number of factors, which constrains fitness values.

Heroism as Moral Intuition, Table 1 Examples of cooperative problems, solutions, and virtues in the morality as cooperation theory (Curry et al. 2022)

	Cooperative problems	Moral elements	Virtues
1	Kinship	Family values	Care
2	Mutualism	Group loyalty	Loyalty, solidarity
3	Exchange	Reciprocity	Trust, trustworthiness
4	Hawkish displays	Heroism	Bravery, generosity, fortitude
5	Dovish displays	Deference	Respect, humility, awe
6	Division	Fairness	Impartiality, equality
7	Possession	Property rights	Respect for property

To understand how moral elements work, we need to look at their evolutionary functions. For example, *group loyalty* solves cooperative problems with its related virtues and behaviors like friendship and teamwork. Without group loyalty, solving cooperative problems within the group and attaining group goals would be difficult. *Property rights* solve the problems of possession by prohibiting theft. Without property rights, it could be difficult to claim rights to our possessions, and the powerful would take all they want, like in the "state of nature" description of contractarian moral philosophers (e.g., Hobbes 1978). *Fairness* solves the problems of the division of resources in the same way.

The evolutionary function of *heroism* as a moral intuition is also not different than the former examples. Heroism solves the problem of conflict resolution (e.g., conflict over limited sources) more effectively than fighting, especially when the other party uses an alternative strategy for an easier conflict resolution: deference. If both parties claim right on limited sources and both show hawkish attitudes (similar to heroic virtues), then the outcome would probably be a fight, which is a high-cost solution. In such cases, one of the parties' recognitions of the hierarchy (e.g., deference) as a dovish (vs. hawkish) strategy would be an evolutionarily stable strategy. Another crucial topic about heroism is that since its basic idea is displaying power, heroism sometimes shows itself as generosity and protectiveness, not only as a claim of sources within the group. Therefore, MAC's approach to heroism also explains altruistic suicides and war heroism in line with "high-cost altruism" explanations.

To sum up, heroism is a moral intuition that solves cooperative problems. Like all other moral intuitions defined by MAC, heroism also must be an evolved adaptation because its solution to cooperative problems is less costly to all parties in social interaction. Many heroic virtues, such as dominance, bravery, fortitude, largesse, physical prowess, status, generosity, and noblesse oblige, might also reflect an evolved mechanism of heroism (Curry et al. 2019a, b). One can also exemplify vices regarding heroism, such as cowardice and miserliness (Curry et al. 2019b, 2022).

Proximate Explanations of Heroism

In addition to ultimate evolutionary explanations of MAC regarding the emergence of heroism in human social life, we could expect its elements to be correlated with other variables such as political attitudes (e.g., resistance to change, opposition to equality), prosociality, thinking styles (e.g., reliance on intuition or reflection), and cultural differences (e.g., social norm differences). First of all, all seven elements are positively correlated with each other. All elements are also found to be positively correlated with prosociality. In Yilmaz et al. (2021), some elements were correlated to opposition to equality traits, and some of them correlated to resistance to change traits. More specifically, heroism itself was found to be positively related to resistance to change. Similarly, other researchers found that heroism and deference were positively related to social conservatism but not to economic conservatism (van Leeuwen et al. 2022).

Despite the scarcity of empirical investigations, one other determinant of heroism is cultural orientations. With an analogy of chemistry, Curry et al. (2022) suggested that the seven moral elements may be combined with each other at different levels. For example, heroism and family values may be combined and compromise the molecule of family pride in some cultures, whereas the combination of heroism and group loyalty may compromise patriotism in others. Heroism and reciprocity together may create the molecule of honor as well, depending on specific characteristics of culture (e.g., level of pathogen prevalence, resource scarcity). Curry et al. (2022) suggested that the seven moral elements of MAC are universal; however, there might be cultural differences in the combinations of these elements (e.g., family values) and molecules (e.g., family pride).

Limitations

The gaps in the heroism literature can be summed up with three problems: (1) the lack of knowledge on the genetic background of moral elements, (2) the lack of actual behavioral measurements, and (3) the need for cross-cultural studies. As mentioned above, MAC suggests that morality and its elements/foundations are evolved adaptations. However, genetic evidence is needed to claim that something is an adaptation (Yilmaz 2019). Although we have no evidence for a genetic basis of seven moral elements, technological development and enhancing research methods in this area might soon fill this gap.

A second problem in the literature is the intention-behavior gap (e.g., the reliance on self-reported measurements instead of actual behavioral measurements (Camerer et al. 2018; Sheeran and Webb 2016; Yilmaz 2022). Participants may answer questions about their hypothetical judgments with many irrelevant considerations and psychological biases, such as social desirability (Hart et al. 2015). Therefore, their answers may not match their actual behaviors. Indeed, many studies showed that participants' intentions and actual behaviors differed in social, moral, and political situations (e.g., Bostyn et al. 2018; FeldmanHall et al. 2012). Moral courage (e.g., heroism) also is not immune to the intention-behavior gap (Baumert et al. 2013; Goodwin et al. 2020). Therefore, further studies on heroism and other moral elements should focus not only on hypothetical judgments but also on actual incentivized behavior, which is a method traditionally used in experimental economics (e.g., Baumert et al. 2013).

Lastly, the literature on moral elements needs cross-cultural studies since they will let us identify cross-cultural variation in the endorsement of moral elements (Yilmaz 2022). However, correlational cross-cultural studies should use nationally representative samples. Since experimental studies employ random assignment and investigate the causal effect of a specific experimental manipulation (compared to the control condition), they do not need representative samples. However, correlational studies in any field should endorse the standard use of representative data, considering sampling biases. If the sample is biased (e.g., university students), the results cannot be generalized to the whole population.

To conclude, since MAC is a relatively new theory, there is still a need for searching the evolutionary and psychological roots of moral elements, their molecules, and their relationship with other variables as defined and predicted by MAC (Curry 2016). A systematic investigation on the behavioral and genetic basis of moral elements and cross-cultural variation is needed. The boundary conditions and moderators, such as how these elements react to cooperation with in- and outgroup members, would also be an interesting future direction. The knowledge that will come from these studies will enlighten us not only on morality and cooperation but also on the moral elements (e.g., deference, reciprocity) that MAC proposes, including heroism. Therefore, with the development of MAC, heroism studies may have a new horizon and a steady ground to go further, using the definition of heroism as a moral intuition based on MAC.

Cross-References

- ▶ Cooperation and Competition
- ▶ Moral Courage
- ▶ Moral Foundations Theory and Heroism
- ▶ Moral Reasoning

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