

THE EFFECT OF SELF-AFFIRMATION AND OPTIMISM TOWARD RISK AVERSION

Written by *Wanchun Wu*

Graduate Student, MSc Applied Clinical Psychology, University of Bath, United Kingdom

ABSTRACT

Evidence suggests, self-affirmation and optimism have an effect on risk taking. The purpose of this research was to further explore the reliability of these effects, to add further understanding to the research area. Ninety students were randomly allocated to the self-affirmation or control conditions, and the Extended Life Orientation Test (ELOT) was used to measure optimism scores. Individuals with high levels of optimism and self-affirmation were predicted to have lower risk aversion scores. A significant main effect of self-affirmation on risk aversion was found. Both low optimism and high optimism groups are negatively correlated with risk aversion. The current research does not, however, support the hypothesis that optimistic individuals showed decreased levels of risk aversion. Overall, part of the findings were consistent with the past research, those who self-affirm are more prone to make riskier decisions.

Keywords: self-affirmation, optimism, risk aversion, extended life orientation test

INTRODUCTION

People have the fundamental need to maintain the integrity of self. Threats to one's integrity promote defensive self-protective behaviour and stress arousal, which can lead to loss aversion behaviour. In this case, self-affirmation aids in mitigating the unfavourable results (Cohen, 2014). In other words, a variety of coping mechanisms, such as self-affirmation, enable people to bounce back fast from negative experiences (Kermer, 2006). In a stressful situation, exercising self-control or employing cognitive resources to solve more issues, self-affirming persons are better able to handle the demands of the task (Creswell et al., 2013, as cited in Cohen, 2014; Schmeichel, 2009).

Although there is no universally agreed-upon definition of 'optimism', it has been found to be associated with both psychological and general physical well-being (Scheier, 1985). People who are optimistic are more likely to process higher expectations and persistence, which might lead to higher engagement of risk-taking behaviour (Gibson & Sandbomatsu, 2004). Participants in the Gibson and Sandbomatsu (2004) experiment were asked to play Blackjack and complete a computerised slot machine task. According to the findings, pessimists are more inclined to cut back on their wagering following a disappointing result. Additionally, Aspinwall and Brunhart (1996) discovered a similar finding, namely that individuals who are optimistic pay greater attention to risk information. They anticipate better things happening in the future and have a more optimistic outlook. In addition, a recent study demonstrated an attention bias for both optimists and pessimists to either positive or negative information (Segerstrom, 2001, as cited in Gibson, 2004). Thus, highlighting differences in risk taking behaviour and loss aversion when considering optimism and pessimism.

Instead of gambling for even higher gains, people frequently try to prevent losses. The prospect theory of Kahneman and Tversky suggested that people have a constant preference for risk and are generally risk averse. According to a research by Kahneman and Tversky (1981), most people prefer certainty over risk, and they also favour positive prospects more often than negative outcome. However, the standard vision of the expected utility theory presented a different picture (Josephs, 1992). According to EU theory, subjects' preference for certain gain or a chance of gaining a larger amount of money should not be affected by the sign of the

payoff changes. Specifically, self-affirmation subjects showed a significant lower cortisol response comparing to the control group (Creswell, 2005). It suggests that self-affirmation may be effective in reducing stress in people who have positive dispositional self-concept (Creswell et al., 2005).

The issues surrounding a within subject design are combated by the use of a between subjects design experiment that consists of a laboratory stress challenge followed by a laboratory stress challenge (Creswell et al., 2005) where the adverse effects of stress threatening integrity of the self, are shown to be buffered by self-affirming activities. Thus, depicting the positive effects of self-affirmation and highlighting the importance of optimism and subsequent effects caused by self-affirmation. The goal of this study is to determine the reliability of prior findings that suggest self-affirmation and optimism have an influence on risk taking behaviour. It is hypothesised that self-affirmation will result in decreased in risk aversion, and optimism will also result in decreased risk aversion.

METHOD

Participants and Design

A sample of 90 undergraduates (13 males and 77 females), age 19 to 30, took part the study (M=19.82, SD=1.36). The Between-subject design consisted of two independent variables, including condition (self-affirmation manipulation and control group) and optimism (high or low). Also, risk aversion served as the only dependent variable in the current study.

Materials

Participants completed an online 'personal value survey' (Harber, 1995), where eleven values were ranked in order of personal importance. Samples of values includes artistic skills, sense of humour, spontaneity etc. The Extended Life Orientation Test (ELOT), developed by Chang, Maydeu-Olivares & D'Zurilla (1997) was used to measure the level of optimism in the study. The total of twenty item scale consisting of six optimism items and nine pessimism items, with five-point Likert scales ranging from strongly disagree to strongly agree. Only optimism is used in the study. Risk aversion measure (TV game show task) including eight decision-making

tasks which contain a certain outcome (take the money on offer) and gamble (continue with a chance of receiving more money).

Procedure

Students were required to complete an online experiment that consisted of a decision making task and several personality scales (computer-based) and be randomly assigned to two different conditions. The self-affirmation group received self-affirmation manipulation by writing a paragraph explaining why the highest ranked value is important to them and list a time that when the value has been particularly important to them while the control group needed to explain why their lowest ranked value might be important to the average student. Participants were then asked to complete a personal value survey and the Extended Life Orientation Test, following by measurement of risk aversion --- TV game show task. In the TV game show task. Participants completed eight decision making tasks choosing between a certain outcome and a gamble. All participants were informed that they have the right to withdraw their data. Every response of the survey and the number of risky options chosen by each participant is recorded.

Data analyses

All statistical analyses are reported with one-tailed levels of significance unless otherwise stated, and with alpha set at .05. The total number of times out of the eight tasks that the participants picked “certain” in TV game show task is calculated and served as the dependent variable ‘risk aversion’. The range of the results should between zero to eight.

The total score of optimism is calculated --- the sum of the items 3,6,8,11,15,19 and labelled as a new variable “optimism”. A median split was conducted to turning the continuous variable into group variable which consisting of two groups (high optimism and low optimism). Item ELOT 6 was deleted in order to improve the reliability of the scale, as the Cronbach’s Alpha become .721 which consider being good.

Moreover, the Levene’s test concluded as non-significant $F(3,86) = 1.889, p = .138$, suggests the variance in risk aversion is roughly equal across the various combinations of self-

affirmation and optimism. Examination of the distribution of scores for risk aversion and condition suggests they are not normally distributed.

RESULTS

A two-way between-subject ANOVA was conducted to examine risk aversion in the student who are self-affirmed and optimism. Mean risk aversion scores are shown in Table 1. In the control group, high optimism group (M=5.63, SD=1.58) scored higher in risk aversion task comparing to low optimism group (M=5.25, SD=2.40). This effect was parallel in the self-affirmation group as high optimism group (M=4.58, SD=1.77) received a higher risk aversion scores than low optimism group (M=4.28, SD=1.74).



Table 1

Descriptive Statistics for risk aversion scores (Appendix H)

Condition	Percentile Group of optimism	Std.		
		Mean	Deviation	N
Control	low optimism	5.25	2.40	24
	high optimism	5.63	1.58	24
	Total	5.44	2.02	48
Self-affirmation	low optimism	4.28	1.74	18
	high optimism	4.58	1.77	24
	Total	4.45	1.74	42
Total	low optimism	4.83	2.17	42
	high optimism	5.10	1.74	48
	Total	4.98	1.95	90

There was a significant main effect of self-affirmation on risk averse, $F(1,86) = 6.161$, $p = .015$, $\eta_p^2 = .067$. However, there was a non-significant main effect of the optimism seen on risky averse, $F(1,86) = .704$, $p = .404$, $\eta_p^2 = .008$. Also, a non-significant interaction between self-affirmation and optimism was found, $F(1,86) = .007$, $p = .932$, $\eta_p^2 = .000$ (Appendix I). Both low optimism and high optimism groups displayed negative correlations with risk aversion (see figure 1). There are no interaction present.

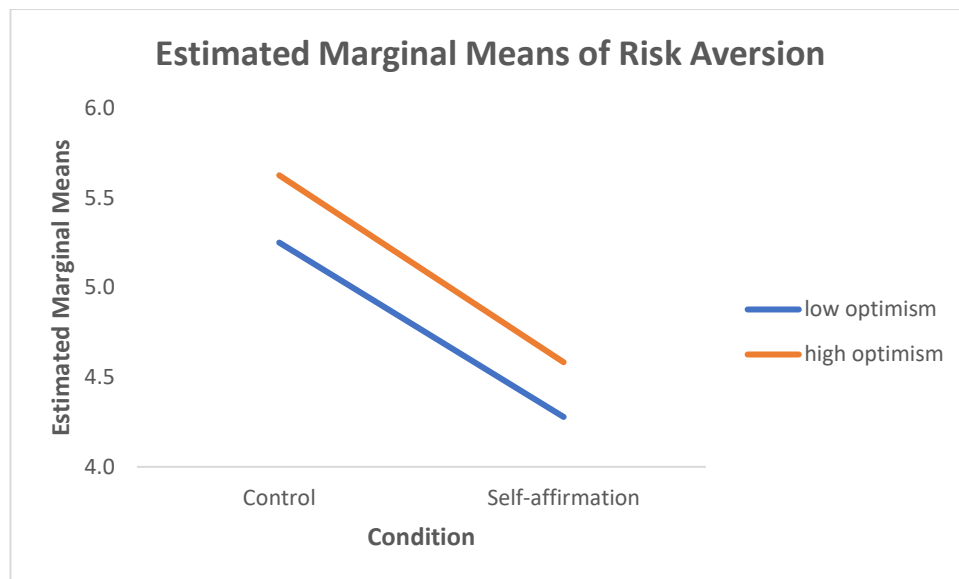


Figure 1: Estimated Marginal means of risk aversion, showing a main effect of optimism and self-affirmation (Appendix J).

Secondary Analyses

To further examine whether self-affirmation and optimism predict risk aversion, a hierarchical multiple regression was conducted. The predictor optimism was entered first and self-affirmation was entered second. Model 1 shows that optimism is not a significant predictor of risk aversion, $F(1,88) = 0.43$, $p = .514$. Result shows that only 0.5% of the variance in risk aversion is accounted for by optimism. When self-affirmation was added, 7.2% of the variance in risk aversion was explained. This full model was a statistically significant predictor of risk aversion, $F(2,87) = 3.379$, $p = .039$ (Appendix L).

Inspection of the beta weights in model 1 revealed that optimism was not a significant contributor (Beta = .07, $t = .656$, $p > .05$). However, self-affirmation makes a significant contribution to model 2 (Beta = -.26, $t = -2.51$, $p = .007$), while optimism still not significantly contribute to the Model (Beta = .088, $t = .853$, $p > .05$) (Appendix L).

DISCUSSION

The goal of the current study was to determine if high levels of self-affirmation and optimism might decrease risk aversion. Finding showed a significant main effect of self-affirmation on risk aversion and a non-significant interaction between self-affirmation and optimism. However, there was a non-significant main effect of the optimism seen on risk-averse, which does not support the hypothesis. It implies that, people with high or low level of optimism do not differ much in their risk aversion. High optimism individuals are not more likely to become involved in gambling comparing to low optimism individuals. Furthermore, for both conditions, optimism levels only have little effect on risk-aversion. In short, self-affirmation participants were more likely to choose the risky choice.

The results of the current study do not consistent with the previous findings. Gibson and Sandbomatsu (2004) found that optimists are more likely to maintain the belief of winning in gambling. Despite the methodological variations, the present study finds no evidence that optimism affect risk aversion. It may be because people gamble for a variety of reasons, such as to relieve stress or have fun. Creswell et al. (2005) suggested the beneficial effect affirmation important values and the resulting psychological responses. It supports the current study and allows for the consideration of the effect of self-affirmation on risk-taking behaviour.

Several limitations can be considered in the study. In relation to the sample, the relatively small group size in respect to the sample might reduce the internal validity of the study and reduce the validity of the outcome. Additionally, 77 out of the 90 participants were female, therefore the results may have been impacted by the sample's gender bias. Morrongiello and Rennie (1998) suggest that boys take greater risks than girls, while the current study demonstrates the complete contrary. Additionally, various scales were utilised among studies to measure optimism, which might also have impacted the results.

Overall, the research indicates that only self-affirmation can lead to a reduction in risk aversion. In light of this, it could be beneficial to consider a more gender-balanced sample to more accurately investigate differences in self-concept and risk taking. Further study should be stricter control over methodology to allow for closer matching of individual differences in participants.

REFERENCES

- Aspinwall, L.G., & Brunhart, S.M. (1996). Distinguishing optimism from denial: Optimistic beliefs predict attention to health threats. *Personality and Social Psychology Bulletin*, 22, 993-1003.
- Creswell, J.D., Welch, W.T., Taylor, S.E. Sherman, D.K., & Gruenewald, T.L. (2005). Affirmation of personal values buffers neuroendocrine and psychological stress responses. *psychological science*, 16, 846-851.
- Gibson, B., & Sandbomatsu, D.M. (2004). Optimism, Pessimism and Gambling: The downside of Optimism. *Personality and Social Psychology Bulletin*, 30, 149-160.
- Harber, K. (1995). *Sources of Validation Scale*.
- Josephs, R.A., Larrick, R.P., Steele, C.M., & Nisbett, R.E. (1992). Protecting the self from the negative consequences of risky decisions. *Journal of personality and social psychology*, 62, 26-37.
- Morrongiello, B.A., & Rennie, H. (1998). Why Do Boys Engage in More Risk Taking Than Girls? The Role of Attributions, Beliefs, and Risk Appraisals. *Journal of Pediatric Ppsychology*, 23, 33-43.
- Scheier, M.F., & Carve, C.S. (1985). Optimism, coping, and health: Accessment and implications of generalized outcome expectancies. *Health Psychology*, 4, 219-247.
- Scheier, M. F., Carver, C. S. & Bridges, M.W. (1994). Distinguishing optimism from neuroticism (and trait anxiety, self-mastery, and self-esteem): A re-evaluation of the Life Orientation Test. *Journal of Personality and Social Psychology*, 67, 1063-1078.
- Schmeichel, B.J. & Vohs, K.D. (2009). Self-affirmation and self-control: affirming core values counteracts ego depletion. *Journal of Personality and Social Psychology*, 96(4), 770-782.
- Tversky, A., & Kahneman, D. (1981). The framing of decisions and the psychology of choice. *Science*, 211, 453-358.



Asian Journal of Multidisciplinary Research & Review

[Asian Journal of Multidisciplinary Research & Review \(AJMRR\)](#)

ISSN 2582 8088

Volume 3 Issue 6 [November December 2022]

© 2021 All Rights Reserved by [The Law Brigade Publishers](#)