Title
Examining Differences Between Situations of Sociality and Aversiveness on Behavioral Outcomes

Permalink
https://escholarship.org/uc/item/7v50d432

Author
Sanchez, Brian

Publication Date
2021

Peer reviewed|Thesis/dissertation

UNIVERSITY OF CALIFORNIA
RIVERSIDE

Examining Differences Between Situations of Sociality and Aversiveness on Behavioral
Outcomes

A Thesis submitted in partial satisfaction
of the requirements for the degree of

Master of Arts

in

Sociology

by

Brian Sanchez

June 2023

Thesis Committee:
Dr. Jan Stets, Chairperson
Dr. Rengin Firat
Dr. Bruce Link

The Thesis of Brian Sanchez is approved:

_____

_____

_____

Committee Chairperson

University of California, Riverside

ABSTRACT OF THE THESIS

Examining Differences Between Situations of Sociality and Aversiveness on Behavioral
Outcomes

by

Brian Sanchez

Master of Arts, Graduate Program in Sociology
University of California, Riverside, June 2023
Dr. Jan Stets, Chairperson

There is an abundance of empirical support showing how psychological situations influence behaviors. Yet they tend to be understudied in both psychology and sociology. This study compares behavioral patterns resulting from two specific kinds of psychological situations: aversiveness and sociality. Previous studies have suggested that they exert converse effects on behaviors and ambiguity has been implied as the mechanism behind this difference. Participants from 21 countries were asked to describe a situation they experienced at **7pm of the day prior** and completed two Q-Sorts; one for assessing their experience of the situation and the other for assessing behaviors reported during that situation. Findings revealed that, compared to social situations, individuals under the situations of adversity a) engaged in behaviors that expressed negative emotions and social outcomes, b) associate fewer situational cues to perceptions of adversity, and c) display more behavioral variability. These results echo what the literature has discussed on ambiguity and adversity, supporting the implication that

adverse situations reflect a great degree of ambiguity. These findings can be used to develop and fortify a taxonomy on situations, and further compare social situations with adverse ones**.**

Keywords: *psychological situations, ambiguity, adversity, DIAMONDS, cross-cultural*

Table of Contents

List of Tables

There has been a wealth of literature within sociology and psychology which has sought to examine, understand and predict human behavior (Feldman 1993). However, in both disciplines, the literature has been inclined towards predictors of behavior pertaining to an individual's disposition, such as an individual's personality traits (McCrae and Costa 1989), and goals (King and Sorrentino 1983). Many scholars agree that the environment of the individual also shapes behavior (Funder, Furr and Colvin 2000; Stebbins 1967). However, they also agree that it has been understudied for decades.

The purpose of this study is to contribute knowledge to the literature on situations, by examining which behavioral patterns tend to be commonly associated with various situations, including situations that entail aversiveness and those that entail social characteristics. These two types of situations have received plenty of attention in the psychology literature, though less so in the sociology literature. Social situations engender the presence of social interactions and/or their importance in the situation. Situations of aversiveness entail a possible threat, whether real or perceived. Aversive situations do not need the involvement of other people present.

The ability to distinguish situations based on their characteristics is important because each situation can yield different behavioral outcomes. Two specific outcomes of interest for this thesis, which have been understudied in the literature, are behavioral variability and behavioral appropriateness. Behavioral variability between individuals is the degree to which individuals perceiving the same situation elicit different behaviors, whereas behavioral appropriateness is the extent to which a behavior is elicited across different situations.

The literature on situations so far has suggested that ambiguity plays a role in the differences in behavioral outcomes between situations of aversiveness and situations of sociality. Ambiguity is typically characterized by "novelty, complexity, insolubility, and unpredictability (Albrecht et al. 2018; McLain 1993). Several theories have suggested that ambiguous situations induce individuals to reduce feelings of uncertainty produced from the unpredictability of their environment. I will examine to what degree responding to ambiguous situations may result in diverse behaviors among individuals. This study will include, but will not be limited to, two theories that focus on ambiguity to help explain the results: Uncertainty-Identity Theory (Hogg 2012) and Uncertainty Reduction Theory (Davis, Lehman, Wortman, Silver, and Thompson 1995) This study will also refer to the Fundamental Motives Theory (FMT; Kenrick Griskevicius, Neuberg and Schaller 2010; Kenrick, Neuberg, Griskevicius, Becker and Schaller 2010) to examine which types of behaviors tend to be elicited under situations of adversity and sociality.

I will first provide a brief review of the situation literature, its gaps and reasons for the deficits. Then I will focus on psychological situations, which are constellations of cues that can influence how an individual perceives the situation, while comparing situations of aversiveness and sociality across a wide range of constructs. Third, I will discuss ambiguity as one possible mechanism that could explain the differences in such patterns. Lastly, I will present analyses using cross-cultural data, and compare the findings to previous studies. I will discuss how the findings can complement existing theories that include a situation component, in the hopes of providing needed modifications to these theories.

Findings from this project can enrich the literature on situations for both psychology and sociology and will draw parallels between situations of adversity and those of ambiguity. Since this study will also have cross-cultural analyses, another goal is to examine the degree to which situations exert similar behavioral patterns across different countries.

Background

Both the psychology and sociology literature have acknowledged that behaviors reside in (Diehl and McFarland 2010; Perinbayanagam 1974) and are influenced by situations (Samovar et al. 2013). The influence that situations have on behaviors can be summarized by considering two mechanisms. The first is adaptation; behaviors reflect an individual's method of adapting to a specific situation (Endler 1981). Individuals process information provided in the environment and use it to guide their behaviors to act appropriately (Edwards and Templeton 2005). The second mechanism is causality; situations can elicit certain behaviors from individuals as soon as they enter the environment. Different situations can yield different behaviors. One way of showing this relationship is by altering situations and seeing how this can lead to changes in behaviors (Cooper and Withey 2009; Crossman 2020). Hence, understanding situations can help us better predict, explain and understand behaviors (Magnusson 1981).

Unfortunately, psychology and sociology have suffered from a deficiency of knowledge about situations, which can be traced to three main issues: 1. an agreed-upon definition of situations, 2. a taxonomy that captures essential categories of situations and that is widely accepted, and 3. a standardized way of measuring situations (Hogan 2009).

There is no doubt that defining situations has been an unnerving problem and one that has not yet been resolved (Hogan 2009). Some definitions have referred to physical-biological properties of an environment, such as the architecture of a building (Cantor 1981). Others have referred to consensual aspects of a situation, such as agreement reached among raters witnessing the same scenario. Yet other definitions focus on the subjective or functional aspect of situations, such as how the individual perceives and interprets his social reality (Edwards and Templeton 2005). These three types of definitions could be placed along a spectrum that ranges from physical, more objective aspects of a situation (e.g., landscapes) to more psychological and subjective aspects (e.g., an individual's appraisal of his environment).

Sociology has proposed various definitions of situations, which could fall within the objective-subjective spectrum above (Stebbins 1967). Some perspectives, such as ethnomethodology (Garfinkel 1967) and phenomenology (Helmut 1970) have leaned more towards the subjective aspect of situations. Positivist sociology, on the other hand, has focused more on examining situations from a more objective standpoint, thus ignoring the subjective interpretations of the perceiver and instead focusing on physical elements of a situation (McSweeney 1973). Yet neither of these sociological approaches have provided a concrete definition of situations nor what constitutes them.

This study will advocate a working definition that is anchored towards psychological aspects of situations, that is, the perceptions or interpretations individuals derive rather that physical properties. There are two reasons for this choice. First, psychological situations have received more attention in the literature than an analysis of

the physical environments (Rauthmann 2012). Despite variations in definitions of situations proposed in the literature, many of them imply the presence and importance of psychological situations. Second, there is compelling evidence of psychological situations predicting behavior (Funder and Colvin 1991). Studies have shown how psychological features of situations can elicit behaviors that manifest certain personality traits, like extraversion (e.g., to what degree can the situation permit an extraverted individual to engage in social interaction or a warm person to perform a pleasant deed for others; Fleeson 2007). Sociology also has supported the importance of psychological situations on behaviors (Seeman 1997). But what exactly are psychological situations?

Psychological situations can be described as a constellation of cues in the environment that are perceived by individuals and that shape their behaviors (Fleeson 2007; Rauthmann 2012). Cues can be other people in the situation, objects or simply the spatial location that individuals interpret (Mehl and Robinson 2012). They can even be structures of events (Saucier et al. 2007). Individuals process cues in a situation in a gestalt-like manner. They are not perceived as single entities but rather as a combination of cues (Pervin 1978).

Different combinations can yield different psychological situations (Perinbanayagam 1974), which in turn elicit different perceptions by individuals (Cooper and Withey 2009). For example, being at a university campus with a friend (cue #1) and eating ice cream (cue #2) would be perceived as a different psychological situation than simply being on campus talking to a professor. Despite, both scenarios taking place in the same physical environment (on campus), each of them would elicit different perceptions

by the individual. The former would entail a more social aspect while the latter entails a professional and formal atmosphere. These different perceptions would consequently elicit different behaviors based on the demands of the situation (Edwards and Templeton 2005). For example, the former scenario could involve behaviors reflecting playfulness and being casual, while the latter may evoke more respect and attentiveness.

There are several unique characteristics of psychological situations worth mentioning. First, they vary more widely than physical situations because they are based on a unique combination of cues and are more susceptible to differences in individuals' interpretations. Second, they are dependent on individuals' perceptions. Without the individual perceiving them, psychological situations cannot exist. Third, behavior results from certain configurations of cues. This is a crucial distinction to make, since many theories that entail situations assume a one-size-fits-all approach to situations, and imply that all situations operate under the same mechanism and elicit the same pattern of behaviors. They do not necessarily distinguish behavioral consequences that result from different situations.

When researchers don't reach a consensus on an acceptable definition of situations, the second problem of producing a widely accepted taxonomy consequently becomes a difficult task (Hogan, Harkness and Lubinksi 2000). In other words, if we do not understand a concept, we would not be able to categorize and explain it.

Since the literature suggests that individuals' perceptions are important for understanding behavior, many taxonomies have focused on measuring these perceptions, and as a possible mediator between situations and behaviors. To date, over 20 taxonomies

have been proposed (Rauthmann et al. 2014). However, one main setback preventing the fruition of a taxonomy that researchers can agree upon is the differing perspectives under which the taxonomies thus far have been established (Ten Berge and de Raad 2002). When each taxonomy focuses on different key aspects and different situational information, it is difficult to compare their results to each other (Yang et al. 2009). For example, Ten Berge and de Raad (2002) focus on an individual's personality traits, whereas King and Sorrentino (1983) focus on an individual's goals. Additionally, these taxonomies provide no overall rational for their use, and many of them cover a limited domain of situations (Ten Berge and de Raad 2001). Lastly, they lack a theoretical framework from which to base their subscales, especially since these subscales were simply extracted from empirically derived factors, through such methods like factor analysis and cluster analysis (Rauthmann et al. 2014).

Sociologists have also attempted multiple ways to categorize situations. For example, both Carr (1945) and Garbett (1970) proposed six characteristics of situations that include a mixture of physical as well as psychological components. Both lists share a couple of properties in common, such as a temporal boundary (when a situation takes place) and spatial boundary (where a situation takes place), number of individuals present, type of relationship(s) present among the individuals involved, and a cultural aspect. Samovar et al. (2013) proposed four characteristics, three of which were similar to Garrett's and Carr's: location, time, number of people, and occasion (i.e., the event itself). However, despite these attempts in this discipline at classifying situations, no taxonomies

have been proposed to empirically analyze their effects on behaviors. Therefore, this thesis will have to rely on a taxonomy that was developed in psychology.

The Riverside Situational Q-Sort (RSQ; Wagerman and Funder 2009) has proven to be thus far one of the most adequate instruments for assessing psychological situations. One reason for this is its almost exhaustive list of items that serve as situational descriptors. The RSQ consists of 89 descriptions that participants choose from when evaluating a situation that they experienced at a given day. Items include "social interaction is possible" and "situation is potentially enjoyable." A second reason is its use in cross-cultural research. It has been used in over 20 countries, which validates its legitimacy (Guillaume et al. 2016). From this instrument emerged a taxonomy called the DIAMONDS-8 (Rauthmann et al. 2014).

The DIAMONDS-8 taxonomy

The DIAMONDS-8 was derived through a factor analysis of the RSQ. It consists of 32 items, which makes it more economical to apply than the entire RSQ while still retaining exceptional reliability. It captures major situational dimensions instead of multiple specific items that can overwhelm and confuse the reader. The DIAMONDS taxonomy is comprised of eight dimensions known as: Duty (which entails perceptions of work and fulfilling tasks or duties), Intellect (which describes situations that are intellectually engaging or stimulating), Adversity (which describes situations where threats or other forms of stressful experiences are present), Mating (which includes situations that can be perceived as romantic or sexual), Positivity (which describes situations perceived as pleasant and enjoyable), Negativity (which describes situations

that elicit negative feelings), Deception (which includes situations that entail mistrust and deceit), and Sociality (which includes situations that afford socializing and interpersonal warmth). Each dimension is measured using the four RSQ items that yielded the highest factor loadings in the pioneer study, hence the 32-item structure (Refer to Table 2 to look at the four RSQ items that represent each dimension).

This taxonomy also would align with the interests of sociologists. For example, phenomenologists tend to be concerned with how people construct their reality and make sense of their social world through everyday experiences (Helmut 1967). This taxonomy provides multiple dimensions of situations through which people's experiences can be categorized. Ethnomethodologists also take interest in individuals' perceptions of social reality, more specifically, through accounts of their daily experiences. This taxonomy bases its assessment on experiences individuals describe on a given day. Therefore, this taxonomy will be used for this thesis.

Despite the advantage psychology has had over sociology in developing taxonomies, the empirical work on situations has suffered from methodological problems (Hogan 2009). Many of the taxonomies are not validated and therefore not assured as reliable measurement tools (Fleeson 2007). Additionally, despite the numerous studies that have been published on situations, their different dimensions make it difficult to compare them on a standardized platform.

Since sociology still lacks a taxonomy from which to examine psychological situations, I cannot discuss the avenue of work in this discipline or any studies that have used such taxonomy to examine situations. Studies that have tested existing theories

related to situations (e.g., symbolic interactionism; Blumer 1986), have not focused on differences in situations producing differences in behaviors. However, the thesis can use sociological theories to explain possible patterns found in the analyses. A sociological theory of interest is Hogg's Uncertainty-Identity Theory (2012), which will be discussed shortly.

Since this thesis will involve the DIAMONDS-8, I can only compare the findings here with those studies that have previously examined psychological situations resembling any or all of the eight dimensions of the taxonomy. This thesis will mainly focus on two dimensions: adversity and sociality. These two dimensions have surfaced in one form or another in previous taxonomies (Magnusson 1971; Ten Berge and de Raad 2002). They also have shown to produce almost opposing results across various constructs such as personality traits, behaviors, and goals, suggesting that they may be polar opposites along a spectrum of situational experiences. One goal of this thesis is to confirm this assumption. Both dimensions will be discussed.

Adversity

Theories that examined this dimension have associated it with behavioral outcomes related to negative emotions and prejudice. The Fundamental Motives Theory proposed seven universal motives that humans develop over their lifespan, two of which may be connected to adversity: self-protection and disease-avoidance. These motives have received empirical support for being associated with behaviors expressing negative emotions and social outcomes (Morse et al. 2015), such as expressing hostility and

anxiety. Additionally, the self-protection motive has been shown to activate negative stereotypes and prejudice (Schaller Park and Faulkner 2003).

Adversity also has been associated with other individual attributes, such as personality, motives and behaviors. Ten Berge and de Raad (2002) found perceptions of adversity to be negatively correlated with one of the Big 5 personality traits, that is, emotional (in)stability. Also known as neuroticism, this personality trait refers to an individual's temperament and how easily one is prone to experiencing negative emotions. This finding was also supported by Rauthmann et al. (2014), and Kendrick et al. (1990). Adversity also was more likely to enable certain motives like conflict affordances (or situations in which goals of conflict are more relevant), and facilitated behaviors that reflected conflict, neuroticism (Rauthmann et al. 2014) and competitiveness (Eckes 1995). Adversity also evoked behaviors with avoidance characteristics (e.g., emotion-focused coping rather than problem-focused coping). In terms of interpreting the behavior of others, adversity was associated with the dimension of being friendly/unfriendly (Pervin 1976). Lastly, adversity also was associated with feelings of tenseness (Eckes 1995).

Regarding interpreting cues in a situation, the adversity dimension correlated with the least number of situational descriptors (Rauthmann et al. 2014). In other words, there were few cues that could be linked to one's appraisal of aversive situations. It also yielded the lowest agreement among raters when they judged to what extent certain traits could be observed through an individual's behaviors in a situation (Ten Berge and de Raad 2001); superficiality and insensitivity had the lowest agreement among raters,

suggesting that they are ambiguously observable traits and that they reflect characteristics of adversity. Kendrick (1990) also showed neurotic traits to have the lowest scores in terms of how observable the behaviors are that express these traits. Hence, adversity seems to have the least amount of consensus regarding detectability in a situation, and is connected to neuroticism, which traits also were rated as least observable in comparison to other traits.

Sociality

Sociality has been positively correlated with the personality traits extraversion and agreeableness, and was linked to motives reflecting social-affiliative characteristics (Rauthmann et al. 2014). Sociality also correlated with the greatest number of situation descriptors, suggesting socially constructed situations occupy most situations encountered in everyday life (Kelley et al. 2003; Reis 2008). Situations of sociality received the highest agreement among raters when they judged a situation based on multiple psychological characteristics, whether the raters were present in the situation or simply read a description of it. It also had the highest agreement among raters for behaviors that expressed traits of cheerfulness and joy. Lastly, empirical evidence associated the FMT motive, affiliation (a template that reflects characteristics of sociality) with positive behaviors such as smiling, laughing and initiating humor.

Sociology also has discussed similar behavioral patterns under this dimension. For example, Samovar et al. (2013) highlighted the relationship between shared expectations among actors in the same situation and regulation of behaviors. With shared expectations, actors tend to endorse a common goal and behave in ways that abide by

these expectations. The 'need to live with others' thus pressures individuals to behave in ways that would secure their chances of staying in the social group. The norms of the group thus dictate which behaviors are considered appropriate, which would discourage high variability of behaviors (Samovar et al. 2013).

Ambiguity as a mechanism

The authors of studies that examined sociality and adversity have proposed a mechanism that could explain their opposing results: ambiguity (Rauthmann et al. 2014). It is often been synonymous to risk and uncertainty in the literature (Lipshitz and Strauss 1997), but with some slight nuances, mainly that ambiguity can result in feelings of uncertainty. This is especially true among people who have intolerance to ambiguity (Bardi et al. 1999) and who tend to appraise ambiguous situations as physically or psychologically threatening or aversive.

The Information Primacy Hypothesis (Inglis 2000), claims that behavioral variability is an adaptive strategy that humans developed in face of environments filled with uncertainty. People seek to reduce uncertainty in novel situations and diversifying one's behaviors can serve as a pre-requisite for the production of behaviors that would eventually help the individual adapt to the unfamiliar environment. Under uncertain situations, individuals either do not know what to expect or are more likely to experience surprise when expectations established from previous situations are not met in the new situation (Holland 1989). When expectations are not met, individuals are motivated to seek an alternative repertoire of behaviors or "new rules" of behaviors (Inglis 2000), which increases the likelihood of behavioral variability. This variability has been

demonstrated across different tasks and reinforcement schedules for receiving rewards (Joyce and Chase 1990; Machado 1992). Social situations do not require this variability because expectations for how to behave are embedded in cues and other individuals present. This makes it easier to behave accordingly and similar to others.

There are parallels between ambiguity's obscure nature and the idea of situational strength (Price and Bouffard 1974). Situations rated as strong leave little room for individual discretion due to pre-established rules (Gelfand et al. 2020). Therefore, behavioral homogeneity arises among individuals in the same situation due to sufficient information that can guide behavior (Meyer and Dalal 2009). This description can be an argument as to why situations of sociality should be considered strong situations. On the other hand, weak situations are ambiguously structured with few external constraints on individuals and without clear expectations on how to behave appropriately. This results in a wide range of acceptable behavioral patterns which can manifest individual differences, a similar outcome to what has been discussed for ambiguity.

Ambiguous situations also can elicit perceptions of uncertainty, which are deemed in the literature as aversive in nature. Individuals want a sense of control and predictability in the world (Hogg 2012). When this is unachievable, negative emotions tend to arise. This is especially true for individuals categorized as intolerant to ambiguity (Bardi et al. 2009). Individuals with a low tolerance to ambiguity tend to experience negative emotions from ambiguity, such as worry, fear and anxiety (Skinner, Natalie, and Brewer 2002). Folkman and Lazarus also found uncertainty to be related to negative

emotions, or "harm" emotions (1985) that result in self-blame. Lastly, Frone (1990) found a strong relation between role ambiguity and stress.

Various theories on ambiguity and its implied aversiveness assume that individuals seek to reduce feelings of uncertainty it induces (Kalma 1986) by obtaining information about one's social world and to eliminate the negative emotions. Each theory proposes different ways to achieve this. For example, under Uncertainty Identity Theory (Hogg 2012) individuals who see uncertainty as threatening try to reduce it by joining a group because memberships provide sets of expectations of the social world and for how to behave. Uncertainty Reduction Theory (Charles Berger and Richard Calbrese 1975) also assumes that uncertainty is aversive and that, through repeated interpersonal communication, individuals can reduce it. These theories assume that individuals engage in adaptive behaviors to alleviate the anxiety from uncertainty without engaging in hostility.

However, several studies have shown that the opposite may also be the case; some responses to uncertainty may actually be inappropriate or maladaptive. For example, individuals may engage in excessive worrying (Douglas et al. 2001), wishful thinking (Keinan 1994) or rumination (Davis, Lehman, Wortman, Silver, and Thompson 1995), none of which were found to be productive in reducing uncertainty. Intolerance to ambiguity was also found to be related to negative behaviors directed at others, such as criticism (Norton 1975) and prejudice, which tend to be a result of higher degrees of ethnocentrism (Hodson and Dhont 2015). These findings, however, should not necessarily be considered as counter to the assumptions of uncertainty theories. They can,

for example, support Hoggs' preposition that individuals seek group membership by suggesting that belonging to the in-group leads to a sense of ethnocentrism. Thus, a byproduct of this process is outgroup bias which can result as prejudice towards others.

The Present Study

To summarize the literature review in a manner that will guide the analysis I propose for the present study, I will use the following model when presenting my hypotheses:

Ambiguity   ->   Cues ->   Perception   ->   Behaviors

Situational cues (*cues*) should inform individuals which behaviors would be considered appropriate to perform and which ones inappropriate. When ambiguous situations either have insufficient cues present or cues that are not salient, individuals will have a harder time accurately interpreting the situation *(perception)* and will thus have a harder time choosing the appropriate behavior to perform *(behavior).* On the other hand, when a situation has enough cues present or cues clearly available to individuals, they will have an easier time interpreting the situation and what behaviors to perform or not perform.

This study seeks to make two important contributions to both the sociology and psychology literature. One is methodological, and the other is theoretical. Under the methodological umbrella two advancements can result from this study. The first is examining multiple behaviors across various types of appraisals to situations. Previous studies have either examined connections between single behaviors and single situational appraisals, behavioral consistency (the extent to which an individual displays the same

behavior across multiple situations (Funder and Colvin 1991)), or behavioral appropriateness (the extent to which the same behavior is displayed across multiple situations, regardless of the individual performing it (Kendrick 1990)). This will be the first study to a) connect various behaviors to different situations b) across multiple countries, c) using a well-validated psychological taxonomy and d) guided by sociological theories on ambiguity.

The second methodological advancement is analyzing low-probability behaviors, to examine any latent properties of situations previously ignored in studies that applied DIAMONDS. Situations can have 'demand characteristics' (Price and Bouffard 1974) that govern which behaviors are elicited. Guillaume et al. (2016) only examined the most common situations experienced across the world (which happened to belong to a situational dimension characterized by social interaction). This study will examine behaviors that occur under various types of situations. Previous research also has hinted at interesting behavioral patterns under situations of adversity, but did not elaborate on them. This study will expand on these unanswered patterns by examining, for example, whether low scoring behaviors, which were rated as negative in the Guillaume et al. Study, correlate strongly with adverse situations consistently across countries, or if these correlations vary by country.

Theoretical contributions from this study include understanding which specific behaviors and behavioral patterns are commonly manifested under the adversity and sociality situational dimensions, as well as how similarly or differently people across cultures behave under these dimensions. Sociology has clearly demonstrated interest in

understanding behavioral patterns under different situations. Unfortunately, this interest has not been met with sufficient research to advance theories that include situations. For example, symbolic interactionism discusses how individuals extract meaning from symbols (which are indicators of a psychological situation) in order to behave accordingly. However, there is no mention as to how different sets of cues elicit different behaviors. Thus far, the only knowledge we have about situations, especially social and adverse ones, come from empirical studies. We lack a theoretical framework that can help explain why different situations are associated with different behaviors.

Although this thesis will not have a widely agreed upon definition of situations since none exist, the work here will revolve around the definition of the interpretation individuals make to situations based on cues, which is implicated in many proposed definitions. Additionally, I will not use a taxonomy that is widely accepted among researchers since, again, none exist. Instead, I will use a taxonomy that is derived from as exhaustive a list of situational descriptors as is the RSQ. Lastly, although I cannot compare findings from every dimension of the DIAMONDS-8 to previous studies on situations, since not all the taxonomies include aspects of situations that resemble its eight dimensions, I will focus my hypotheses on the two dimensions which have been discussed and have some form of resemblance in multiple studies: adversity and sociality. This is not to say that the analyses will ignore the other six dimensions included in the DIAMONDS-8 taxonomy. I will provide a table that summarizes the results obtained from the other six dimensions in case researchers would like to refer to them for replication.

To examine behaviors, I will use a Q-Sort called the Riverside Behavioral Q-Sort (RBQ; (Funder, Furr, and Colvin 2000). This instrument has the most exhaustive list of behavioral descriptors (68 items), which would be very suitable for this study.

Adding a cross-cultural component to this study will also increase its relevance, given how little we know about behaviors displayed under various situations and across multiple countries. Oftentimes cross-cultural research tends to compare two countries where one (usually the US) represents the western culture and the other (usually an Asian country) represents the eastern culture, or simply an American country is compared to a European country, with implications that their findings will generalize to all cultures (Bollen, Entwisle and Alderson 1993). The analysis for this study expands to other countries that are not typically considered WEIRD (western, educated, industrialized, rich and democratic (Guillaume et al. 2016)), and that cover more than two continents.

In this study, I will use two theories, Information Primacy Hypothesis and Uncertainty-Identity Theory, both of which approach ambiguity from different angles. These theories will serve as references when examining two characteristics of ambiguity in terms of their relation to behaviors. The first characteristic is the degree of behavioral variability between individuals and the second is the extent to which individuals can appraise a situation based on which behaviors are deemed appropriate for it.

In addition to these theories on ambiguity, I will also use a theory that touches upon the nature of adversity, the Fundamental Motives Theory. This theory proposes two motives, self-protection and disease avoidance, that share commonalities with adversity. These motives are assumed to activate under perceptions of threat and have been

associated with behaviors that reflect negative emotions, similar to adversity. Additionally, these emotions can facilitate prejudice and negative stereotypes towards, which triggers behaviors like criticism and blame.

Hypothesis 1 was based on the assumption of Uncertainty-Identity Theory that uncertainty has an aversive nature because of lack of information that the individual can use to act accordingly. The first hypothesis built off of findings which showed that adversity correlated with less situational cues than sociality, showing its ambiguous nature. Additionally, there was less agreement among raters perceiving behaviors that expressed a variety of traits when behaviors expressed traits of adversity (e.g., deception) than traits resembling sociality (e.g., friendliness), which further supports the notion that aversive cues are harder to perceive due to their ambiguity.

Following the model provided above, if adversity is associated with less cues present, or cues that are not salient enough (*cues*), and in lower agreement among individuals as to how to perceive these cues *(perception)* compared to sociality, we should also expect less agreement on which behaviors should or should not be enacted. This should result in weaker correlations. Strong correlations, on the other hand, indicate that there were enough cues for the individual to perceive and to decide with more clarity which behaviors to enact. Strong positive correlations indicate that the behavior is perceived as appropriate to perform, and strong negative correlations indicate that the behavior is perceived inappropriate to perform.

Therefore, I hypothesized that adversity to have strong (positive or negative) correlations with lower number of behaviors than sociality, due to its ambiguous nature.

Sociality should correlate with a higher number of behaviors because individuals will have a clearer understanding of which behaviors are deemed appropriate/inappropriate.

H1. Adversity will correlate significantly with a lower number of reported behaviors as sociality (as assessed in the RBQ).

The second hypothesis touched upon the nature of aversive situations, not just as ambiguous but also as eliciting negative perceptions and behaviors. In studies on adversity in support of FMT as well as those that examined responses to ambiguous situations, individuals were prone to perform behaviors expressing negative emotions and prejudice. Therefore, I expected a similar behavioral pattern for this hypothesis. Some of the items in the RBQ describe behaviors of hostility aimed at others, such criticizing and blaming. I anticipated social situations to elicit more adaptive behaviors from the RBQ:

H2a. Sociality will yield higher scores than adversity in the reported behaviors, 'exhibits social skills' and 'expresses warmth (to anyone)'.

H2b. Adversity will yield higher scores than sociality in the reported behaviors, 'blames others (for anything)' and 'expresses criticism (of anybody or anything)'.

Hypothesis 3 was based on Information Primacy Hypothesis. Given the lack of available cues expected under adversity, I hypothesized greater variability in behaviors elicited between individuals. On the other hand, sociality was hypothesized to yield a greater degree of behavioral similarity among countries due to more cues present and clearer expectations on how to behave. This was derived once again from the logic that adversity leads to more diversity in how situational cues could be perceived than sociality. To evaluate this prediction, I compared countries on how similar they would

behave under the two situational dimensions. The stronger the correlation, the more similarly the countries would behave to each other when exposed to that situation. Conversely, the weaker the correlation, the less similarly they would behave to each other, hence showing higher degrees of behavioral variability. Ambiguous situations should elicit weak correlations among countries when comparing these behavioral templates because of unknown expectations for how to behave, thus leading to diverse repertoires of behaviors. Therefore, the third hypothesis was as followed:

H3. The sociality dimension will display stronger correlations between countries on behavioral templates than adversity.

Analytical strategies

Previous studies correlated DIAMONDS sores of raters to pieces of situational info (descriptors and CUES) with each other. To maintain consistency, I will also apply the same analytical strategy for hypothesis 1 and conduct bivariate Pearson correlations. For this study, I correlated adversity score of individuals with all 68 behaviors. Similar to hypothesis 1, the analysis for hypothesis 2 involved computing bivariate Pearson correlations to follow the same strategy previous studies have used when examining the behavior-situation relations using the RBQ and RSQ.

For the third hypothesis I first computed bivariate Pearson correlations between Adversity scores and all 68 RBQ behaviors to create a 68-item behavioral template for Adversity. The same was done with Sociality. With this process, I had 21 Adversity behavioral templates and 21 Sociality behavioral templates (one for each country in the

study). Then I correlated the Adversity behavioral templates of each country to every country; the correlation coefficient indicated how similar the countries' behavioral templates were to each other and how similarly they would behave in situations of adversity, with higher values meaning more similarity. The same procedure was done for Sociality behavioral templates.

Method

Participants

A total of 5,522 (3,523 females) participants were recruited from colleges and universities from 21 countries (age: M = 22, SD = 4.25, range: 11-65). Table 1 provides demographic information for each site, compensation for participation, and languages of assessment primarily used by each site (n = 14 languages in total). These data have already been reported in Guillaume et al. (2016), but the analyses reported here are novel.

(Table 1 about here)

Procedure

Participants logged onto a custom-built website specifically designed for this international project (www.internationalsituationsproject.com). This website facilitates the use of forced-choice measures such as Q-sorts, especially if the process involves dropping and dragging items. Participants chose their respective country's flag to select their language of assessment and then provided demographic information. Afterwards, they briefly described a situation they experienced at 7pm of the previous day. The instructions asked for details on (1) what they were doing, (2) who they were with, and

(3) where they were. If a participant was sleeping during that time, they were asked to also describe what they were doing before they went to sleep or after waking up. Lastly, participants quantified their situational experience using the RSQ, and their behaviors during that situation using the RBQ. As mentioned earlier, Guillaume et al. (2016) reported analyses only for the RSQ, from 20 of the 21 countries (not including UAE), but this study includes new analyses that involve the interaction between the RSQ and RBQ measures.

Measures

The RSQ and the RBQ were independently translated and back-translated from English into 13 other languages by international research collaborators, all of whom were university faculty members. The back-translated versions were compared with the original versions and any discrepancies were resolved before collecting data.

For both Q-sorts, participants sorted a fixed number of descriptive items into nine categories that best described their experience, ranging from 1 (extremely uncharacteristic) to 9 (extremely characteristic). The result was a forced-choice, bell-shaped distribution in which fewer items were allowed to fit in the extreme categories while most of the items were placed in the middle categories. In the end, the distribution of the RSQ would permit the following number of items: three items each in categories 1 and 9, six items each in categories 2 and 8, 11 items each in categories 3 and 7, 15 items each in categories 4 and 6, and 15 items in category 5. The RBQ distribution would have a similar shape but modified for 68 items, thus leading to: three items each in categories 1

and 9, five items each in categories 2 and 8, seven items each in categories 3 and 7, 11 items each in categories 4 and 6, and 16 items in category 5.

Q-sorts are useful for reducing measurement biases such as floor/ceiling effects, by allowing placement of certain number of items in each category. Additionally, the forced-choice style can help reduce a reference group effect, because instead of comparing their own experiences/behaviors to other people in their culture, participants only compare one situational experience/behavior to other items of their respective construct based on how characteristic they are to them personally.

Results

Calculating DIAMONDS scores

Each participant who completed the RSQ was assigned eight scores, one for each dimension from the DIAMONDS-8. These scores were calculated based on the average scores of the four RSQ items that corresponded to each dimension. Table 2 shows the four items for each dimension. The items that were placed under 'extremely uncharacteristic' had a value of 1 whereas the items placed under 'extremely characteristic' had a value of 9.

(Table 2 about here)

To test the first hypothesis, I first conducted a randomization test to test for chances of obtaining spurious correlations (Sherman and Funder 2009). This procedure ran the correlations between RBQ items and DIAMONDS across 10,000 trials, which resulted in an average correlation between behaviors and characteristics compiled from

the trials. It also yielded the number of statistically significant correlations observed compared to correlations due to chance.

I performed the randomization test on these correlations for every country. Table 3 shows the average number of statistically significant correlations observed across the 21 countries and the average number expected by chance, as well as the countries that had statistically significant correlations in each dimension. The average number of significant correlations expected by chance approximates four for every dimension because each item of the RSQ could produce a correlation expected simply by chance and each dimension consisted of four scores from the RSQ averaged into a composite score.

(Table 3 about here)

Sociality had the greatest number of statistically significant correlations out of all eight DIAMONDS dimensions, with an average of 38 significant correlations across all 21 countries, whereas adversity had the lowest number, with an average of 12 across the 21 countries. Adversity also had the fewest countries whose observed correlations exceeded those expected by chance, with only 13 countries.

Regarding the second hypothesis, I performed a Pearson correlation between all 68 RBQ items and the eight DIAMONDS dimensions. Then I averaged out each RBQxDIAMONDS correlation across the 21 countries. Tables 4 and 5 show the top five behaviors that had significant correlations with adversity and sociality, respectively, across the greatest number of countries, as well as the average effect sizes for each of the behaviors. One stark contrast between the two dimensions is the number of countries that shared these significant correlations. Sociality correlated significantly with several items

across many countries, whereas behaviors that correlated with adversity were only significant in a few countries. This latter shows that each country may have different expectations as to which behaviors are considered appropriate under situations of adversity. A second contrast is the strength of the effect sizes, with sociality possessing relatively stronger correlations on average and adversity possessing relatively weaker correlations. This suggests that even when items correlate significantly with adversity, its indicator of appropriateness (the degree to which the behavior is considered appropriate to do under that situation) is relatively weaker than sociality.

(Table 4 about here)

(Table 5 about here)

These two tables also show behaviors mentioned in hypothesis 2. The findings showed a statistically significant correlation between the behaviors, 'blaming others' and 'expressing criticism', and adversity. They also showed 'expressing warmth' and 'exhibiting social skills' correlating significantly with sociality (the latter behavior was not in the top 5, hence it did not appear in Table 7).

Cross-cultural similarity of behavioral correlates

To test the third hypothesis, for each country I separated RBQ ratings and sociality/adversity scores by gender, due to unequal sample sizes across countries. Next, I analyzed the degree of similarity between country-level behavioral Q-sort templates under the same psychological characteristics of situations. For each gender of that country, I correlated all 68 RBQ ratings from the participants with their sociality and adversity scores. For each dimension, I averaged the scores of both genders to obtain 68

equally gender-weighted behavioral correlates for every country. I then performed a Pearson correlation to compare the behavioral profiles of every country to each other under the same dimensions. This yielded a 21 x 21 matrix for sociality and one for adversity, showing the strength of the behavioral correlates. Table 6 shows the results for sociality and adversity. The other six dimensions are not included in the table since they are not of interest for the hypotheses, but can be shared upon request. For each dimension, the highest correlation between any two countries, and which therefore showed the most similarity in behavioral repertoires between them, is highlighted in green. The lowest correlation between any two countries is highlighted in red. The overall correlations averaged across all eight situational dimensions was moderately high, with an average of r =.57.

(Table 6.1 about here)

Sociality had the highest average correlation between any two countries (r=.75) and the highest overall correlation, with $r = .95$ between the US and Canada. This was similar to the findings in Guillaume et al., where the US and Canada were the most similar in average situational experience (r=.95) and where the items describing a pleasant social interaction were highly rated on average. On the other hand, not only did adversity have one of the lowest overall correlations between two countries (r=-.02), but it also had one of the weakest average correlations, with r =.43.

(Table 6.2 about here)

Discussion

The goal of this thesis was to investigate the behavioral patterns elicited from situations that entail social interaction and those that entail aversiveness. Additionally, I sought to examine what role ambiguity played in situations of aversiveness. Using two characteristics of ambiguity that have been discussed in the literature as possible mechanisms for aversiveness' influence on behaviors, I analyzed the behavioral outcomes in terms of a) behavioral inappropriateness, b) behavioral variability, and c) behaviors expressing hostility and negative emotions.

The first hypothesis, which stated that sociality would correlate with a greater number of behaviors than adversity, was supported. Averaged out across all 21 countries, results showed that about 38 RBQ items correlated significantly with sociality (the highest number from any dimension of DIAMONDS), while about 12 of them correlated significantly with adversity (the lowest of any dimension). This pattern supports the implication from previous studies which used this taxonomy that adversity may entail ambiguity because individuals have a difficult time perceiving cues in the situation, while sociality entails clearer expectations due to its dominance in many aspects of daily life (Kelley et al. 2003).

Both parts of the second hypothesis were also supported. Averaged across all 21 countries, sociality correlated significantly with the behaviors, expressing warmth and exhibiting social skills. Adversity, on the other hand, correlated significantly with behaviors expressing hostility and negative emotions, such as blaming others and expressing criticism. This hypothesis also tested the degree to which reported situational

experiences and behaviors connected in a logical manner, thus confirming measurement invariance.

The third and final hypothesis, that adversity would be associated with higher behavioral variability than sociality, was also supported. When comparing the behavioral templates of the 21 countries to each other, sociality had the highest average correlations between any two countries ($r = .75$) and the highest overall correlations, between the US and Canada ($r = .95$). These high correlations indicate a great degree of similarity in behaviors that would be deemed appropriate under situations of social interactions, suggesting a common and clear understanding of cues that provide a set of expectations for how people should behave. On the other hand, adversity had one of the weakest average correlations *($r = .42$)*, signaling a higher degree of behavioral variability among countries. This is yet another indicator of how adverse situations may entail ambiguity which results in higher discrepancies in behaviors displayed.

Theories on reducing uncertainty fall short from mentioning individuals engaging in behaviors that would negatively impact others because they tend to focus on more productive behaviors, such as group membership and social interactions. These findings suggest the need to expand these theories conceptually in order to include alternative variables such as outgroup bias (in the case of Uncertainty-Identity Theory).

Methodological / Theoretical contributions

The findings contribute to the scientific literature in several ways. First, and starting with methodological implications, this is one of the first attempts to examine multiple situation-behavior relations cross-culturally. Previous studies have either

examined several of these relations in one or two countries, or only focused on one behavior/situation when conducting cross-cultural research. Second, this study helped validate the DIAMONDS taxonomy, an encouraging sign for researchers who seek a taxonomy for cross-cultural research on situations.

Third, the findings complemented the literature on ambiguity by confirming its properties in relation to behaviors. Ambiguous situations tend to heighten idiosyncratic responses from individuals, which results in behavioral variability. Ambiguous situations also lack sufficient (salient) cues to inform individuals which behaviors they could use to adapt to their environment. Both of these assumptions were supported by the findings.

Fourth, the results from this study show that it would be inaccurate to view situations as homogeneous. Situations vary based on the cues of which they are comprised, and these unique combinations elicit different behaviors.

Fifth and final implication, the findings touch upon a strong relationship between adverse situations that entail ambiguity and engaging in behaviors that express negative emotions and hostility. Theories on uncertainty portray it as aversive but assume that individuals will engage in more adaptive behaviors to reduce it. These findings included the presence of behaviors that may also inflict psychological harm on others in the form of criticism and blame, which may be the result of group membership and having outgroup bias in the form of prejudice. However, this direction should be further analyzed in future research.

As a note of caution, I am not implying that situations of ambiguity and adversity are the same. Some ambiguous situations may not be adverse, and this holds true especially for individuals who have higher tolerance to ambiguity. Likewise, not all

situations of adversity are ambiguous; FMT proposed motives related to adversity under the assumption that the world is dangerous, not necessarily unpredictable.

Limitations

Despite this study being the first attempt at examining associations between daily situational experiences and behaviors across multiple countries, there are still some limitations worth addressing. First, most of the countries in this study were European, and the sample I analyzed did not consist of Latin American countries or countries from the Middle East. The study also lacked more samples from countries that are heterogeneous like the US, to examine variability between subcultures.

Second, the dataset did not have an indicator of salience from cues. It is therefore difficult to assess the degree of ambiguity and how much it affected behavioral patterns without knowing how many cues were present nor how salient they were.

Third, the study was limited to examining situational experience during one time of the day instead of measuring experiences across multiple time points. A factor to consider would be examining cues involved in the situation that relate to an individual's perception of the situation (e.g., how many people were physically present).

Future Directions

The next steps would be to address how each culture varies on specific behaviors under other situational dimensions not measured here, while also testing the mechanisms that were proposed to be involved here. What are the psychological cues that make social situations stronger (in terms of constraining behaviors to a higher extent and allowing a narrower range of behaviors) than adverse situations? Additionally, seeing ambiguity's

role in two important situational dimensions invites the suggestion of using an ambiguity spectrum under which future studies could place various situations for further analyses, based on number and salience of cues present and level of constraint that each situation enforces.

Although this can still be considered an initial stage in excavating these answers, it is encouraging to know that cross-cultural research has made tremendous progress with regards to generalizing these and other constructs to various cultures, and will continue to do so. There is also the hope that sociology can develop its own taxonomy to help validate these findings in its discipline, thus providing a healthy competition with psychology in the near future.

References

Albrecht, Anne-Grit, Deniz S. Ones, Stephen Dilchert, Juergen D. Deller, and Frieder M. Paulus. 2018. "Tolerance of Ambiguity: Relations with Expatriate Adjustment and Job Performance." Pp. 71-82 in *Managing Expatriates,* edited by D. S. Deniz, B. M. Wiernik, and H. Rueger. Berlin: Verlag Barbara Budrich.

Bardi, Anat, Valeschka M. Guerra, and G. Sharadeh D. Ramdeny. 2009. "Openness and Ambiguity Intolerance: Their Differential Relations to Well-Being in the Context of an Academic Life Transition". *Personality and Individual Differences* 47(3) 219-223.

Berge, Maaike T., and Boele De Raad. 2001. "The Construction of a Joint Taxonomy of Traits and Situations." *European Journal of Personality* 15(4) 253-276.

Berger, Charles R., and Richard J. Calbrese. 1975. "Some Explorations in Initial Interaction and Beyond: Toward a Developmental Theory of Interpersonal Communication". *Human Communication Research* 1:99-112.

Birkbeck, Christopher, and Gary LaFree. 1993. "The Situational Analysis of Crime and Deviance." *Annual Review of Sociology* 19(1)113-137.

Blumer, Herbert. 1986. *Symbolic Interactionism: Perspective and Method*. Berkeley: University of California Press.

Bollen, Kenneth A., Barbara Entwisle, and Arthur S. Alderson. 1993. "Macrocomparative Research Methods." *Annual Review of Sociology* 19(1) 321-351.

Campbell, John, and Quassim Cassam. 2014. "Berkeley's Puzzle: What Does Experience Teach Us?" Oxford: Oxford University Press

Cantor, Nancy. 1981. "Perceptions of Situations: Situation Prototypes and Person-Situation Prototypes." Pp 229-244 in *Toward a Psychology of Situations: An Interactional Perspective,* edited by P. Magnusson. New Jersey: Princeton University

Carr, Lowell J. 1945. "Situational Sociology." *American Journal of Sociology* 51(2) 136-141.

Cooper, William H., and Michael J. Withey. 2009. "The Strong Situation Hypothesis." *Personality and Social Psychology Review* 1362-72.

Crossman, Ashley. 2020. "Assessing a Situation, in Terms of Sociology." Retrieved August 27, 2020 (https://www.thoughtco.com/situation-definition-3026244).

Davis, Christopher G., Camille B. Wortman, Roxane Cohen Silver, and Suzanne C. Thompson. 1995. "The Undoing of Traumatic Life Events". *Personality and Social Psychology Bulletin* 21:109-124.

Diehl, David, and Daniel MacFarland. 2010. "Toward a Historical Sociology of Social Situations." *American Journal of Sociology* 115:1713-1752.

Eckes, Thomas. 1995. "Features of Situations: A Two-Mode Clustering Study of Situation Prototypes". *Personality and Social Psychology Bulletin* 21:366-374.

Edwards, John A., and Angela Templeton. 2005. "The Structure of Perceived Qualities of Situations." *European Journal of Social Psychology* 35:705-723.

Endler, Norman S. 1975. "The Case for Person-Situation Interactions". *Canadian Psychological Review* 16:12-21.

Feldman, R. S., and Mark Garrison. 1993. *Understanding Psychology*. New York: McGraw-Hill

Fleeson, William. 2007. "Situation-Based Contingencies Underlying Trait-Content Manifestation in Behavior." *Journal of Personality* 75:825-862.

Folkman, Susan, and Richard S. Lazarus. 1985. "If it Changes it Must be a Process: Study of Emotion and Coping During Three Stages of a College Examination". *Journal of Personality and Social Psychology* 48:150.

Forgas, Joseph P. 1976. "An Unobtrusive Study of Reactions to National Stereotypes in Four European Countries." *The Journal of Social Psychology* 99:37-42.

Frone, Michael R. 1990. "Intolerance of Ambiguity as a Moderator of the Occupational Role Stress—Strain Relationship: A Meta-Analysis". *Journal of Organizational Behavior* 11:309-320.

Funder, David C., and Randall C. Colvin. 1991. "Explorations in Behavioral Consistency: Properties of Persons, Situations, and Behaviors." *Journal of Personality and Social Psychology* 60:773-794.

Funder, David C., Michael R. Furr, and Randall C. Colvin. 2000. "The Riverside Behavioral Q-Sort: A Tool for the Description of Social Behavior." *Journal of Personality* 68:451-489.

Garbett, Kingsley G. 1970. "The Analysis of Social Situations." *Man* 5:214-227.

Garfinkel, Harold (1967). *Studies in Ethnomethodology.* Englewood Cliffs: NJ: Prentice-Hall.

Gelfand, Michele J, Nava Calouri, Sarah Gordon, Jana Raver, Lisa Nishii, Lisa Leslie, and Janetta Lun. 2020. "Culture's Constraints." Pp 62-78 in *The Oxford Handbook of Psychological Situations*. Oxford University Press.

Glazer, Sharon, and Terry A. Beehr 2005. "Consistency of Implications of Three Role Stressors Across Four Countries." J*ournal of Organizational Behavior: The International Journal of Industrial, Occupational and Organizational Psychology and Behavior* 26:467-487.

Glock, Charles Y., and Francesco M. Nicosia. 1964. "Uses of Sociology in Studying "Consumption" Behavior." *Journal of Marketing* 28:51-54.

Guillaume, Esther., Erica Baranski, Elysia Todd, Brock Bastian, ... and David C. Funder 2016. "The World at 7: 00: Comparing the Experience of Situations Across 20 Countries." *Journal of Personality* 84:493-509.

Hannan, Michael, Gael Le Mens, Greta Hsu, Balazs Kovács, Giacomo Negro, . . . Amanda Sharkey. 2019. "Conceptual Ambiguity and Contrast." Pp 183-186 I*n Concepts and Categories: Foundations for Sociological and Cultural Analysis* New York; Chichester, West Sussex: Columbia University Press.

Helmut, Wagner R. 1970. *Alfred Schutz on Phenomenology and Social Relations*. Chicago: University of Chicago Press.

Hodson, Gordon, and Kristof Dhont. 2015. "The Person-Based Nature of Prejudice: Individual Difference Predictors of Intergroup Negativity". *European Review of Social Psychology* 26:1-42.

Hogan, Robert. 2009. "Much Ado about Nothing: The Person–Situation Debate". *Journal of Research in Personality* 43:249.

Hogan, Robert, Allen R. Harkness, and David Lubinski. 2000. "Personality and Individual Differences." Pp 283–304 in *International Handbook of Psychology.* Sage

Hogg, M. A. (2012). Uncertainty-Identity Theory. Pp 62-80 *In P. A. M. Van Lange, A. W. Kruglanski, and E. T. Higgins (Eds.), Handbook of Theories of Social Psychology.* Thousand Oaks, CA: Sage. doi: 10.4135/9781446249222

Holland, John H., Keith J. Holyoak, Richard E. Nisbett, and Paul R Thagard. 1989. *Induction: Processes of Inference, Learning, and Discovery*. Cambridge: MIT press.

Inglis, Ian. 2000. "The Central Role of Uncertainty Reduction in Determining Behaviour". Behaviour 137:1567-1599.

Joyce, James H., and Philip N. Chase. 1990. "Effects of Response Variability on the Sensitivity of Rule-Governed Behavior". *Journal of the Experimental Analysis of Behavior* 54:251-262.

Kalma, Akko. 1986. "Uncertainty Reduction: A Fundamental Concept in Understanding a Number of Psychological Theories". *Essays in Human Sociobiology* 1:213-241.

Keinan, Giora. 1994. "Effects of Stress and Tolerance of Ambiguity on Magical Thinking". *Journal of Personality and Social Psychology* 67:48.

Kelley, Harold H. 1973. "The Processes of Causal Attribution." *American Psychologist* 28:107.

Kenrick, Douglas T., Vladas Griskevicius, Steven L. Neuberg, & Mark Schaller. 2010. "Renovating the Pyramid of Needs: Contemporary Extensions Built upon Ancient Foundations." *Perspectives on Psychological Science 5:*292-314.

Kenrick, Douglas T., Steven L. Neuberg, Vladas Griskevicius, D. Vaughn Becker, and Mark Schaller. 2010. "Goal-Driven Cognition and Functional Behavior: The Fundamental-Motives Framework." *Current Directions in Psychological Science* 19:63-67.

Kendrick, Douglas T., McCreath, Heather E., Govern, John, King, R., and Bordin, Jeffrey. 1990. "Person-Environment Intersections: Everyday Settings and Common Trait Dimensions." *Journal of Personality and Social Psychology* 58:685.

King, Gillian A., and Richard M. Sorrentino. 1983. "Psychological Dimensions of Goal-Oriented Interpersonal Situations." *Journal of Personality and Social Psychology* 44:140.

Kosko, Bart. 1990. "Fuzziness vs. Probability." *International Journal of General System* 17:211-240.

Lipshitz, Raanan, and Strauss, Orna. 1997. "Coping with Uncertainty: A Naturalistic Decision-Making Analysis". *Organizational Behavior and Human Decision Processes* 69:149-163.

Machado Aarmando. 1992. "Behavioral Variability and Frequency-Dependent Selection". *Journal of the Experimental Analysis of Behavior* 58:241–263.

Magnusson, David. 1971. "An Analysis of Situational Dimensions". *Perceptual and Motor Skills* 32:851-867.

McCrae, Robert R., and Costa, Paul T. 1989. "The Structure of Interpersonal Traits: Wiggins's Circumplex and the Five-Factor Model." *Journal of Personality and Social Psychology* 56:586.

McLain, David L. 1993. "The MSTAT-I: A New Measure of an Individual's Tolerance for Ambiguity". *Educational and Psychological Measurement* 53:183-189.

McSweeney, Bill 1973. "Meaning, Context and Situation." *European Journal of Sociology/Archives Européennes de Sociologie/Europäisches Archiv für Soziologie* 14:137-153.

Meyer, Rustin D., & Reeshad S. Dalal. 2009. "Situational Strength as a Means of Conceptualizing Context." *Industrial and Organizational Psychology 2:*99-102.

Morse, Patrick J., Rebecca Neel, Elysia Todd, and David Funder. 2015. "Renovating Situation Taxonomies: Exploring the Construction and Content of Fundamental Motive Situation Types." *Journal of Personality* 83:389-403.

Norton, Robert W. 1975. "Measurement of Ambiguity Tolerance". *Journal of Personality Assessment* 39:607-619.

Perinbanayagam, R. S. 1974. "The Definition of the Situation: An Analysis of the Ethnomethodological and Dramaturgical View." S*ociological Quarterly* 15:521-541.

Pervin, Lawrence A. 1976. "A Free-Response Description Approach to the Analysis of Person-Situation Interaction." *Journal of Personality and Social Psychology* 34:465.

Price, Richard H., and Dennis L. Bouffard. 1974. "Behavioral Appropriateness and Situational Constraint as Dimensions of Social Behavior." *Journal of Personality and Social Psychology* 30:579.

Rauthmann, John. F. 2012. "You Say the Party is Dull, I say it is Lively: A Componential Approach to How Situations are Perceived to Disentangle Perceiver, Situation, and Perceiver× Situation Variance". *Social Psychological and Personality Science* 3:519-528.

Rauthmann, John F., David Gallardo-Pujol, Esther M. Guillaume, Elysia Todd, Christopher S. Nave, ... and David C. Funder. 2014. "The Situational Eight DIAMONDS: A Taxonomy of Major Dimensions of Situation Characteristics." *Journal of Personality and Social Psychology* 107:677.

Reis, Harry T. 2008. "Reinvigorating the Concept of Situation in Social Psychology." *Personality and Social Psychology Review:* 12:311-329.

Samovar, L. A., Porter, E. R., McDaniel, E. R., and Roy, C. S. 2013. *Communication Between Cultures-Cengage Learning.* Boston: Wadsworth.

Schaller, M., Justin Park, and Jason Faulkner. 2003. "Prehistoric Dangers and Contemporary Prejudices". *European Review of Social Psychology* 14: 105–137

Schur, E. M. 1971. *Labeling Deviant Behavior: Its Sociological Implications.* New York: Harper and Row.

Seeman, Melvin. 1997. "The Elusive Situation in Social Psychology". Pp 4-13 in *Social Psychology Quarterly.*

Sherman, Ryne A., and David C. Funder. 2009. "Evaluating Correlations in Studies of Personality and Behavior: Beyond the Number of Significant Findings to be Expected by Chance." *Journal of Research in Personality* 43:1053-1063.

Stebbins, Robert A. 1967. "A Theory of the Definition of the Situation." C*anadian Review of Sociology/Revue Canadienne de Sociologie* 4:148-164.

Ten Berge, Maaike A., and Boele De Raad. 2002. "The Structure of Situations from a Personality Perspective". *European Journal of Personality* 16:81-102.

Wagerman, Seth A., and David C. Funder. 2009. "Personality Psychology of Situations." Pp 27-42 in *The Cambridge Handbook of Personality Psychology.*

Yang, Yu, Stephen J. Read, and Lynn C. Miller. 2009. "The Concept of Situations". *Social and Personality Psychology Compass* 3:1018-1037.

Table 1. Samples from 21 countries

Country	University	Language of Assessment	Compensation	N	Female	Male	Mean Age (SD)
Australia	University of Queensland	English	Course credit	141	109	32	20 (3.85)
Austria	University of Innsbruck	German	Volunteer	87	71	16	25 (5.12)
Canada	University of British Columbia	English	Course credit	191	126	65	21 (4.40)
China	Multiple universities	Simplified Chinese	$0.67 USD per participant	1,565	854	711	22 (2.22)
Czech Republic	7 universities	Czech	Volunteer	220	159	61	28 (5.48)
Denmark	University of Copenhagen	Danish	Volunteer	118	96	22	23 (4.76)
Estonia	17 colleges and universities	Estonian	Volunteer	314	251	63	26 (7.42)
Germany	Humboldt University of Berlin	German	Course credit	70	55	15	27 (7.66)
Italy	University of Milano-Bicocca	Italian	Course credit	144	75	69	23 (4.58)
Japan	Ritsumeikan University	Japanese	Volunteer	227	107	120	21 (1.05)
Netherlands	Tilburg University, Utrecht University	Dutch	Course credit	258	220	38	20 (2.30)
Poland	Kazimierz Wielki University	Polish	Volunteer	97	73	24	24 (5.07)
Russia	Ural Federal University	Russian	Course credit	101	80	21	22 (5.59)
Singapore	National University of Singapore	English	Course credit	158	109	49	21 (2.05)
Slovakia	Comenius University, University of Trnava, Catholic University	Slovak	Volunteer	98	86	12	22 (3.00)
South Africa	University of Cape Town	English	Volunteer/lottery	114	62	52	23 (4.62)
South Korea	Chonnam National University	Korean	Course credit	103	69	34	22 (3.82)
Spain	University of Barcelona	Spanish	Volunteer	108	78	30	22 (6.82)
UAE	American University of Sharjah	English/Arabic	Course credit	83	41	42	20 (1.67)
UK	University of Edinburgh	English	Course credit	107	75	32	21 (4.72)
US	UC Riverside	English	Course credit	1,218	727	491	20 (2.27)

Table 2. RSQ DIAMONDS dimensions and four items representing each dimension.

RSQ Item	Items
Duty	
003	A job needs to be done.
006	P is counted on to do something
011	Minor details are important
025	Rational thinking is called for.
Intellect	
012	Situation evokes values concerning lifestyles or politics.
013	Affords an opportunity to demonstrate intellectual capacity
041	Affords an opportunity to express unusual ideas or points of view.
053	Situation includes intellectual or cognitive stimuli
Adversity	
015	Another person (present or discussed) is under threat.
016	P is being criticized, directly or indirectly.
017	Someone is attempting to dominate or boss P.
023	P is being blamed for something.
Mating	
031	Physical attractiveness of P is relevant.
070	Situation includes stimuli that could be construed sexually.
073	Members of the opposite sex are present.
074	Potential romantic partners for P are present.
pOsitivity	
001	Situation is potentially enjoyable.
018	Situation is playful.
057	Situation is humorous or potentially humorous.
076	Situation is basically simple and clear-cut.
Negativity	
030	Situation entails frustration.
033	Situation would make some people tense and upset.
048	Situation entails or could entail stress or trauma.
066	Situation is potentially anxiety-inducing.
Deception	
036	A person or activity could be undermined or sabotaged.
037	It is possible for P to deceive someone.
038	Someone else in this situation might be deceitful.
039	Situation may cause feelings of hostility.
Sociality	
022	A reassuring other person is present.
051	Close personal relationships are present or have the potential to develop.
056	Social interaction is possible.
063	Behavior of others presents a wide range of interpersonal cues.

Table 3. Summary of Randomization Tests Across Countries

Average number of observed significant correlations (min – max)								
	D	I	A	M	O	N	D	S
	19.14 (7-43)	15.10 (6-34)	12.24 (4-40)	17.48 (5-40)	26.29 (12-54)	36.52 (12-59)	23.67 (3-53)	37.90 (17-60)

Averaged number of significant correlations expected by chance (min – max), and number of significant correlations for each country

	3.40 (3.21-3.55)	3.41 (3.33 – 3.53)	3.36 (3.22– 3.50)	3.41 (3.32– 3.52)	3.43 (3.31– 3.55)	3.38 (3.29 – 3.46)	3.39 (3.29 – 3.50)	3.39 (3.21– 3.50)
AU	**	**	*	**	**	**	**	**
AT	*	**		*	**	**	**	**
CA	**	**		**	**	**	**	**
CN	**	**	**	**	**	**	**	**
CZ	**	*	**	**	**	**	**	**
DK	**	*		**	**	**	**	**
EE	**	**	**	**	**	**	**	**
DE	*			**	**	**		**
IT	**	**	**	**	**	**	**	**
KR	**	**	**		**	**		**
JP	**	**	**	**	**	**	**	**
NL	**	**	*	**	**	**	**	**
PL	**	**		**	**	**	**	**
RU	**	**	*	*	**	**	**	**
SG	**	**	*	**	**	**	**	**
SK	*			**	**	**	**	**
ES	*	**		**	**	**		**
UK		**			**	**	**	**
US	**	**	**	**	**	**	**	**
UAE	*	*	*	**	**	**		**
ZA	**		*	**	**	**	**	**

Note. *number of significant correlations exceed p =.05
** number of significant correlations exceed p=.01

Table 4.1. Five behaviors that correlated with Adversity, the number of countries in which they correlated significantly and the average correlation across 21 countries.

RSQ	Item	Average correlation (among all 21 countries)	# of countries in which this item is significant
#33	Tries to undermine, sabotage or obstruct	.28	3
#36	Behaves in a fearful manner	.27	3
#31	Acts irritated	.30	2
#46	Blames others (for anything)	.29	2
#19	Expresses criticism. (of anybody or anything)	.27	2

Table 4.2. Five behaviors that correlated with Sociality, the number of countries in which they correlated significantly and the average correlation across 21 countries.

RSQ	Item	Average correlation (among all 21 countries)	# of countries in which this item is significant
#58	Makes or approaches physical contact with other(s)	.41	14
#59	Engages in constant eye contact	.42	13
#28	Seems likable. (to other(s) present)	.40	12
#12	Seems to like other(s) present.	.41	11
#32	Expresses warmth. (to anyone.)	.47	9

43

Table 5.1 Correlations between countries on Adversity dimension

	AU	AT	CA	CZ	CN	DK	EE	DE	IT	JP	KR	NL	PL	RU	SG	SK	ZA	ES	UAE	UK	US
AU	—	.33	.38	.37	.48	.35	.47	.35	.36	.36	.39	.40	.31	.23	.22	.16	.41	.22	.09	.42	.47
AT		—	.49	.36	.49	.37	.45	.39	.48	.56	.38	.35	.30	.07	.29	.40	.40	.42	.03	.40	.50
CA			—	.53	.72	.60	.59	.37	.67	.72	.38	.60	.42	.38	.62	.23	.62	.56	.29	.54	.78
CZ				—	.60	.72	.62	.30	.58	.61	.44	.53	.46	.41	.41	.48	.68	.43	.11	.43	.71
CN					—	.65	.68	.45	.71	.69	.59	.62	.51	.36	.54	.32	.62	.41	.16	.58	.86
DK						—	.65	.36	.70	.71	.59	.67	.46	.32	.49	.30	.75	.38	.34	.54	.79
EE							—	.41	.56	.70	.51	.61	.45	.33	.50	.27	.65	.53	.02	.54	.75
DE								—	.40	.41	.30	.38	.32	.02	.38	.07	.40	.53	.07	.41	.43
IT									—	.69	.52	.60	.33	.48	.61	.31	.63	.49	.35	.48	.78
JP										—	.59	.75	.45	.47	.56	.29	.70	.57	.30	.55	.84
KR											—	.62	.30	.32	.51	.27	.51	.31	.08	.46	.68
NL												—	.30	.42	.51	.27	.60	.60	.30	.49	.76
PL													—	.33	.22	.45	.38	.24	-.02	.27	.45
RU														—	.40	.07	.36	.28	.31	.35	.47
SG															—	.23	.51	.51	.19	.35	.65
SK																—	.21	.23	-.09	.04	.32
ZA																	—	.42	.15	.60	.74
ES																		—	.09	.26	.52
UAE																			—	.14	.28
UK																				—	.67
US																					—

Countries in order: Australia, Austria, Canada, Czech Republic, China, Denmark, Estonia, Italy, Japan, South Korea, Netherlands, Poland, Russia, Singapore, Slovakia, South Africa, Spain, United Arab Emirates, United Kingdom and United States

Table 5.2. Correlations between countries on Sociality dimension

	AU	AT	CA	CZ	CN	DK	EE	DE	IT	JP	KR	NL	PL	RU	SG	SK	ZA	ES	UAE	UK	US
AU	—	.54	.76	.73	.59	.70	.69	.74	.63	.62	.55	.70	.58	.74	.72	.45	.68	.60	.69	.71	.77
AT		—	.71	.71	.61	.72	.75	.66	.65	.74	.48	.70	.67	.67	.68	.61	.73	.71	.70	.75	.72
CA			—	.75	.77	.84	.85	.80	.81	.85	.69	.84	.71	.84	.86	.64	.84	.72	.84.	.84	.95
CZ				—	.57	.78	.76	.78	.63	.62	.52	.81	.70	.78	.72	.64	.67	.76	.73	.75	.79
CN					—	.78	.79	.69	.77	.85	.73	.67	.76	.74	.77	.61	.82	.64	.79	.78	.79
DK						—	.86	.78	.82	.81	.69	.85	.80	.77	.86	.62	.84	.72	.80	.86	.88
EE							—	.81	.75	.86	.68	.85	.77	.82	.81	.67	.85	.74	.82	.83	.87
DE								—	.71	.71	.61	.78	.60	.77	.76	.55	.77	.71	.77	.76	.83
IT									—	.78	.76	.72	.67	.69	.85	.52	.80	.68	.73	.77	.84
JP										—	.72	.77	.74	.78	.78	.60	.85	.72	.81	.82	.84
KR											—	.67	.67	.65	.75	.46	.68	.56	.64	.72	.77
NL												—	.76	.85	.79	.72	.75	.72	.78	.79	.85
PL													—	.73	.73	.59	.72	.63	.75	.77	.74
RU														—	.80	.61	.79	.67	.78	.82	.84
SG															—	.50	.81	.66	.83	.82	.91
SK																—	.60	.64	.53	.66	.60
ZA																	—	.68	.83	.85	.88
ES																		—	.72	.73	.75
UAE																			—	.78	.88
UK																				—	.87
US																					—

Countries in order: Australia, Austria, Canada, Czech Republic, China, Denmark, Estonia, Italy, Japan, South Korea, Netherlands, Poland, Russia, Singapore, Slovakia, South Africa, Spain, United Arab Emirates, United Kingdom and United States