Overconfidence and Personality Traits

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Abstract

The present study examined the correlations between personality types and overconfidence in decision making. Researchers hypothesized that individuals who scored higher on narcissism would report greater overconfidence when making decisions. Participants were asked to complete the Big Five Inventory, Narcissistic Personality Inventory and a general knowledge questionnaire. The general knowledge questionnaire was used to determine the amount of confidence participants reported in their decision making abilities. Another area examined in this study is how much the average college aged person knows about Alzheimer’s disease. The general knowledge questionnaire consisted of general facts about Alzheimer’s disease taken from the 2013 Alzheimer’s Facts and Figures Report. Several significant correlations were found, including data to support previous research showing that those who score above average on narcissism reported overconfidence when making decisions. Researchers found significant correlations between narcissism and two of the big five personality traits. Findings revealed that the average college age person is significantly undereducated about Alzheimer’s disease.

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Introduction

Researchers Wansink and Sobal (2007) found that people make approximately 227 decisions each day. Only 14 of those decisions are food related so the remaining 212 decisions may be important ones (Wansink & Sobal, 2007). Researchers wonder how many of these daily decisions are made with great confidence (Sieck, Merkle, & Van Zandt, 2007). Overconfidence is a phenomenon that happens when an individual relies more heavily on the reasons supporting the selected choice than the reasons contradicting their decision (Sieck et al., 2007). For example, if someone were asked “What are the primary colors?” he/she could say “Red, blue, green and yellow because I remember those colors in my preschool class” when the correct answer is red, blue and yellow. Research has shown that individuals who are perceived as overconfident will get more promotions and better pay but can also cause problems in corporations if they are overconfident in other employees’ abilities and give them more leeway in projects than they should (Nauert, 2014).

Investigators seek to calculate the level of overconfidence an individual will exhibit by utilizing a “general knowledge” questionnaire (Sieck et al., 2007). These general
knowledge questionnaires will ask individuals a question that the general population will be able to answer and provide two possible answer choices. Once the individual has made a selection, he/she is then asked to report a confidence judgment from 50-100% that the answer selected was correct (Sieck et al., 2007).

This idea of confidence judgments conforms to the ecological approach of decision making, a term coined by Gigerenzer, Hoffrage, and Kleinbolting (1991). This happens when “a person does not know the correct answer and chooses to use the available cues to answer the question” (Stankov & Lee, 2008).

Many individuals have dedicated countless hours and grant dollars into researching the amount of overconfidence average individuals’ display, but only a portion of the research has been conducted to determine if specific personality types are more prone to showing overconfidence. A study by Fast and colleges (2012) suggests that individuals in positions of power will display more overconfidence in their abilities as well as their decision making (Fast, Sivanathan, Mayer, & Galinsky, 2012). The idea of individuals in power positions displaying more overconfidence invokes the idea that those who have narcissistic personality types may be more inclined to be overconfident. A study published in 2003 by Schaefer and colleagues showed that particular personality traits such as narcissism and openness are more likely to produce overconfidence (Schaefer, Williams, Goodie, & Campbell, 2003).

Several studies have been conducted to evaluate overconfidence and narcissistic traits. Cambell, Goodie, and Foster (2004) defined Narcissism as “a dynamic social construct with two key elements: a positive, inflated, and agentic view of the self; and a self-regulatory strategy to maintain and enhance this positive self-view.” Lakey, Rose, Campbell, and Goodie (2007) focused on the correlations between narcissism and gambling. Lakey and colleagues (2007) found a positive relationship between narcissistic personality types and overconfidence in their decision making abilities. They determined that narcissists will display much more overconfidence in their gambling abilities and placed more bets than non-narcissistic personality types.

Although the image of a narcissistic person is often negative, research suggest that the right amounts of narcissism can be beneficial (International Business Times. 2011). Research shows that “Such traits can lead to success in a variety of situations, including business and war” (International Business Times. 2011). Current research revealed that overconfidence in one’s own abilities can give a person an advantage when he/she is unsure of an opponent’s strengths as well as an advantage when faced with a new or unfamiliar situation.

In addition to studying how overconfidence correlates with personality types, this study investigated the traditional college student’s knowledge of Alzheimer’s disease. According to the Alzheimer’s Association’s 2013 report, Alzheimer’s disease is the 6th leading cause of death in America. It is also the only one of the top ten causes of death which cannot be stopped or slowed (Alzheimer’s Association 2013 Facts and Figures Report). The Alzheimer’s Association claims that more than 5 million Americans or 1 in 3 seniors have this disease and someone develops the disease every 68 seconds. The
reason for using general knowledge questions regarding Alzheimer’s disease was to
gauge how much the college aged population knows about the disease and use the data
collected to inform additional studies on Alzheimer’s disease.

The primary aim of this study was to determine if certain personality traits were
correlated with overconfidence in decision making. Narcissism was of particular inter-
est to researchers in this study as we expected to see that individuals who are more
narcissistic will report higher rates of overconfidence in decision making. Finally, re-
searchers were interested to investigate how much the college aged person knew about
Alzheimer’s disease.

Method

Participants

Sixty-two undergraduate students (45 females and 20 males; average age=20.6,
SD=6.25) from a midsize university in the southwest United States were recruited.
Participants volunteered to participate in this research to fulfill a course requirement or
receive extra credit for a psychology course.

Materials

Personality. The participants completed the 44-item Big Five Inventory (BFI;
Oliver & Benet-Martinez, 1998). The BFI is a personality inventory used to assess
personality traits. Participants responded to items such as “I see myself as someone
who is talkative” on a Likert-type scale ranging from 1(disagree strongly) to 5 (agree
strongly).

Narcissism. The participants completed the 40-item Narcissistic Personality In-
ventory (NPI; Raskin & Terry, 1988) to gauge how narcissistic each participant was in
order to find a correlate with overconfidence. Participants chose between two options
such as “I have a natural talent for influencing people” or “I am not good at influencing
people.” These statements were awarded points for each item chosen that matched the
scoring key and assed to determine the level of narcissism.

Overconfidence. Participants were given a 30-item general knowledge question-
naire. The subject matter consisted of Alzheimer’s disease information and its related
facts. The participants were asked 30 questions concerning Alzheimer’s disease and
general facts about it. Participants selected one of the two possible answer choices
and then assessed how sure they were that their answer was correct on a scale from
50–100%. For example, participants were asked “Alzheimer’s disease is the ___ lead-
ing cause of death in America” and were provided with “A) 10th or B) 6th” as answer
options. These participants were then asked on a scale of 50–100% how confident they
were that the answer they chose was correct.
Procedure

As participants entered the testing facility, they were instructed to sign in and were assigned a seat at one of the 8 available computers. Participants were told that the informed consent and the debriefing would be presented to them electronically but the experimenter could provide paper copies of these forms upon request. The experimenter explained that the study would be conducted on the computer and that it was a self-paced study. All further instructions would be on the screen and the participants were instructed to follow the on screen instructions but could ask for help from the experimenter if they needed clarification on any of the instructions. First, participants were prompted to provide some demographic information and then asked to complete the Big Five Inventory (BFI; Oliver & Benet-Martinez, 1998) followed by the Narcissistic Personality Inventory (NPI; Raskin & Terry, 1988). Lastly participants answered the 30-item general knowledge questionnaire related to Alzheimer’s disease. Finally, participants were given a full debriefing.

Results

Narcissism and Overconfidence

A bivariate correlational analysis was conducted on the narcissistic personality inventory, general knowledge score, mean confidence rating and overconfidence.

<table>
<thead>
<tr>
<th>Source</th>
<th>General Knowledge</th>
<th>Mean Confidence</th>
<th>Overconfidence</th>
</tr>
</thead>
<tbody>
<tr>
<td>NPI Score</td>
<td>-0.421*</td>
<td>-0.532**</td>
<td>-0.475**</td>
</tr>
</tbody>
</table>

Note, *p<0.05, **p<0.01

Descriptive statistics for the narcissism score were: $M=15.5$, $SD=6.05$. Average confidence was 0.46, and average accuracy was 0.14, resulting in average overconfidence of 0.32. Positive correlations were found between Narcissism ($M=20.8$, $SD=3.21$) and all other variables; General Knowledge ($M=14.6$, $SD=2.9$) $r=-0.42$, $p<0.02$, Mean Confidence ($M=49.3$, $SD=17.8$) $r=-0.53$, $p<0.00$ Overconfidence ($M=34.6$, $SD=17.4$) $r=-0.46$, $p<0.01$. Individuals who reported higher scores on the Narcissistic Personality Inventory also showed significantly higher scores on the general knowledge questionnaire. In addition, individuals who reported higher scores on the NPI, showed significantly higher confidence ratings in their reported answers than did individuals who scored below average on the NPI. Lastly individuals who scored above average on the NPI showed significantly higher overconfidence in their decision making abilities.
Narcissism and The Big Five Dimension Correlations

A bivariate correlation analysis was conducted on all variables in the two questionnaires listed above. A positive correlation was found between Narcissism ($M=15.6$, $SD=6.66$) and two of the Big Five Dimensions; Extroversion ($M=3.58$, $SD=0.41$) $r=0.28$, $p < 0.01$; and Neuroticism ($M=3.34$, $SD=0.42$) $r=-0.19$, $p<0.05$. Individuals who reported higher scores on the Narcissistic Personality Inventory also scored significantly higher on the Big Five Inventory dimensions, Extroversion and Neuroticism. There was also a positive correlation found between Narcissism and Age ($M=20.2$, $SD=5.52$) $r=-0.18$, $p<0.03$. Individuals who reported higher scores on the Narcissistic Personality Inventory were consistently younger individuals.

Table 2

<table>
<thead>
<tr>
<th>Source</th>
<th>Extroversion</th>
<th>Neuroticism</th>
<th>Conscientious</th>
<th>Openness</th>
<th>Agreeableness</th>
<th>Age</th>
</tr>
</thead>
<tbody>
<tr>
<td>Narcissism</td>
<td>0.279**</td>
<td>-0.186*</td>
<td>-0.31</td>
<td>0.117</td>
<td>0.128</td>
<td>-0.182*</td>
</tr>
<tr>
<td>Confidence</td>
<td>-0.075</td>
<td>0.026</td>
<td>0.045</td>
<td>0.016</td>
<td>0.174*</td>
<td>-0.043</td>
</tr>
</tbody>
</table>

Note, *$p<.05$, **$p<.01$

General Knowledge about Alzheimer’s Disease

Due to computer collection errors, two of the 30 question sets listed on the general knowledge questionnaire were discarded. The following are the results for the remaining general knowledge questionnaire sets. Scores from 100–90 were scored as an A, 89–80 would be scored a B, 79–70 would be scored a C, 69–60 would be scored a D, and 59 and below would be scored an F. The highest score for the general knowledge test was a 74 reached by one participant. Only 18% of the participants scored between 60 and 69. The item that most individuals missed was “Memory loss that disrupts daily life along with _____ are common symptoms of Alzheimer’s disease.” with A: problems planning and solving problems and B: Shaking Hands being the possible answer choices. The correct answer would have been option A but individuals who were above average on the NPI and chose option B showed 80.21% confidence in their answer choice that was wrong. A striking 90% of participants scored a 59 or lower on the general knowledge questionnaire. Interestingly, 46% of participants reported having had a loved one diagnosed with Alzheimer’s disease.

Discussion

The purpose of this study was to determine if individuals with particular personality types would display greater overconfidence in decision making. In particular, researchers sought to show that individuals who report greater narcissism will show greater overconfidence in decision making. In addition, researchers sought to determine how much the average college aged person knows about Alzheimer’s disease in order to use the collected data to form additional studies on Alzheimer’s disease.
As predicted narcissistic individuals showed much higher confidence in their abilities to make correct decisions although they were no more accurate than non-narcissistic individuals. This finding is consistent with prior research (Campbell et al., 2004). In the study conducted by Campbell and colleagues (2004), participants were asked to answer a set of general knowledge questions by selecting one of two provided answer choices. Once participants had made their selection, they were then asked to select how sure they were they had made the correct decision on a scale of 50–100%; by selecting one of several percentage boxes. Campbell and colleagues (2004) reported finding that narcissism was a significant predictor of overconfidence $r=0.28$, $p<0.01$.

Researchers were surprised to find the considerable lack of knowledge that college aged individuals reported about Alzheimer’s disease. This result simply confirms that individuals need more education about this important disease. According to the Alzheimer’s 2014 Facts and Figures report, the baby boomer generation continues to progress to the typical age of the onset of Alzheimer’s disease. Due to this fact, it is very likely that the elder generation will depend on today’s college aged individuals for care. The amount of individuals over the age of 65 is expected to increase from 13% to over 20% by year 2050 (Alzheimer’s Association 2014 Facts and Figures Report). With this significant incline in elderly Americans, these individuals will show higher rates of hypertension, high cholesterol, obesity and diabetes (Blunck, 2014). It has been predicted that there will be a greater need for long term care providers such as nurses, geriatric care physicians, internal medicine physicians, social workers and other supporting staff (Kinckman & Snell, 2002). It would be beneficial to increase the awareness of expanding job opportunities in the geriatric field among students and university career staff.

Concluding Remarks

In sum, results revealed that individuals who score higher than average on the narcissistic personality inventory are significantly more likely to be overconfident in his/her decision making abilities. While there has been little research to determine if narcissistic individuals in particular are more confident than others, the data from this study supports this claim and there is little to no literature to prove otherwise. This information is important as individuals who are above average in narcissism should know that they should consult with others before making major decisions as they could be experiencing overconfidence in their decision. This study also demonstrated that college aged individuals are dangerously undereducated about Alzheimer’s disease. With a potential boom in Alzheimer’s diagnosis on the horizon, the up and coming college aged individuals should be educated about the impact this boom will have on the health care system as well as the employment opportunities that will be available in the near future.
References


