

Conceptualising Acts of Civil Heroism: An examination of civil heroic action taking.

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## **Abstract**

With no duty, training, minimal knowledge and often no direct connection to the victim, civil heroes put themselves at risk of physical harm or even death to save others. According to a number of accepted theories, thought processes, and subsequent action is said to happen in a rational state of mind, with the outcome desirability and probabilities being cognitively processed. However, a recent focus on emotions offers an alternative to such a process and with such, this paper provides an in-depth analysis of how ones emotional intuitions can determine civil heroic action. Whilst it was found that civil heroic action is likely to be due to emotional intuitions, it withholds assumptions that *all* civil heroic instances are processed in this manner. However, with moral intuition occurring with high intensity, before one has the time or ability to cognitively reflect upon the situation; it is assumed that this is true in the majority of cases.

## Introduction

### Statement of the Problem

August 2010 saw the death of six American teenagers, whom drowned trying to rescue a friend and family member who accidentally stepped into deep water (Rohrer, 2010). Neither the boy in need of aide nor the would-be-rescuers could swim, yet despite the risk to their own lives, an attempt at a rescue was made by all. Ironically, the teenager, whom they tried to help, managed to survive, thus showing that the course of action taken was not in fact the best course possible, with the probability of risk being so vast and the consequences too severe. This example of risk taking is one of many which run counter to the most established theories, wherein individuals come to the aide of others, regardless of the obvious detrimental effects it may have on themselves. According to Dawes (1998), previous to carrying out an action, one must actually *decide* on whether to carry out said action, using judgements as a guide, based upon ones evaluation of the outcome desirability and outcome probability. Following this interpretation of judgements, various other theories, including The Rational Choice Theory, assumes that an individual is completely informed, rational and infinitely sensitive to stimuli (Edwards, 1954) and thus able to make the correct decision. It is also suggested in such theories, that when in a situation of high stakes, a person is unlikely to sway from rationality, regardless of the level of emotionality (Kahneman, 2003). Therefore, if such theories are correct, this suggests that the would-be-rescuers, as seen above, were aware of the costs at all times, yet still took action in the face of overwhelming risk. With examples of people placing their own life on the line for others, against general theoretical expectations, it is important for

risk assessment theory purposes to examine this heroic phenomenon more closely. By not only allowing for a novel angle to theories of risky decision making and subsequently providing better safety methods, the study of heroism may aid in a better understanding of helping behaviours, hopefully leading to a stronger, more cohesive society.

### **Description of Terms**

Throughout the world a hero is often seen as the highest form of human being. Used in conjunction with such descriptions as idol, champion, martyr and model, the hero is revered, yet rarely is this status striven for, or even seen as attainable. Concisely summed up in the Merriam-Webster Dictionary (Hero, 1c, n.d.), a hero is “*a man admired for his achievements and noble qualities. One who shows great courage*”.

Reflecting the stereotypical image, this description is mirrored in the Oxford Dictionary (Hero, 1, n.d.), wherein only “*a person, typically a man, who is admired for their courage, outstanding achievements or noble qualities*”, is seen as a hero.

Whilst historically, definitions of the hero refer to male figures and the heroine as the same ideal in feminine form, the term hero is now often used in general to depict both genders, as can be seen reflected in the words of the Oxford Dictionary, by stating that it is “*typically male*”, rather than being definite with the gender.

As detailed by Hume (2001), whilst the hero is expected to be a reflection of the current times and ideals, definitions remain to be similar to those in past centuries, as well as assuming no gender differences between morals, ideals and actions, by seeing a heroine merely as a female hero. Whilst Hume’s research defines the heroine as a separate entity to the hero, not only does this defining highlight that heroic

women hold different traits to the male hero, but that one woman's hero does not necessarily reflect the ideals of all others. Detailing different roles that women may assume, such as the house-wife, or mother, she aims to show how the heroine has differed over time and within the media, yet this also brings into question the idea that a hero is a single, stable phenomenon, with particular traits. By detailing that women have varying roles, the assumption is made that therefore they also have varying ideals and types of hero which collaborate with their own personal opinions, thus making the categorization process extremely difficult. However, whilst such definitions reflect the current approach of naming people a hero for a wide range of reasons, this does in some way diminish the status of those which have acted in the most extreme examples and with such, the line between a role-model and hero may often be blurred.

In order to define what a hero is, there is great importance in examining what typifies heroic behavior, as can be seen in these vague descriptions of what an act of heroism is. Described as "*great bravery*" in the Oxford Dictionary (Heroism, mass noun, n.d.) and "*fulfilling a high purpose or attaining a noble end*" by the Merriam-Webster Dictionary (Heroism, 1, n.d.), these definitions describe certain aspects, however, they fail to offer an adequate description by highlighting entirely separate components. Moreover, whilst it is unquestionable that for one to be named as a hero that person has to have acted in a way which gains a certain level of admiration, the labeling of the actual deed itself is highly subjective. Using suicide bombers as an example, while the majority may view such an action as abhorrent, these views are often the opinions of those on the opposing end of the action, whereas those in support of the suicide bombers cause would likely see this person as a hero. Such is also the case wherein military soldiers are often labeled as heroes by the mere action of joining

the cause, regardless of their role, morals, or of any actual heroic deed undertaken. By simply having a job which fights for a cause, regardless of what that cause entails, soldiers are called heroes in popular culture before any specific heroic action has been carried out. Furthermore, individual differences tend to be forgotten in favor of the view that soldiers hold idolized morals and fight for moral justice, rather than working for a wage, or for the enjoyment of the job. Such examples show the difficulty in defining a hero, wherein one person's hero may be another's villain and furthermore, the labeling of a person as a hero is highly subjective due to the huge variations on what constitutes heroic behavior.

Sullivan and Venter (2010) noted this lack of unanimity in defining what a hero is and found that there were not only no single accepted view, but that as well as the heroes' characteristics being important, so are the characteristics of those identifying the hero. Stating three standout points, Sullivan and Venter found that a hero holds noteworthy accomplishments, is a role model for action and also acts as an ideal for one's self-image, through their character, rather than deeds. Furthermore it was found that it was not so much the specific action which deemed them to be a hero, but certain traits that the person held which were idolised by the identifying individual. Therefore these points highlight the subjectivity and importance of the individual/group identifying the hero, with those which match an idealised self-image being those which they would see as a hero.

Alongside Sullivan and Venter, Phillip Zimbardo has placed himself at the forefront of Heroic research, exclaiming that whilst extensive research has been made into altruism, there remains a significant lack of understanding of the heroic phenomenon and its components. Being renowned for his early study into the

“banality of evil” (Zimbardo, Haney, Banks, & Jaffe, 1973), Zimbardo demonstrated that not only are malevolent humans not inherently so, but that anyone has the capability to carry out evil actions under certain conditions. In a recent adaptation of stance, Zimbardo has expressed the notion that not only is there a banality of evil, but that *heroism* is a trait which can also be shown by anyone. The circumstances simply need to be correct. This stance was also taken by Sullivan and Venter (2010) wherein they pointed out that the hero, as a role model, may serve to positively influence people’s self-concept, encouraging them to strive for possible future selves, regardless of whether they consider themselves to hold the ‘required’ traits. This in turn promotes the idea that one does not need to have certain qualities to act heroically, yet may act so when the opportunity presents itself, because such actions will *gain* them their desired qualities. Looking back at the original dictionary definitions, one must be brave and show courage, yet it is only in hindsight that a person can be deemed to hold such traits. Thus the action itself takes precedence over ones traits as the action needs to be carried out before ones “noble qualities” are realised. Therefore, one need not have or be seen as having courage or being brave in order to act heroically, as once the action is carried out these attributes will be made evident.

### **Categorising Various Types of Heroism**

In analyzing the differences between heroic action and altruism, Zimbardo, Franco and Blau (2011) emphasized four notions for heroism:

1. Heroism is conceptually separate from alternate pro-social behaviors such as altruism
2. Risk during pro-social actions does not necessarily indicate heroism



3. It is an assemblage of various courageous actions, as of yet viewed as independent
4. Although inherently pro-social, negative aspects are overlooked due to a lack of regard for its complexity

The above points begin to indicate the intricacies of heroism, indicating that it is a novel and complex phenomenon, separating it from role-models and the causal use with which people are labeled as heroes by the media. Such details have allowed Zimbardo, Franco and Blau to evaluate it in its own capacity, leading to the categorization of three separate types of Heroism.

**Martial (Military)** – The martial type of hero is most notably seen as a military figure, putting themselves in the face of physical peril (and long term mental peril), in order to fulfill ones duty, whether it is towards another individual, group, or for the cause. Whilst the current state of war sees this type of heroism most notably attributed to military soldiers, it also refers to those in the police force, health system and firefighters etc., which have a duty to act in a certain manner. Although present use of the term “hero” is sometimes used synonymously with soldiers in general, categorically it only refers to those which act above and beyond the call of duty.

**Civil** – Similar to martial heroism in that it involves a risk of physical harm, the actor is not however, trained in the situation, nor do they have rules or a code, which pushes the individual to act heroically. They are not duty bound, yet they put themselves at physical risk, which may result in “*death, serious injury, disfigurement and pain*” (Zimbardo, Franco and Blau, 2011, p. 100).

**Social** – This type of heroism does not generally involve immediate physical harm, yet harm may occur eventually, in the long term. It also consists of a certain level of personal sacrifice, including financial risk, potential loss of social status, long term health problems, and social ostracism. The objective of this type of heroism is to preserve a community-sanctioned value against threat, or to promote and establish a new ideal. Acts tend to be less dramatic and occur over long periods of time, as well as often being undertaken in private settings; however this is not always the case (Martin Luther King Jr., women’s rights, etc.). The costs associated with this type of heroism are often certain to occur, yet there remains a willingness to act.

### **Definitional Complexities and Inadequacies**

The above dictionary definitions insist that a hero “*shows great courage*”, asserting that a person must actually carry out an action to be labeled as such. Furthermore one must have “*noble qualities*” to be a hero, prescribing to the idea that the act must be carried out for morally correct reasons. Therefore, not only is the act important, but also the attributed qualities with which the action was undertaken. This is reflected in Zimbardo, Franco and Blau’s (2011) definition of heroism, wherein they see the heroic act as a wholly social action, without any anticipated gain towards oneself. Furthermore, heroism must be a voluntary action where one is aware of the risks and the possibility of harm, yet are willing to accept anticipated sacrifice. With Zimbardo et al. stating that “anticipated gain at the time of the act disqualifies it from being heroic” and with a literature consensus agreeing on this, this specification determines that whilst an action is needed, this is of lesser importance and that even if it was carried out for morally correct reasons, the simple matter of thinking a personal gain will be made, disqualifies it from being heroic. Therefore, expert opinion deems

that whilst action is a requirement, it is rather the intention behind the choice made which separates heroism as from other actions. With anticipated gain prohibiting one a heroic status, this implies that action due to the anticipation of the possible negative consequences to ones-self of *inaction* (e.g. negative self-image), can also subsequently rule out one being deemed a hero. With that assumption in mind, could a man be considered a hero if he chose to not save a child, concluding that inaction would cause considerable emotional distress to himself, yet it is of greater social benefit if he himself survives? Furthermore, could it be considered immoral to put one's own life in danger and thus the wellbeing of one's own family and social group, and therefore un-heroic to put one's life at risk for another? Does it not show courage to allow a death at the expense of greater social wellbeing? Considering such questions, non-action, that being the choice to refrain from a seemingly courageous and heroic saving of a life, may in-fact be *more* courageous and selfless, due to emotional harm generally having a longer duration and wider effect than physical harm (Zhansheng, Williams, Fitness, & Newton, 2008) and thus be more heroic. It is however, most likely that one would neither be called a hero, nor consider oneself as such, due to the immediate negative consequences of the situation, rather than any future or indirect positive outcomes of placing one's own life over another. Therefore, it seems likely that the direct outcome disproportionately outweighs the indirect outcome when one determines a heroic act and that the immediacy of a situation may determine the importance of such outcomes. As an example, in cases of civil heroism, such as the drowning American teenager (Rohrer, 2010), high immediacy increases the importance of the direct outcome (life or death), thus the withholding of action due to greater social future benefit, will not be lauded and the actor would most likely not be labeled a hero, with the opposite being more likely. In-fact, after an extensive search

throughout the online media and psychological journals, the researcher could not find one single case where a person had been labeled a hero after letting someone come to harm in order to protect their own life, as they feel that they are more beneficial to society than the other person. However, in social heroism situations, low levels of immediacy lead to sacrifices being accepted, thus the direct outcomes appear to have a lower level of importance. This shows that the immediacy of the situation may contribute greatly to the labeling of a hero, regardless of the intentions one has. However, it must be noted that one may satisfy *Zimbardo's* criterion for heroism, yet may never be labeled as such due to these highly apparent and grossly negative outcomes.

In order to maintain consistency and order throughout this paper, *Zimbardo's* definition of civil heroic acts will be used. Involving a risk of physical harm and acting of their own accord, the individual holds no situational training and minimal experience, nor rules, or a code which to act by. This paper notes various discrepancies with a person not being named a civil hero if they anticipate any gain to themselves. However, with anticipation implying a thought process, and this paper examining whether one does in-fact cognitively process the information, focus will be placed on the action, rather than the socially constructed naming of a hero.

### **Prerequisites and Aim**

The inadequacies of various concepts of heroism are apparent, with there seemingly being a number of differences between the view depicted by the media and that of the psychologists, with the most notable difference being the outcome. The mainstream and media views seem to place the focus on the outcomes and actions,

whereas psychologists highlight that one needs to have certain intentions to be properly named a hero. However, a person cannot anticipate any personal gain from their actions, as the act needs to be entirely unselfish. With ones intentions being placed at the forefront of defining heroic action, this implies that a thought process or cognitive evaluation occurs before the action takes place, rather than acting instinctively, as is seen with the main theories on risk taking, such as the Rational Choice Theory. Such theories assume that a person weighs the probability and consequences before action takes place. However, in contradiction, heroism is defined as separate from altruism and bystander intervention in that there is a period of deliberation and indecision, which can last from several seconds to several minutes in altruistic action, whereas heroic action is seen as an instantaneous reaction (Latane & Nida, 1981). Furthermore, recent work by Haidt and Kesebir (2010), prescribe to the idea that moral judgments are driven by instinctive intuitive emotional responses. Therefore, with the heroic act being described as an instinctive response, coupled with the fact that it is based upon moral intuition/reasoning, emotional reactions may in fact play a greater part in acts of heroism than it has previously been credited with.

With such highly contradictory points and recent progressions in moral and emotional research, a further and deliberate examination of whether heroic action is reflective or instinctive is needed, with emphasis being placed on the role of emotions. This paper will specifically target acts of civil heroism due to one's likely inability to anticipate such events, as well as a lack of previous knowledge or training, which may in turn lead to the highest levels of emotion present of all heroic subtypes.

## Theory

### Current Theories and Their Inadequacies

As previously stated, before any action can be taken, one uses judgements in deciding whether and how to act, evaluating the outcome desirability and outcome probability (Dawes, 1998). Whilst this probabilistic judgement is said to occur within a rational state, anomalies still occur due to violations, e.g. Bayes Theorem. In a particular situation, an individual is said to use the above method to make a decision, yet they only have prior knowledge to base this decision on, therefore if that information happens to be incorrect or incomplete then the best decision may not be chosen, regardless of how well thought through. Additionally probability can be easily misjudged, leading to further miscalculations of the risk level. The Rational Choice Theory takes this interpretation of judgements further by assuming that an individual is “completely informed, rational and infinitely sensitive” (Edwards, 1954). However, whilst this may detail ones feelings and actions in certain circumstances, it is inadequate in accounting for all situations by failing to take into account situational and personal constraints, as well as assuming rationality is maintained. Kahneman (2003) suggests that rationality is continuously maintained when in a situation of high stakes, however, it is this issue of rationality differing across theories that is an important determinant towards how theories explain decision making. Counter to the above theories, as discussed by Campitelli and Gobet (2010), Herbert Simon’s concept of bounded rationality suggests that perfect rationality is non-existent, the quality of decisions depends on the expertise of the decision maker and that cognitive processing plays a large part. He suggests that heuristics are used instead as short cut strategies, and rationality is only assumed by the individual, rather than being definite.

Whilst theories based on rationality hold the greatest recognition and influence, alternate ideas have gained support in recent years, such as research into the effect of emotion on cognitive processing, taking into consideration dual processing systems, rather than backing one or the other. Such theories include Stanovich and West's work (2000, 2002) in which they proposed two separate processes, labelled as system 1 and 2. Detailing discussions as to why individuals violate normative theories of decision making and continue to make supposedly irrational decisions, they pinpoint that individual differences have been mostly overlooked and that they are the reasons why certain behaviour is assumed as irrational, as there is simply no theory that currently encapsulates all actions. These two systems consist of system 1, wherein an individual uses intuition as a fast, automatic and emotional based action steering tool, and system 2, which involves a slow and controlled response, where reasoning is used in situations of neutral emotionality. The dual processing theory highlights that situational and personal traits may vastly affect the way in which one makes judgements, with emotionality being a large factor in determining which process will be used. This work detailing the effect of emotionality may go some way in aiding explanations for heroic action taking. With such vastly conflicting theories producing mostly convincing results on judgements under risk, the ability to attribute such ideas to heroic action becomes difficult, yet with such a depth of knowledge available, the subsequent theory is made more reliable. Further analysis of Stanovich and West's work will be detailed below, including the crossover from judgements to heroic action taking, as well as its strength as a theory, yet the current stand-out theory of decision making under risk, at times of uncertainty remains to be the Prospect Theory (Kahneman & Tversky, 1979). The Prospect Theory highlights that rather than individuals focusing on the final outcome, as with the Expected Utility Theory,

decisions are made based on the potential value of losses and gains. Now, whilst this theory has been highly lauded, with Kahneman even gaining a Nobel Prize based on this work, this theory assumes and is based upon, the idea that the outcome probabilities of risky situations are known. However, civil heroic situations are highly novel to the individual, often with highly unclear outcomes and outcome probabilities. Furthermore, with heroic action being taken within seconds of viewing, a thorough probabilistic judgement would be difficult to undertake in such a timeframe. It is clear that the prospect theory is widely seen as sufficient in predicting behaviour and subsequently implementing methods of avoidance and action in the face of risk. However, it is important to note that these are mostly based upon known probabilities and assume that rationality is, if not maintained, reasonably intact, whereas it fails to incorporate much in the way of the emotional effect, on both rational thinking and its ability to cause action without premeditation.

The ability of a person to use probabilistic judgements is highly specific to the individual, being dependant on capability, knowledge and experience. Thus, it could be assumed that those which perceive themselves to have reliable knowledge are more likely to use this and in turn are less likely to use alternative methods to initiate an action. Fischhoff, Lichtenstein, Slovic, Derby, and Keeney (1981) highlighted these differences between lay people and experts, wherein they showed that lay people, being more reliant on media sources of information, overestimate the amount of unusual or dramatic deaths and underestimate common killers. It was summed up that this shows that lay people may be inadequate at judging risk and therefore are likely to take more risk, yet this assumes that risky choice is based upon rational estimation of the risky probabilities. With experts being shown to have a more thorough knowledge



of possibilities, it is prudent to suggest that experts may greater rely on these than lay people and with that, a certain level of knowledge may lower the level of emotional affect. Building further upon individual differences, Bennett (1999), pointed out its contribution, by detailing that not only are responses to risk dependant on context, but on a range of other variables, including political and moral beliefs, which aid in determining the level of fright factors, as well as which sources can be trusted to offer reliable information. Crucial to the effect of individual differences is that whilst people act differently depending on the fright factors, it is not what the fright factors *are* that is important, but how a person perceives and interprets the factors, e.g. the situational voluntariness (Fischhoff, 1995).

In summary, current theories may cater greatly to those with situational knowledge, rather than a lay person in a highly novel incidence. With, the majority of individuals not having sufficient expert knowledge to use in decision making, alternative approaches may be needed to explain the swaying from the normative rule, as can be seen with heroic behaviour. Alternate processes which produce action must be examined, including heuristics and the effect of emotionality, with focus being placed on those without great knowledge of the various conditions assumed e.g. probability. Placing the focus on cases of civil heroism, allows for the assumption that one has low levels of situational knowledge, rather than those named as martial or social heroes and allows for a thorough examination of how heroic actions are instigated, without ones training overwhelmingly aiding the process. Various theories currently assume that some semblance of rationality is maintained and reject the idea that emotions may override ones rational judgement, such as the rational choice theory. However, it is hypothesised that not only can decisions be highly situational

and dependant on individual differences, but that emotions may cause a swaying from rational cognitive reflection, and instead, initiate instinctive heroic action based on intuition, without regards to the overwhelming level of risk.

### **Spontaneous Action Taking**

Before it is possible to examine whether heroism is based upon intuitive action taking or whether one takes time to process all available information, examinations must first be made into the various differences in types of quick action, in order to further define and determine the likelihood that reflex action takes place. There are two main contributing psychological phenomena when examining fast, spontaneous actions, namely being instincts and impulses.

### **Instinct.**

Concisely summed up by William James (1890, p. 383) instinct is “the faculty of acting in such a way as to produce certain ends, without foresight of the ends and without previous education in the performance”. As can be seen, without detailed analysis, this in itself is closely matched to Zimbardo’s definition of heroism in a civil setting, by detailing the lack of foresight and action without previous knowledge. Such actions, without the aid of learning or experience is attributed to evolution, and with such, instincts are ascribed to one’s base desires such as tending others (Taylor, 2003), language (Pinker, 2007), pleasure seeking (Wallenstein, 2008), and violence (Pinker, 2002). However, whilst there is a general acknowledgement that instincts are a real and plausible phenomenon, its place in the study of psychology, along with evolutionary psychology in general, has been widely disregarded by experts due to the thought that it is biological, rather than psychological (Hampton, 2004). In addition to

this, whilst there are certain areas in which instincts are attributed and results can be found to support this, as can be seen above, it remains so that psychological research generally prescribes to the idea that the majority of actions are learned, rather than innate, and that only the basest desires are instinct. This is reflected in McDougall's detailed definition (McDougall, 1908) wherein he describes it as "an inherited or innate psychophysical disposition which determines its possessor to perceive and to pay attention to objects of a certain class, to experience an emotional excitement of a particular quality upon perceiving such an object, and to act in regard to it in a particular manner, or, at least to experience an impulse to such action." (p. 19). This definition is both more specific than James' in that it is in-depth and very particular, and also broader, in that it does not limit itself to certain actions but encompasses a wide range of emotions and impulses. Rather than detailing particular actions, this definition recognises that all people have the impulse to act in certain ways and may feel emotional excitement, yet these feelings do not necessarily indicate a particular action will be taken. Learned behaviours and acquired cognitions may prevent one from acting on these instincts, as well as aiding in the suppression of emotions, as can be seen in the withholding of aid, such as the bystander effect (Darley & Latané, 1968). In regards to heroism, ones instincts may cause an individual to experience heightened emotions, causing a desire to act, however, the action itself may not to be determined by ones instincts, but by their learned cognitions. Further examinations will be made into what causes such levels of emotionality, yet at this stage it seems likely that whilst instincts may play a role in heroism and may have some regulation as to how one acts, it remains so that instincts are shared amongst *all* humans, yet acts of heroism, in accordance with the chosen

definition, are rarely seen or acknowledged, thus instincts as a single factor cannot adequately explain heroic action.

Instinct is viewed as a universal and innate mechanism, which relates to certain desires, increases the likelihood of fast, reflexive action, without any prior thought of the end result or with the aid of experience. This goes some way to explaining certain instances of heroic action taking; however, as noted above, it cannot explain it fully, as its universal nature would see a significant increase in cases of heroism if this was the main contributing factor. Thus it is important to examine whether, rather than a universal mechanism driving heroic acts, there are certain characteristics which increases the likelihood of such action taking place.

### **Impulsivity.**

Impulsivity, as a trait, is the tendency to act on a whim, displaying behaviour characterized by little or no forethought, reflection, or consideration of consequences (VandenBos, 2007). Defined as “erratic and poorly controlled behaviour” (Campbell & Werry, 1986, p. 120), it is widely studied across a spectrum of differing disciplines, with the most journal publications in 2011 being within alcoholism research, the *Journal of Personal and Individual Differences*, and the *Journal of Psychopharmacology* (Impulsivity Publications, n.d.). Covering such different areas of research, impulsivity, its reasons and resulting effects is an important phenomenon in explaining certain actions, such as substance abuse (O’Boyle & Barratt, 1993, Semple, Zians, Grant, & Patterson, 2005) and eating disorders (Peake, Limbert, & Whitehead, 2005). Whilst there is no clear consensus as to the causes of such behaviours, four aspects have been recognised in defining impulsivity, consisting of 1) Experienced

urgency, 2) lack of premeditation, 3) lack of perseverance, and 4) sensation-seeking. As detailed above, impulsivity is often linked to negative behaviours, with sensation seeking in its own capacity, also being attributed to various criminal activities (Horvath & Zuckerman, 1993), and risky behaviours, such as unprotected sex (Black, 2009). Having been partially attributed to inconsistent and poor parenting, as well as being seen as being developmentally acquired (Olson, Bates & Bayles, 1990), impulsivity is seen as a multifaceted phenomenon, influenced by gender, parenting and temperament (Leve, Kim, & Pears, 2005). With impulsivity being seen as a negative trait, action has been taken to implement interventions and self-control techniques in order to suppress such urges. Therefore, if high levels of impulsivity do indeed lead to heroic action taking, then a widespread suppression of impulse control may be contributing to acts of heroism not being more widely seen. Now, whilst evidence shows that impulsivity increases the likelihood of risky actions, it remains so that it does not seem to affect one's estimates of the level of risk (Zuckerman, Ball, & Black, 1990), thus those with impulsive tendencies are more likely to take risks, yet this is not due to any differences in risk estimates, but rather a willingness to take said risk. Furthermore, those with impulsive tendencies do not experience poorer risk estimates (McKenna & Horswill, 2006), therefore, in regards to heroism, with risk estimates being irrelevant, it is the risk taking behaviour which focus must be placed upon. It is important to note that acting heroically, despite risk estimates, if one does in-fact estimate risk, is central to this examination, as if it is discovered as to *why* someone acted in the way they did then conclusions can be drawn as to *how* they went about deciding.

Those with impulsive tendencies exhibit heightened levels of urgency and little to no premeditation, therefore, in theory, with acts of heroism being carried out almost instantaneously it would be easy to conclude that this is true for impulsive behaviour. Furthermore, with instinct coinciding with heightened emotion levels and desires, those with poor impulse control may be more likely to act on such instincts. Moreover, impulsive urges have been shown to not affect or be affected by ones estimation of the risk level, giving further suggestion to explain action in the face of overwhelming risk. However, there has been very little research into whether impulsivity increases the likelihood of heroic action, thus it is prudent to withhold assumptions before further focused examinations into whether this is the case, can be carried out. Future research may provide greater insight into the relationship between impulsivity and heroism, yet current research adds little to the debate of whether heroism is the result of fast intuitive processing, or a detailed analytical approach.

### **A Summary of Reflexive Action**

In summary, whilst both instinct and impulse, as separate phenomena, fail to thoroughly explain why heroes act despite overwhelming risk, they do go some way in adding to the issue of whether heroic action is the result of fast intuitive processing, whether a more detailed cognitive processing takes place, or whether it is a combination of the two. With instinct being said to be prevalent in all human beings, yet heroism being a rarity, it cannot be said that this alone causes such action. However, coupled with ones tendencies to act on impulse and a failure to control one's own desires, if an impulsive person experiences a change in emotionality due to instinct, it is easy to see that they may be more likely to act on such desires. However, whilst this may point to an assumption that one is more likely to act on instinct due to

a lack of impulse control, this does not in-fact determine that they will act *heroically*. Without decisive and thorough research, it is just as easy to assume that one's instinct steers ones emotions, causing certain desires which an impulsive person acts negatively on and removes themselves from the situation, then it is to assume that they act heroically. Therefore, both phenomena may well contribute to action in certain settings, but further examinations must be made into why an individual acts *heroically*, and how they go about doing so.

With the definition of heroism, the targeting of civil heroes, and reflexive action all being clarified, a basis has been formed with which a detailed examination of such actions can be formed, along with the method with which such actions were initiated. Detailing two types of mental processes, with fast instinctive and a reflective cognitive style, an analysis of emotionally driven, instinctive thoughts will be made, taking into consideration strong theoretical and research based evidence. It is hypothesised that rather than one method of processing being used across all situations which call for a civil hero, heroic action taking is highly dependent on personal and situational facets, which lead to one of two types of behaviour; emotional driven intuitive action, or cognitive processing. It is further hypothesised that whilst reflective cognitive processing is likely to be undertaken by most, in cases of *heroism* we are more likely to see individuals act on their instincts, with emotionality and morals being the determining factors. However, whilst it is predicted that most cases of heroism are based upon this, it is not restricted to this one type of processing, rather a large number of interpersonal and situational factors interpose themselves to make it more likely that this is the case. Furthermore, with definitions of heroism being strict in separating it from altruism, instinctive behaviour is most likely to match the needed

criteria, due to the low reaction time and a lesser likelihood of the benefit to oneself influencing the action.

### **A Case for Intuitive Emotional Driven Processing**

It is important to note that heroic behaviour is highly associated with level of risk, wherein civil heroes face an overwhelming amount, which includes the probability of pain, disfigurement and possible death. The inability to sufficiently reproduce heroic behaviour under research conditions hinders one in gaining explanations and determining causality, thus the study of heroism must seek alternate approaches in the form of similar behaviours, such as risk taking. Such research shall be examined and findings will be assessed in relation to civil heroism.

Whilst the current consensus assumes that rational thinking is a main component of decision making and that emotions hold little impact, alternative views have been established, surmising that one's emotions may produce a reaction before any rational thinking can be made. One such psychologist was Zajonc (1980), wherein he concluded that one has the tendency to have an immediate reaction towards either liking or disliking someone/something, before any sufficient cognitive processing can be carried out. Since Zajonc's early work, various other theories have come to the forefront, including Damasio's Somatic-Marker theory (1995), which has impacted these previous perspectives by offering a complimentary and viable view. This theory, as reviewed by Naqvi, Shiv, and Bechara (2006), theorized that not only is the primary reaction to external stimuli emotional, but that in times of uncertainty as to the outcomes of an action, a person relies on these emotional responses in the shape of somatic-markers, which create a bias towards maximizing reward and reducing



punishment. This theory has been based upon neurobiological examinations of brain lesions, wherein patients consistently made bad decisions regardless of having intact problem-solving ability and uninhibited intellect. They did however, have a highly reduced emotional response and could not call upon such states to aid them in decision making. This lack of emotion affected decisions that would normally involve a high level of emotionality, including moral or personal issues, thus leading to the theorizing of somatic-markers initiating action in times of uncertainty. These markers exhibited themselves in various forms such as skin conductance, wherein a high level of moisture would precede decision making in normal patients, yet not in those with specific brain lesions. Furthermore, the level of moisture would be at a heightened level when choosing a disadvantageous situation rather than an advantageous one, even when the advantages were unknown. Over time, a person's emotional responses alter to act in certain ways when in advantageous/disadvantageous situations and in turn, a person learns to subconsciously read this sensory feedback and acts in the manner in which the emotion has led them. This suggests that when in times of uncertainty, instinctive emotional feedback determines the response that will aid the individual the most by meeting their most immediate needs. Situations where civil heroism is called for are extremely rare, thus it can be assumed that in the majority of cases there are levels of uncertainty which are elevated over ones average. With this being said, in extreme novel situations one's ability to evaluate is diminished, creating uncertainty and thus a greater reliance on emotions to meet ones immediate needs. These immediate instinctive needs, as discussed above, include ones moral intuitions, such as the need to protect those closest to you. Moral intuitions, rather than moral cognitions, are, as defined by Haidt and Bjorklund (2008), the "sudden appearance in consciousness, or at the fringe of consciousness, of an evaluative feeling (like-dislike,

good-bad) about the character or actions of a person, without any conscious awareness of having gone through steps of search, weighing evidence, or inferring a conclusion” (p. 188). Such intuitions, as firstly exhibited by Zajonc, may hold the key to detailing heroic action, and with a regular occurrence of heroic instances being between family members (kin selection) (Hamilton, 1964), this provides support for civil heroes acting on a fast, intuitive, emotional level, rather than using a deliberative cognitive process. Furthermore, Damasio’s emphasises that uncertainty and a reliance on emotions increase in situations of high moral and personal consequence translates directly to life or death situations, within which heroes are seen. Not only does this provide support for emotion based heroism, but also highlights the interaction between ones morals and emotions, in that one may have high morals, yet without emotionality, their decision making may be floored. Vice versa to this, when ones morals do not coincide with those said to define a hero, emotionality may stay at a neutral level due to no conflict with such morals, leading to a withholding of action and a further consideration of the outcome. Therefore, if this assumption is to hold any sway, one must have the correct morals in addition to feeling a certain level of situational emotionality in order to act heroically, with individual and situational differences being the determinant. A further consideration of situational and personal traits which may steer emotions will be detailed below.

It seems that, according to this assumption, if a person is uncertain of the situation, then they would rely more greatly on their emotions, however it may be seen that emotions in turn have an effect in *causing* one to have doubts and uncertainties. With reason suggesting the logical choice, yet emotions pushing for an immediate response, this may cause uncertainty, and therefore, in line with this theory, one relies

on emotions. This suggests that emotion has a greater power of persuasion than logical thinking; therefore those without solid knowledge to call upon (lay) are more likely to follow their emotions. Thus with civil heroes being seen as having no prior knowledge or duty, such heroes may be more likely to use fast intuitive processing, driven by ones emotions. Differences in situational uncertainty levels are evident between expert and lay people, and therefore it may be that lay people rely more on their emotions and experts on rational cognitive processing; however it is also important to point out that a person's *perception* may also contribute highly. Regardless of the correctness of an individual's knowledge, if one was to perceive that their knowledge was correct, they would be more likely to use it, therefore the line between expert and lay people may be blurred if a lay person perceives themselves as having expert knowledge. With this being said, it may be seen that with such individual differences there is simply no one theory to adequately explain all actions.

Whilst Damasio's theory details a competition between emotions and logic, providing suggestions for emotions overriding reason, it does however assume that both processes work concurrently. However, during life or death situations, whilst it may take time to assess all aspects, certain facets may be made immediately clear, such as ones relationship with the individual needing aide, the ability of the victim in rescuing themselves, and the level of drama. Whilst the subtleties of each cannot be made apparent until consideration has taken place, the most obvious aspects of the situation are immediately clear, such as whether they are a direct family member, are incapable of saving themselves e.g. a child, and if death or injury shall shortly occur. Such factors are highly apparent and require very little cognitive processing, thus may occur before a thorough examination can be made, causing a spike in emotions,

triggering moral intuitions, heightening uncertainty levels and concluding with subsequent action taking that may go against possible logical thinking. Therefore, rather than emotions *overriding* logical thinking, emotions may be spiked as an instinct, *before* one can physically process all else in the situation, leading to an immediate response to meet one's needs. Zajonc (2003) notes this instinctive selective attention, by explaining that one's culture provides individuals with the ability to distinguish the good and bad in actions, and to instinctively focus on the utilities of the situation, with it being highly dependent on one's present state. In relation to heroism, the Damasio's theory highlights that there is a positive relationship between uncertainty and emotions, with evidence to suggest that emotions aid in making the choice which would meet one's immediate direct needs. With such civil heroic situations being typically novel, the level of uncertainty is likely to be increased, leading to an individual having a greater reliance on their emotions to direct their behavior. Certain factors such as the relationship between the victim and the bystander may increase such emotions and create an intense drive to satisfy one's immediate moral needs, producing subsequent action before a thorough examination of the situation can be made and the risks recognized.

With no two situations being alike, as well as the many differences between individuals, it is wise to withhold bracketing heroic action taking and closing oneself off to alternate methods of action initiation before further analysis can be made. Whilst the rarity of heroic occurrences allows for a more thorough examination of all the data, there remains a large variety of reasons for why action was taken when heroes have been questioned in hindsight. The presence of individual differences,

collaborating with situational components, makes it very difficult to adequately predict such behaviour.

With a link being found between emotions and decision making in uncertain situations, this gives a solid base to further analyse the processes one uses in acting heroically. With a vast number of individual and situational differences being apparent, a further examination must be made into specific factors before assumptions can be made.

Cooper, Agocha, and Sheldon (2000) developed a motivational model, which predicts personality influences on risk taking behavior, based on the key point that individuals understand the ability of risk taking action to influence emotion and vice versa. Building their model on the main aspects of personality (impulsivity, neuroticism and extraversion), it was seen that these three facets hold strong relationships with positive and negative emotion, as well as being shown to hold a relationship with risky behavior (Caspi et al., 1997). They found that, in support of the proposed model, those with high levels of neuroticism took more risk to alleviate aversive moods, and that high extraversion increased risk taking due to the need for an increase in positive emotions. In addition to this, impulsivity acted as a mediator for the other personality types in that it aided in prediction of motives.

Whilst impulsivity itself is not an emotion, recent findings have determined that it has five aspects to it, including positive and negative urgency, wherein an emotional mood can cause one to act irrationally (blinded by love, or fighting), and sensation seeking, wherein a person acts impulsively to feel certain emotions, e.g. in extreme sports. (Cyders & Smith, 2008, Whiteside & Lynam, 2001). With three out of the five aspects of impulsivity concerning emotional responses and impulsivity itself

being seen as irrational acting without forethought, it could be said that emotions are a determinant of impulsivity and thus irrationality. Therefore, theories which detail a maintained level of rationality in risky decision making and subsequently in heroic instances, may, in cases of high emotion, be incorrect, and as detailed above, one may be more likely to use emotional intuitions to initiate action.

Having considered the reasons as to why individuals do not act in accordance with logical thinking in risky situations, when in a heightened emotional state, Cyders and Smith (2008), proposed that there are two main personality dispositions, which cause this. The first being “positive urgency”, wherein irrational actions occur in a heightened level of positive affect, the other being the opposite, “negative urgency”. Having examined previous research into the effect of emotions on decision making, they based their model on the view that a heightened level of urgency is formed by emotions as they press the need for, and to facilitate, immediate action. This facilitation of action conspires to meet the immediate needs of the person, whether it is the seeking of gratification or the withdrawal from threats, and also coincides with the loss of cognitive resources, such as reasoning. The immediacy of such emotion and action is crucial, with Cyders and Smith proposing that “acts in response to the immediate are likely to be reinforcing, whether involving negative reinforcement such as reduction of, or distraction from, or positive reinforcement such as gratification of an urge”, the aim is for immediate gratification, even if at the expense of future needs. Thus, in relation to heroism, if one were to flee a dangerous situation and experience a reduction of negative emotions, such as fear, this will increase the chance of repeat action when in similar situations, whereas, if one was to confront that same danger and succeed, the positive emotional repercussions of this will also contribute to repeat

behavior. Their conclusion from past research that high levels of emotion lead to an increase in likelihood of irrational risky choices, has led to the following summary of their theory. An emotion is triggered in order to meet a need (instinct), and thus when the need is great, the intensity of the emotion matches this, causing a greater likelihood of irrational choices of action. The personal capacity to experience urgency, as with that of impulsivity, reflects the tendency to act irrationally and can manifest in two distinct forms; positive and negative urgency, wherein positive urgency occurs under high positive affect and negative in times of low affect. Due to the reinforcing effect of meeting your own immediate needs, regardless of the long term negative effects of such an action, there is a greater likelihood of repeated irrational action. However, this urgency does not include the seeking of sensations, wherein it is proposed that such behavior results in different facets of risky action and is limited to urgency as its own trait.

The importance of such a model is clear, in that it brings together past research into the effects of emotions on risky action and identifies an individual component, that being urgency, which correlates with such behavior. The urgency trait, not only offers a reasonable explanation, but details that the type of emotional valence is crucial. Whilst the paper is brief as to what constitutes positive and negative affect, if the model holds credibility, it can go a long way in predicating the process one uses and whether heroic action would be likely to take place. Alongside this, it also aids in explanations as to why individuals can continuously make risky choices, even if the long term outcome is negative, through the reinforcing capability of meeting an immediate need. The emphasis on how individual differences play a role in the making of risky choices has important implications for highlighting just what makes

someone act heroically. Now, whilst this does not thoroughly detail the emotions that contribute to heroic action, it does highlight the importance of urgency and its effect on one's rationality, as well as recognizing that emotions can cause irrational behavior. In this theory it is emphasized that emotional affect, whether positive or negative, prompts the individual to recognize a need which must be met. Thereafter, one's individual differences contribute to the level of urgency one feels, and thus the likelihood of remaining rational and considering the implications, or acting irrationally. It is this urgency trait, as was seen with impulsivity, which causes one to act before the situation can be thoroughly processed.

Now, while a relationship between emotion and urgency has been highlighted, as well as the role it has for intuitive behaviour occurring before any cognitive processing can be made, this does not assume that the action is of a heroic nature. On the contrary, the subsequent action may be to remove oneself from the situation entirely to escape such emotions, or to prevent them from feeling any future negative repercussions. Thus emotion can drive action, yet the action itself may be dependent on a variety of other aspects. An exploration as to the main contributing emotions, the different effects of positive and negative emotional states, and the role of morals may highlight possible explanations.

Hewig et al. (2011), using simulation, aimed to build upon such theories and determine why humans deviate from rational choice, focusing on how emotions impact financial decision making. With negative emotions, including sadness (Harle & Sanfey, 2007) and anger (Pillutla & Murnighan, 1996), being found to increase rejection rates in Ultimatum and Dictator games, this showed that negative emotions can deter individuals from making the rational choice. Hewig et al. built upon this by



demonstrating that unfair offers in the Ultimatum game elicited more negative emotions and led to an increase of skin conductance responses, as well as greater levels of feedback negativity, than fair offers would. However, rationality suggests that with it being a “take-it-or-leave-it” situation, regardless of how unfair the offer was, it would be prudent to accept the offer. However, it was found that rejection rates increased, alongside negative emotions, when the offer was deemed unfair. Now, whilst this shows the effects of negative emotions on rationality, the stand out finding from this paper was that individuals generally experience negative expectations of others and assume that an unfair offer would be presented. Thus, it was not so much the negativity towards unfair offers that prompted the rejection, as this was expected, but the disappointment they felt towards their positive emotions, that a fair offer was *not* presented. These findings are interesting as although they showed the effect of negative emotions, they also pointed out that irrationality may be heightened, not by the negative emotion itself, but by the disappointment of not receiving positive emotions.

In terms of heroic action, this may impact the choice one makes by not only acting regardless of the overwhelming level of risk when in a state of negative emotion, but due to an anticipation of disappointment towards future positive emotion, such as having guilt suppress satisfaction. Whilst it is deemed that one cannot be classed a hero if one acts in accordance with their own needs, if one is acting on emotions, then it could be seen that heroic action is not entirely altruistic. Whilst this research builds upon showing how emotions cause people to act, it also goes a long way in explaining why action is withheld. Within a novel situation an individual cannot be sure of the all consequences of acting heroically, thus the possible negative

emotions one may feel may inhibit them from acting in order to protect their current state of being. If this is the case and it goes some way in explaining why the majority does not help in times of *low* risk, it would also aid explanations as to why heroic action in overwhelming risk is a relatively rare trait.

In compliance with the above literature, wherein two main variables are considered, as seen with positive/negative emotion and positive/negative urgency, in Reyna and Farley's review of risk in adolescent decision making (2006), they discuss Loewenstein's (1996) work on the hot-cold empathy gap and emotional drive states. In this work it was found that impulsive decision making as a response to certain states differs in one's preference to risk taking behavior. Furthermore, Loewenstein also found that the morals one has can change depending on one's drive state. Reyna and Farley also point out that when in a "cold" state, it is said that the reasoning of decisions in a "hot" state cannot be understood; therefore rationality cannot be maintained in a state of high emotion. As well as this, with no conscious thought process, the acting individuals will have limited understanding of their impulsive actions, thus highlighting the unpredictable nature of heroic behavior. Transferring this analysis into that of heroism, a "hot" emotional state, wherein one feels a high level of arousal, would lead to a greater chance of heroic behavior in accordance with levels of irrationality increasing. Yet furthermore, one's drive state may alter the morals one has, with one possibly having good intentions and a high level of morals when in an un-aroused "cold" state, yet when in such a situation, a "hot" state will induce high levels of arousal and cause one's morals to shift from social to personal, and flight may occur. Counter to this, when in a state of low arousal one may assume

that they would not risk their own life for another, yet when arousal ensues, their moral compass may override logic.

As well as differentiating between positive and negative emotional states, there is also a vast difference in the effects of experienced emotion, against that of emotions that are anticipated, as can be seen in the Decision Affect theory.

The Decision Affect theory, as devised by Mellers, Schwartz, Ho, and Ritov (1997) is based around the idea that emotions affect decisions in two ways; through current emotional states and anticipated emotions, with focus being placed on the latter of the two. At its most basic, this theory predicts that when in a decision making process, people experience an anticipation of pleasure or pain on the future outcomes, weigh these against the chance that they will occur and then select the option that offers the greatest average pleasure. They found that regardless of the outcome, anticipated emotions can alter the experience to make it either pleasant, or not, with surprise being the main instigator. Developing this theory over time, (Mellers & McGraw, 2001, Mellers, Schwartz, & Ritov, 1999), they found that as the outcome desirability increased, so does the anticipated pleasure, yet regret and disappointment is also anticipated and tends to be stronger than pleasure. However, they went on to state that “*Greater anticipated pleasure or greater optimism tend to produce greater risk seeking and vice versa*”, which suggests that risk seekers may tend to overestimate the level of anticipated pleasure. Chen and Ma (2009) built upon this research and found that an anticipation of positive emotions may increase one’s tendency to make a risky choice, if the outcome is favorable, yet the desire to avoid risk may increase with anticipated positive emotion if the outcome would turn out to be undesirable. This shows that if one made a risky choice and the outcome lived up

to their anticipated positive emotions, they are more likely to take further risks in future. Moreover, they found that older adults were less likely than young adults to make risky choices, yet they also paid more attention to positive feelings, whereas young adults were more concerned with the negative outcomes. Whilst not conclusive, this does suggest that the strength of negative emotions outweigh those of positive. In conclusion of their work, Mellers, Schwartz and Ritov (1999) stated about emotions that “*Simply dismissing them as irrational will surely leave us vulnerable to their effects*” (p. 343), highlighting the point that to dismiss emotions as simply a cause of irrationality may leave us unaware of their actual utility.

This theory identifies the strength that emotions can possess, showing that even the anticipation of emotion can influence a person to make a risky choice. It goes some way to identifying the reasons why people may carry out heroic action despite overwhelming risk, as they may anticipate the feelings of regret, guilt and sadness if they did not take action, or possible feelings of pleasure if they were to succeed. With regret and disappointment being shown to hold a stronger influence than positive emotions, it seems more likely that action is taken to prevent the negative feelings that inaction may bring. Thus in cases of heroism, the potential death or harm of inaction that may come to the victim will generate predictions of future negative emotions within oneself (and possibly others), leading to action that whilst it is highly moral, may be as a result of one not wanting to feel the emotional pain that comes with death, or such feelings as guilt or regret. With older adults showing a greater reluctance to take risk, yet a stronger focus on positive emotion (Chen & Ma, 2009), this may point to them aiming to maintain their *current* positive emotions, rather than aim to increase them by taking action and subsequently putting those feelings at risk. Thus, the

possibility of younger adult's focusing on negative outcomes may cause them to dismiss current positive emotions, in order to minimize possible negative ramifications. This is a very interesting area, wherein age makes a vast difference to the taking of risk and the focus of emotions; possibly being explained by one's remaining life span and experience. It may be that younger ages are more focused on regret and negative outcomes, as they would have to live with the negative ramifications for a longer period of time, whereas elder adults take less risk in self-preservation, aiming to increase/maintain their life span. Whilst this is currently speculation, future research may benefit in assessing this difference in age. Although it seems likely that such emotions may contribute to risky action taking, it does hold a very selfish view point, in that one seeks to maximize their own pleasure, thus making the other individual, whom in this case is in need of help, rather insignificant. Furthermore, if this is indeed the case, with heroism being classed as a wholly altruistic action, and with any anticipated gain subsequently ruling out one being a hero, this may prove that cases of heroism in accordance with expert descriptions are rarely seen, if at all.

Up until now, differentiations between the positive and negative have been made; however, further understanding is needed as to the individual effects of specific positive/negative emotions.

### **Specific Emotions**

De Hooge, Zeelenberg, and Breugelmans (2010) considered the then unanswered, contradictory effects of shame on a person, with research showing that it could promote, both, withdrawal and approach. Whilst this would, at first, seem

illogical, De Hoodge et al. determined that with shame being an emotional effect of a threat to one's positive view of oneself, subsequent reaction (withdrawal/approach) is mediated by the level of further risk to this positive self-view. They went on to conclude that withdrawal from a situation, as a reaction to shame, takes place when the situation is deemed too risky, so individuals avoid further shame. Approach, on the other hand, occurs when an individual is more confident of the situation and aims to restore their previous state, from current feelings of threat. Furthermore, with a positive view of oneself being seen as fundamental to a human's wellbeing (Taylor & Brown, 1988), De Hoodge et al. determined that positive approach reactions were more likely to follow feelings of shame, due to the desire to maintain a positive view, rather than fleeing and putting it in jeopardy. It is with such findings that if an individual finds themselves at a point where heroic action/inaction may be initiated, an anticipated emotion of shame may contribute to action being taken, for an entirely selfish reason. With a negative self-image being a precursor to shame, various other emotions may in fact contribute to the initial negative perception. Whilst guilt is differentiated from shame by being an emotion brought on through an evaluation of behavior towards another person (Zeelenberg & Breugelmans, 2008), and shame being a negative evaluation of one's self, perceived or felt emotions of guilt, may have led to the initial feelings of a negative self, thereafter followed by the feelings of shame. Whilst shame seems to play a part in determining action or inaction, it may be that these feelings are a successor of other emotions, which cause the initial negative self-image. Furthermore, whilst feelings of shame generally occur after an initial action has taken place, in view of heroic action, such feelings may need to be anticipated and thus action is not taken as a direct respondent to emotion, but through a consideration of the various outcomes of a variety of actions. However, it may also be that a person

having felt shame before and thus has a negative self-view, would take heroic action in order to increase their positive view of themselves. In this way the shame would be felt, rather than anticipated.

As well as shame being seen as a negative emotion and a contributor to initiating action, fear has also been discussed as having an effect. Aronson (2008) determined that those with greater fear reduced this emotion, as well as cognitive dissonance, by denying the level of risk and reducing the probability of the action occurring. This shows that fear may not drive action, but cause in-action and denial of consequences. However, if that same person had a “concrete, effective and doable” action when facing risk, high levels of fear are more effective than mid/low levels (Ruiter, Abraham, & Gok, 2001). Therefore, in cases of civil heroism, wherein an individual is neither trained nor duty bound, a concrete and effective action is unlikely to be thought of, thus high levels of fear would cause potential civil heroes to withhold action. However, martial heroes may benefit more greatly from high levels of fear, due to their training and often well-known plans of action. In conclusion to this, situational fear as an emotion is likely to lower the chance of civil heroic action, yet the fear of potential negative consequences, as detailed above, is likely to promote such actions, thus fear can both promote and withhold heroic action, yet it is dependent on the direction the fear is aimed.

As detailed above, negative emotions seem to have a greater impact in risk initiating action than those that are positive, yet positive emotions *do* seem to play a part.

Sympathy, whilst negative in that it is a reaction to an undesirable situation, is positive in the fact that it is a consideration of another person. Whilst one can be

sympathetic towards their own situation, the emotion is generally brought about through knowledge of another's plight and subsequent feelings of sadness towards that individual. Due to the unselfish nature of the emotion, research into its effects in incidences of heroism may prove to be important.

Den Ouden and Russell (1997) found that not only were older males less sympathetic than younger males, but that females express more sympathy than males. Whilst this would be expected to show itself in increased helping behavior in those with the greatest levels of sympathy, this was not the case, with males and females granting equal levels of help. This suggests that the emotion of sympathy alone may not be a significant contributor to heroic action.

One's level of sympathy can be seen to be affected by the responsibility the victim has for the situation, wherein if the person in need is seen to be in a situation with which they had little control, nor cause of, then sympathy would be felt by the onlooker and thus the chance of help is greatly increased. However, counter to this, if a person was responsible for their own plight, it may be that a lower level is felt, thus the onlooker may not feel that they should take action due to their own diminished responsibility. With sympathy predicting helping behavior, this emotion may be an integral part in determining whether a risk is worth taking, yet with it, as an emotion, being the "sorrow or concern for another's welfare" (Eisenberg & Miller, 1987), this in itself is run by a separate basic emotion, sadness.

The above literature points to emotions as having an impact on behavior, with action occurring before any thorough cognitive evaluation can be made. However, as of yet, it has not been comprehensively detailed as to what distinguishes someone from taking evasive action, rather than heroic action. Therefore, with emotions initiating



certain desires and demanding subsequent action, morals will be explored as being the determinant in the choice of action.

## **Morals**

Morals, as defined by Turiel (1983), are “prescriptive judgements of justice, rights, and welfare pertaining to how people ought to relate to each other” (1983, p. 3). In short, they are the thought processes and actions that people hold, in which they deem one another should be treated in order to maintain a cooperative society and thus hold the ability to influence ones actions. With emotions being found to hold an influence in determining behaviour and risk taking in particular, the role of morals is of importance for the study of heroism, with a relationship being found between the two.

Rather than being of a single cognition, moral psychology has defined two separate subtypes, with moral intuition being an automatic, unconscious, evaluative process, and moral reasoning being an intentional reasoning and judgement making (Haidt & Kesebir, 2010). Much like the current analysis, they are separated by an awareness of the process and the depth of information used, with moral intuition being that which Zajonc (1980) surmised when detailing that people make immediate evaluative judgements of others. Further research demonstrates the link between morals and emotions with psychopaths showing reduced activity in areas of the brain most associated with emotions, and in particular, emotions related to empathy, such as guilt (Blair, 2007). Now, with a link between these being established, there is further evidence to suggest that moral intuitions are more widely used than those of moral reasoning, with evidence being drawn from political psychology (Westen, 2007), yet

more importantly, from pro-social behaviour. One such study by Batson, Klein, Highberger, and Shaw (1995) examined the effect of moral intuition on empathy, by bringing this emotion on through the use of a fictitious child with a terminal illness. They found that that one child's suffering and the respondents subsequent feelings of empathy resulted in that singular child being granted immediate aid, over those which were in greater need of assistance, or had been waiting for a greater period of time. Showing that emotions can cause an individual to act on their moral intuitions, rather than their moral reasoning, the implications for heroic research are vast. Situational factors, such as a close relationship between the bystander and victim (kin selection), or low level victim ability, may result in one favouring the most immediate moral concerns such as the saving of a life, over ones moral reasoning. Returning back to the above question of "could a man be considered a hero if he let a child drown in order to preserve his own life, concluding that inaction would cause considerable emotional distress to himself, yet allow him to raise his own children, thus being socially beneficial?", moral reasoning may suggest that this course of action is of greater benefit, yet ones moral intuition will create an action based upon the *current* stimulus before such thinking can even be made.

In accordance with moral intuition driving heroic behaviour, the current dominant theory into that of risk emotions is the dual-process theory, wherein it differentiates between both rational cognitions and fast, intuitive, emotional processing. Stanovich and West's (2002) theory proposes that there are two systems with which an individual uses to reason, with the first being an unconscious, automatic and context dependant process, which uses heuristics in order to initiate an action (intuition). In opposition, system two is a controlled, analytical process,

wherein individuals are actively considering, regardless of the context (reasoning).

This theory proposes that the accessibility of thoughts is a major factor in defining

which system one uses, with the characteristics of the stimuli, along with that of the

cognitive mechanisms, controlling the ease with which information can be processed.

Information which is highly apparent and obvious is more accessible than that which

is not, as well as the ease with which certain situational questions can be answered. In

civil heroic situations, as discussed previously, the level of danger the victim is in can

be highly apparent, as can be the relationship between the victim and the bystander,

the victim's ability, the time frame and one's responsibility. Such apparent factors,

defined as *natural assessments* by Tversky and Kahneman (1983) and listed by

Kahneman and Frederick (2002) include similarity, surprisingness and affective

valence, as well as various physical attributes, such as size and distance. Such

attributes contribute to the assessment carried out in system one, leading to an

immediate evaluation of whether something is either good and or bad, or in the case of

heroism, should or should not be approached. Whilst the apparency of such variables

differ across situations, if, for example, one is a family member and in immediate

danger of harm or death, certain situational questions can be easily answered, such as

“does that person need aide?” However, more complex questions, wherein the answer

is not so accessible, are likely to not be thought of, such as “what is the likelihood that

I will be able to help this person?” In cases where civil heroism may be needed, highly

emotive and morally provoking information has the ability to attract attention, and

therefore, with such information becoming the most accessible; one is more likely to

act on their moral intuitions and subsequently increase the chance of heroism.

Additionally, high emotive states reduce the accessibility of other thoughts that do not

meet ones most immediate concerns (Loewenstein, 1996), further cementing ones

reliance on intuitions and the chance to act heroically. It is seen that only the most accessible situational features will influence the mental process, thus the obvious danger and such contributing factors in heroic instances lead to intuitive action, whilst that which is less accessible is ignored. Furthermore, the immediacy of the situation, coupled with the highly accessible factors, may contribute to the framing effects by focusing one on the negative ramifications of the *immediate* situation, rather than any future possibilities and therefore leading to heroic action.

The immediacy of the civil heroic situation has continuously been seen to evoke emotional responses and subsequent action, yet it is the role of one's intuitive morals which, as of yet, produces the greatest evidence for producing *heroic* action. However, whilst morals have been shown to promote heroism, does one truly need to be a moral exemplar in order to act heroically?

Building upon Damasio's theory and the relationship between emotions and morals, Walker, Frimer, and Dunlop (2010) examined the perspectives of moral heroism. Identifying the current moral outlooks, they examined a number of decorated heroes in order to identify and separate moral personality types. They acknowledged a situationalist perspective, wherein certain pressures in the situation push a person to act, rather than ones underlying moral code, as well as an interactionalist perspective, which believes that there is a reciprocal relationship between the person and the situation. The interactionalist viewpoint believes that those of "certain virtues respond to opportunities evoking moral heroism and situations eliciting virtuous action leave a mark on the personality" (p. 908). Their research produced a set of three subtypes of moral personality, as found in known heroes; communal, deliberative and ordinary.

**Communal:** This subtype of moral personality details individuals that have morals centred on social interdependence and one's role in aiding society.

**Deliberative:** This subtype was made up of individuals whose personality was geared towards "independent thoughtful growth and goal motivation for self-development" (p. 932). Whilst holding heroic morals, this type focuses on the self in order to subsequently benefit society.

**Ordinary:** This subtype showed personality traits and moral dispositions that were wholly unremarkable in relation to both other forms. In accordance with the situationalist perspective in that with no remarkable morals, the overwhelming power of the instigating situational factors comes into play.

These findings and the subsequent categorisation of personality traits have led to a number of conclusions. Firstly, the categorisation shows that there are indeed heroes that hold particular moral personality traits, yet such morals are not always entirely altruistic. Furthermore, it was found that with no one particular trait, this undermines the claim that moral excellence should be characterized by a single moral ideal. Rather it coincides with Zimbardo's idea of the banality of heroism, in that whilst morals may play a part, the large contribution of situational and personal factors allows that anyone can be a hero, rather than only those with a particular or certain traits. Now, whilst they conclude that there may not be one defining personality variable, they do concede that redemption was a common trait of heroes. They found that moral heroes had a tendency to think positively and to focus on the

benefits of a situation, regardless of its negativity. However, whilst these findings may indicate that redemption is a necessary trait for a moral personality, they conclude that it remains insufficient as a single variable. In relation to civil heroism, this research found that whilst most cases of heroism comprised of those with a particularly moral personality, this was not evident in all cases, with a third of all cases they explored being decidedly unremarkable. In conclusion they found that whilst more likely, a moral personality is not needed in single cases of heroism, such as civil situations, yet may be needed in order to live out a “moral career” (p. 938). Coinciding with research which suggests that moral intuition is more likely to be used than moral reasoning; this promotes Zimbardo’s view of a banality of heroism. Now, whilst heroism requires one to act on their morals and being generally moral in nature, by acting on moral intuition and immediate emotional responses, one need not carry out a moral reasoning, thus not requiring one to be a moral exemplar. Rather than being inherently moral and holding a high level of social empathy, one’s intuitive morals are activated, requiring one to act on their emotions and the immediately visible morality of the situation.

## **Discussion**

Whilst the effects of emotion in risky decision is a relatively new area of interest, recent developments are beginning to offer plausible alternative explanations to current theories of rationally based choice. These alternative explanations aim to highlight that emotions have a greater impact on initiating action than first thought, and that whilst a high level of emotion may cause one to sway from normative logic, the subsequent action is not by any means always the incorrect choice. With instances

of heroism being a highly unpredictable phenomenon, coupled with the fact that it is extremely difficult to recreate in a laboratory setting, there remains a lack of thorough research. However, heroism and heroic action, is seen as action in the face of overwhelming risk, thus the use of risky decision making research can offer plausible explanations for action and aid in theorising just how a hero went about deciding to act.

Current normative theories of decision making deem that action taking is based upon logical decisions, with individuals weighing up the outcome desirability and outcome probability, whilst maintaining a level of rationality. However, cases studies showing action taking despite obvious high levels of risk and possible injury or death to the individual make it difficult to accept that one would rationally face such possibilities and act to save a stranger. Yet this is often the case with heroes, wherein they put their own life on the line for others. Whilst rational decision making in heroic instances are not wholly denied, the current analysis offers a seemingly more plausible explanation for such action.

Instances of heroism are rare. It is not often that a person would put themselves in a situation of possible death to save another individual, yet it occurs. In military settings it is ones duty to act in such a manner and people can be seen throughout history acting heroically in order to change society, promote a greater ideal, and for the greater good of humanity. However, civil heroes, those that act in highly random and novel situations, with no experience and seemingly little reward for risking one's own life for a possible stranger, those are the instances which greatly contradict rational processing theories and cause one to ask why would a person act in such a way? Through a detailed analysis, this paper has determined that it is not only *why*

someone acts heroically that is important, but *how* the action was initiated, which grants a greater insight into the civil heroism phenomenon in the whole.

Situations which call for a civil hero are often highly novel and extremely complex, with a vast number of situational differences, as well as personal factors, which contribute to initiating an action. Taking an interactionalist perspective, the current analysis produced evidence in support of heroism being inherently banal and highly dependent on the correct combination of personal and situational factors. It is acknowledged that, whilst no two situations are alike, individual differences and situational factors contribute highly, and though this explanation is far from complete, the following summary offers an adequate explanation as to why civil heroes are more likely to use fast, emotional intuition, over cognitive processing.

### **Theoretical Clarifications**

For one to act one must at first be present and to receive certain stimuli with which to react by, thus the physical components of the situation, coupled with individual personal differences, such as morals, can be seen to begin the process. The highly novel situation provides a diminished level of experiential knowledge with which to base a logical choice on, thus causing heightened levels of uncertainty, which in turn makes one more reliant on their emotional responses (Damasio, 1995). As detailed by Stanovich and West (2002), the accessibility of information determines what we act upon and therefore, with certain elements being highly apparent in civil heroic situations, such as similarity and distance, it is these natural assessments (Tversky & Kahneman, 1983) that cause an immediate intuitive reaction. The bystanders' similarity to the victim, affective valence, and various physical attributes



such as the distance to the scene, among other apparent variables, contribute to an immediate, intuitive, moral judgement of whether the situation is bad or good (Zajonc, 1980). Furthermore, with such incidences being highly emotive and morally provoking, such information has the ability to attract attention, thus increasing its accessibility, making it more likely that one would act on one's moral intuitions. Moreover, such emotive states reduce the accessibility of other thoughts, which do not meet one's most immediate concerns, dissuading an individual from reflecting on other factors. The contribution of the initial stimuli serves to focus an individual on the most immediate and pressing needs, causing an increase in level of emotion and producing an initial moral intuition of the situation. This initial moral intuition is highly reliant on one's personal factors, with personality type and age being seen to have an effect on both emotion and action.

Detailed research by Caspi et al. (1997) suggests that those with high levels of neuroticism are more likely to take risks in order to alleviate aversive moods, therefore the negative emotions of the situation, whether current or anticipated (Mellers et al., 1997) may lead to neurotic personality types having a greater likelihood of heroic action. Furthermore, Caspi et al. found that individuals high in extraversion were more likely to take risks to increase positive moods, yet, whilst the action may be the same, expert definitions state that an anticipation of gain disqualifies a person from being named a hero. Additionally, impulsivity acted as a mediator for both, therefore increasing the likelihood that one would act to either alleviate or increase particular moods. Another individual difference that has shown an effect is age (Chen & Ma, 2009), wherein young adults were more likely to focus on the possible negative feelings of the situation, yet older adults tend to focus on the

positive. Furthermore, young adults were more likely to take risky action, thus showing that negative feelings may have a greater effect on risky action taking than positive. With civil heroic situations having a high level of possible negative connotations, it could be suggested that young adults are more likely to be civil heroes, yet further research must be carried out to determine the truth of this.

As is seen, the initial evaluation of stimuli is mediated by ones individual characteristics, preparing one for action, heightening levels of emotion, and highlighting the most pressing needs. Yet, whilst this may initiate action, heroic action taking is further reliant on ones morals, their effect *on* emotions, and vice versa, with the effect *of* emotions on ones morals.

With one having an immediate intuition based on external stimuli, it is the role of one's moral compass to determine how such an intuition is defined. With Walker, Frimer and Dunlop's (2010) study into moral subtypes of heroism producing three distinct moral views, this shows that the majority of heroes tend to hold a high level of morals, yet with no singular trait present across all instances, it was concluded that heroism cannot be characterized by a single moral ideal. Furthermore, one particular subtype showed an unremarkable level of morals, thus it was found that the extreme situational factors were the main influences in leading them to do the "right" thing, rather than their underlying moral code being the driving force. Therefore, rather than being inherently moral and holding a high level of social empathy, one's intuitive morals are activated, requiring one to act on the immediately visible morality of the situation, thus deeming that it may not be a requirement for one to be a moral exemplar in cases of civil heroism. With that being said, one must show a certain level of morality, with a lack of morals being shown to result in a failure to exhibit any

emotional response, as seen with the lack of empathy in psychopaths (Blair, 2007). With psychopaths showing little emotional response due to a lack of empathy, the relationship between the two can clearly be made apparent. With empathy being the ability to understand and share others feelings, not only can it be seen as a moral, yet also felt as an emotion. Research by Batson, Klein, Highberger and Shaw (1995) gained evidence to show that empathy, as an emotion, has the ability to focus an individual on the immediate stimuli, to the detriment of further logical analysis. This focus on the immediate situation and the stimuli which escalates ones empathetic emotion, serves to increase the likelihood of civil heroism by increasing the chances that one would act on their moral intuition, rather than their moral reasoning. As is seen, emotional reactions towards the plight of another individual can increase the likelihood of civil heroism, yet research by Aronson (2008) found that fear of the *situation* had the opposite effect, by causing the viewing individual to deny the level of danger the victim is in. However, whilst situational fear may increase the chance of inaction, such an emotion is not brought on through ones morals, yet a fear of potential negative consequences and an anticipation of the resulting emotions has the opposite effect. With one's intuitive morals determining a possible result of the situation, one may feel certain emotions in anticipation of this. With an anticipation of the negative ramifications of inaction, such as injury or death to the victim and the subsequent feelings the bystander may experience, emotions may not need to be truly felt to aid civil heroism, but also anticipated. Furthermore, with anticipated negative emotions tending to be stronger than pleasure (Mellers, Schwartz, & Ritov, 1999), whilst one may anticipate the relief that fleeing the situation may bring, this may be overridden by the shame that would also be brought on by flight (De Hooge, Zeelenberg, & Breugelmans, 2010). With evidence from risky decision making

studies showing how one can act due to the negative feelings towards themselves, this would rule out them being seen as a hero in the eyes of those defining heroism, due to its selfish nature. However, whilst technically they would not be deemed a “hero”, the definition is of no consequence to the action, and furthermore, with heroism only being likely to be studied in hindsight, in retrospect it may be difficult for one to adequately reflect upon any thoughts and feelings they felt previous to acting. Moreover, the relationship between morals and emotions has shown that whilst one may hold a high level of morals aimed at society in an unaroused state, these may turn more personal when in a “hot” aroused state (Loewenstein, 1996). Thus in relation to civil heroism, before and after the incidence one may be viewed and view themselves as socially moral, yet during the situation may act to protect oneself by acting heroically to appease or promote one’s own feelings or character. Furthermore, with Loewenstein stating that one cannot understand the mental process, possible thoughts and subsequent actions of a particular state of arousal when in that of the opposite, this further diminishes the reliability of retrospective heroic research.

## **Conclusion**

In conclusion, the above summery suggests that with the relationship between the situation, ones morals and emotions, and taking into consideration a range of individual differences, there is a greater likelihood that one uses intuitive processing before carrying out civil heroic action. With a high level of drama and uncertainty at the situation, as well as certain factors being made highly accessible, heightened levels of emotion are likely to cause an individual to act instinctively. This paper withholds assumptions suggesting that all civil heroic instances are due to fast intuitive processing, yet with moral intuition occurring with high intensity, before one has the

time or ability to cognitively reflect upon the situation; it is assumed that this is true in the majority of cases. Furthermore, in accordance with expert definitions, heroism has been defined separately from altruism by its extremely quick reaction time, among other variables. Therefore, whilst the paper notes various discrepancies with the definition used, the time frame alone makes it difficult for one to carry out reflective cognitive processing and still be defined as a civil hero.

### **Proposition of Processes**

1. External stimuli are viewed by the individual
2. An immediate intuition is made, based on how one's personal factors interpret the stimuli e.g. morals
3. Emotion levels are altered according to the experienced intuition
4. High emotional arousal increases the chances of instinctive heroic action, without and before any cognitive processing. Whereas low emotional arousal increase the chances of withholding action until the situation can be cognitively processed.
5. If cognitive processing occurs, heroic action can still take place, yet it is more unlikely and made more so over time, due to situational changes and on-going outcome appraisal. Furthermore the chances that heroic action will be for selfish reasons increases in accordance with one's judgment of consequences.

### **Outcome and Consequences**

With this analysis detailing the link between emotions and heroic behaviour, this can aid in promoting and implementing methods to create positive change and to prepare individuals for possible future helping behaviours. Furthermore, detailing that

emotions may cause heroic action in order to meet an immediate need and to sate one's own feelings, this shows that heroic action may not be entirely altruistic, and thus definitions may need to be altered in order to cater for a more ego-centric hero. Without an individual cognitively processing the information and basing an altruistic choice upon logic and instead acting on an emotional based instinct, this brings into question the reasons why someone would not want another to die. Could it be that a hero does not want another to die because of the feelings that they may feel at the loss of another or the feelings that may come with a lack of their own involvement? Furthermore is it plausible to suggest that the reasons a person would not want another to die can be entirely altruistic? Whilst an individual may not wish death on another individual as they want them to continue to enjoy their life, or as they do not want them to suffer any pain, is it conceivable to suggest that these altruistic wants can be absent of any personal emotions? Thus, with altruism itself being questionable, it may be that definitions of heroism, wherein any personal gain disqualifies a person from being a hero, may be a mark too high for anyone to reach. Future research into the effect of emotions on heroic behaviour would greatly aid in shedding light on whether such helping behaviour is ever truly altruistic, yet the difficulties in replicating heroism in a laboratory setting is highly apparent. Furthermore, whilst defining the thought process of heroism may aid in promoting similar behaviours, the fine margins between pure altruism and the consideration of oneself matters little, providing the action is the same. Moreover, with each situation being highly unique, consisting of a wide range of situational and individual differences, there may always be questions as to what actually constitutes heroic behaviour.

The study of thought processes in risky decision making has long focused on bad choices, aiming to reduce risk and to implement safety methods, yet the study of heroism offers a greater opportunity. If one was to truly understand the heroic phenomenon, then rather than promoting a suppression of behaviours and normalcy, we can truly strive to produce a positive, altruistic and collaborative society.

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