

So, You Think You're a Super Hero?: An Examination of Vicarious Self-Inflation Through
Mass-Media Heroes

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In recent years there have been many successful books and films with a focus on strong heroic characters who may initially appear to be quite typical, but become extraordinary over the course of time. *The Hunger Games*, a book about a simple girl living in a dystopian society who comes of age by becoming the hero of her nation,¹ became the third-biggest opening weekend of all time for a movie, netting 155 million dollars in just one week.² Prior to *The Hunger Games*, Stephanie Meyers' *Twilight Saga* similarly attracted, and continues to attract, a mass audience with a plain school-aged girl as the protagonist who becomes extraordinary through her involvement with fantastic creatures.³ The records broken by these books and movies indicate their rising popularity and that of portraying a selfless, heroic character. Given the huge impact of these media heroes, the current study assessed several personality dimensions to learn whether some were especially predictive of who would find such stories particularly engaging. We termed an intense identification with the character that yielded an internalization of the character's traits, vicarious self-inflation.

Self-esteem is a critical personality trait that influences one's thoughts and behaviors, affects confidence, is a potent determinant in happiness, and thus impacts one's ability to succeed. High self-esteem is positively correlated with occupation status, relationship and job satisfaction; and negatively correlated with depression.⁴ Despite the immense importance of self-esteem and its conceptualization as "an outcome, motive, and buffer," there is no overarching theory of its importance.⁵

While, the exact structure of self-esteem remains questionable, a relationship was indicated in research examining the correlation between self-esteem and hero/heroine identification using, twelve to fifteen year-old participants. The results indicated that participants with higher self-esteem rated their heroes as less influential in their lives, while participants with low self-esteem rated them with higher importance.⁶

Self-esteem is often linked with the personality traits of introversion and extroversion. When the Minnesota Multiphasic Personality Inventory (MMPI) developed three new sub-scales to measure social introversion it was determined that the stronger an individual scored in the social introversion test, the stronger the correlation became between social anxiety and low self-esteem.⁷ Therefore, one's level of introversion or extroversion may well be a key personality trait in terms of looking at vicarious self-inflation.

Other research has examined introversion and extroversion in adolescents and their imagined heroes using the Myers-Briggs type indicator. The students categorized as introverted, along with the intuitive, feeling, and perceptive traits, envisioned heroes more like themselves, who held many of the same preferences. For students who were identified with opposite characteristics this was not true.⁸

Anxiety was included in this study as it was thought possible that anxious people may have a stronger tendency to vicariously self-inflate with fictional characters as a way to reduce the anxiety they experience. In other words, identifying with a fictional character who overcomes obstacles might increase an individual's belief that he or she can conquer their own perceived shortcomings and obstacles.

Rubin and Livesay demonstrated that using superheroes in play therapy is helpful, allowing children a sense of imagined power (flight, super-strength, or super-speed) even when they feel powerless to control their own lives and emotions.⁹ In their study, the researchers

highlighted the importance of fantasy play to transfer feelings of anger, anxiety, and other negative emotions to toys and essentially learn how to deal with difficult emotions through play.¹⁰

Identifying with and mimicking a hero can result in a reduced amount of anxiety.¹¹ If in childhood one is able to relate to a character so strongly that it can result in a reduction or even elimination of anxiety, we predict this will carry on into adolescence and adulthood, making it important in this study.

Another measure of interest is the Highly Sensitive Persons Scale,¹² which measures the extent to which people are sensitive to their environments and the people around them. They may be so sensitive to others' emotional states that they may even experience others' emotions. They are also so sensitive that everyday beauty brings tears, gentle reprimands and ribbings leave them upset for days, and they find the need to be alone for periods of time just to escape the constant sensory assault.¹³ Hartmann theorizes that High Sensitive Persons (HSPs) may be especially affected by the emotion-evoking drama that fills the movie screen and the swelling music that accompanies it. It is entirely possible that each image, inflection, and emotion played onscreen is absorbed and experienced by HSPs, making them more likely to practice vicarious self-inflation.

Another personality dimension of interest, self-efficacy, is defined as one's beliefs about their capabilities to exercise control over one's own level of functioning and other events that affect their lives. According to Bandura, self-efficacy may influence one's level of academic achievement, aspirations, and motivation. Bandura's work also states that generally those who score high on efficacy tend to envision positive scenarios that allow them to succeed. Those who score low on self-efficacy, however, show signs of the opposite.¹⁴ In regards to vicarious self-inflation, self-efficacy was assessed to determine whether there is a relationship between one's level of self-efficacy and how strongly he or she can relate to an extraordinary fictional character. Potentially, those with low self-efficacy could have a tendency to exhibit greater needs of vicarious self-inflation, but people with higher self-efficacy might have a greater ability to achieve this.

There is a difference between males and females in the types of media consumed, as well as in self-identification with heroes. Many of the current mass-media heroes are female, for example Katniss Everdeen in the *Hunger Games*¹⁵ and Bella Swan in the *Twilight Saga*.¹⁶ Both characters are seemingly normal individuals who evolve into extraordinary people through extreme circumstances. Buttsworth illustrates this concept in her work 'Bite Me': Buffy and the penetration of the gendered warrior hero; Buffy as "both like and not like 'other girls.'" She is like other girls in terms of her wants and desires, but is unlike other girls, being a rough and tough vampire slayer.¹⁷

The majority of the studies conducted on the topic of hero worship and personality differences have used adolescents and children as participants. In fact, we found only one related study involving young adults at the age of 20 years old. However, the focus of this study was on gender differences in the perception of a female hero.¹⁸

The present study assessed the above-mentioned personality dimensions using a college sample rather than school-aged children. We predicted that for college students, the personality dimensions of self-esteem, introversion, anxiety, highly sensitive persons, and self-efficacy would be significantly correlated with identification and admiration for extraordinary characters. Specifically, we expected that participants who reported lower self-esteem and self-efficacy

would tend to report greater identification with a fictional character. In addition, we predicted for those who scored high in vicarious self-inflation there would be a correlation between the participant's own age and gender, and that which they applied to the protagonist in the gender and age neutral vignette. Finally, we expected that this tendency might be even greater among those who scored higher on measures of sensitivity and introversion.

Methods

Participants

The sample of this study consisted of 89 students enrolled in selected classes at the University of Montevallo during the Fall semester of 2012. The participants had a mean age of 20.36 ($SD = 3.98$). There were 61 females and 28 males in the sample. The student sample consisted of 17 freshman, 39 sophomores, 10 juniors, 11 seniors, 1 graduate level student, and 11 participants that did not specify.

Procedure

The subjects were given a detailed demographic survey to assess the subjects' current level of readership outside of classroom responsibilities, the amount of film viewership, as well as the genres of films or movies the subject enjoys. Six other measures were also given in the test packet. The subjects were repeatedly instructed not to write their names on any of the measures or demographic sheets. The subjects were then asked to sign a consent form, which was immediately removed from the test packet after it was signed to ensure anonymity. When the surveys were completed, a large envelope was handed out allowing the subjects to anonymously place their test packets inside.

Materials

Six measures were used with the intent to assess the effects of various personality dimensions on vicarious self-inflation through mass-media heroes. The Rosenberg Self-Esteem scale (1965) is a ten item measure which asks students to measure how strongly they agree or disagree with a statement. The scale consists of the numbers one representing "strongly agree" to four representing "strongly disagree." Students indicated their immediate feeling to statements such as "On the whole, I am satisfied with myself," and "I feel I do not have much to be proud of".¹⁹

The introversion scale (2007) developed by McCroskey based on the work of Eysenck contains eighteen items which measure to what extent a person is introverted or extroverted. The participant indicated whether he or she believes each statement to be true assigning the numbers one, representing strongly disagree, to five, representing strongly agree, to each item. Sample statements found in this test include, "Are you inclined to keep in the background on social occasions?" and "Do you usually take the initiative in make new friends?".²⁰

The Spielberger State-Trait Anxiety Scale (1970) consists of twenty statements that participants use to describe themselves by indicating their agreement to a statement on a scale of 1 (strongly agree) to 4 (strongly disagree). The statements range from simple statements such as "I feel calm", to "I feel anxious", and "I feel joyful", as well as other states of being in between.²¹

The Highly Sensitive Persons Scale (Aron, 1997), is a twenty-seven item scale measuring levels of high sensitivity in participants. Participants rate statements such as, “I am easily overwhelmed by strong sensory input”, “I seem to be aware of subtleties in my environment”, and “I am deeply moved by the arts or music” on a scale 1 (strongly agree) to 4 (strongly disagree) scale.²²

The Generalized Expectancy for Success Scale (GESS) was used to assess self-efficacy. This measure contains 30 questions and three subscales: General Efficacy (GE), Long Range Career Oriented Expectancy (LRCOE), and Personal Problem Solving (PPS). The participants were instructed to estimate the likelihood of occurrence for each of the 30 statements as it pertained to them. An example might include, “In the future I expect I will carry through my responsibilities carefully.” The participant would then choose probabilities from a range of one to five (1 - highly improbable to 5 - highly probable).²³

An experimenter-created measure was used to assess the extent to which participants became vicariously involved in a story. A short, gender-neutral vignette was written with a plot involving a typical student who becomes a hero after gaining seemingly super-human abilities that are used to save endangered classmates. The vignette was followed by researcher created statements and questions. The statements included, “I feel a personal connection to the character in this story,” and “I feel that the character embodies qualities that I attribute to myself.” In addition to six questions, two questions were also asked, “When reading the text, did you envision the character as male or female?” Three choice options were provided: female, male, and unidentifiable. Another question asked, “When envisioning the character, what was the approximate age of the person?” Again, three options were provided: ages 15-17, 18-21, and 22-24.

Results

A correlational analysis was conducted on all measures of interest of our survey including the various scales and our experimenter-created vignette that measured vicarious self-inflation. Analysis yielded many significant results. In support of our hypothesis we found strong significance in the correlation of vicarious self-inflation and particularly the GESS, Spielberger State-Trait Anxiety Scale, and the introversion scale, however the direction of the correlation directly contradicted our hypothesis. There appeared to be no significant correlation between vicarious self-inflation and the Highly sensitive persons scale ($r_{85} = -.139, p < .199$) and only a trend towards significance in the correlation of vicarious self-inflation and the RSE, self-esteem scale ($r_{86} = .196, p < .067$).

Interestingly, there was significance in the positive correlation between general efficacy and vicarious self-inflation ($r_{86} = .229, p < .032$). A subscale of the GESS, which measured for long range career oriented efficacy, displayed an even stronger significance and more positive correlation ($r_{86} = .293, p < .006$). Finally, the subscale of the GESS which measured for people problem solving efficacy showed the strongest positive correlation and significance of the three subscales of the GESS ($r_{86} = .374, p < .001$).

Also in support of our hypothesis, we found significance in the positive correlation between the participants age and the projected age of the protagonist of the vignette ($r_{86} = .232, p < .030$). Upon further investigation it appears as though the women in the study were driving

the results with their positive correlation between age and projected age of the protagonist being significant ($r_{58} = .255, p < .049$) whereas the results of the men did not show any significance ($r_{26} = .180, p < .358$) However, the correlation between the participant's sex and the sex of the protagonist only displayed a trend towards significance in the two sexes ($r_{87} = .185, p < .082$).

Additionally, we discovered a significant relationship between one's level of extroversion and vicarious self-inflation ($r_{26} = -.254, p < .018$). However analyses yielded findings that were opposite to predictions. The results suggest that higher levels of introversion resulted in a participant being less likely they were to become vicariously involved in our vignette, which directly contradicted our hypothesis. Anxiety played a role as well, and we noted that with moderate significance there was a negative correlation between the Spielberger State-Trait Anxiety Scale and our self-inflation scale ($r_{81} = -.233 p < .034$).

Sex differences were noted as well, with males scoring slightly higher on levels of vicarious self-inflation than females with means of 21.143 and 19.2333 respectively ($T_{(87)} = 4.233, p < .043$).

Discussion:

The purpose of this study was to assess correlations and sex differences among certain personality traits and the tendency to excessively admire and imitate fictional heroes. We expected to find significant correlations among measures of depression, low levels of self-efficacy, high sensitivity, anxiety, and introversion, along with levels of vicarious self-inflation as measured by an experimenter created vignette.

Contrary to our predictions, the direction of the relationship between self-efficacy and vicarious self-inflation did support our hypothesis, but were nevertheless significant and correlated. We predicted that a person with low levels of self-efficacy might draw strength and motivation from a fictional character, and would correlate more significantly with vicarious self-inflation. Instead, high levels of self-efficacy gave a significant correlation, possibly because such a person is comfortable with their own abilities and can easily visualize themselves completing the actions of the character, therefore placing themselves into the story as the main character.

We also found an intriguing contradiction to our hypothesis in that introverts would be more likely to engage in vicarious self-inflation. We hypothesized that with introverts being internally focused they would apply their own thoughts and feelings and project them onto the character, resulting in vicarious self-inflation. It would seem quite the contrary, in that extroverts in our sample are externally oriented and have a much easier time relating to and associating with an external source than introverts, who are more closed to external sources and primarily focused on themselves.

Anxiety correlated significantly in our findings, though it turned out to be quite different than what we expected. We had predicted that people with anxiety could use fictional characters as a means of drawing strength, when in fact, it would seem that is not true. Lower levels of anxiety were associated with higher levels of vicarious self-inflation, perhaps because a person's anxiety would be a distraction and keep him or her from fully immersing himself or herself in the story.

We predicted that females would be more likely to vicariously self-inflate, yet the results indicated the opposite. Results indicated participants with higher levels of extroversion were more likely to vicariously self-inflate. Consistent with this result, the males in our study scored higher levels of extroversion suggesting this group would be more likely to self inflate.

Finally, we noted that gender roles could play a part in vicarious self-inflation and would make an interesting topic for further research. The literature suggested that it may be more difficult for highly sensitive males to identify with fictional heroes due to strict gender roles. This interests us because we suspected that the results could have been skewed due to the possibility of the vignette being unintentionally biased. It was intentionally designed to focus on a gender-neutral character, however, that character was given a trait often more closely associated with masculinity: strength. We speculated that this overlooked detail could have hinted at a male character to participants completing the survey.

Though many of the findings revealed opposite results of what we had initially predicted, the study provided some very interesting and significant results, which we hope will inspire future research. The topic of vicarious self-inflation may become more prominent as more blockbuster films hit the theaters and bestsellers stock shelves. Through extensive examinations of the previous literature on the subject and dedicated research, we hope to have shed a bit of light on vicarious self-inflation and predictors of such behavior.

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