

# Got Ink? An Analysis of Personality Traits between Tattooed and Non-Tattooed Individuals



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Research supports personality differences between tattooed and non-tattooed individuals. However, few studies have investigated whether any of these differences are associated with positive indicators for tattooed individuals. In this study, personality differences between tattooed and non-tattooed individuals in three of the Big Five personality areas considered critical to successful employees in the workforce were examined. Previous research has established that higher levels of conscientiousness and extraversion coupled with lower levels of neuroticism are indicators of high-quality employees. The present study attempts to augment this line of research by adding the dimension of tattoos; investigating whether individuals with tattoos report more positive personality indicators in these dimensions than individuals without tattoos. Thus it was hypothesized that tattooed individuals would report higher levels of conscientiousness and extraversion and lower levels of neuroticism than non-tattooed individuals. For this purpose,  $N = 521$  individuals completed an online survey, which included the 44-Question Big Five Inventory. An independent sample  $t$ -test revealed a statistically significant difference between tattooed ( $M = 3.41, SD = 0.77$ ) and non-tattooed ( $M = 3.21, SD = 0.83$ ) groups in the Big Five personality area of extraversion,  $t(521) = 0.39, p = .004, d = 0.25$ . There were no other statistically significant differences. These findings indicate that tattooed individuals may be better employees than previously believed, as the extraversion component of the Big Five Inventory, has been found to be a critical indicator of successful job performance.

## INTRODUCTION

Tattoos have increased in popularity over the last two decades; almost one in five people across all age groups had a tattoo as of 2012, and one in ten people have two or more tattoos (Swami et al., 2012). Nearly 40% of young adults (18-25) have at least one tattoo, whereas only 15-16% of members of this age group in 1990 were tattooed (Swami et al., 2012). Despite the increase in tattoos within younger generations, tattooed individuals face discrimination, negative stigma, and lower levels of employment than their non-tattooed counterparts (Horne, Knox, Zusman, & Zusman, 2007). Very little research has examined whether individuals with tattoos score differently than non-tattooed individuals on scales measuring personality traits perceived as positive. This study seeks to address this gap by identifying personality differences between tattooed and non-tattooed individuals and the potential implications of those differences for employment.

Historically, the traits associated with tattooed individuals have depended significantly on the culture and circumstances of those individuals. Captain Cook explored Polynesia in 1769 and observed the social and spiritual significance of tattoos in Polynesian culture. The location of a tattoo on an individual's body and the

specific tattoo design displayed social, hierarchal, and genealogical information about the owner of the tattoo, as well as signaling particular aspects of his or her character (Parry, 1933). Tattooing was considered a sacred ceremony, and most tattoos were thought to fetch spiritual power, protection, and strength. Almost every Polynesian individual had tattoos, and many of Captain Cook's men left their voyage with a permanent memento of their expedition, which was considered a great honor (Parry, 1933). Similarly, Native Americans report a long and extensive history of traditional tattoos. Depending on the tribe, tattoos could signal hierarchy or a specific role within the tribe, mark a warrior's prowess in battle, or be considered marks of beauty (Littell, 2003).

Since then, through the shift towards Western culture and through changing definitions of art, tattoos have become more associated with criminals and the sexually promiscuous (Wohlrab, Fink, & Kappeler, 2005). Recent studies have shown there are still many stereotypes attached to individuals with tattoos: academic struggle, broken homes, traumatic childhoods, rarely or never attending church, poor decision-making skills, and susceptibility to peer pressure (Roberts & Ryan, 2002). However, these stereotypes may not accurately represent the current tattoo climate. Forty percent of 26 to 40-year-olds now have a tattoo, closely followed by 36% of 18 to 25-year-olds (Swami et al., 2012). The rising popularity of tattoos among young to middle aged individuals suggests that tattoos may hold different significance sociologically, biologically, and socially than they have throughout the previous century (Wohlrab et al., 2005).

Research is mixed on whether the negative stereotypes associated with tattoos are accurate. A study completed in 2007 in Germany evaluating tattooed and non-tattooed individuals using a Big Five Personality Inventory found that tattooed individuals scored

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higher on the subscale of extraversion, and lower on the subscale of neuroticism (Wohlrab, 2007). More recently, a 2012 study of 540 individuals from Austria and Germany examined Big Five personality traits in participants, as well as a need for uniqueness, sensation seeking, self-esteem, religious and spiritual belief, and demographic variables. The researchers in this study concluded that not only do those with tattoos have higher levels of need for uniqueness, sensation seeking, and thrill and adventure seeking, but they have lower levels of self-esteem, attend religious services less, and are generally much less educated than individuals who did not have tattoos (Swami et al., 2012).

For decades, businesses have attempted to identify personality traits that predict a successful employee. When United States federal law banned the use of polygraphs for employee selection in 1988, hirers began using personality surveys as the primary method for making hiring decisions (Stabile, 2013). Job interviewers now ask questions designed to reveal components of an individual's personality in order to evaluate where that individual would best fit within the company structure, how committed to the job the individual would be, and their likelihood of advancing through the company ranks (Wohlrab, 2007). However, studies as late as 2010 have shown that despite this shift to personality-based hiring, companies still discard potential employees on the basis of their tattoos (Burgess, & Clark 2010).

Researchers have also attempted to determine personality traits capable of predicting successful employees. A 2014 ten-year longitudinal study of over 8,000 individuals working within multiple big business companies revealed that there is a significant statistical difference between the managerial and working classes in three Big Five personality dimensions: neuroticism, extraversion, and conscientiousness (Palaiou & Furnham, 2014). Conscientiousness was shown to be the best predictor of overall successful job performance and individuals who scored higher in this dimension tended to be more achievement oriented (Li, Barrick, Zimmerman, & Chiabaru, 2014). Neuroticism successfully predicted poor work performance; the lower the levels of neuroticism, the higher the level of performance from the employee (Barrick, Mount, & Judge, 2001). Finally, higher levels of extraversion were linked to higher levels of task performance and proactivity (Pearsall & Ellis, 2006).

This study attempts to augment the area of research pertaining to tattooed individuals' personality traits by investigating whether tattooed individuals differ significantly when compared to their non-tattooed peers in areas related to successful employee traits. It was hypothesized that tattooed individuals would score higher in conscientiousness and extraversion and lower in neuroticism as measured by the Big Five Inventory.

## METHODS

### Participants

Participants were recruited through a campus-wide e-mail at Whitworth University, Facebook psychology groups, and global online psychology research forums. Participation was entirely voluntary,

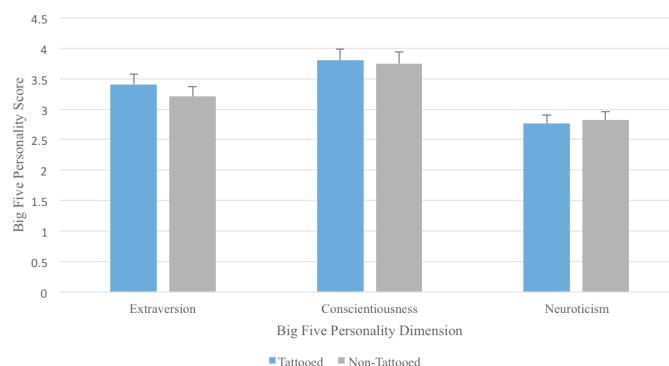
and participants could complete the study on their own time at their own pace. 521 individuals completed the survey, 411 females and 110 males, aged from 18 to 62 years old.

### Materials

Participants completed an online version of the 44-Question Big Five Inventory (John, Donahue, & Kentle, 1991) followed by basic demographic questions addressing age, sex, education level, and university affiliation of the participant. Participants were also asked if they had any tattoos. Participants with tattoos were asked to indicate the size and location of those tattoos.

The survey measured the Big Five areas of personality: openness to experience, neuroticism, extraversion, conscientiousness, and agreeableness. For example, questions measuring conscientiousness asked the participant to rate statements such as: "I am someone who does a thorough job" or "I am a reliable worker" on a five-point Likert scale. Items measuring neuroticism stated, "I am someone who remains calm in tense situations" and "I am someone who is emotionally stable, not easily upset". Finally, items related to extraversion included statements such as "I am someone who is talkative" and "I am someone who is full of energy" (John et al., 1991). Participants were asked to rate their agreement with a series of such statements on a five-point Likert on a scale of one ("strongly disagreeing") to five ("strongly agreeing"). The Big Five Inventory has scored between 0.73 and 0.82 on Cronbach's alpha test over the course of its development, giving it a high degree of internal consistency and thus, reliability (Schmitt et al., 2007). The survey contained nine questions regarding conscientiousness, eight questions regarding neuroticism, and eight questions regarding extraversion.

The three personality subscales of conscientiousness, extraversion, and neuroticism were scored using a formula that calculated a numerical value for each personality dimension by adding each individual's selected scores on the Likert scale, which were then averaged between all participants for an overall mean.



**Figure 1. Results for the extraversion, conscientiousness, and neuroticism dimensions of the Big Five personality survey between tattooed and non-tattooed individuals.** This figure shows significant results in the extraversion dimension, and no significant results in the conscientiousness and neuroticism dimensions.

**Table 1. Demographic information collected.** Participants were current students or alumni from 54 universities of various sizes in both rural and urban locations throughout the United States.

	Tattooed	Non-Tattooed	Total
<b>Tattoos</b>	255 (49%)	266 (51%)	521
	<b>Male</b>	<b>Female</b>	<b>Total</b>
<b>Sex</b>	110 (21.1%)	411 (78.9%)	521
<b>Tattooed</b>	48 (43.6%)	207 (50.3%)	-
<b>Non-Tattooed</b>	62 (56.4%)	204 (49.7%)	-
	<b>Male</b>	<b>Female</b>	<b>Overall</b>
<b>Age</b>	Mean: 23.32 SD: 7.29	Mean: 24.77 SD: 9.76	Mean: 24.47 SD: 9.31
<b>Tattooed</b>	Mean: 25.21 SD: 7.74	Mean: 25.49 SD: 8.61	-
<b>Non-Tattooed</b>	Mean: 21.75 SD: 6.45	Mean: 24.06 SD: 10.81	-
	<b>No College</b>	<b>Undergraduate Education</b>	<b>Graduate Education</b>
<b>Education</b>	79	293	149
<b>Tattooed</b>	54 (68.4%)	103 (35.2%)	124 (83.2%)
<b>Non-Tattooed</b>	25 (31.6%)	190 (64.8%)	25 (16.8%)

**RESULTS**

A total of  $N = 521$  individuals completed the survey (Table 1). Of that 521, 411 were female and 110 were male (Table 1). Participant age varied from 18 to 68 years old. Participants were current students or alumni from 54 universities of various sizes in both rural and urban locations throughout the United States. Two hundred sixty-six (51%) identified themselves as having no tattoos and two hundred fifty-five (49%) identified themselves as having tattoos (Table 1).

A two-tailed independent sample  $t$ -test revealed no statistically significant difference in levels of conscientiousness between tattooed and non-tattooed individuals ( $p = .30$ ; Figure 1).

Like conscientiousness, a two-tailed independent sample  $t$ -test revealed no statistically significance difference on the neuroticism personality scale between tattooed and non-tattooed individuals ( $p = .53$ ; Figure 1, Table 2).

Results revealed a statistically significant result regarding extraversion. A two-tailed independent sample  $t$ -test revealed a statistically significance difference between tattooed individuals ( $M = 3.41$ ,  $SD = 0.77$ ) and non-tattooed individuals ( $M = 3.21$ ,  $SD = 0.83$ ,  $p = .004$ ; Figure 1).

**DISCUSSION**

The purpose of this study was to investigate whether there were positive traits associated with individuals who have tattoos. It was proposed that tattooed individuals would score higher on the conscientiousness and extraversion domains and

lower on the neuroticism domain as measured by the Big Five Inventory than their non-tattooed peers. Tattooed individuals scored significantly higher in extraversion than their non-tattooed peers, but there were no significant differences in conscientiousness or neuroticism between tattooed and non-tattooed individuals. Though tattooed individuals did not differ significantly in two of the three areas tested in this study, the significant difference in extraversion suggests that those individuals with one or more tattoos may display higher levels of task performance and proactivity in the business world (Pearsall & Ellis, 2006).

A growing body of literature suggests tattooed individuals display different personality traits than their non-tattooed counterparts, and this study lends further support to this hypothesis. Specifically, the present study supports the findings from several other studies that tattooed individuals consistently score higher in extraversion than their non-tattooed peers (e.g., Stirn, Hinz, & Brahler, 2006; Swami, 2012; Swami et al., 2012 Wohlrab, Stahl, Rammsayer, & Kappeler, 2007).

This study may be limited by the high proportion of female participants ( $n = 411$ ) compared to and male participants ( $n = 110$ ). A study in which males and females are equally represented could be better extrapolated to the general public. However, a similar study, performed in 2012 with 45.6% male participants found very similar results to the present study; tattooed individuals scored significantly higher than non-tattooed individuals in extraversion, but did not score differently in any of the other Big Five personality dimensions (Swami et al., 2012).

Future research should be conducted with a more age-diverse sample, as the present study had a mean age of 24.47 years old. Though this study lends itself well to explaining the personality attributes of the younger generation, it does not shed any light onto the baby boomer generation, who are currently the individuals holding CEO, managerial, and most importantly, hiring positions over the younger population (Odgers Berndtson, 2012). Over the next decade, a mass exodus of baby boomers is expected to occur, leaving open positions for the younger generation (Odgers Berndtson, 2012). However, if baby boomers are still utilizing stigmatized hiring criteria regarding tattoos, they are excluding a class of individuals who are more proactive and task performance oriented than their age-matched peers (Pearsall & Ellis, 2006). Gathering

**Table 2. Differences between tattooed and non-tattooed participants in the Big Five personality dimensions of extraversion, conscientiousness, and neuroticism.** Tested using two-tailed independent sample  $t$ -tests,  $df = 520$ . \*indicates statistical significance.

	Tattooed	Non-Tattooed	$t(521)$	$p$	$d$
<b>Extraversion</b>	$M = 3.41$ $SD = 0.77$	$M = 3.21$ $SD = 0.83$	0.39	.004*	0.25
<b>Conscientiousness</b>	$M = 3.80$ $SD = 0.54$	$M = 3.75$ $SD = 0.58$	0.31	.30	0.09
<b>Neuroticism</b>	$M = 2.77$ $SD = 0.70$	$M = 2.82$ $SD = 0.73$	-0.64	.53	0.08

more research regarding generational differences in personality attributes and attitudes towards tattoos may have the potential to change current hiring criteria.

Additionally, examining the final two personality domains (agreeableness and openness to experience) in the Big Five Inventory may lead to further information regarding the relationship between tattoos and personality, which could divulge more information regarding desirable characteristics in employees. Agreeableness has been correlated with success in several specific job fields, such as those that require considerable interpersonal interaction. Similarly, the openness to experience dimension has predicted success in fields where teamwork and training performance are important (Barrick et al., 2001). Finally, associations between tattoos and personality could be further explored by examining whether the effect is binary (tattoo vs. non-tattoo) or a gradient (influenced by the quantity of tattoos).

Tattooing has rapidly become a prevalent phenomenon in western culture. It may therefore be time to reexamine the stigma attached to hiring tattooed individuals. Extraversion, which indicates higher levels of task performance and proactivity in a job setting (Pearsall & Ellis, 2006), is starting, through recent research, to become associated with tattooed individuals. The business industry stands to gain quality employees who may be well suited to long-term success and significant contributions to the company if hiring criteria regarding tattoos were to be reassessed (Sackett, Burris, & Ryan, 1989).

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