



Compensatory Behaviours amongst Cultures: How to Respond to Perceived Threats?

Francis Wolters

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Department of Psychology
University of Groningen
Examiner/Daily supervisor:
M. Agostini

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Abstract

As proposed by Goal Systems Theory, an individual can perceive different types of threats that interfere with the attainment of a relevant goal. There are different behaviours to compensate for the thwarted goal attainment, of which aggression and collective action are extensively researched. Based on frustration-affirmation hypothesis, the relationship between threats and aggression may be influenced by culture. The frustration-affirmation hypothesis suggests that there might also be a cultural component to the relationship between threats and collective action. Existing literature on the relationship between threats and compensations, published up until December 2021, is summarised and the moderating effect of culture is analysed. The moderating variable of culture is measured both on a categorical level (Western vs. Non-Western) as well as a continuous variable (Survival vs. Self-Expression values; Traditional vs. Secular-Rational values). The results show a main effect, however, there is no support found for a moderating effect of culture on the relationship between threats and either aggression or collective action. Possible arguments for the unexpected findings are provided and limitations of the study are considered.

Compensatory Behaviours amongst Cultures: How to Respond to Perceived Threats?

Chances are that at some point in your life you have created a to-do list with a range of tasks. Creating such a to-do list provides one with clear targets and it gives direction to one's actions. Checking off the boxes and attaining the set goals can bring a sense of accomplishment and satisfaction. However, one's set goals might get obstructed due to an unforeseen force. The inability to finish one's daily goals might not be too big of a problem, however, a similar obstruction might arise for the more fundamental needs in life (e.g. need to belong; need for competence; Baumeister & Leary, 1995). Studies indicate that when a fundamental need is obstructed, it can lead to adverse effects on both physical and mental well-being (Baumeister & Leary, 1995; Langer & Rodin, 1976; Seligman, 1975; Allen & Badcock, 2003; Miyoshi, 2001). Negative consequences are to be avoided and people switch to alternative means to meet their needs, but how do people differ in their choices between the alternatives?

Goal Systems Theory (Kruglanski, 2002) provides a framework connecting goals and possible means. The obstruction of a pathway can be seen as a threat to the goal attainment and switching to a different path is also known as compensatory behaviour. Research has found many different types of compensatory behaviours to threats, with collective action and aggression being some of the more substantial behaviours (Berke et al., 2017; Kosakowska-Berezecka et al., 2020; Reysen et al., 2016). In certain cultures, freedom of speech or one's self-expression is valued more strongly than adhering to authority; engaging in collective action or becoming aggressive may, therefore, be influenced by culture.

In this thesis, we will test whether one's preference for aggressive compensatory behaviours or collective action is dependent on culture. By implementing a meta-analysis, we are able to combine the existing literature on threats and compensatory behaviours. Moreover, this meta-analysis will be the first to combine aggression and collective action as they are

both behavioural compensatory behaviours and paint a conclusive picture of these processes and the moderating effect of culture.

Theoretical Background

Goal Systems Theory

According to Kruglanski's (2002) Goal Systems Theory, an individual's goals are organised in hierarchical systems, with the most abstract and superordinate goals at the top and smaller, more attainable goals below. An example of a superordinate goal can be to feel competent. In general, people strive towards different goals of which the need for competence is one of human's fundamental needs (Deci & Ryan, 2000; Sheldon et al., 2001). Smaller goals – in order to get closer to reaching competence – can be acquiring a certain skill and establishing a network of experts whose evaluations might provide a legitimate basis of competence. In turn, these smaller goals can be reached via a focus on the right means, such as signing up for a skills course or adding people on LinkedIn.

There can be multiple means to reaching a superordinate goal. When the attainment of a set goal is thwarted, it can be perceived as threatened efficacy (Leander & Chartand, 2017).

Given the opportunity to restore this efficacy or the depleted source, people will engage in some sort of fluid compensation (Proulx, 2012). When focusing solely on behavioural compensation strategies, the literature quickly points towards aggression and collective action.

Threats

Within the Goal Systems Theory there are three main threats to goal attainment (Kruglanski, 2002). The first threat is related to the blocking of goal progress, which relates to obstacles or barriers that interfere with the goal attainment. The obstructed pathway forces an individual to divert to an alternative path. The second threat is the withdrawal of goal support, in such instances one link in the hierarchical structure of achieving a goal is removed, the

goals that are dependent on that goal might fall away and an individual is set back in the attainment of the superordinate goal. The last threat to goal attainment is the imposition of conflicting goals. This threat arises when individuals are confronted with multiple goals that are incompatible or in conflict with each other (Kruglanski, 2002). In this meta-analysis, a threat is defined as the perceived inability to attain a goal that is relevant to the individual. Based on this definition threats are most likely to be part of the blocking of goal progress type.

Moreover, threats can theoretically be divided into social exclusion, goal failure, group threats and societal threats (Agostini & Van Zomeren, 2021; Leander & Chartrand, 2017; Livingstone et al., 2009; Williams, 2009). The first type of threats is social exclusion, this includes situations such as being ostracised, rejected or isolated from a relevant group (Williams, 2009). The second type of threats are related to goal failure (Leander & Chartrand, 2017). In one's day to day life, losing one's job or academic failure can pose significant threats to an individual. Group threats and societal threats can relate to income inequality, social status insecurities and relative deprivation on both group levels as well as societal levels (Agostini & Van Zomeren, 2021; Livingstone et al., 2009). These distinctions are all taken into account in order to fully understand the relationships between threats and compensatory behaviours.

Aggression

Aggression is perceived as behaviours intended to cause harm, injury or discomfort to others or the environment. When set goals cannot be obtained and a threat is experienced, a feeling of frustration arises. According to the frustration-aggression hypothesis, frustration always produces an aggressive urge and aggression is always the result of prior frustrations (APA, 2023; Dollard et al., 1939). According to the APA dictionary, aggression is defined as behaviour aimed at harming others physically or psychologically (2023). Leander and

Chartrand (2017) perceive aggression as a means to compensate for a threatened sense of one's capability to produce clear effects in the environment. In other words, becoming aggressive is seen as a response behaviour that is expected to reestablish one's sense of control and self-efficacy. In their studies, Leander and Chartrand found that people resort to aggression when there are no other means available (2017). We expect individuals to turn to aggression in order to regain control of their environment.

Collective Action

Besides aggression as a compensatory behaviour, one can also decide to engage in collective action as a compensatory behaviour. Contrary to aggression, where an individual's aggressive behaviour can target both an individual and a group, collective action is a behaviour that is fundamentally related to a group. Collective action is defined as: the behaviour intended to improve the disadvantaged conditions of one's own group or an outgroup one supports (Van Zomeren, 2013). Agostini and Van Zomeren (2021) investigated perceived injustice and its motivating effect on collective action. Injustice is explained in terms of relative deprivation (the feeling or perception of being worse off than others). The social comparisons that give rise to relative deprivation and the perceived injustice, cause individuals to engage in collective action as a compensatory behaviour. Based on the found relationship by Agostini and Van Zomeren (2021), we expect that people in general will turn to collective action to compensate for a thwarted goal.

Culture

The frustration-aggression model explains how people become aggressive (Dollard et al., 1939). The frustration-affirmation hypothesis extends this theorising, arguing that the social acceptance of aggression has a strong influence on whether one actually becomes aggressive (Leander et al., 2020). The social and cultural components might influence the relationship between threats and aggression (Leander et al., 2020). A similar influence is

expected for collective action. Collective action relies on the culture and associated social norms as a mechanism to influence societal issues. The engagement of individuals in collective action would also, in theory, depend on their adherence to cultural norms within a given society. Besides retesting the influence of the country of origin on the relationship between threats and aggression, this meta-analysis will extend the model by testing culture's influence on the relationship between threats and collective action.

Hypothesis 1. The link between threats and collective action as a compensatory behaviour, will be influenced by the country of origin.

Over time, culture has been examined through various dimensions, leading to the formulation of diverse theories, each with its own strengths and limitations. One of the more prominent theories is Schwartz and Hofstede's cultural dimensions (2002). Hofstede's data was collected approximately fifty years ago and it is argued that culture only changes very slowly and the data is still accurate (Hofstede, 2023). However, media globalisation and technological advances allow for an increase in cross cultural communication and insights in different cultures. With such changes in mind, cultures can more easily intertwine or even polarise. To prevent issues with a possibly outdated cultural measure, this meta-analysis looked into the World Values Survey (2023). The World Values Survey has collected data from different countries for more than 30 years and countries tend to score differently on the questionnaire over time (WVS, 2023). Based on the accuracy and dimension categorisation it is expected that the WVS (2023) is the most suitable measure of culture within this meta-analysis. The first dimension relates to traditional versus secular-rational values and the second dimension is survival versus self-expression values (Inglehart & Welzel, 2005).

Traditional vs Secular-Rational Values

Traditional values have a strong focus on religion and the main goal of an individual would be to make one's parents proud (Inglehart & Welzel, 2005). People are more likely to

adhere to national authority and social conformity is preferred over an individualistic striving. On the other side of this dimension are the cultures that take on a pro-choice stance in the abortion discussion, have less respect for authority and are open to international trade and divorce. Cultures with more secular-rational values also tend to discuss politics more (Inglehart & Welzel, 2005). The tendency to discuss politics and rejecting authority results in the expectation that secular-rational cultures are more likely to engage in collective action when confronted with a threat.

Hypothesis 2. The link between threats and collective action as a compensatory behaviour, will be influenced by culture.

Survival vs. Self-Expression Values

Survival values are most salient in cultures that are characterised by existential insecurity and social constraints. People in such cultures focus on acquiring economic and physical security. The societies report low levels of subjective well-being and relatively poor health. Societies high in self-expressive values are linked to the emergence of feminism, environmentalism and higher levels of materialism. Self-expression and cultural diversity are accepted when survival can be taken for granted (Inglehart & Welzel, 2005). Based on this distinction, it is expected that countries with high levels of survival values have little resources to compensate for threats other than becoming aggressive.

Hypothesis 3. The link between threats and aggression as a compensatory behaviour, will be influenced by culture.

Method

To answer the research question we used a meta-analytic approach which is run in R. A meta-analysis allows for the evaluation of a relationship between a predictor and relevant variables for measures, methods, groups and contexts that may vary.

Criteria for Inclusion and Operational Definitions

The studies included in the meta-analysis had to meet the following criteria. First, the studies had to report a relationship between threats and either aggression or collective action. This relationship had to be reported in a quantifiable manner. Studies were excluded if they did not report an effect size and there was insufficient statistical information to compute the effect size. Additionally, the measures of aggression and collective action had to be measured on a behavioural or behavioural intention level. Studies measuring compensations as attitude changes or opinions were excluded. Studies measuring threats as subjective states (e.g. relative deprivation) as well as objective (e.g. social exclusion) were included. The operational definitions for the inclusion of studies will be elaborated in the following paragraphs.

Threats

Threats are defined in line with Kruglanski (2002)'s Goal Systems Theory and specifically the goal blocking type. A threat is the perceived inability to attain a relevant goal. Theoretically, threats can be divided into multiple categories: social exclusion, goal failure, group threats and societal threats (Agostini & Van Zomeren, 2021; Leander & Chartrand, 2017; Livingstone et al., 2009; Williams, 2009). Literature that manipulates or measures threats as an independent variable are included in the meta-analysis.

Aggression

For the meta-analysis, aggression is defined as "behaviours which are intended to cause harm, injury or discomfort to others or the environment" (APA dictionary, 2023). Aggression is seen as a behaviour that is expected to reestablish one's sense of control and self-efficacy (Leander & Chartrand, 2017). Most studies use experiments to measure aggression as a dependent variable. Studies wherein a threat to compensation (e.g. aggression) relation is investigated are included.

Collective Action

Collective action is defined as “the behaviour intended to improve the disadvantaged conditions of one’s own group or an outgroup you support” (Van Zomeren, 2013). The operational definition of collective action consists of both the actual behaviour of signing a petition or participating in a demonstration and proxies of such behaviour (e.g. the intention to sign a petition). We would like to highlight the inclusion of individual efforts that are aimed at improving disadvantaged groups' conditions in general. However, injustice effects are excluded. This means that the advantaged group’s description of an disadvantaged group's situation are not taken into account, but collective action on behalf of the disadvantaged group is. One’s willingness to improve a group's disadvantaged conditions are not limited to one’s own group and one can act in solidarity with a disadvantaged outgroup (Agostini & Van Zomeren, 2021).

Literature Search

To identify relevant keywords for the literature search, we used a linked search term approach, in which we began by searching for a core set of terms related to the research topic (see Appendix A for a list of all keywords). We then reviewed the articles provided by the search and identified additional search terms that were used by these articles to describe the same or similar concepts. We used these additional search terms for a comprehensive literature search within the following databases on EBSCO: PsycInfo, PsycArticles, EconLit, Psychology and Behavioral Sciences Collection, SoINDEX. The reference lists of review articles were checked for relevant studies and added to the database. The studies that had not yet been published were also added by emailing the researchers and requesting the unpublished data.

The search included all studies up until December 2021. We only focused on studies that look at the specific relationship of threats to collective action or threats to aggression.

From these studies and by taking the specific relationship into account, a total of 236 effect sizes were extracted (92 for collective action and 144 for aggression).

Coding of Moderators

Studies that were included, were added to the database and coded for multiple moderators. For this meta-analysis only culture was of interest as a moderating variable.

Type of Culture

The initial coding of culture is based on a somewhat crude evaluation of countries indicating a Western or non-Western background of the sample. The WVS' measures are derived from research by Inglehart & Welzel and have resulted in two key dimensions that explain cultural variance (2005). Additionally, the most recent values on the Survival vs. Self-expression and Traditional vs. Secular-Rational dimensions available derived from the World Survey Values' culture map were matched to the samples. This method of coding allows for both a categorical and continuous analysis of culture.

Statistical Approach

After the gathering and coding of relevant studies, the effect sizes were transformed to comparable correlations. The R-code can be found in the online repository on OSF (doi.org/10.17605/OSF.IO/V7BWK). Effect sizes were interpreted based on Cohen's (1992a) interpretation: .10 is small, .30 is medium and .50 is large. Similarly to Agostini and Van Zomeren (2021) effect sizes of independent samples were treated as independent data points and for samples with multiple effect sizes, the effect sizes were averaged into one r to avoid statistical interdependence.

Results

Categorical Analysis

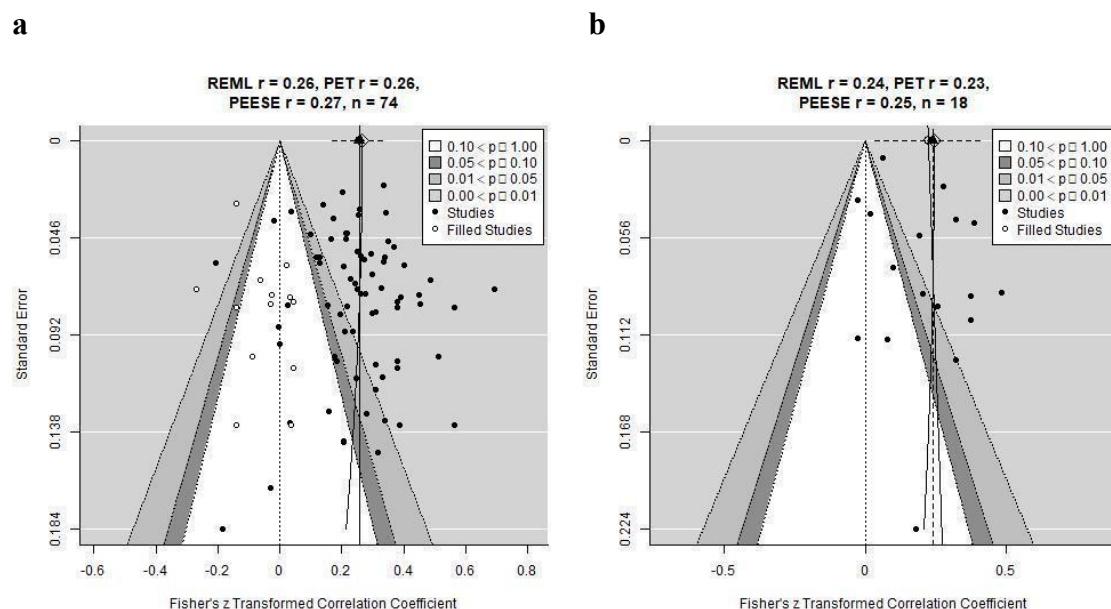
First, we tested hypothesis 1 by running a random-effects model on the relationship between threats and collective action. The Western vs. Non-Western distinction is used as the

moderator. Assumptions of normality were not violated and the data shows no sign of publication bias (Figure 1). The test for residual heterogeneity is significant ($Q_e = 835.243$; p -value $< .0001$) this indicates a significant amount of unexplained variation in effect sizes. The effect size of the relationship between threats and collective action for Western countries is moderate ($r = .256$; $se = .019$). For Non-Western countries these values are roughly equal ($r = .240$; $se = .039$). In Figure 2 a visual representation of the values is presented. These effect sizes show a non-significant moderating effect of Western vs. Non-Western countries on the relationship between threats and collective action ($Q_m = .135$; p -value = $.709$). This suggests that the moderating variable (culture of origin) does not explain a significant portion of the observed heterogeneity in effect sizes among the studies. These results do not support H1.

The results of the random-effects model are similar for the relationship between threats and aggression. The effect size of the relationship between threats and collective action for Western countries is moderate ($r = .277$; $se = .020$). For Non-Western countries these values are roughly equal ($r = .237$; $se = .052$). The test for residual heterogeneity is significant ($Q_e = 794.030$; p -value $< .0001$) and the test of moderators is not significant ($Q_m = .524$; p -value = $.469$).

Figure 1

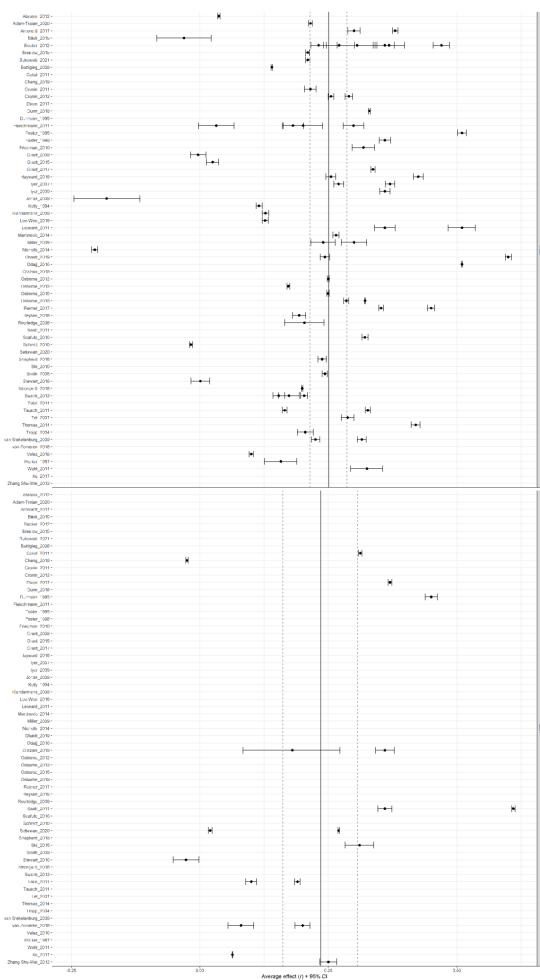
Funnel Plot of Included Studies' Effect Size and Standard Error for Collective Action



Note. Figure 2a shows the distribution of studies for Western countries. Figure 2b shows the distribution of studies for Non-Western countries. The distribution of studies for both figures shows the absence of a publication bias, as the REML r ; PET r ; PEESE r values show no significant difference. This is also visibly represented by the vertical lines showing little to no skewness.

Figure 2

Forrest Plot of Included Studies' Effect Size and Standard Error for Collective Action



Note. This figure shows the confidence intervals for each study included in the meta-analysis. With studies conducted in Western (upper half) and Non-Western (lower half) countries separated. The darkest vertical line indicates the average effects of the samples; the greyer lines show the confidence intervals.

Continuous Analysis

The second analysis we ran was a random-effects meta-analysis with a continuous moderator. The test for residual heterogeneity is significant ($Q_e = 974.020$; $p < .0001$), which again indicates a significant amount of unexplained variation in effect sizes. The studies included in the analysis for hypothesis 2 ($k = 92$), showed a significant moderate relation between threats and collective action ($r = .256$; $se = .021$). The moderating effect of secular-rational values on the relationship between threats and collective action were found to be non-significant ($r = -.002$; $se = .028$; $Q_m = 0.004$; $p\text{-value} = .952$).

For hypothesis 3 the test of residual heterogeneity is also significant ($Q_e = 794.019$; $p < .0001$). The sample ($k = 144$) showed a non-significant moderating effect ($r = .006$; $se = .019$; $Q_m = .092$; $p\text{-value} = .761$) of survival values on the significant relationship between threats and aggression ($r = .265$; $se = .030$). The two findings from the random-effects meta-analysis did not support H2 and H3.

Discussion

In this meta-analysis, we investigated the influence of culture on aggression and collective action as compensatory behaviours to threats. The results show that the main correlations between threats and the compensatory behaviours of interest are significant, though moderate. More specifically, we expected the relationship between threats and collective action to be moderated by country of origin. Additionally, we expected higher levels of collective action for countries with high secular-rational values and higher levels of aggression for countries with high survival values. The results of the meta-analysis provide no support for the proposed hypotheses.

Western vs Non-Western Collective action

The expected difference between countries on the presence of collective action was derived from the aggression-affirmation hypothesis (Leander et al., 2020). A possible

explanation for the indifference in the relationship between threats and collective action for Western or Non-Western countries, might be that the mechanisms of collective action are substantially different from aggression. As previously indicated, aggression can both target an individual and a group, whereas collective action is always fundamentally related to a group. For collective action, the existence of a group is imperative and differences in group behaviours amongst countries might not be as big as expected based on the aggression-affirmation hypothesis (Leander et al., 2020).

An alternative explanation might be the statistical power of the sample. As shown in Figure 2, there is a distinct difference in sample sizes between the countries of origin. This may lead to reduced statistical power, thereby increasing the likelihood of encountering spurious effects due to the presence of random and systematic errors (Cohen, 1992b).

Collective Action and Secular-Rational Values

The expected effect of cultural values on the relationship between threats and collective action was not significant. A possible explanation for the indifference between the traditional vs. secular-rational dimensions, can be found in the WVS' definition of the dimension (2021). One of the characteristics of the secular-rational side of the dimension is being open to discuss politics, this intuitively led to the expectation that it is also linked to engaging in collective action. However, there might be a discrepancy between one's willingness to discuss politics and their actual behaviour/intentions such as engaging in collective action.

Aggression and Survival values

The meta-analysis does not support the hypothesis that there is a significant effect of culture on the relationship between threats and aggression. Similarly to the explanation provided in the previous section, the unexpected findings might be a result of the interpretation of the dimension. As stated by Leander and Chartrand (2017) aggression is a

last resort compensatory behaviour. It was expected that the relationship between threats and aggression would be stronger in countries that have more survival values, as they have fewer resources and might therefore be more likely to turn to their last resort option when compensating for a threat (Leander & Chartrand, 2017). The idea that individuals, in cultures high on self-expressive values, have more resources does not immediately imply one's awareness of these alternative resources. It is therefore possible that there is no difference in the experienced need for the last resort compensatory behaviour of aggression amongst cultures.

Implications

Although the results of the meta-analysis were not significant, there are still some implications to be drawn from the findings. A theoretical implication of the findings is that one should cautiously assess the relevance of culture when conducting research on compensatory behaviours, as this study's results suggest that culture is not a significant moderator. Additionally, Figure 2 has shown that there are fewer studies conducted on the relationship between threats and collective action in Non-Western countries. Future research should focus on extending the literature within these countries in order to draw more informed conclusions on the effects of culture.

Limitations

The main goal of a meta-analysis is to summarise the existing literature on the variables of interest, and to draw conclusions on the relationship between the variables. However, the results of this meta-analysis cannot be interpreted without taking its limitations into account. The first limitation relates to the sample sizes of the different analyses. With 92 to 144 effects included in the meta-analyses, there might still be results and different effect sizes to be found. A more general limitation of meta-analyses is the heterogeneity of the studies included. An assumption of meta-analyses is that the studies are similar in terms of

their design, participants and outcome measures. If these aspects differ, it results in heterogeneity which affects the generalisability of the results. Besides the generalisability is the validity of meta-analyses dependent on the quality of included studies and possible publication biases. Lastly, only studies published up until December 2021 were included. Over the last year and a half, more studies could have been published that could have been relevant for this meta-analysis. Based on the provided limitations, the results of this meta-analysis should be carefully interpreted.

Conclusion

One can conclude that in the existing literature on aggression and collective action as compensatory behaviours to experienced threats, there was no support for a moderating effect of culture. Although main effects were found, culture did not moderate this effect and possible explanations are provided for the unexpected findings. The main take-away of the meta-analysis is that the moderating effect of culture might not be as strong as one intuitively expects.

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Appendix A

Compensatory behaviours

compensat* OR cope OR coping OR react OR reaction OR (collective action) OR respond
OR response OR restore OR restoration

compensat* OR cope OR coping OR react OR reaction OR (collective action) OR respond
OR response OR restore OR restoration OR (collective action) OR Protest OR (social
movement support) OR (social change) OR (socio-political change) OR (civil rights
movement) OR (civic discontent) OR (collective violence) OR rally OR rallies OR
(political activism) OR aggress* OR help* OR violence OR hostile*

Threats: Social Exclusion

(social exclusion) OR (socially excluded) OR (social isolation) OR (socially isolated)
ostracism OR ostracize OR cyberball OR alone OR lonel* OR reject OR restriction
OR restricted OR thwart OR (goal obst) OR (goal fail) OR (academic failure) OR
(professional failure) (significance loss) OR (job loss) OR (economic threat) OR
(social exclusion) OR (socially excluded) OR (social isolation) OR (socially isolated)
OR ostracism OR ostracize OR cyberball OR alone OR lonel* OR reject*

Threats: Goal Failure

restriction OR restricted OR thwart OR (goal obst) OR (goal fail) OR (academic failure) OR
(professional failure) OR (significance loss) OR (job loss) OR (economic threat)

Threats: Group Threats

stereotype threat OR (identity threat) OR (status threat) OR (distinctiveness threat) OR
(realistic threat) OR (symbolic threat) OR (low rank) OR (low position) OR (low
prestige) OR (low social class) OR (low socioeconomic status) OR (social status
insecurity) OR (relative deprivation) OR (Upward social comparison) OR (social
inequality) OR (injustice) OR (unfair) OR frustration OR frustrated OR (control

threat) OR (social identity threat) OR poverty OR (income inequality) OR (wealth inequality) OR (economic disparity) OR midlife crisis OR body image threat OR jealousy through for example infidelity

Threats: Societal Threats

stereotype threat OR (identity threat) OR (status threat) OR (distinctiveness threat) OR (realistic threat) OR (symbolic threat) OR (low rank) OR (low position) OR (low prestige) OR (low social class) OR (low socioeconomic status) OR (social status insecurity) OR (relative deprivation) OR (Upward social comparison) OR (social inequality) OR (injustice) OR (unfair) OR frustration OR frustrated OR (control threat) OR (social identity threat) OR poverty OR (income inequality) OR (wealth inequality) OR (economic disparity)