

# Affective Attributions for Psychological Well-being: Pre-existing Biases Predict Attributions of Control, Responsibility and Credit

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## Introduction

1. Decision-stage models propose that attributions progress from simple causal associations of personal control over an event, to more complex attributions of responsibility which communicate a perception of intent, and finally to more subjective attributions of blame which communicate negative affect (Heider, 1958; Weiner, 1995).
2. The culpable control model additionally argues that this attributional hierarchy becomes progressively more irrational and reliant upon pre-existing biases (Alicke, 2000).
3. Both the attributional hierarchy and its increasing reliance on values and beliefs have been empirically supported (Mantler, Schellenberg, & Page, 2003).
4. BUT positive outcomes have been largely neglected in attribution research (Lagnado & Channon, 2008), such as psychological well-being - A state of optimal functioning comprised of positive affect, engagement, authentic relationships, meaning in life, and accomplishment (PERMA, Seligman, 2011).
5. Theories of attribution rely upon a systematic attributional sequence which is yet to be supported for creditworthy attributions.
6. Using an adaptation of previous blame attribution research (Mantler et al., 2003), this study therefore investigated whether attributions for creditworthy events exhibited a comparable systematic sequence as those for blameworthy events.
7. Due to a consistently supported negativity bias in causal reasoning (Knobe, 2003), attributions of credit which communicate positive affect (Mantler et al., 2003) become less likely than affectively neutral attributions of control and responsibility.
8. Attribution scores were therefore predicted to be highest for control, less so for responsibility, and least for credit.
9. Credit, like blame, is also a complex subjective judgement. Pre-existing emotional, behavioural, and attitudinal biases were subsequently predicted to most greatly affect credit attributions and least greatly affect control attributions.

## Method

- A self-selected sample of 144 adults took part, of whom 91 were female and 53 were male. Ages ranged from 18 to 78 years ( $M=38.31$  years,  $SD=15.54$  years).
- In an online vignette-based questionnaire design, participants read a vignette describing an agent actively pursuing the five components of psychological well-being as determined by the PERMA model (Seligman, 2011).
- Participants next completed measures of attributions of control, responsibility and credit, adapted from Likert-type scales developed by Mantler et al. (2003). Additional Likert-type measures of happiness, social acceptance, behaviour change, mental health locus of control, and just world beliefs were also completed in order to investigate the reliance of attributions on pre-existing biases. A high score on each scale indicated a higher level of that particular variable.

## Results

Non-parametric statistical tests and bootstrapping methods were implemented. A Friedman test indicated a significant difference in scores for attributions of control, responsibility, and credit,  $\chi^2(2) = 185.64, p < .001$ . As illustrated in Figure 1, Wilcoxon Signed-Rank tests indicated that attributions of credit were significantly higher than those of control ( $Z = -9.48, p < .001$ ) and responsibility ( $Z = -9.56, p < .001$ ), both with large effect sizes ( $r = .56$  and  $.57$ , respectively). There was no significant difference between attributions of control and responsibility ( $Z = -1.83, p = .068$ ).

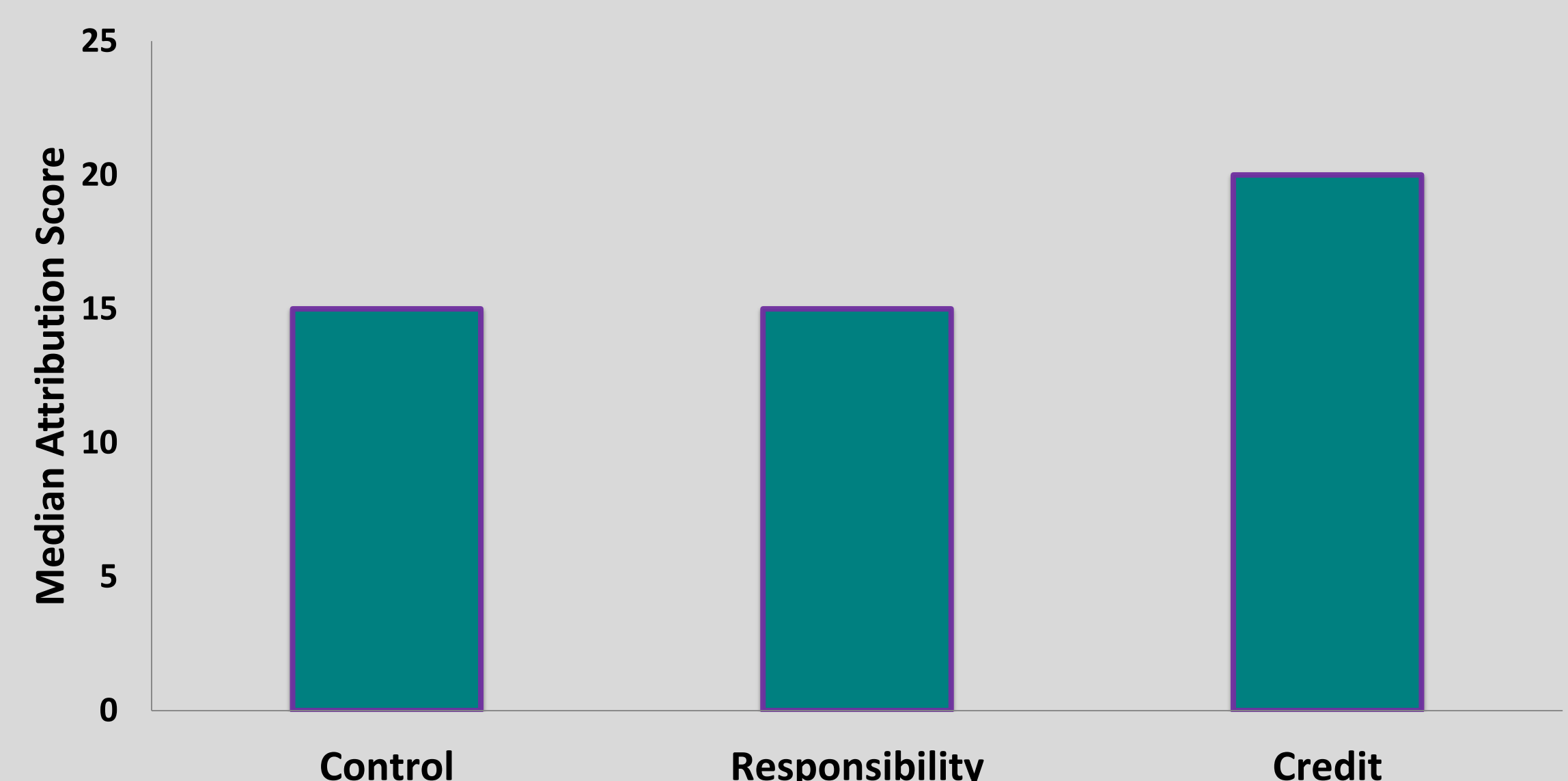


Figure 1. Median scores for attributions of control, responsibility & credit

As the predicted sequence of attributions, from control to credit, was not fully supported, the second hypothesis became more exploratory than first anticipated. Three standard multiple regression analyses were conducted to investigate the predictive value of pre-existing biases for each attribution variable. For **CONTROL**, the overall model was significant and explained 17.2% of the variance ( $R^2 = .17, \Delta R^2 = .14, F(5, 136) = 5.66, p < .001$ ). Happiness ( $t = 1.82, p = .052$ ) and mental health locus of control ( $t = 3.00, p = .007$ ) were significant unique predictors. For **RESPONSIBILITY**, the overall model was significant and explained 27.9% of the variance ( $R^2 = .28, \Delta R^2 = .25, F(5, 136) = 10.55, p < .001$ ), and happiness ( $t = 3.35, p = .001$ ) and mental health locus of control ( $t = 3.67, p = .002$ ) were significant unique predictors. For **CREDIT**, the overall model was significant and explained 29.2% of the variance ( $R^2 = .29, \Delta R^2 = .27, F(5, 136) = 11.22, p < .001$ ). Happiness ( $t = 3.74, p = .002$ ) and behaviour change ( $t = 2.68, p = .049$ ) were significant unique predictors.

## Discussion & Recommendations

- The hierarchical sequence of attributions from control, to responsibility, and finally to credit was not supported.
- Exploratory regression models significantly predicted all three attributions, indicating that pre-existing biases contribute to causal reasoning.
- The decision-stage hierarchy (Heider, 1958; Weiner, 1995) was therefore not supported for positive outcomes. The culpable control model (Alicke, 2000) offers greater heuristic value in considering biases in attributional reasoning, as pre-existing emotional, behavioural, and cognitive biases were found to predict attributions.
- Decisions assumed to be wholly cognitive, such as clinical and legal judgements, may therefore be susceptible to influence from pre-existing biases, perhaps most consistently those derived from emotional states.
- In line with the present shift to a strengths-based focus in national health policy, the practical implications of research for endorsing credit attribution in order to encourage an active pursuit of well-being are clear (McKenna, 2015).



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## Key References

- Alicke, M. D. (2000). Culpable control and the psychology of blame. *Psychological Bulletin*, 126(4), 556-574. doi:10.1037/0033-2909.126.4.556
- Mantler, J., Schellenberg, E. G., & Page, J. S. (2003). Attributions for serious illness: Are controllability, responsibility and blame different constructs? *Canadian Journal of Behavioural Science*, 35(2), 142-152. doi:10.1037/h0087196