

The role of extraversion in perceived stress and health



In this study, the effect of extraversion on an individual's perceived stress and health was investigated. Participants consist of 274 undergraduates. They were asked to fill a 60-item NEO Five Factor Inventory (NEO-FFI) test and a questionnaire on their perceived stress and health levels. A hypothesis was formed after a review of existing literature on the relevant field and is then tested for. Data collected suggests a negative correlation between extraversion and perceived stress and a positive correlation between extraversion and perceived health, supporting the hypothesis that extraversion leads to lower perceived stress and higher perceived health. Key findings in the article reveal the existence of a protective function of extraversion in stress coping and subsequent enhanced health.

The Role of Extraversion in Perceived Stress and Health

Introduction

Relation between extraversion with perceived stress and health is a less researched area as compared with neuroticism; however, to understand the intricate links between personality and perceived health and stress, more research on other personality traits are required. Since extraversion is a common denominator across various trait taxonomies, it provides a robust concept worthy of investigation. The aim of this paper is to identify the correlations between extraversion and 1) perceived stress, 2) perceived health. Research have shown that extroverts tend to have higher positive affectivity (PA)- ease of experiencing ' positive mood states' (Srivastava, Angelo, & Vallereux, 2008). According to research on extraversion, PA scales correlates significantly with positive emotions (Watson & Clark, 1997).

Lending from works of Frederickson, positive emotions helps individual better manoeuvre through stressful situations by 'building' his social resources and 'broadening' his mind to consider alternatives coping strategies and options (Fredrickson, 2003). In Lazarus's appraisal theory, stress formalises within the individual after his own appraisal of the situation (Larsen & Buss, 2010). Appraisal theory together with positive emotions postulates that extroverts are more immune to stress as they tend to have more positive appraisals of situations and more resources on hand to cope (Semmer, 2006). According to Mischel's cognitive-affective personality system (CAPS), personality is treated as a stable system, mediating our responses to specific events (Larsen & Buss, 2010). Both CAPS and appraisal theory considers interaction of the individual and their environment in the interpretation of events. Lastly, extraverts are more likely to adopt a problem-focused approach to problem-solving. This method is considered superior to an emotional coping method. (Semmer, 2006). If extraversion leads to positive emotions and better coping strategies, it is hypothesized that extraversion is related to lower perceived stress and higher perceived health. The second premise of our hypothesis essentially builds on the first premise of the hypothesis as lower stress would typically result in better health.

Method

Participants

274 undergraduates, age ranging from 19-25 years, were selected from a personality course in the National University of Singapore. Selection of

participants for the study was not based on demographic characteristics and participation was made voluntary though highly encouraged.

Procedure

In Part 1, 60-item NEO Five Factor Inventory (NEO-FFI) test booklet form S test for adults was administered during participants' tutorial. Part 2 requires participants to complete a questionnaire on their perceived health and stress level. Participants rated extent of each emotion then on a 5-point scale (1= not at all, 5= extremely). Data collected was keyed into an online Sona system (in one seating) within the pre-allocated time frame of 3 weeks. Only data from the personality of extraversion, perceived health and stress were retained and analyzed with PASW.

Results

Following Cohen's conventions for the correlation coefficient, 0.10 was regarded as a small effect size, 0.30 as a moderate effect size and 0.50 as a large effect size (Cohen, 1998; Aron, Aron, & Elliot, 2009). A small negative correlation was found between people scoring high on extraversion and perceived stress level measure, $r(149) = -.226, p < .01$. Also, a small positive correlation was found between people scoring high on extraversion and perceived health measure, $r(149) = .255, p < .01$. Lastly, a small negative correlation was found between perceived stress and perceived health measure, $r(269) = -.241, p < .01$.

Discussion

From the experiment, there was significant negative correlation between extraversion and perceived stress. Similar results and conclusion have been reproduced in various studies. In a study examining effects of personality on daily events predicting night-time stress, it was asserted that coping strategies deployed by extroverts reduces the level of stress faced. (Longua, DeHart, Tennen, & Armeli, 2009). The findings in this article can be supported by another study indicating that extroverts are able to 'capitalise' their positive emotions through sharing of good news, in the process, affecting positive emotions stronger than the good news itself, creating better memory of that event (Gable, Reis, Impett, & Asher, 2004). This corresponds to Fredrickson's 'broaden and build' model emphasising the importance of positive emotion as a form of social resource which can help in better coping mechanisms.

From the experiment, there is a significant positive correlation between extraversion and perceive health. This phenomenon can be explained with an experiment investigating on emotional style and susceptibility to common flu. Participants with high affectivity showed higher resistance to flu due to lower cortisol level and engagement in health-enhancing behaviour, tending to be more proactive in reporting their health (Cohen, Doyle, Turner, Alper, & Skoner, 2003). However, discrepancies arise in explaining high smoking behaviours amongst extroverts. According to the hypothesis, extraversion relates to high perceived health, however, even with the knowledge that smoking harms health, the high sensation seekers perceives low risk in smoking, thus indicating a false sense of control despite clear threat (Zuckerman, Ball, & Black, 1990). Hence, a cardinal issue with this premise

surfaces. Unlike perceived stress, perceived health does not equate with actual health; disallowing us to draw a clear correlation between extraversion and actual health.

One limitation is that we are still unsure of the correlation between perceived and actual health, perhaps future researchers can delve into motivations of individuals with regards to health enhancing behaviours. Overall, research provided seems to imply possible protective function of extraversion (positive emotion) in stress coping and subsequent enhanced health.