

Are Extraverts More Likely to Compete in a Funny Competition?

An exploration of extraversion, competitiveness, and humour

Personality factors, like extraversion and competitiveness, have been shown to significantly advantage individuals in the workplace. Indeed, trait extraversion has been linked to success securing jobs and overall job performance, while competitiveness has been shown to impact career choices. However, it is not well understood how these two factors may interact to affect success in the workplace. Thus, this study sought to explore the domain specificity of extraversion by examining whether it predicts competitiveness in the domain of humour. A convenience sample of participants (N = 95) were recruited to participate in an online study through Qualtrics' survey platform. The International Personality Item Pool Big Five Marker measure of the Big Five personality traits was used to assess personality traits. Participants chose to compete in one of two fictitious competitions—a funny story competition or a tournament counting game. For both competitions, the winner received (imaginary) financial gain. The results revealed no significant relationship between extraversion and competitiveness in the domain of humour. However, this study did reveal that gender predicted general competitiveness but not competitiveness in the domain of humour. These findings contribute to the established literature on gender differences in competitiveness.

Keywords: Personality, competitiveness, extraversion, humour, domain specificity

Individual differences in personality and competitiveness contribute to individuals' distinct decisions in their everyday life. Competitive tendencies are defined as the desire to compete with others and win, and these tendencies persist across time and situations (Elliot et al., 2018). A drive to win, or lack thereof, has been shown to impact career choices (Buser et al., 2014; Elliot et al., 2018; Neiderle & Versterlund, 2007, 2011). Similarly, other individual factors like personality traits have been shown to have an important role in career and workplace choices (Penn & Lent,



Extraversion, Competitiveness, and Humour

2019). One such trait is extraversion, defined as an individual being sociable, assertive, talkative, and active (Sackett & Walmsley, 2014). Similar to competitive tendencies, extraversion has been positively associated with job-related outcomes (Sackett & Walmsley, 2014). Indeed, personality and competitiveness are frequently studied in social, industrial, and organizational psychology, due to their influence on employment outcomes. However, the ways in which personality traits, like extraversion, interact with competitive tendencies are not well understood. It may be that extraversion and competitiveness interact in a domain-specific way. Thus, the present study sought to elucidate the relationship between competitiveness and extraversion by applying them to a domain that has yet to be explored—humour. More specifically, the current study investigated whether extraverts were more competitive in the domain of humour, as it is a domain in which they may thrive (Deaner & McConatha, 1993). By examining competitive behaviour and personality in such a way, the present study seeks to understand the relationship between extraversion and competitive tendencies.

COMPETITIVE BEHAVIOUR AND EXTRAVERSION IN THE WORKPLACE

Competitive behaviour can be a driving force in an individual's life. According to social comparison theory, competitive behaviour functions as a method of social comparison; individuals are motivated to compete with others to affirm their own competencies, a behaviour consistent with Western cultural norms (Fletcher et al., 2008). Competitive tendencies have been shown to influence goal pursuit, which can translate to the economic and social success of an individual (Fletcher et al., 2008). A person's competitive drive can impact their career choices and their willingness to persist in the attainment of workplace rewards, such as additional benefits or promotions. Indeed, competitiveness has been correlated with more prestigious academic achievement and career paths (Buser et al., 2014).

Much like competitiveness, personality traits influence daily interactions and can also play a significant role in career and workplace decisions. Previous research has found extraversion to be directly related to self-efficacy in the workplace, that is, higher levels of extraversion results in less decisional discomfort and greater self-efficacy (Penn & Lent, 2018). Further, greater feelings of self-efficacy may translate to better affective and cognitive tendencies when interpreting past decisions, which may foster a more positive outlook on decisional challenges (Penn & Lent, 2018). This finding suggests that extraverts may be better suited to take on additional challenges in the future, which may increase their likelihood of workplace success. Extraversion has also been found to be positively correlated with overall job and task performance, salary level, and promotions (Sackett & Walmsley, 2014; Seibert & Kraimer, 2001).

Despite the significant influence of both extraversion and competitiveness on workplace outcomes, there is limited research examining the relationship between

Extraversion, Competitiveness, and Humour

both variables. A previous study conducted by Bartling et al. (2009) found that extraversion was not significantly related to competitiveness. Instead, the researchers found that participants scoring high on trait agreeableness were less likely to compete. However, beyond this study, the interaction between the two variables has not yet been explored. Therefore, novel investigations are needed to examine if and how extraversion and competitiveness interact. One method of bridging this gap in the literature is to explore the relationship between extraversion and competitiveness in a domain-specific way (i.e., examine the two variables of interest in a certain domain).

THE DOMAIN OF HUMOUR

Previous research investigating competitiveness has focused on competitiveness as measured “generally,” usually meaning in terms of economic gain (Niederle & Vesterlund, 2007). This measure is significant, given the breadth of the literature on workplace success, which is closely tied to economic output. However, it may be the case that individuals are competitive in different ways, such as in the domain of humour. In the workplace, humour has been shown to play an important role in developing relationships, building rapport, and promoting culture, all of which are also facilitated by the social skills of extraverts (Holmes, 2000; Holmes & Marra, 2002; Petraki & Ramayanti, 2018). Given that the relationship between extraversion and competitiveness in the domain of humour has not been previously investigated, this study may offer novel insight into the association between extraversion and competitive behaviour.

STUDY CONTEXT

Past studies have shown that extraversion is positively correlated with humour (Deaner & McConatha, 1993). Given this positive association, it follows that humour may be a domain in which extraverts thrive. In line with this assumption, examining competitiveness in the domain of humour may offer insight into how variations in trait extraversion are related to differences in competitive behaviour. This raises the question: if extraversion is associated with competitiveness, do extraverts tend to excel in the domain of humour? The present study sought to address this question by investigating extraversion and competitive tendencies in the domain of humour. The researchers hypothesize that higher extraversion scores, as measured with the International Personality Item Pool Big Five Marker measure of the Big Five personality traits (Topolewska et al., 2014), will predict participants’ willingness to compete in a humorous competition.

Gender has been shown to be a predictor of competitive behaviour, primarily in intersex competitions. Previous research has shown that females choose to compete less frequently than males and that this tendency may translate to worse job-related outcomes (Niederle & Vesterlund, 2007). A study conducted by Buser et al. (2014)

Extraversion, Competitiveness, and Humour

found that females are less likely to compete, and consequently less likely to pursue prestigious careers and academic paths. Conversely, previous studies have identified that females are just as likely to compete as males in specific competitive environments, such as in female-only environments (Frick & Moser, 2021; Neiderle & Versterlund, 2007, 2011). The results of these studies often conclude that the socialization of males and females and their competitive environments play a significant role in the differentiated gender outcomes within competitions. Therefore, when examining the domain-specificity of competitiveness, it is essential to investigate gender. Indeed, in recognizing the importance of sex and gender-based analyses, the Canadian Institute of Health Research (n.d.) now requires the exploration of sex and gender within its funded research. Given the importance of sex and gender-based analyses, the current study conducted an exploratory analysis of gender as a predictor of competitive behaviour.

RESEARCH DESIGN AND METHODS

Participants

Data from 132 participants were collected via a convenience sample and the data of 33 participants were excluded due to incomplete surveys. Gender was examined within the scope of the gender binary (i.e., male and female), thus, four participants were excluded for reporting a gender other than male or female. The final sample size was 95 participants (63 females, 32 males). The majority of the respondents were Canadian residents, with a mean age of 32.4 years old.

Prior to completing the experiment, all participants were informed that their participation is voluntary and they had the right to stop participating at any time. Participants were also made aware of the minimal risks of participating in the study. All procedures were approved by York University's Office of Research Ethics.

Definitions and Materials

Personality

Personality was measured using the short International Personality Item Pool Big Five Markers (IPIP-BFM-20) questionnaire for measuring the personality traits: openness to experience, conscientiousness, extraversion, agreeableness, and neuroticism (Topolewska et al., 2014). Participants were shown 20 statements and were asked to rate how accurately the statements described them on a five-point scale from one (very inaccurate) to five (very accurate). Therefore, any participant's highest score on a given personality measure was 20, and the lowest possible score was five. The order of presentation for the items was random to reduce ordering effects.

Competitiveness in Humour

Competitiveness in the domain of humour is defined by choosing to enter the humorous competition. Participants were asked to write a short funny personal story

Extraversion, Competitiveness, and Humour

or joke and then choose whether to submit their story/joke to an anonymous funny story competition (humorous competition) or not.

Competitiveness

Competitiveness is defined by choosing to enter the tournament of a counting game, using a measure similar to a method introduced by Niederle and Vesterlund (2007). In this game, participants were shown a table of zeros and ones (see Figure 1) and they were asked to count the number of zeros displayed in the table in exchange for an imaginary monetary compensation (\$1.00) for each table counted correctly. After some practice trials, participants were asked whether they would like to enter the tournament. In the tournament, participants were asked to imagine earning a larger sum for each table answered correctly (\$1.50), so long as they count more tables correctly than an imaginary randomly selected participant, otherwise they would receive nothing. Participants who did not enter the tournament were told to imagine continuing to receive the original piecemeal rate for each table answered correctly.

Figure 1. Sample Counting Game Table

0	0	1	1	1	1	1	0	0	0
1	0	1	1	0	0	1	0	1	1
0	0	0	1	1	0	1	1	1	0

Please enter the number of zeros in the table:

Procedure

All participants completed an online survey using Qualtrics. Participants were randomly sorted into one of two counterbalancing conditions—participants participated in the competitiveness in humour measure first or the counting game. Counterbalancing was used to help minimize the effects of fatigue. After participants completed one competitive measure, they then completed the other competitive measure. Upon completing both competitive measures, participants completed the short IPIP-BFM-20 questionnaire and answered questions about age and gender.

RESULTS

The researchers conducted a binary logistic regression analysis, which is a statistical analysis that estimates the relationship between a binary independent variable and one or more independent variables. This analysis was chosen because the dependent variable (competitiveness in humour) is binary, while the independent variable,

Extraversion, Competitiveness, and Humour

extraversion, was not. This analysis was conducted at an alpha level of 0.05 to determine if extraversion predicts competitiveness in the domain of humour. The results showed no significant association between extraversion and competitiveness, $\chi^2(85, N = 95) = 113.91$, *ns*, indicating there was no difference in the mean extraversion score for those who participated ($M = 12.57$, $SD = 4.17$) and did not participate ($M = 11.78$, $SD = 3.28$). Thus, the researchers fail to reject the null hypothesis that extraversion predicts competitiveness in the domain of humour.

Exploratory analyses were conducted to assess the data collected. A binary logistic regression analysis was once again conducted since competitiveness is a binary variable. This revealed that competitiveness, as measured by the counting game, predicted competitiveness in the domain of humour, $\chi^2(85, N = 95) = 113.82$, $p = .013$, $R^2 = 13.5\%$, suggesting that a general competitive tendency was measured with the humorous competition task.

Additionally, a binary logistic regression, used for reasons stated above, found that gender predicted competitive behaviour in the counting game, but not in the humorous competitive measure, $\chi^2(93, N = 95) = 87.71$, $p = .034$, $R^2 = 4.9\%$. While 31.25% of men chose to compete in the counting game, only 12.70% of women chose the same. This finding partially replicates previous research on gender and competitiveness, showing that women are less likely to compete than men (Niederle & Vesterlund, 2007). Finally, the association between personality traits and competitiveness was examined in exploratory analyses, but no significant results were found. Unlike Bartling et al. (2009), no significant association between competitiveness and agreeableness was found.

DISCUSSION

The purpose of this study was to investigate the relationship between competitiveness, humour, and extraversion. The study used two competitive measures to examine competitiveness generally and competitiveness in the domain of humour to determine if extraversion predicted willingness to compete in either task. Considering that previous studies have failed to find a link between extraversion and competitiveness, the current study sought to explore whether personality traits may only drive effects in domain-specific ways. Therefore, this would offer a more detailed understanding of how extraversion and competitiveness may interact. Despite this, the present study did not find any significant associations between extraversion and competitiveness, not in general or with humorous competition. Although extraversion may not be a relevant personality trait for predicting competitive behaviour, it remains essential in career choices and workplace behaviour.

Competitiveness in the counting game predicted competitiveness in the domain of humour. This indicates that a competitive tendency was successfully measured. Although general competitiveness predicted competitiveness in the domain of

Extraversion, Competitiveness, and Humour

humour, there were several participants who chose to compete in the humorous competition and not in the counting game, suggesting that there may be domain specificity for competitiveness. This finding builds on the literature which has found that different measures of competitiveness and different rewards for competing can yield varying results (Niederle & Vesterlund, 2007, 2011). Still, this area requires future research to understand competitive behaviour in other unexplored domains.

Given the null results, post hoc analyses were conducted to examine if gender influenced competitiveness generally or in a domain-specific way. The results showed that gender predicted competitiveness in the counting game but not in the humorous competition. This finding suggests that there may be domain-specific elements of competitive behaviour that are influenced by gender. Additionally, gender did not predict competitiveness in the domain of humour, suggesting that gender may not predict all competitive behaviour, and this null result may explain differences in career decisions and workplace behaviour. Previous research has found that differing conditions for competing, such as receiving different compensation or sex-segregated competitions, have resulted in no difference between the males and females in terms of competitive tendencies (Niederle & Vesterlund, 2007, 2011). Further, past research has highlighted the importance of promoting environments where females feel comfortable competing (Niederle & Vesterlund, 2011). Future research should aim to discover the ways in which women can be supported to feel comfortable enough to compete. In the present study, participation in the humorous competition was anonymous. It is unclear whether anonymity functioned as a motivator for women to compete, however, this highlights an area for further exploration. Future research should explore whether anonymity in competitive workplace processes (e.g., promotions) encourages women to compete.

LIMITATIONS

The present study has several limitations. First, this study was conducted online, and therefore, effortful participation could not be directly observed. That is, some participants may not have given honest responses or remained focused on the experiment as they would in an in-lab experiment. When examining the role of extraversion, this effect may be pronounced, given that online experiments do not offer the same social environment as in-lab experiments. Additionally, since most of the participants were drawn from a convenience sample from the researchers' personal lives, participants may not have taken the tasks seriously. Further, given the convenience sample, some participants may have behaved in accordance with what they believe would assist the researchers' desired results. Moreover, the convenience sample, as opposed to a random sample, limits the generalizability of the findings. A more robust study using a random sample of the population is needed to validate the present findings.

Extraversion, Competitiveness, and Humour

Finally, this study had a female-biased sample, with twice as many female participants as male participants, possibly influencing the results. In light of this bias, some exploratory analyses controlled for gender, however, most results were insignificant. Therefore, a follow-up study with a balanced sample would improve the generalizability of these findings and may yield different and potentially significant results.

REFERENCES

- Bartling, B., Fehr, E., Marechal, M. A., & Schunk, D. (2009). Egalitarianism and competitiveness. *American Economic Review*, 99(2), 93–98. <https://doi.org/10.1257/aer.99.2.93>
- Buser, T., Niederle, M., & Oosterbeek, H. (2014). Gender, competitiveness, and career choices. *The Quarterly Journal of Economics*, 129(3), 1409–1447.
- Canadian Institute of Health Research. Sex and Gender in Primary Data Collection with Human Participants 2021. <https://www.cihr-irsc-igh-sfh.ca/course/view.php?id=6>
- Deaner, S. L., & McConatha, J. T. (1993). The relation of humour to depression and personality. *Psychological Reports*, 72(3), 755–763. <https://doi.org/10.2466/pr0.1993.72.3.755>
- Elliot, A. J., Jury, M., & Murayama, K. (2018). Trait and perceived environmental competitiveness in achievement situations. *Journal of Personality*, 86(3), 353–367. <https://doi.org/10.1111/jopy.12320>
- Fletcher, T. D., Major, D. A., & Davis, D. D. (2008). The interactive relationship of competitive climate and trait competitiveness with workplace attitudes, stress, and performance. *Journal of Organizational Behavior*, 29(7), 889–922. <https://doi.org/10.1002/job.503>
- Frick, B. & Moser, K. (2021). Are women really less competitive than men? Career duration in nordic and alpine skiing. *Frontiers in Sociology*, 5, 1–12. <https://doi.org/10.3389/fsoc.2020.539766>
- Holmes, J. (2000). Politeness, power and provocation: How humour functions in the workplace. *Discourse Studies*, 2(2), 159–185.
- Holmes, J., & Marra, M. (2002). Having a laugh at work: How humour contributes to workplace culture. *Journal of Pragmatics*, 34(12), 1683–1710.
- Niederle, M., & Vesterlund, L. (2007). Do women shy away from competition? Do men compete too much? *The Quarterly Journal of Economics*, 122(3), 1067–1101.
- Niederle, M., & Vesterlund, L. (2011). Gender and competition. *The Annual Review of Economics*, 3, 601–630. <https://doi.org/10.1145/annurev-economics-111809-125122>
- Penn, L T., & Lent, R. W. (2018). The joint roles of career decision self-efficacy and personality traits in the prediction of career decidedness and decisional difficulty. *Journal of Career Assessment*, 27(3), 457–470. <https://doi.org/10.1177/1069072718758296>

Extraversion, Competitiveness, and Humour

- Petraki, E., & Ramayanti, I. (2018). Navigating the Indonesian workplace hierarchy: Managers' use of humour as a rapport building strategy. *Journal of Pragmatics*, 134, 199–209. <https://doi.org/10.1016/j.pragma.2018.06.010>
- Sackett, P. R., & Walmsley, P. T. (2014). Which personality attributes are most important in the workplace? *Perspectives on Psychological Science*, 9(5), 538–551. <https://doi.org/10.1177/1745691614543972>
- Seibert, E. S., & Kraimer, M. L. (2001) The five-factor model of personality and career success. *Journal of Vocational Behavior*, 58(1), 1–21. <https://doi.org/10.1006/jvbe.2000.1757>
- Topolewska, E., Skimina, E., Strus, W., Ciecuch, J., & Rowinski, T. (2014). The short IPIP-BFM-20 questionnaire for measuring the big five. *Annals of Psychology*, 17, 385–402.