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Studies on Documented Historical Cases of Civil and War Heroism: A Mini-Review

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ABSTRACT: This mini-review identifies and briefly describes a total of 12 published studies investigating aspects of war and civil heroism by analyzing larger data sets on documented historical cases of such behavior. Eleven of these studies focus on either Carnegie Medal or Medal of Honor recipients. These two most prominent data sources are briefly characterized and directions for future research are pointed out.

KEYWORDS: heroism, war heroism, civil heroism, Carnegie Medal, Medal of Honor

Heroism, defined here as voluntarily incurring high risks to one's own life in order to help others, is an astonishing phenomenon (Franco, Blau & Zimbardo, 2011), which has only recently begun to attract intensified interest in psychology (Allison, 2016; Allison & Goethals, 2016; Jayawickreme & Di Stefano, 2012; Kinsella, Ritchie & Igou, 2015a, 2015b). Not only from a proximate psychological perspective, but also from the ultimate perspective of evolutionary biology, heroic behavior poses a puzzle. Why would a behavioral trait be conserved, or even promoted, by natural selection that causes an individual to reduce his or her own chances of survival in order to increase those of others? A number of ways of answering this question are conceivable and have been proposed in the literature (see for example: Barclay, 2010; Farthing, 2005; Kelly & Dunbar, 2001; Rusch, 2014; Volland, 2014).

Instead of repeating or discussing these theoretical answers here, the aim of this mini-review is to present a brief descriptive overview of the existing scientific literature analyzing larger data sets of documented historical cases of heroic behavior. As will become apparent from this overview, the existing sources of such data are far from having been exhausted fully, and thus still represent highly promising starting points for future research on heroism.

The obvious benefits of studies analyzing larger sets of documented cases of heroism lie in their ecological validity as well as in their statistical power. Naturally, however, these benefits come at a cost. Quantitative research focused on detecting similarities of heroic actions and general patterns in the biographies of hero/ines necessarily needs to abstract away from interesting variations in the details of the cases studied. Furthermore, the data currently

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available do not allow us to study the impact that a survived act of heroism itself or its public recognition has on an individual's later life. Still, as recent seminal studies show (McNamee & Wesolik, 2014; Rand & Epstein, 2014), the data sources introduced in the following sections can be fruitfully combined with complimentary, qualitative research methods that allow future researchers to also investigate more fine-grained research questions.

The Main Data Sources

The majority of studies on documented historical cases of heroism draw their data from two sources. The first group of studies analyzes cases of war heroism distinguished with the highest US-American military award, the Medal of Honor (MOH). The MOH is awarded for actions of "conspicuous gallantry and intrepidity at the risk of life above and beyond the call of duty" performed by members of the US military during armed conflict (Salazar Torreon, 2015). The second group of studies analyzes cases of civil heroism distinguished with the Carnegie Medal (CM) issued by the Carnegie Hero Funds Commission. The CM is awarded to civilians from the US and Canada "who voluntarily risk their own life, knowingly, to an extraordinary degree while saving or attempting to save the life of another person" (see carnegiehero.org). Professional rescuers, for example, paramedics, policemen or firefighters, children potentially too young to comprehend the risks of their actions, and persons who came to the rescue of their relatives are, except for some extreme cases, generally not considered eligible for a CM by the Carnegie Hero Funds Commission.

Obviously, both these sources of data on heroic behavior share the constraint that they exclusively contain cases which were deemed award-worthy by the respective selection committees. This precondition might result in biased selections of cases in both data sources. An additional caveat applies specifically to the MOH, as the eligibility criteria for this decoration have changed quite substantially over the course of its earlier history. Only roughly since the end of World War I, the heroic actions distinguished with a MOH can be considered comparable in this respect. The eligibility criteria for the CM, however, were laid out by Andrew Carnegie himself when he established his Hero Funds in 1904 and have remained unchanged since.

In spite of the potential issues of both data sets, they still represent highly valuable sources for the analysis of heroic behavior. Their main advantages are their comparably high trustworthiness and the level of detail of the information extractable from them. The fact that both medals are awarded by specialized committees, for one, reduces the probability that bogus or ambiguous cases are included. Further, the standardized official case reports which accompany each award allow researchers to gather a lot of detailed information on the respective hero/ines, the persons their actions benefited, and the situational contexts of their heroic actions.

Finally, another potential obstacle to the quantitative analysis of these data sources lies in the sheer number of cases which they contain. As of December 2015, 9,821 CMs have been awarded (see carnegiehero.org) and a total of 3,512 Medals of Honor, 1,022 of these during and after World War I (according to Salazar Torreon, 2015; numbers for the MOH vary to some extent depending on source and date, because a number of persons received more than one MOH, some awards were revoked, and additional medals are awarded from time to time also for actions during conflicts which have already ended). Thus, taking into account that coding information from the case reports requires a lot of careful 'manual work', it is not surprising that many of the studies reviewed in the following sections focus only on subsets of these cases.

Studies on War Heroism

Being the highest US-military decoration, the MOH has, of course, not only attracted scientific attention. A number of popular books exist which portray the biographies of selected MOH recipients and the circumstances of their heroic actions (e.g. Murphy, 2005; Willbanks, 2011). Before a recent resurgence of scientific interest in these cases, only the sociologists J.A. Blake and J.W. Riemer published four quantitative analyses of data extracted from MOH case reports (Blake, 1973, 1978; Blake & Butler, 1976; Riemer, 1998). In his first two studies, Blake categorized the heroic actions performed and analyzed the correlation of these different kinds of actions with the ranks of the soldiers performing them (Blake 1973; Blake & Butler 1976). In addition, he also analyzed the correlation of soldiers' ranks and their mortality during or as an immediate consequence of their heroic actions. Blake (1978) and Riemer (1998) screened the case data for instances of 'heroic suicide', i.e. cases in which the respective soldiers covered explosive devices with their own body in order to protect comrades in close proximity, and worked out commonalities of these cases.

Recently, then, three additional studies investigated further aspects of the MOH case data. Analyzing 966 cases from both World Wars, and the Korean and the Vietnam War, Rusch (2013) investigated differences in the types, and mortality and injury risks of heroic actions between attacks and defenses. Combining the case data with additionally gathered biographical information, Rusch, Leunissen and van Vugt (2015) compared the reproductive success of surviving MOH recipients of World War II with that of regular veterans of this war. Rusch and Störmer (2015), finally, provided a descriptive overview of correlations of rank and mortality for 988 cases from the World Wars, and the Korean and the Vietnam War.

Studies on Civil Heroism

Just like the MOH, the CM also attracts popular attention. Selected recipients' biographies and detailed accounts of their heroic actions are assembled in a book by Douglas R. Chambers (2004). The scientific literature on CM case data, however, is just as sparse as that on MOH recipients. The only study that extracted detailed data from this source is an analysis of 676 cases from the years 1989-1995 (Johnson, 1996). Its main findings were that the majority of these CM recipients are male, and that female recipients more often rescued relatives or people they knew as compared to male recipients. The mortality risks incurred did not differ between male and female recipients in this study. A subsequent study screening all 8,706 CM recipients from the years 1904-2003 confirmed that the vast majority, roughly 90%, of CM recipients are male (Becker & Eagly, 2004). Two more recent studies, finally, did not analyze the official CM case reports but worked with CM recipients' testimonies more directly. Rand and Epstein (2014) analyzed 51 documented statements of CM recipients describing in their own words how they arrived at their decisions to help others in need. McNamee and Wesolik (2014) conducted interviews with 30 CM recipients and compared them to interviews with randomly chosen adults to investigate the influence parental education may have had on CM recipients' inclinations to help strangers.

A noteworthy exceptional study on documented cases of civil heroism also exists in the literature and must not go unnoticed. Instead of relying on CM case data, Lyons (2005) investigated 355 news paper reports on heroic behavior in the UK between 2001 and 2004. Using this independent source of information, this study was able to confirm and extend the earlier findings by Johnson (1996) and Becker and Eagly (2004).

Conclusion

The aim of this mini-review was to present a brief overview of the existing scientific literature analyzing larger data sets of documented historical cases of heroic behavior. Overall, 12 relevant studies could be identified, 7 of them analyzing heroic actions during armed conflict, the other 5 analyzing instances of civil heroism. All but one of these studies focus on Medal of Honor or Carnegie Medal recipients. Table 1 below provides an overview of the studies and their key characteristics.

As can be seen from the overview provided in this mini-review, empirical research on documented cases of civil and war heroism using the available data sources is far from complete. Further development of qualitative research designs based on these sources, as demonstrated in the instructive studies by Rand and Epstein (2014) and McNamee and Wesolik (2014), is a promising route toward a better understanding of cognitive, situational and biographical factors influencing heroic decisions. Furthermore, the analysis of CM case reports has not yet been extended to the full set of currently almost 10,000 cases. In addition, combining the data extractable from the official case reports provided for CM and MOH recipients' actions with data from other sources, for example, family history research websites and the US Census Bureau, will allow for the quantitative investigation of a plethora of highly interesting research questions about real persons who, when confronted with a vital decision, opted to act heroically.

Another important direction for future research, finally, is to make additional sources of detailed information on documented cases of both war and civil heroism accessible. With the notable exception of the study by Lyons (2005), all findings that we currently have stem from only two sources and are limited to the US and Canada. Given that both these sources may be subject to quite specific biases, replications and generalizations of these findings using independent sources of data are urgently needed.

<i>Domain</i>	<i>Study</i>	<i>Sample</i>	<i>N</i>		<i>Description</i>
War	Blake, 1973	Medal of Honor (Korea & Vietnam)	Vietnam: 195 Korea: 130 Total: 325		Analyzed survival conditional on rank
	Blake & Butler, 1976	Medal of Honor (Vietnam)	Total: 207		Analyzed type of action conditional on rank
	Blake, 1978	Medal of Honor	WWII: 200 Vietnam: 207 Total: 407		Analyzed ‘altruistic suicide’ conditional on service branch
	Riemer, 1998	Medal of Honor	Screened: 3,408 Analyzed: 125		Analyzed instances of ‘heroic suicide’
	Rusch, 2013	Medal of Honor (WWI&II, Korea, Vietnam)	Total: 966		Analyzed type of action conditional on strategic situation (attack/defense)
	Rusch & Störmer, 2015	Medal of Honor (WWI&II, Korea, Vietnam)	Total: 988		Analyzed survival by rank, war, military branch and age
	Rusch Leunissen, & van Vugt, 2015	Medal of Honor (WWII)	Screened: 464 Analyzed: 123		Analyzed reproductive success of surviving recipients
Civil life	Johnson, 1996	Carnegie Medal (1989-1995)	Total: 676		Analyzed sex, age, residency, occupation and survival of heroes and of the recipients of help, and the relations of heroes to recipients
	Becker & Eagly, 2004	Carnegie Medal (1904-2003)	Screened: 8,706		Analyzed sex of heroes
	Rand & Epstein, 2014	Carnegie Medal (12/1998-06/2012)	Analyzed: 51 statements by heroes describing their decisions		Analyzed the deliberativeness of decisions to act heroically
	McNamee & Wesolik, 2014	Carnegie Medal	Total: 30		Interviewed CM recipients about their upbringing
	Lyons, 2005	UK Newspapers (01/2001-10/-2004)	Identified: 355 Analyzed: 286		Analyzed sex, age and socio-economic status of heroes and of the recipients of help, and the relations of heroes to recipients

Table 1: Overview of studies investigating aspects of heroism by analyzing data on documented historical incidences of heroic behavior in war and in civil life

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