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EVALUATING WHETHER PREPOTENT AWARENESS
PREDICTS EFFECTS OF CULTURAL DISFLUENCY

A DISSERTATION APPROVED FOR THE
DEPARTMENT OF PSYCHOLOGY

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Glossary

Awareness: A mutually and dynamically determined state of attention that fluctuates according to one's current Cultural Mindset activated at a particular level of Self-Construal.

Control Group: A group of participants in either study that was randomly *assigned not to receive* a conceptual priming task to experimentally induce an Emergent Awareness.

Cultural Disfluency: An effect *on* Emergent Awareness produced *by the disruption of* Prepotent Awareness.

Cultural Fluency: An effect *on* Emergent Awareness produced *by the maintenance of* Prepotent Awareness.

Cultural Mindset: An explanatory and predictive metatheory dynamically constructed from cultural information - prescriptions and particular practices shaped by the activation frequency of cultural goal structures - that is accessible at varying levels of Self-Construal.

Emergent Awareness: A spontaneously activated Awareness theorized to occur *after the maintenance or disruption* of a Prepotent Awareness; operationally defined by the consequence of an experimental manipulation of Self-Construal in the present studies.

Experimental Group: A group of participants in either study that was randomly *assigned to receive* a conceptual priming task to experimentally induce an Emergent Awareness.

Prepotent Awareness: An Awareness theorized to exist prior to its own maintenance or disruption as a consequence of an experimental manipulation of Self-Construal.

Self-Construal: A level of Awareness existing within a continuum of concrete and perceptual to abstract and conceptual information, which is determinant of the Cultural Mindset activated as an explanatory framework.

Abstract

Two studies assessed whether a single- or dual-prime design could be used to elicit Cultural Disfluency (Aim 1), and whether Prepotent Awareness would predict mean differences computed between Control and Experimental Groups (Aim 2). This mean difference was operationalized as the size of Cultural Disfluency elicited by an incongruence between Prepotent and Emergent Awareness. Use of a Culture-as-Situated-Cognition (CSC) perspective permitted framing Cultural Mindset and Self-Construal as dynamic and interdependent components of Awareness. Two theories provided grounds for hypothesizing whether a Prepotent Awareness characterized by weak or strong Honor endorsement (Study 1) or an Independent or Relational Self-Construal (Study 2) would predict weaker effects of Cultural Disfluency: Action Identification Theory (AIT), and Niche Construction Theory (NCT). Evidence was not found for the efficacy of either the single- or dual-prime design. Evidence was not found for differences in effect sizes of Cultural Disfluency as a function of Prepotent Awareness.

Introduction

The present dissertation investigates a phenomenon known as Cultural Disfluency (e.g., Lin, Arieli, & Oyserman, 2019). Multiple approaches exist with which to investigate cultural phenomena, and present efforts adopt a Cognitivist perspective (Briley, Wyer, & Li, 2014). The Cognitivist perspective assumes that culture exists within the mind, and that artifacts of culture are activated, or brought into Awareness, as a function of incoming stimulus content being processed as well as the manner in which the content is processed. This perspective provides grounds for testing of the efficacy of a methodology for eliciting Cultural Disfluency (Aim 1) as well as the testing of whether size of Cultural Disfluency varies (Aim 2) by strength of Prepotent Cultural Mindset (Study 1) or level of Self-Construal (Study 2). Because culture is dynamic, there exists a "Prepotent" and an "Emergent" Cultural Mindset, i.e., a Cultural Mindset that exists prior to and following the emergence of a different Cultural Mindset. These theoretical premises will be described in greater detail in the following sections of this introduction.

Two Cognitivist perspectives are Dynamic Constructivism (Hong et al, 2003; Markus & Hamedani, 2007) and Culture-as-Situated Cognition (Oyserman, 2011, 2015; Oyserman & Lee, 2007, 2008). Both perspectives define culture as an interpretive framework comprised of an associative network of knowledge, but they vary in their assumptions regarding the degree of Cultural Mindset activation. The Dynamic Constructivism (DC) perspective suggests that activation of any elements of a cultural framework activates the entire framework. The Culture-as-Situated-Cognition (CSC) perspective suggests that the activation of any elements of a cultural framework activates only those elements. This suggests that artifacts of a Cultural Mindset can be activated

independently of the cultural framework arising from them. Neither approach is categorically "better" than the other, but rather each is suited to the study of different cultural phenomena. The present two studies take a CSC approach to investigate Cultural Disfluency, as it is better suited for hypotheses regarding manipulations of cultural phenomena (Briley, Wyer, & Li, 2014). CSC also allows for testing the effects of Cultural Disfluency as a function of the level of Self-Construal, thus the particular elements of culture held in one's active Awareness, at which a Cultural Mindset occurs.

Requisite background for understanding the arguments to be made entails framing Cultural Mindset and Self-Construal as 1) interdependent components of attentional Awareness, 2) as sufficient to produce Cultural Fluency, and 3) as habituated based on the success rate of achieving cultural goals. Two theoretical frameworks were used to generate specific hypotheses with regard to the question of whether Prepotent Awareness predicts size of Cultural Disfluency: Action Identification Theory (AIT; Vallacher & Nowak, 1997; Vallacher & Wegner, 1987, 1989, 2012) and Niche Construction Theory (NCT; Kendal, Tehrani, Odling-Smee, 2011; Kendal, 2012; Laland, Odling-Smee, & Feldman, 2000, 2001). To this end, the strength of participants' endorsement for Honor Culture norms, and priming of either an Independent or a Relational Self-Construal, were used as theoretical vehicles for testing hypotheses. The choice of Honor as the Cultural Mindset to test was based on author expertise, though Individualism and Collectivism are also worth using as examples of Prepotent Mindset types.

Cultural Mindset and Self-Construal as Mutually Constituted Awareness

Cycle of Mutual Constitution. The premise that there exists a reciprocal relationship between Cultural Mindset and Self-Construal is fundamental to the

arguments described in this dissertation. Empirical evidence that human cognitive faculties evolved alongside culture stems as early as the Pleistocene where human ancestors used tools, communicated knowledge, and developed elaborate and idiosyncratic meaning structures (Atran, 2007; Cousins, 2014; Fuentes, 2015; Geertz, 1973; Norenzayan et al., 2016). This concept has been operationalized psychologically with the theory of a Cycle of Mutual Constitution (Markus & Kitayama, 1991, 2010). This theory (CMC) asserts that each person's concept of Self, defined as Self-Construal in this dissertation, is imprinted with the patterns of the immediate environment, either socio-cultural or physical. Thus, mental patterns reflect external patterns that are experienced and processed at a given level of Self-Construal.

This argument has been supported by computational modeling, such as a study investigating the development of collective properties within the structure of Self as a function of the relative stability of one's external environment (Nowak, Vallacher, Tesser, & Borkowski, 2000). Furthermore, literature on socially situated cognition, i.e., embodied cognition, suggests that cognitive faculties developed to reflect necessary behavioral responses to successfully cope with one's physical and social environment (Semin & Smith, 2002, 2013). As such, arguments throughout this dissertation associate Cultural Mindset with Self-Construal. Specifically, the Individualist, Honor, and Collectivist Mindsets are theorized as developing at three, increasingly abstract levels of Self-Construal: Independent, Relational, and Collective, respectively. As will be discussed later, only the first two levels are assessed in each study. See Cousins (2014) for an anthropological interpretation of the same phenomenon described by CMC, i.e., the existence of a semiotic relationship between an internal Mind (Self) and Culture.

The concept of a Prepotent Awareness fits with the Cycle of Mutual Constitution in that individuals have a chronically active or "default" attentional state caused by prior frequency of activation, and this state will be maintained or be disrupted depending on its ability to *sufficiently* prepare an individual for future experiences (Oyserman, Sorensen, Reber, & Chen, 2009). This operationalization is in keeping with research suggesting that one's Prepotent Awareness is responsible for the determination of one's motivational framework. Specifically, Prepotent Awareness directs the anticipation and detection of, and response to, environmental stimuli based on culturally defined goals or standards that are conceived at different levels of construal (Freitas, Gollwitzer, & Trope, 2004; Frietas, Salovey, & Liberman, 2001; Michaels, Parkin, & Vallacher, 2013; Trope & Liberman, 2003, 2010; Vallacher & Wegner, 1987, 1989). As such, the interdependence of Cultural Mindset and Self-Construal is responsible for the spontaneous interpretation and formation of meaning, or "cultural metatheory" (Mourey, Oyserman, & Yoon, 2013). Moving forward, the present dissertation will use the term "Awareness" to refer to either component - Cultural Mindset or Self-Construal - of one's attentional state as a consequence of a spontaneously activated, metatheoretical framework.

Culture as Construal-Dependent Processing. Culture is "situated" within the brain, meaning that one's Emergent Awareness is dynamically and multiply determined by one's Prepotent Awareness, and one's Prepotent Awareness is responsible for the anticipation and preparation for future response to threats toward an active goal structure (e.g., Briley, Wyer, & Li, 2014; Oyserman, 2015, 2017; Oyserman, Sorensen, Reber, & Chen, 2009). Some researchers have operationalized the restructuring of one's psychological goal structure based on social input as "cognitive tuning" based on

feedback from the environment (Schwarz, 2002; Zajonc, 1955; Zajonc, 1960). Furthermore, culture exists as an associative, meaning-making framework at three levels of increasing abstraction, resembling "spreading activation" described by research on physiological correlates of culture (Oyserman, Novin, Flinkenflogel, & Krabbendam, 2014).

Each level of activation corresponds with the following cognitive processes: 1) at a proximal level of construal, *elements* of a whole are distinguished from one another; 2) at an intermediate level of construal, *relationships* between the proximal elements are determined; and 3) at a distal level of construal, the *reason* for the relationships drawn between the elements are made (Bargh, 2006; Mourey, Lam, & Oyserman, 2015). A description by Oyserman (2015) corroborates this:

> "At the highest level, culture is… a 'good enough' solution to universal [human] need[1]. At the intermediate level, culture is a specific meaning-making framework, a 'mindset' that influences what is attended to and which goals or mental procedures are salient. At the most proximal level, culture is a set of particular practices within a specific society, time, and place, which influence what feels fluent and "to-be-expected." (p. 1).

Together, these three levels of culture provide a framework with which individuals may predict and regulate themselves to fit their environment in an automatic and "Culturally Fluent" manner. More specifically, Culture acts as an associative network that "scaffolds" one's judgment with an interpretive framework or "worldview," thus providing a sense of meaning and purpose to one's actions (Chao & Moon, 2005; Mourey, Oyserman, Yoon, 2013; Vallacher & Wegner, 2012. See Koltko-Rivera, 2004 for a brief review of the psychology of "worldviews."

[1] See Table 1 for Gardner and Brewer's (1996) conceptualization of Self at different levels, arguably reflective of three universal human needs: biological survival, interpersonal coordination, and collective solidarity.

In effect, the meaning imparted by one's worldview determines attention and reaction to cues in reliable ways. Cultural neuropsychology literature suggests that culture may be considered a *chronically activated pattern* of spreading activation across an associative network, which is determined by probabilistic and repeated encounters with cultural artifacts, i.e., "everyday objects and particular practices" within said environment (Oyserman, Novin, Flinkenflogel, & Krabbendam, 2014; Oyserman, Sorensen, Reber, & Chen, 2009). Essentially, elements detected at the lowest level are likened to "nodes" within a neural network, the relationships between elements to "node-node" connections, and the perceived "reason" for the relationship between elements may be compared to the activated neural network as a whole.

By directing attention to goal-relevant cues in the environment, culture equips or prepares individuals to sufficiently process those cues in the most appropriate manner, such as distinguishing elements, determining bonds between elements, or determining relevance of the elements to the existing goal structure. In other words, culture prepares human beings to be vigilant toward the most likely threat to, or disruption of, their current state. Importantly, only the individual elements of a culture are real within the physical or social environment. These concrete artifacts of culture are *perceptual* phenomena detected in physical reality, whereas the linkages between them and the pathway within which they exist are emergent and increasingly *conceptual* phenomena providing motivational structures. Thus, the most influential determinant of chronic processing style is the frequency with which concrete objects in reality are processed.

Cultural Mindset, Self-Construal, and Cognitive Processing Style. Cultural information does not exist, but rather is processed and created. The level of abstraction at

which this processing occurs determines the type of processing executed, and processing style plays a role in hypotheses regarding suitability of Prepotent Awareness to mitigate size of Cultural Disfluency (Oyserman, Novin, Flinkenflogel, & Krabbendam, 2014). At a proximal level of construal, the Independent Self-Construal and Individualist Mindset become active, and prompt separative processing to isolate independent elements from one another. At an intermediate level of construal, the Relational Self-Construal and Honor Mindset prompt comparative processing to determine what relationships exist between elements and to select an appropriate interpretive framework given cues in the immediate context. At a distal level of construal, a Collective Self-Construal and Collectivist Mindset prompt connective processing to evaluate the fit of elements against a prepotent framework, i.e., degree of fit with a prepotent goal structure. Vallacher and Wegner (2012) suggest that level of construal, or "action identification," is what dictates processing style, but also state that a mindset *emerges* at each level. Having already discussed how Prepotent Awareness predicts Emergent Awareness, it is plainly inaccurate to consider Cultural Mindset as subordinate to Self-Construal, or vice versa, in terms of motivational superiority. Rather, the two are temporally related to one another in a Cycle of Mutual Constitution (Markus & Kitayama, 1991, 2010). Further discussion is warranted regarding the interdependence of Cultural Mindset and Self-Construal, as well as the influence of success or failure of the Prepotent Awareness in achieving situational goals on an Emergent Awareness.

Sufficiency of Prepotent Awareness Determines Cultural Fluency and Disfluency

Having established a connection between Cultural Mindset, Self-Construal, and processing style, attention must turn to states of Cultural Fluency and Cultural Disfluency

as determined by the adequacy of one's Prepotent Awareness and consequent processing. Perceptual Fluency relates to the automaticity of stimulus identification processes at low levels of construal, such as identification of independent elements of some stimulus object or objects. Conceptual Fluency relates to the automaticity of categorizing and processing of those lower-level identifications (Schwarz, 2004; Winkielman, Schwarz, & Fazendeiro Reber, 2003).

As it relates to the present operationalization of culture, Conceptual Fluency corresponds with the ease with which low-level elements and the intermediate relationships between them are reconciled within one's pre-existing cultural framework at a given level of Self-Construal, i.e., their Prepotent Awareness. Three, well-studied cultural frameworks corresponding with distinct Cultural Mindsets are as follows: Individualism, Honor, and Collectivism (Oyserman, 2017; Oyserman, Novin, Flinkenflogel, & Krabbendam, 2014). Individualism has been empirically shown to correspond with a motivation to find uniqueness and separate elements of a pre-existing whole from one another, whereas Collectivism has been shown to correspond with a motivation to find similarity and to combine elements relative to a pre-existing whole. Honor is argued to correspond with an ordering and ranking of elements within spontaneous awareness in order to select the most appropriate predictive framework on which to base psychological expectations (Oyserman, 2017).

Thus, Cultural Fluency depends on congruence or incongruence between conceptual expectations and perceptual experience. More to the point, Oyserman, Novin, Flinkenflogel, and Krabbendam (2014) suggest that a shift in Cultural Mindset following a state of Cultural Disfluency corresponds with a shift in neural pathway. Thus, one's

Prepotent Awareness is predicted by chronically "rehearsed," culture-specific pathways corresponding with the processing of patterns at a particular level of Self-Construal. Moving from the top downward, if conceptual processing produces incongruence with perceptual processing, then processing at more intermediate levels will occur until reconciliation is reached. If a change in Self-Construal level does not remedy Cultural Disfluency, then processing will become more deliberate and will extend to more perceptual elements of the cultural framework. In this manner, Cultural Disfluency may produce a downward cascade of processing of more and more proximal elements until a resultant Awareness produces Cultural Fluency at the new level of Self-Construal.

Chronic Activation of Mindset and Self-Construal Predicts Chronic Awareness

Literature on cultural transmission processes suggests two considerations for the preservation and proliferation of Cultural Mindsets (Kashima, 2016; Kashima, et al., 2015; Nairne, Thompson, & Pandeirada, 2007): 1) whether a mindset contributes to survival and 2) whether signals of threats to survival are stable enough to be detected.

Contribution toward survival. First, cultural artifacts providing little benefit to survival needs are unlikely to be transmitted within groups and across time. This indicates that only successful cultural elements are retained and refined across human generations. "Success" in this sense relates to the degree to which a Cultural Mindset – and its corresponding practices and prescriptions for behavior – results in 1) biological welfare, 2) negotiation of functional and interdependent roles, and 3) group welfare (Schwarz & Bilsky, 1987; Oyserman, 2011). See Balliet, Tybur, and Van Lange (2017) for a discussion of Functional Interdependence Theory (FIT), which outlines the critical human activity of negotiating interpersonal relationships.

These survival needs imply an increasingly abstract goal structure such that biological welfare is detected at a concrete, perceptual level; role negotiation at an intermediate level; and group welfare at an abstract, conceptual level. This structure mirrors what has been determined as a hierarchical arrangement of one's Self-Construal (Sedikides, Gaertner, Luke, O'Mara, & Gebauer, 2013): Individual motives are stronger than Relational motives, and Relational motives are stronger than Collective motives. Although, a later study with an Eastern sample demonstrated less support for the motivational primacy of Relational vs Collective motives (Zhu, Wu, Yang, & Gu, 2016). This abstract goal structure resembles what is known about implementation intentions, whereby distal goals direct proximal goals by providing *a priori* expectations of *what* features to attend to, *how* to process them, and *why* (Gollwitzer, 1999; Freitas, Gollwitzer, & Trope, 2004).

Activation of a neural pathway, comprised of multiple neurons connected to one another, becomes a *sufficient cause* for the activation of the constituent neurons within the pathway. In this manner, pursuit of a distal goal, like the maintenance of a collective identity, may result in the successful reduction of threats to more proximal goals, such as biological welfare, without a person having to consciously be aware of biological goals at all. For example, protecting collective identity of a group that ensures one's survival by membership alone will sufficiently lead to biological welfare without an individual ever needing to be aware of biological needs. Thus, distal goals may *sufficiently* result in the achievement of proximal goals that are conducive to them, and also provide meaning to lower level actions and processes.

This mirrors what Oyserman (2011) suggests about culture at a distal level: culture is a "good enough" solution in that it is sufficient, not necessary, for achieving a match between psychological expectations and reality, i.e., Cultural Fluency. Further, each instance of Cultural Fluency reinforces the predictive validity of the said framework (Oyserman, 2017; Triandis, 1996; Triandis, 2004; Triandis & Suh, 2008). To summarize, the "good enough" nature of a cultural framework, i.e., a Cultural Mindset, refers to its *sufficiency* in activating the lower-level components of a cultural framework that are *necessary* for achieving Cultural Fluency within a given context.

Stability of pattern signal. Second, increasing stability of a pattern should increase the frequency with which it is detected and communicated within groups (Kashima, 2016; Shadish, Cook, & Campbell, 2002, p. 67). This argument is supported by evidence of Ecological Niche Construction (a specific perspective stemming from Niche Construction Theory) in that cultural frameworks form in response to stable patterns within the environment (Laland, Odling-Smee, & Feldman, 2000, 2001). Thus, recurring obstacles to survival needs prompt recurring and *sufficient* conceptual processing patterns that activate the *necessary*, perceptual processing patterns that are capable of resolving said obstacles.

Hence, holding the reliability of a pattern signal constant, successful mindsets become chronically activated and rehearsed, which increases their accessibility within memory (Higgins, 1996; Parkin, & Vallacher, 2013). Much like the Elaboration Likelihood Model of attitude formation (Petty & Cacioppo, 1986), repeated activation of a Cultural Mindset increases its accessibility, thus increasing the likelihood that it will be automatically activated at a given point in time and will direct automatic processing at a

given level of Self-Construal. This comparison to attitude elaboration fits the current work, because the phenomenon of "Self" has been considered an attitude object in its own right (Kuhn & McPartland, 1954; McPartland, 1953).

In this manner, stable manifestations of one's Awareness will develop at *each of three levels* of Self-Construal as a function of how frequently a Cultural Mindset at that level is activated - this mirrors what is implied by the Cycle of Mutual Constitution between the Self and Culture (Cousins, 2012, 2014; Markus & Kitayama 1991, 2010). Thus, individuals are believed to have a coherent understanding of who they are as determined by a Cultural Mindset at a given level of Self-Construal. To clarify, only the Independent and Relational Self-Construal are investigated in this dissertation.

Hypotheses: Prepotent Awareness Predicts Size of Cultural Disfluency

Sedikides, Gaertner, Luke, O'Mara, and Gebauer (2013) reviewed past work assessing the hierarchical primacy of three types of Self-Construal: Independent, Relational, and Collective. In their paper, the authors conclude that the Independent Self-Construal exerts stronger motivational influence than both the Relational and Collective Self-Construal, and the Relational Self-Construal is stronger than the Collective Self-Construal. The resulting hierarchy was as follows: Independent > Relational > Collective Self-Construal. This order is unsurprising given literature on attitude strength, namely that attitudes based on first-hand experience tend to be stronger than those based on indirect observation or learning (Kraus, 1995), and the Independent Self-Construal is defined as occurring at a concrete, perceptual level.

Thus, if defining "strength" of Cultural Mindset as automaticity of attitude activation, then an Independent Self-Construal - which empirically corresponds with

processing of concrete, perceptual stimuli - should produce the "strongest" mindset because it would be the most concretely felt due to *always* being engaged in physical reality. Thus, the culture-specific artifacts encountered and processed *at a concrete level* become embedded within one's Independent Self-Construal in the manner described by Oyserman, Novin, Flinkenflogel, and Krabbendam (2014) as an *ingraining* of culture into one's network of neural pathways - perceptual elements of culture then *form the basis* for conceptual elements of culture. To analogize, repeated activation of a neural pathway ingrains said pathway in a manner similar to a song being cut into a vinyl record - processing at relatively perceptual levels of Self-Construal should produce a deeper cut in the "record" than processing at relatively conceptual levels of Self-Construal. This analogy matches what is described by literature on embodied and situated cognition (Semin & Smith, 2002, 2013).

With that said, the *motivational strength* of one's Cultural Mindset as determined by its frequency of activation *is not* what is predicted to determine which Awareness most successfully resolves Cultural Disfluency. Instead, the *consequences* of having a particular strength of Cultural Mindset (Study 1) or particular level of Self-Construal (Study 2) are hypothesized to correspond with size of Disfluency effects. "Effects" of Disfluency were operationalized as the difference in outcome means between Disfluent and Fluent conditions (Model 1 in both studies), and Disfluent and Control Groups (Model 2 in both studies). Two theoretical frameworks provide support for hypotheses made: Niche Construction Theory (NCT) and Action Identification Theory (AIT).

Cultural Disfluency and Niche Construction Theory. Niche Construction Theory (NCT) suggests that living organisms are influenced by, and influence in return,

their social and physical environments over time (Kendal, Tehrani, Odling-Smee, 2011; Kendal, 2012; Laland, Odling-Smee, & Feldman, 2000, 2001). This mirrors the Cycle of Mutual Constitution perspective that Culture and Self are interdependent of one another (Markus & Kitayama, 1991, 2010; Cousins, 2014). NCT suggests that human beings react to their environments by creating meaning, and that meaning is disseminated in a "semiotic" and coevolutionary pattern (Cousins, 2012, 2014; Kohler, 2014) - in other words, symbolic meaning is created and shared between people, and that symbolic meaning influences subsequent symbolic meaning. Building on NCT, it is hypothesized that the Honor Culture Mindset and Relational Self-Construal are uniquely adept at reducing effects of Disfluency by virtue of their underlying processing style: ordering and ranking of alternative cultural frameworks - this is explicitly labeled the Honor Mindset by Oyserman (2015).

This hypothesis stems from literature on the evolution of Honor cultures as arising from unstable environments, which would produce a *stable signal pattern* of needing to remain vigilant in one's scanning of the environment for cues to a changing landscape and threat to survival. If this instability persists in a reliable manner, the type of processing will be neither chronically perceptual nor conceptual, but rather will be intermediate in nature based on the probability of what is encountered in Reality. Hence, a Relational Self-Construal would develop in response to the chronic activation of a comparative processing style between objects, and an Honor Mindset would develop because of the *sufficiency* of a "vigilance" strategy *to activate the necessary* Relational Self-Construal. In support of this, evidence from a modeling study by Nowak, Vallacher, Tesser, and Borkowski (2000) suggests that greater randomness of an environment

predicts greater stability of the psychological patterns developed in response to the environment. Thus, a cultural niche would have developed whereby norms would have been refined for the detection of variability, *per se,* in one's immediate environment. Probabilistic success rate of a Cultural Mindset style would have produced a Bayesian-like distribution for its own activation as a function of relevant environmental cues being detected (Clark, 2013; Quinlan, Dira, Caudell, & Quinlan, 2016; Toussaint, 2009).

Supporting this claim, Oyserman (2015) suggests that the intermediate conceptualization of culture – operationalized here as the Relational Self-Construal – is the stage at which the more appropriate cultural framework is selected. The Relational Self-Construal, thus, is argued to be responsible for selection of an explanatory framework based on the degree of fit between perceptual and conceptual information. In effect, the Relational Self-Construal is argued to judge the degree of similarity between the prior probability for an event - predicted by a Prepotent Awareness - and the posterior probability of the same event as predicted by an Emergent Awareness. Therefore, the Relational Self-Construal, which theoretically gives rise to an Honor Culture Mindset, achieves *Cultural Fluency in Cultural Disfluency* by virtue of frequent activation of, hence practice with, the comparison of fit between Prepotent and Emergent Awareness as prior and posterior probability estimates for the sufficiency of one's current processing style. Judgment of the accuracy of predictive cultural frameworks can be likened to selecting the better "inference machinery" or strategy for predicting future probabilities of an event as described by Toussaint (2009).

This fits existing argumentation (Cross, Gore, & Morris, 2003; Cross, Morris, & Gore, 2002) that the Relational Self-Construal, by its nature, focuses individual

awareness on the connections between elements. According to CSC, connections between elements of a cultural framework are not unconditioned, but rather are conditioned on the relevance of each element to the context. In effect, connections processed by the Relational Self-Construal are not certainties of what is Real, but rather are probabilistic expectations of what to expect in the environment. Thus, by the nature of the content processed by the Relational Self-Construal, its corresponding Cultural Mindset, i.e., Honor, should display a goal structure centered on a prescription for the vigilant affirmation of prior expectations. This is corroborated by literature arguing that Honor Cultures are concerned with the maintenance of reputation (Nisbett & Cohen, 1996; Brown, 2016). Therefore, it may be that the Honor Mindset and Relational Self-Construal are optimal for minimizing the size of effects of Cultural Disfluency because they have a "head start" by virtue of perpetual vigilance in scanning for cues to the appropriateness of Prepotent Awareness as evidenced by the size of its difference from each Emergent Awareness that occurs.

Cultural Disfluency and Action Identification Theory. Relevance of Action Identification Theory (AIT; Vallacher & Nowak, 1997; Vallacher & Wegner, 1987, 1989, 2012; Wegner et al., 1984) to the structure of a cultural framework is evidenced by 1) its paralleling of Oyserman's (2015) conceptualization of culture as existing at three levels, and 2) its similarity to a hierarchical structure of Self (Sedikides, Gaertner, Luke, O'Mara, & Gebauer, 2013). A description by Torelli & Kaikati (2009) clarifies:

> "Action identification theory holds that the Identification of any action is just one choice
> from among [the] many possibilities, ranging from low-level Identities that specify *how*
> the action is performed to high-level Identities that signify *why* the action is performed

(Vallacher & Wegner, 1987, 1989). These potential identifications of one's actions are conceived as a *hierarchical* arrangement of cognitive representations from lower to higher levels of abstraction." (p. 232)

Additionally, AIT outlines three rules for predicting level of construal as a function of the appropriateness of an "Identification" to the task at hand. Specifically, the level at which something is "identified" - i.e., mentally labeled or categorized - is determined by one's Prepotent Awareness:

1. A prepotent Identification exists whereby the current level at which someone is processing information will dictate *which* environmental cues are attended to and *how* they are processed
2. If both high- and low-level Identifications are active at the same time, there is a natural tendency to defer to the higher one
3. When an Identification does not result in fluency, there is a tendency to drop to a lower level of conceptualizing and identifying relevant cues in the environment to understand the context at a more concrete and perceptual level.

Based on AIT, level of Self-Construal, rather than Cultural Mindset, should be most predictive of the size of Disfluency effects. Thus, if one's Prepotent Awareness occurs at a low level of Self-Construal (Independent), and because the Independent Self-Construal processes concrete and perceptual elements, then the experience of Disfluency has a theoretical limit. To use AIT terminology, there should come a point at which lower-level Identifications are *not able* to be detected, thus the only shift in Awareness that is possible is an upward one. According to AIT Rule #2, an upward shift is an automatic tendency not requiring deliberate action. Thus, being lower in construal level than the Relational Self-Construal, a prepotent Independent Self-Construal should correspond with the smallest effects of Disfluency.

In this manner, Cultural Disfluency may not be "better resolved" by an Independent Self-Construal, but rather the magnitude of Cultural Disfluency effects will reach a lower limit - i.e., the difference between the effects of one's Prepotent Awareness and Emergent Awareness may reach a maximum. Stated differently, reaching a theoretical limit of Cultural Disfluency may produce a total dissolution of conceptual linkages, and a single collection of independent features unable to be further separated will be all that is detected - to borrow from a common phrase, the "trees will obscure the forest." As a consequence, it may be difficult to measure Cultural Disfluency effects as a function of a measured (Honor endorsement) or simulated (Self-Construal manipulation) Prepotent Awareness, because a floor effect could occur for the phenomenon of interest.

Present Studies

Hypotheses based on NCT (Laland, Odling-Smee, & Feldman, 2000, 2001) argue that a strong Honor Mindset and Relational Self-Construal will display the smallest effects of Disfluency due to their corresponding processing style for ordering and ranking of alternative frameworks based on a match with prepotent goals. Thus, individuals with a strong and unmanipulated, Prepotent Honor Mindset (Study 1) and a manipulated, Prepotent Relational Self-Construal (Study 2) should display the smallest sizes of Cultural Disfluency effects. Alternatively, hypotheses based on AIT (Vallacher & Wegner, 1987, 1989; Wegner et al., 1984) argue that the smallest effects of Cultural Disfluency will be observed for individuals with a weak and unmanipulated, Prepotent Honor Mindset (Study 1) and a manipulated, Prepotent Independent Self-Construal.

It merits stating that participants' prepotent processing style was not directly measured. The present dissertation served as an initial step toward future research

avenues described in the General Discussion. As such, testing processing styles was outside of the present scope, which aimed to demonstrate a reliable method of eliciting theoretically relevant effects of Cultural Disfluency while providing empirical grounds that specialization of Cultural Mindsets relative to their environment may predict a chronic Awareness capable of maintaining Cultural Fluency by vigilantly monitoring for signs of potential Cultural Disfluency. Two studies measured shifts in mean scores of phenomena theorized to reflect changes in Awareness following manipulated Cultural Disfluency.

Measures were selected based on a meta-analytic review of the moderating effects of priming instruments and measures used (Oyserman & Lee, 2008). Three constructs tested were cognition, values, and "relationality." First, cognition was operationalized as the level at which one's Emergent Self-Construal was operating, and was measured with the Behavioral Identification Form (Vallacher & Wegner, 1989). Second, value endorsement was operationalized as agreement with moral judgments (Haidt & Joseph, 2004) and Honor prototypical statements derived from existing measures of Honor endorsement. Third, "relationality" was defined by Oyserman and Lee (2008) as consideration for tacit social norms, and was operationalized in the present work as a willingness to violate ethical rules when able to avoid consequences (Detert, Trevino, & Sweitzer, 2008). Specific instruments and their characteristics will be elaborated in each Study's Method section.

Depending on the use of an AIT or NCT framework, it was predicted that whatever average score was observed for "Control" participants, the smallest deviation from this baseline score following Cultural Disfluency would be observed by participants

who either displayed weak vs. strong Honor endorsement (Study 1) or who were primed with a Prepotent Independent or Relational Self-Construal (Study 2), respectively. Methods of measuring or establishing Prepotent Awareness and Cultural Disfluency will be described next.

Activating Disfluency. To activate states of Cultural Disfluency, conceptual priming tasks were implemented in each study. On one hand, conceptual priming involves increasing accessibility of a mental category of knowledge that acts as an interpretive framework for processing incoming stimuli (Bargh & Chartrand, 2000; Chartrand & Bargh, 2006; Oyserman, 2015). The effect of conceptual priming is to increase the salience of associated interpretive frameworks related to the concept, such as the words "I" or "Us" increasing accessibility of the Independent or Relational Self-Construal, respectively - either word would prompt the evaluation of incoming stimuli against related, prepotent standards.

On the other hand, procedural priming involves increasing accessibility of patterns of thinking, i.e., processing style (Bargh & Chartrand, 2000; Chartrand & Bargh, 2006; Oyserman, 2015), thus directly manipulating the framework used rather than increasing accessibility of related elements within the framework. The effect of procedural priming on Self-Construal is direct, whereas the effect of conceptual priming is indirect. Conceptual priming influences *what* gets processed by influencing what gets detected and interpreted, whereas procedural priming influences *how* information gets processed. The present dissertation elected to use conceptual priming based on a desire to activate abstract goal structures that were either congruent or incongruent with participants' Prepotent Awareness (Higgins, 1996; Oyserman & Lee, 2007).

Operationalizing Awareness and Disfluency.

Prepotent Awareness. In Study 1, Prepotent Awareness was operationalized as the degree of measured mindset strength, i.e., strength of Honor endorsement. Remembering the hierarchy of Self-Construal types argued by Sedikides Gaertner, Luke, O'Mara, & Gebauer (2013), weak Honor endorsement is associated with an Independent Self-Construal, whereas strong Honor endorsement is associated with a Relational Self-Construal. In Study 2, Prepotent Awareness was experimentally induced by means of a conceptual priming procedure. Thus, Prepotent Awareness was measured in Study 1 (Honor endorsement) and manipulated in Study 2 (conceptual priming of an Independent or Relational Self-Construal).

Emergent Awareness. In both studies, Emergent Awareness was induced by a conceptual priming task shown in past literature to be efficacious at influencing values and cognition, both known to correspond with cultural effects (Oyserman & Lee, 2008). The instrument used was the Pronoun Circling Task (Trafimow, Triandis, & Goto, 1991; Trafimow, Silverman, Fan, & Law, 1997). This instrument will be described in the Study 1 Method section.

*Cultural Disfluency***.** Disfluency was inferred by measuring differences in means of outcome variables from a defined baseline. Two standard models were tested in each study. Model 1 tested the difference in DV means between a theorized Fluent condition and a Disfluent condition. Model 1 satisfied the aim of testing whether a single- or dual-prime manipulation could be used for future research investigating effects and moderation of Disfluency. Model 2 tested the difference in DV means between a theorized Disfluent condition and a Control Group where no conceptual prime was

administered to elicit Disfluency. Model 2 permitted the testing of interaction effects (Mindset by Self-Construal in Study 1, Self-Construal by Self-Construal in Study 2) against a baseline value of a given outcome measure. Thus, Model 2 satisfied the aim of testing whether a strong, Prepotent Honor Mindset would predict smaller Disfluency effects than a weak, Prepotent Honor Mindset (Study 1), and whether a manipulated, Prepotent Relational Self-Construal would predict smaller Disfluency effects than a manipulated, Prepotent Independent Self-Construal (Study 2).

A third model was also tested in Study 2. Model 3 in Study 2 simulated the same priming methodology as was used in Study 1, but with a different conceptual priming task to act as the cause of either Cultural Fluency or Cultural Disfluency (the Pronoun Circling Task was used in Study 1, the Sumerian Warrior Task was used in Study 2).

Study 1

Study 1 implemented a quasi-experimental design to address two aims. First, it tested the efficacy of pairing an incongruent strength of Cultural Mindset with level of Self-Construal to elicit theorized effects of Cultural Disfluency. Second, it pitted two theoretical frameworks against one another - NCT and AIT - to evaluate whether a strong, Prepotent Honor Mindset is more well adapted to mitigate the effects of Disfluency than a weak, Prepotent Honor Mindset.

The "quasi" aspect of the Study 1 design stems from level of Honor endorsement being measured rather than manipulated. This approach mimics past work whereby researchers approximated Cultural Mindset by using nation, UK and China, as a coding variable for capturing differences between cultural groups with regard to the effects of priming one of three Self-Construal types (Gaertner, Sedikides, Luke, et al., 2012, Study

3). Thus, measured strength of Honor endorsement was operationalized as indicating 1) frequency of activation, i.e., chronicity, of an Honor mindset, and 2) the likelihood of having a chronically accessible and Prepotent Relational Self-Construal. The "experimental" aspect of Study 1 relates to the use of a conceptual priming task to manipulate the accessibility of either an Independent or Relational Self-Construal.

The priming procedure's efficacy in triggering Disfluency was assessed using four established measures considered relevant to the assessment of Disfluency effects. Specifically, changes in construal level were measured using the Behavioral Identification Form (Vallacher and Wegner, 1987, 1989, 2012). Lower levels of construal following presumed Disfluency would support arguments that Disfluency produces a reassessment of salient information at a lower, more concrete level. In consequence, it is predicted that signs of Disfluency in other measures will correspond with decreased endorsement for not only culture-specific values (e.g., Moral Judgments Task; Graham, Haidt, & Nosek, 2009), but also increased projections for ethical deviances as measured with the Unethical Decision-Making task (UDMT; Detert, Treviño, and Sweitzer, 2008).

The UDMT acts as a measure of predicted willingness to engage in unethical behavior without reference to morality, whereas the MJT demonstrates endorsement for moral foundations empirically shown to correspond with Cultural Mindsets (e.g., Frimer, Tell, & Motyl, 2016). Additionally, an adapted version of two established Honor scales – the HIM (Barnes, Brown, & Osterman, 2012) and HIW (Barnes et al., 2014) – was used to assess the impact of Disfluency on Honor-specific value endorsement. This measure will be described in the following paragraphs.

All items on the Honor Concerns Scale are phrased from a first-person perspective, and explicitly address honor in the context of interpersonal relationships and associated roles and obligations. Roles and obligations serve as evaluative standards for individuals at an interpersonal level of Self-Construal (Gardner and Brewer, 1996; see Table 1), which supports the selection of the HC to act as a proxy for the chronicity, and consequent strength, of a person's Relational Self-Construal.

In contrast, the Honor Ideology for Manhood (HIM; Barnes, Brown, and Osterman, 2012) and Honor Ideology for Womanhood (HIW; Barnes et al., 2014) scales assess more collectivistic dimensions of the Honor culture. Specifically, these scales are phrased in terms of one's beliefs regarding impelling standards for resembling the prototypical man or woman. Gardner and Brewer (1996) explicitly argue that prototypical representations of collective identities – those corresponding with a decentralized sense of self in relation to common *identity* rather than a common *bond* (see Prentice, Miller, & Lightdale, 1994) – serve as evaluative standards at the "group level" of analysis, otherwise referred to as the Collective level of Self. As such, a revised and combined variation of the HIM and HIW were used to assess endorsement for prototypical honor values – for brevity's sake, scores on this measure will be referred to as the Honor Prototypes (HP) endorsement.

To avoid possible issues of sex-dependent responses on items from each original scale, reference to sex and gender in items was eliminated. For instance, item 16 on the HIM was originally phrased as "A real man never leaves a score unsettled," whereas it was rephrased in the HP as "It is important not to leave a score unsettled." Likewise, item 12 on the HIW was originally phrased as "A good woman is willing to die for her

family," but it was rephrased in the HP as "People should be willing to die for their family." To clarify, the HP is used as an outcome variable. Thus, we have a direct test of the impact of Disfluency on the endorsement of Honor values.

In sum, prime efficacy will be supported if evidence of Disfluency is observed, which will be operationalized as measurable differences in scale means pertaining to culture as a particular and normative metatheory (MJT and HP), as a state of awareness at a given level of construal (BIF), or as a projection of one's likelihood of violating relational/ethical norms (UDMT). Whether one Awareness or another is "better" equipped to minimize the size of Disfluency effects will be judged by evidence of an interaction between Prepotent and Emergent Awareness states such that one type of Prepotent Awareness predicts smaller Disfluency than the other.

This design approximates an effect tested by Gaertner, Sedikides, Luke, et al. (2012, Study 3). In their study, the authors tested the effect of cultural context - UK sample representing an Individualistic culture and a Chinese sample representing a Collectivistic culture - on effects of distinct Self-Construal primes, Independent, Relational, and Collectivistic Self-Construal. Use of the Honor Concerns measure is theorized to approximate the effect of this study in that the HC measure captures the strength of the Honor Mindset, which is a product of endorsement for core Honor culture values. Moreover, lower HC scores should represent low endorsement for an "intermediate," or Relational Cultural Mindset, i.e., a mindset occurring between the Individual and Collective motivational poles (see the review of literature on motivational hierarchy of type of Self - Sedikides, Gaertner, Luke, O'Mara, & Gebauer, 2013). Based on findings from Sedikides et al., as well as by Zhu, Wu, Yang & Gu (2016), weak

Relational or Honor motivation is most likely indicative of stronger Independent or Individual motivation. Further, weak HC should also indicate weak Collectivism, because both concern relationships. Low HC scores will be operationalized as weak Honor, indicative of low-frequencies of activation of the Relational Self-Construal. This will be taken as evidence of a prepotent Individualistic Mindset, indicative of a chronically active Independent Self-Construal.

Method

Study 1 tested whether an interaction between participants' unprimed, Prepotent Mindset, i.e., the Honor Mindset, and a disruptive Self-Construal prime, i.e., an Independent or Relational PCT, would display effects of Disfluency. Study aims were tested using a 2 (HC endorsement: low, high) x 3 (prime: Control, Independent Self-Construal, and Relational Self-Construal) x 2 (DV Order: HP and UDMT, BIF and MJT) factorial design. Trait levels of honor value endorsement were dichotomized into "low" and "high" in order to assess the impact that the presumably weak and strong chronic endorsement for the Honor Mindset has on the experience of Disfluency - again, strength of Honor mindset was theorized to represent frequency of activation of the Relational Self-Construal. Order of measures was varied to assess the direct effect of Disfluency on HP and UDMT task measures. Last, participants were placed in one of three conditions: one Control Group where participants received no prime before beginning the questionnaires, and two Experimental Groups with either an Independent or Relational Self-Construal primed by completion of a word-search task embedded within a fictional vignette.

Participants

Participants were 525 undergraduates recruited for an online study during the Fall 2017 semester. Average participant age was 19.7 (*SD* = 1.49) and ranged from 18 to 43. Over three times as many females as males participated in the study: 366 females and 117 males. Participants who did not identify sex were excluded from analyses (*N* = 42). Participants were compensated with partial class credit in exchange for completion of several questionnaires.

Materials

Materials consisted of several scales and demographic questions administered online in two separate surveys. The first survey was completed as part of a mass screening conducted in an introductory psychology course. The second survey was completed as an hour-long, online study, and contained one manipulation and four measures of interest. See Appendix B for all materials used.

Mass Screening Measures. Data analyzed from a mass screening survey came from a scale measuring prepotent Honor endorsement, as well as information on participant age and sex. Prepotent Honor endorsement was measured with the Honor Concerns scale (HC; Ijzerman, Van Dijk, & Gallucci, 2007). The HC is comprised of 9 items that capture relational-level aspects of the Honor Mindset's fundamental values without making specific reference to sex or prototypical behaviors. Participants rated statements on a Likert-type scale ranging from 1 (strongly disagree) to 9 (strongly agree). For example, participants indicated how strongly they agreed with statements like, "I could not have respect for myself if I did not have any honor." Cronbach's alpha exceeded a standard .70 benchmark for Cohen's alpha coefficient ($\alpha = .83$).

Pronoun Circling Task (PCT). The Pronoun Circling Task has been widely used in self-priming literature, and has been shown to reliably correspond with shifts in values and cognition - see Oyserman & Lee (2007, 2008) for a review of priming methods relevant to cultural research. The PCT (Brewer & Gardner, 1996, study 2; Gardner, Gabriel, & Lee, 1999) increased accessibility of either the Independent or Relational Self-Construal by means of requiring participants to first read a passage about a trip into an unnamed city by oneself (activating an Independent Self-Construal) or with other individuals (activating a Relational Self-Construal), and then by reviewing the same passage while circling all pronouns. Participants in the Independent Self-Construal condition were asked to circle personal pronouns: I, me, my, mine. Participants in the Relational Self-Construal condition were asked to circle interpersonal pronouns: us, we, ours.

Behavioral Identification Form. Level at which cognitive processing occurred, or construal level, was measured using the Behavioral Identification Form (BIF; Vallacher and Wegner, 1989). This measure consisted of a list of 25 action words, and participants were instructed to select from one of two identifications of the stimulus action. For example, participants responding to the action word "eating" would select one of the following interpretations: "getting nutrition" or "chewing and swallowing." The first choice in this example conveys a higher-order, more abstract explanatory meaning for the stem word. The latter choice dissects the stimulus word into more mechanical and phenomenal component actions. Responses on the Behavioral Identification Form were operationalized and coded as Low-Level (-1) or High-Level (1)

construal interpretations of 25 stimulus objects. The internal consistency for the BIF exceeded a standard .70 benchmark for Cohen's alpha coefficient ($\alpha = .83$).

Honor Prototypes. The Honor Prototypes (HP) measure was adapted from five items of the Honor Ideology for Manhood scale (Barnes, Brown, and Osterman, 2012) and five items of the Honor Ideology for Womanhood scale (Barnes, Brown, Lenes, Bosson, & Carvallo, 2014). It was intended to capture personal endorsement for values indicative of prototypical Honor standards without activating gendered associations. Sample items are as follows: "In most situations, people should not tolerate disrespect" adapted from the HIW, and "It is important not to leave a score unsettled" adapted from the HIM. The internal consistency for the HP exceeded a standard .70 benchmark for Cohen's alpha coefficient ($\alpha = .80$). Higher scores on the HP indicated greater endorsement for values characteristic of an Honor culture, whereas lower scores indicated weaker endorsement. See Appendix B.

Moral Judgments Task. The Moral Judgments task consists of twenty items assessing agreement with depictions either in support of, or in violation of, particular moral foundations (Graham, Haidt, and Nosek, 2009). Thirteen of the original items were selected from the scale based on previous experience with item performance. Three items apiece were selected from the Care, Purity, and Authority sub-dimensions, while two items apiece were selected from the Loyalty and Fairness sub-dimensions. A sample item is as follows: "Compassion for those who are suffering is the most crucial virtue," and scale anchors ranged from 1 (strongly disagree) to 6 (strongly agree). Analyses of scores on the MJT were assessed at the level of two latent dimensions of five moral foundations, i.e., Individualizing (MJT-I: Care and Fairness) and Binding (MJT-B:

Authority, Loyalty, and Purity). The MJT-I exhibited internal consistency below the standard benchmark for Cohen's alpha coefficient ($\alpha = .49$). The Binding sub-dimension of the MJT exhibited internal consistency exceeding the standard benchmark for Cohen's alpha coefficient ($\alpha = .59$).

Unethical Decision Making Task. Predicted willingness to violate ethical norms was used as a measure of relationality, and was assessed using the Unethical Decision-Making Task (UDMT), which requires participants to indicate the probability that they would engage in various unethical behaviors (Detert, Treviño, and Sweitzer, 2008). Reported likelihood of engaging in the behaviors described ranged from 1 (not at all likely) to 7 (highly likely). The internal consistency for the Unethical Decision-Making Task (UDMT) exceeded a standard .70 benchmark for Cohen's alpha coefficient ($\alpha = .74$). A sample item from the scale reads:

> "You work as an office assistant for a department at [University Y]. You're alone in the office making copies and realize you're out of copy paper at home. You therefore slip a ream of paper into your backpack."

Procedure

Study 1 consisted of a single online survey lasting approximately one hour. The experimental manipulation consisted of randomly assigning participants to complete either the Independent or Relational Self-Construal version of the Pronoun Circling Task (PCT). A third of participants were randomly assigned to a Control Group whereby no conceptual priming task was administered - instead, they completed DV measures immediately upon beginning the survey. For all participants, the order in which DV measures were completed was also randomized in counterbalanced orders. The first block of counterbalanced outcome measures consisted of the HP and UDMT. The

second block of counterbalanced outcome measures consisted of the BIF or MJT. This permitted testing of whether order of DV measures played a role in how priming effects manifested. Once all four DV measures were completed, the study was complete. Several data points were also used from a mass-screening survey (prescreening) that took place at the beginning of the semester, i.e., participant age and scores on the Honor Concerns scale.

Results

Two models were tested with a two-way, factorial ANOVA design using the General Linear Modeling function in SPSS Statistics (version 23). Model 1 included only participants who received the conceptual priming manipulation (PCT) in order to assess whether anticipated Disfluency effects would distinguish themselves from anticipated Fluency effects. Model 2 was analyzed with all participants, including those who did not receive the PCT prior to completing DVs - this allowed for evaluation of main effects of Cultural Disfluency compared to a main effect of prepotent Honor endorsement (HC). These were interpreted as small, medium, and large in size according to a taxonomy by Cohen (1988): effect sizes for both indicators between .01 and .06 were labeled "small," effect sizes between .06 and .14 were labeled "medium," and effect sizes above .14 were labeled large.

Coding Prepotent Honor

Scores on the Honor Concerns (HC) scale were dichotomized as being above or below the sample median. The original sample of HC scores approximated a normal distribution with slight negative skew, *Mean* = 4.44, *SE* = .05, *CI* [4.35, 4.53], Kurtosis = .406, Skewness = -.517. A 50% median cutoff score was used to define Weak and Strong

Honor endorsement. Bearing in mind that the HC response anchors range from 1 (strongly disagree) to 9 (strongly agree), participants scoring 4.5555 and below were categorized as Weak Honor endorsers, and participants scoring 4.5556 and above were categorized as Strong Honor endorsers.

Limitations of this approach are myriad, such as loss of power causing an increase in Type II Error, and also the possibility for an increase of Type I Error rate, because Honor and Relational Self-Construal - two major predictors - are theoretically related (Iacobucci et al., 2015). Moreover, because categorizations of weak vs. strong endorsement of Honor norms were based on a sample-specific statistic, generalizing from current results would be appropriate only if the target population distribution mirrored that of the present study. With that said, the manner in which Honor was operationalized in the present study lent itself to dichotomization, i.e., strength of Honor endorsement was treated as an indication of whether it was a participants' chronically active and Prepotent Awareness. Lastly, ANOVA was the preferred statistical procedure and required dichotomous predictors.

ANOVA Models

Model 1: Disfluency vs. Fluency Condition.

A 2 (HC: Low, High) x 2 (PCT: Independent, Relational Self-Construal) x 2 (counterbalanced Order of DVs) ANOVA model tested whether participants in Disfluency conditions (low HC - Relational, High HC-Independent) would display significant differences in DV means when compared with participants in the Fluency conditions (low HC-Independent, high HC-Relational), respectively. Total sample size when excluding Control participants was $N = 240$, though sample sizes per analysis

varied due to incomplete data. Effects were found for scores on the Honor Prototypes (HP) measure, Behavioral Identification Form (BIF), and one sub-dimension from the Moral Judgments Task (MJT-B). No effects were found for the Unethical Decision-Making Task (UDMT) or the Individualizing sub-dimension of the Moral Judgments Task (MJT-I). Caution should be taken when interpreting several effects discussed due to possible Type I Error.

Honor Prototypes (HP) Endorsement. Two main effects predicted variance in HP scores: HC and Prime. Prepotent Honor endorsement (HC) significantly predicted HP scores, $F(1, 225) = 39.84$, $p = .000$. Effect sizes for overall and unique variance explained by the HC were both large, $\eta^2 = .14$, $\eta_p^2 = .16$. A 95% confidence interval was estimated for the difference between Low HC ($M = -.49$, $SE = .07$) and High HC ($M = .11$, $SE = .07$), and it did not include zero, CI [-.80, -.42].

Manipulated Self-Construal (PCT) predicted a marginally significant amount of HP variance, $F(1, 225) = 3.32$, $p = .07$. Effect sizes for overall and unique variance explained by the PCT were both small, $\eta^2 = .01$, $\eta_p^2 = .02$. A 95% confidence interval was estimated for the difference between the Independent PCT condition ($M = -.28$, $SE = .07$) and Relational PCT condition ($M = -.10$, $SE = .07$), and it included zero, CI [-.37, .01].

Behavioral Identification Form (BIF). One main effect approached significance in predicting BIF scores (responses coded as -1 for Low Construal, and 1 for High Construal). Effect of manipulated Self-Construal (PCT) predicted a marginally significant portion of variance in BIF scores, $F(1, 225) = 3.84$, $p = .051$. Effect sizes for overall and unique variance explained by the PCT were both small, $\eta^2 = .02$, $\eta_p^2 = .02$. A

95% confidence interval was estimated for the difference between the Independent PCT condition (M = .03, SE = .04) and Relational PCT condition (M = -.09, SE = .04), and it bordered zero, CI [0.00, .23].

Moral Judgments Task-Binding (MJT-B). Two main effects predicted significant portions of variance in MJT-B scores, and a three-way interaction nearly predicted a small portion of variance in MJT-B scores. A main effect for prepotent Honor endorsement (HC) predicted a significant amount of MJT-B variance, $F(1, 225) = 23.70$, $p = .000$. Effect sizes for overall variance explained by HC was large, $\eta^2 = .28$, though unique variance explained was medium, $\eta_p^2 = .10$. A 95% confidence interval was estimated for the difference between the Low HC (M = -.21, SD = .06) and High HC (M = .18, SD = .05), and it did not include zero, CI [-.54, -.23].

A main effect for the Order in which DVs were administered predicted a significant amount of variance in MJT-B scores, $F(1, 225) = 5.31$, $p = .022$. Effect size for overall variance explained by the Order variable was medium, $\eta^2 = .06$, though its unique variance was small, $\eta_p^2 = .02$. A 95% confidence interval was estimated for the difference between the receiving the BIF prior to the MJT (M = -.11, SD = .06) and receiving the MJT prior to the BIF (M = .08, SD = .05), and it did not include zero, CI [-.34, -.03].

A three-way interaction effect between HC, Order, and PCT neared significance when predicting scores on the MJT-B, $F(1, 225) = 3.11$, $p = .079$. Effect sizes for overall and unique variance explained by the interaction term were both small, $\eta^2 = .01$, $\eta_p^2 = .01$. The effect was driven entirely by HC and Order effects.

Model 2: Disfluency vs. Control Group.

A 2 (HC: Low, High) x 3 (PCT: Independent Self-Construal, Relational Self-Construal, Control) x 2 (counterbalanced Order of DVs) ANOVA model tested whether the difference in observed means following Disfluency (Low HC - Relational, High HC-Independent) would significantly deviate from what was observed from participants whose scores reflected only their prepotent Honor endorsement (HC). Total sample size when including Control participants was $N = 366$, though sample sizes per analysis varied due to incomplete data. Notable effects were found for scores on the Honor Prototypes (HP) measure and one sub-dimension from the Moral Judgments Task (MJT-B). No effects were found for the Unethical Decision-Making Task (UDMT), the Behavioral Identification Form (BIF), or the Individualizing sub-dimension of the Moral Judgments Task (MJT-I). Caution should be taken when interpreting several effects discussed due to possible Type I Error.

Honor Prototypes (HP) Endorsement. A main effect for prepotent Honor Mindset (HC) significantly predicted endorsement for HP, $F(1, 347) = 45.36$, $p = .000$. Both general and unique variance explained by HC were medium in size, $\eta^2 = .11$, $\eta_p^2 = .12$. A 95% confidence interval was estimated for the difference between Low HC scorers ($M = -.37$, $SE = .05$) and High HC scorers ($M = .14$, $SE = .04$), and it did not include zero, CI [-.66, -.36].

A main effect for manipulated Self-Construal (PCT) also significantly predicted endorsement for HP, $F(2, 347) = 5.64$, $p = .004$. Effect sizes of general and unique variance explained by PCT were small, $\eta^2 = .03$, $\eta_p^2 = .03$. A 95% confidence interval was estimated for the differences between the Independent PCT condition ($M = -.28$, SE

= .07), the Relational PCT condition (*M* = -.10, *SE* = .07), and the Control Group (*M* = .03, *SE* = .07).

Pairwise comparisons demonstrated that the effect of PCT was driven largely by a difference between the Independent Self-Construal condition and the Control Group. The mean difference between the two conditions was significant, *M difference* = -.31, *SE* = .09, *p* = .001, *CI* [-.49, -.13]. The difference in HP means between the Independent Self-Construal condition and the Relational Self-Construal neared significance, *M difference* = -.18, *SE* = .09, *p* = .064, *CI* [-.36, .01]. The difference in HP means when comparing those in the Relational Self-Construal condition and the Control Group was not statistically significant, *p* = .15.

Moral Judgments Task-Binding (MJT-B). Two main effects predicted significant portions of variance in MJT-B scores. Prepotent Honor endorsement (HC) significantly predicted MJT-B scores, $F(1, 348) = 35.77$, $p = .000$. Effect sizes of both general and unique variance explained by HC were medium, $\eta^2 = .09$, $\eta_p^2 = .10$. A 95% confidence interval was estimated for the difference between Low HC scorers (*M* = -.16, *SE* = .05) and High HC scorers (*M* = .23, *SE* = .05), and it did not include zero, *CI* [-.51 , -.26].

Order in which measures (BIF, MJT) were administered also significantly predicted MJT-B scores, $F(1, 348) = 5.37$, $p = .021$. Effect sizes of both general and unique portions of variance explained by Order were small in size, $\eta^2 = .01$, $\eta_p^2 = .02$. A 95% confidence interval was estimated for the difference between receiving BIF prior to MJT (*M* = -.04, *SE* = .05) and receiving MJT prior to BIF (*M* = .11, *SE* = .05), and it did not include zero, *CI* [-.28, -.02].

Discussion

Model 1: Disfluency vs. Fluency Condition. A 2 (HC: Low, High) x 2 (PCT: Independent, Relational Self-Construal) x 2 (counterbalanced Order of DVs) ANOVA model tested whether participants in Disfluency conditions (low HC - Relational, High HC-Independent) would display significant differences in DV means when compared with participants in the Fluency conditions (low HC-Independent, high HC-Relational), respectively.

Aim 1. Analyses provided no support for Aim 1 of establishing an efficacious method of producing Disfluency. No two-way interactions between HC and PCT significantly predicted DVs. A three-way interaction did approach significance when predicting MJT-B, but this was more supportive of there being a considerable influence of Order of measures rather than efficacy of the quasi-experimental design implemented.

Aim 2. Analyses provided no support for Aim 2 of demonstrating a difference in size of Disfluency as a function of Prepotent Awareness strength. Evidence of such would have necessitated observation of a significant interaction effect between Prepotent Awareness (HC) and Emergent Awareness elicited by priming manipulation with the PCT, with or without an Order effect. Observing that higher HC displays reduced size of Disfluency effects would have supported NCT, whereas observations in the reverse direction would have supported AIT.

Model 2: Disfluency vs. Control Group. A 2 (HC: Low, High) x 3 (PCT: Independent, Relational Self-Construal, Control Group) x 2 (counterbalanced Order of DVs) ANOVA model tested whether participants in Disfluency conditions (low HC - Relational, High HC-Independent) would display significant differences in DV means

when compared with participants who did not complete a conceptual priming task (PCT). It was predicted that Self-Construal type primed with the PCT would determine the size of differences in DV means between Experimental and Control groups. Model 2 analyses provided no support for Aim 1, but provided tangential support for Aim 2.

Aim 1. Analyses provided no support for the efficacy of a single-prime manipulation to produce Disfluency. Neither two-way interactions between HC and PCT, nor three-way interactions between HC, PCT, and Order of DVs significantly predicted effects. Main effects were observed when predicting HP and MJT-B. A potential explanation for failure to achieve Aim 1 may be due to order effects, though only a small-sized effect of Order was observed when predicting MJT-B whereby completion of the BIF prior to the MJT reduced means for the MJT-B sub-dimension compared with the reverse Order.

Aim 2. Analyses did not provide direct support for the hypotheses based on either AIT or NCT. However, tangential evidence in the form of a main effect of Priming manipulation (PCT) supported the theory that a Relational Self-Construal may correspond with smaller "shifts" from a baseline score (Control group) than an Independent Self-Construal (PCT), regardless of the experience of Fluency or Disfluency. While the driving hypothesis of Aim 2 in Study 1 was that strength of Prepotent Awareness (HC endorsement) would predict size of Disfluency effects, it was actually the Emergent Awareness that demonstrated an effect, i.e., the PCT prime used.

Conclusions. Study 1 demonstrated main effects for prepotent Honor endorsement (HC) and induced Self-Construal (PCT), but not for the efficacy of a single-prime manipulation to produce measurable effects of Disfluency when assessing a

statistical interaction between the two. A reliable interaction between Prepotent and Emergent states of awareness to produce Disfluency is necessary for future endeavors to assess antecedents and consequences of Disfluency. In both Model 1 and Model 2, the main effect of Order on MJT-B scores demonstrated that receiving the BIF prior to the MJT corresponded with lower endorsement scores for Binding Moral Foundations.

The primary hypotheses that such a design would reliably produce Disfluency was not supported, and the hypothesis that high-HC would mitigate Disfluency better than low-HC was not able to be tested. However, Model 2 demonstrated that, regardless of Prepotent HC, receiving a Relational PCT produced a smaller shift in mean scores from baseline than receiving an Independent PCT. While hypotheses were focused on Prepotent Awareness as a predictor of Disfluency size, Emergent Awareness could also predict size of Disfluency, i.e., the experimentally induced awareness (Independent or Relational Self-Construal) that is triggering the Disfluency.

Limitations. While Order of outcomes was tested to verify whether being made to calibrate one's level of construal with the BIF would impact endorsement for abstract moral foundations, the hope was that it would not. That receiving the BIF prior to the MJT did produce a significant effect on MJT-B scores was unexpected, was difficult to concretely interpret with theory, and was outside of the scope of the present efforts. Moreover, effects for MJT should be interpreted skeptically, as internal consistencies for the two dimensions of interest - MJT-I and MJT-B - both fell below acceptable thresholds for assuming unidimensionality of the construct being measured.

Next Study. Study 2 will replace the Honor Concerns (HC) scale as an indication of Prepotent Awareness by activating either an Independent or Relational Self-Construal

using another conceptual priming task prior to the PCT. In effect, Prepotent Awareness will be induced with a priming task rather than measured with the Honor Concerns (HC) scale. Order of outcomes will also be fixed to aid in interpretation of effects.

Study 2

Study 2 modified the design of Study 1 in the following ways. First, the Honor Concerns measure - a predictor of participants' Prepotent Cultural Mindset in Study 1 - was replaced by Sumerian Warrior Task (SWT), which is a conceptual priming task that increases accessibility of one or another level of Self-Construal. Second, the Honor Prototypes measure was not included as an outcome measure. Third, the order of outcome variables was fixed to MJT, BIF, UDMT.

Previous studies provided the methodological framework for Study 2 (Trafimow, Triandis, & Goto, 1991; Trafimow, Silverman, Fan, & Law, 1997), which used a dual-prime manipulation to test the effect of priming congruent or incongruent types of Self (i.e., Private vs. Collective) on the accessibility of content of Self. Specifically, they demonstrated that being primed with the same type of Self-Construal increased the accessibility and retrieval of related self-aspects than if the two primes differed. In these studies, two conceptual priming tasks were administered, one after the other, prior to a set of dependent variables. Implementing this approach in the present dissertation, Prepotent Self-Construal was experimentally manipulated using the Sumerian Warrior Task (SWT; Trafimow, Triandis, and Goto, 1991). The SWT was administered prior to the same conceptual priming task used in Study 1, the Pronoun Circling Task (PCT; Brewer and Gardner, 1996, study 2; Gardner, Gabriel, and Lee, 1999). The "dual" priming design of

Study 2 to elicit and study the effects of a discrepancy between types of Self is not original, however outcomes assessed in the present work differ from previous studies.

The Sumerian Warrior task was selected as the preceding manipulation based on its past use in studies where either an Independent or Interdependent Self-Construal was primed (Trafimow, Triandis, and Goto, 1991), as well as reviews of priming methodology (Oyserman & Lee, 2007, 2008) indicating its appropriateness in effectively activating either an Independent or Interdependent Self-Construal. This measure will be explained with greater detail in the method section.

Method

Participants

Participants were 286 undergraduates recruited for an online study conducted during the fall 2018 semester: 194 female, 69 males, and 23 individuals who did not identify their sex. Average participant age was 18.9 years (SD = 1.66) and ranged from 18 to 32. Analyses were run only on individuals identifying themselves as female, so the final sample size was 194 participants. All participants were compensated with partial class credit in exchange for completion of several questionnaires.

Materials

Materials used were similar to those in Study 1 with three exceptions: the Honor Prototypes measure created specifically for Study 1 was excluded, the Sumerian Warrior Task was added (SWT; Trafimow, Triandis, and Goto, 1991), and the PCT was revised to reflect a campus tour rather than a day exploring a city. See below description of the SWT, and also Appendix B for the full task.

Sumerian Warrior Task (SWT). Prepotent Awareness was operationalized as level of Self-Construal in Study 2, and was induced using the Sumerian Warrior Task (Trafimow, Triandis, & Goto, 1991; Trafimow, Silverman, Fan, & Law, 1997). The SWT has been used alongside the Pronoun Circling Task (PCT) in numerous priming studies assessing culture and self (Oyserman & Lee, 2007, 2008).

The SWT consisted of two passages. The first passage was administered to all participants, regardless of which Self-Construal task to which they would be assigned. Specifically, it introduced the primary character, Sostor, who is charged with selecting a suitable general to lead an army. The second passage provided rationale for Sostor's choice, and framed it as either being motivated by personal prestige (Independent Self-Construal) or interpersonal reputation (Relational Self-Construal). See Appendix D for the full task.

Pronoun Circling Task (PCT). The PCT (Brewer and Gardner, 1996, study 2; Gardner, Gabriel, and Lee, 1999) was originally written as a trip into an unnamed city, either by oneself (the Independent Self-Construal condition) or with a group of other individuals (the Relational Self-Construal condition). Concern arose that participant sex may have played a role in observed effects of the manipulation due, in part, to different associations with a trip into the city between males and females. Given that the PCT is a means of activating pathways associated with either the Independent or Relational Self-Construal, participant-specific associations with the story itself may play a role in Disfluency.

Specifically, threat associations may have been more likely for females reading about a trip alone into an unknown location than for males. Because threat associations

were not the primary interest and only data from females were analyzed, this possibility was avoided by revising the PCT to request participants to imagine themselves on a campus tour rather than a trip into a city. No changes were made in the actual pronoun circling task. Participants in the Independent Self-Construal condition were asked to circle personal pronouns: I, me, my, mine. Participants in the Relational Self-Construal condition were asked to circle interpersonal pronouns: us, we, ours. See Appendix B for the full task used in Study 2.

Procedure

Study 2 consisted of a single online survey lasting approximately one hour. The manipulation consisted of a 2 (SWT: Independent, Relational) x 3 (PCT: Independent, Relational, Control) factorial design implemented prior to having participants complete three outcome measures of interest. First, participants completed the SWT, and were randomly assigned to either an Independent or Relational Self-Construal version of the story. Next, participants were randomly assigned to complete either the Independent or Relational Self-Construal version of the PCT (Experimental Groups), or were not administered the PCT and instead completed outcome measures with no second prime (Control Group). Outcome measures were similar to those in Study 1, but were completed in a fixed order and did not include the HP measure: MJT, BIF, and UDMT. The resulting design produced six conditions whereby some participants were randomly assigned to complete two conceptual priming tasks, one after the other, and other participants were randomly assigned to complete no second priming task.

Results

Three models were tested with a two-way, factorial ANOVA design using the General Linear Modeling function in SPSS Statistics (version 23). Model 1 included only participants who received both conceptual priming manipulations (SWT and PCT) in order to assess whether anticipated Disfluency effects would distinguish themselves from anticipated Fluency effects. Model 2 was analyzed with all participants, including those who did not receive the SWT task prior to completing the PCT - this allowed for evaluation of anticipated Disfluency effects compared to effects corresponding only with an induced Prepotent Self-Construal (SWT). Model 3 repeated a reduced version - order of DVs was fixed and HP was not included - of Model 1 from Study 1 in an attempt to replicate effects observed with a different conceptual priming task (SWT). Measures of effect size used were Eta-square (η^2) and partial Eta-square (η_p^2). These were interpreted as small, medium, and large in size according to a taxonomy by Cohen (1988): effect sizes for both indicators between .01 and .06 were labeled "small," effect sizes between .06 and .14 were labeled "medium," and effect sizes above .14 were labeled "large."

Internal Consistencies. The internal consistency for the Honor Concerns scale (Ijzerman, Dijk, & Gallucci, 2007) exceeded a standard .70 benchmark for Cohen's alpha coefficient ($\alpha = .80$). The internal consistency for the Unethical Decision-Making Task (UDMT) fell below a standard .70 benchmark for Cohen's alpha coefficient ($\alpha = .68$). Responses on the Behavioral Identification Form were coded as Low (-1) or High (1) interpretations of 25 stimulus objects. The internal consistency for the BIF exceeded a standard .70 benchmark for Cohen's alpha coefficient ($\alpha = .84$). Analyses assessing impact of the study design on endorsement for sub-dimensions of the Moral Judgments

Task (MJT) were assessed at the level of Individualizing (MJT-I: Care and Fairness) and Binding (MJT-B: Authority, Loyalty, and Purity) foundations. The MJT-I exhibited internal consistency below the standard benchmark for Cohen's alpha coefficient (α = .55). The Binding sub-dimension of the MJT exhibited internal consistency exceeding the standard benchmark for Cohen's alpha coefficient (α = .72).

ANOVA Models

Model 1: Disfluency vs. Fluency Condition.

A 2 (SWT: Independent, Relational Self-Construal) x 2 (PCT: Independent, Relational Self-Construal) ANOVA model tested whether participants in Disfluency conditions (Independent-Relational, Relational-Independent Self-Construal) would display significant differences in DV means when compared with participants in Fluency conditions (Independent-Independent, Relational-Relational), respectively, as a function of having had their simulated, Prepotent Awareness disrupted. Total sample size when excluding Control participants was $N = 130$. Notable effects were found for scores on both dimensions of the Moral Judgments Task (MJT-I and MJT-B). No effects were found for the Behavioral Identification Form (BIF) or the Unethical Decision-Making Task (UDMT).

Moral Judgments Task-Individualizing (MJT-I). A significant main effect for the second Self-Construal prime (the PCT) was detected when predicting scores on the Moral Judgments Task, Individualizing Foundations dimension (MJT-I), $F(1, 127) = 7.29$, $p = .008$. The portion of general and unique model variance explained by the PCT was small, $\eta^2 = 0.00$, $\eta_p^2 = .06$. A 95% confidence interval for the difference between the Independent PCT condition ($M = 4.80$, $SE = .08$) and Relational PCT condition ($M =$

4.51, *SE* = .08), and the estimate did not include zero, *CI* [.08, .51]. Honor endorsement was held constant at 4.40 by entering HC into the model as a continuous covariate.

Moral Judgments Task-Binding (MJT-B). A significant main effect occurred for the first Self-Construal prime (SWT) when predicting the Binding Foundations dimension of the Moral Judgments Task, $F(1, 126) = 3.97$, $p = .049$. The portion of general and unique variance in MJT-B scores explained by the SWT was small, $\eta^2 = 0.00$, $\eta_p^2 = .03$. A 95% confidence interval was estimated for the difference between the Independent SWT condition (*M* = 3.89, *SE* = .09) and Relational SWT condition (*M* = 4.14, *SE* = .08), and it bordered zero, *CI* [-.48, 0]. Honor endorsement was held constant at 4.40 by entering HC into the model as a continuous covariate.

Model 2: Disfluency vs. Control Group.

A 2 (SWT: Independent, Relational) x 3 (PCT: Independent, Relational, no prime Control Group) ANOVA model tested whether the difference in observed means following Disfluency (Independent SWT-Relational PCT, Relational SWT-Independent PCT) would significantly deviate from what was observed from participants whose scores reflected only their induced Prepotent Self-Construal (Independent SWT, Relational SWT). Total sample size when including Control participants was *N* = 194. Notable effects were found for scores on both dimensions of the Moral Judgments Task (MJT-I and MJT-B). No notable effects were found for the Behavioral Identification Form (BIF) or the Unethical Decision-Making Task (UDMT).

Moral Judgments Task-Individualizing (MJT-I). A main effect for the second Self-Construal prime (PCT) approached significance when predicting scores on the Individualizing Foundations dimension of the Moral Judgments Task (MJT-I), $F(2, 191)$

= 2.98, p = .053. The portion of general and unique model variance explained by the PCT was small, η_p^2 = 0.00, η_p^2= .03. A 95% confidence intervals indicated that the difference between the Control Group (M = 4.65, SE = .08) and the Independent PCT condition (M = 4.79, SE = .08) included zero, CI [-.07, .37]; likewise, the difference between the Control Group and the Relational PCT condition (M = 4.52, SE = .08) also included zero in the estimate, CI [-.35, .10]. However, there was a significant difference between the Independent Self-Construal and Relational Self-Construal PCT, *M difference* = .28, SE = .11, p = .016, and this difference did not include zero, CI [.05, .50]. Honor endorsement was held constant at 4.38 by entering HC into the model as a continuous covariate.

Moral Judgments Task-Binding (MJT-B). The covariate effect of Honor endorsement (HC) significantly predicted scores on the Binding Foundations dimension of the Moral Judgments Task (MJT-B), $F(1, 190) = 31.43$, p = .000. The portion of general model variance explained by HC was zero, but the portion of unique variance explained was large, η_p^2 = .00, η_p^2 = .15. Other predictor effects in this model were assessed at a value of 4.38 for Honor endorsement as a continuous covariate.

Model 3: Replicating Study 1 with SWT rather than PCT.

A 2 (HC: low, high) x 2 (SWT: Independent, Relational) ANOVA was conducted to assess whether effects observed in Study 1 could be repeated with the SWT rather than the PCT. However, the two-level Order effect for DVs included in Study 1 analyses was not present in Study 2 due to DV order being fixed. A median split was computed on the HC measure, and it was entered as a dichotomous predictor along with the two levels of the SWT. Participants' scores on the HC were designated as "Low HC" if below 4.4444,

and as “High HC” if above 4.4444. Total sample size when including only Control participants was $N = 64$. A notable effect was found for scores on the Moral Judgments Task-Binding (MJT-B). No notable main effects were found for MJT-I, BIF, or UDMT.

Scores on the Honor Concerns (HC) scale were dichotomized as being above or below the sample median. The original sample of HC scores approximated a normal distribution with slight negative skew, *Mean* = 4.38, *SE* = .07, *CI* [4.25, 4.52], Kurtosis = .563, Skewness = -.522. A 50% median cutoff score was used to define Weak and Strong Honor endorsement. Bearing in mind that the HC response anchors range from 1 (strongly disagree) to 9 (strongly agree), participants scoring 4.4444 and below were categorized as Weak Honor endorsers, and participants scoring 4.4445 and above were categorized as Strong Honor endorsers.

Moral Judgments Task-Binding (MJT-B). A main effect of dichotomous Honor endorsement (HC) significantly predicted scores on the Binding Foundations sub-dimension of the Moral Judgments Task (MJT-B), $F(1, 64) = 13.29$, $p = .001$. The portion of generic model variance explained by the HC was small, $\eta_p^2 = 0.01$, but the portion of unique model variance was large, $\eta_p^2 = .18$. A 95% confidence interval was estimated for the difference between Low HC scorers ($M = 3.50$, $SE = .13$) and High HC scorers ($M = 4.13$, $SE = .12$), and it did not include zero, *CI* [-.97, -.28].

Discussion

Model 1. A 2 (SWT: Independent, Relational) x 2 (PCT: Independent, Relational) ANOVA was conducted and produced two significant main effects when predicting the MJT-I and MJT-B. No other DVs were significantly predicted by the dual-prime manipulation. Aim 1 was not supported, and Aim 2 was not able to be evaluated.

Aim 1. Efficacy of the dual-priming manipulation was not supported within Model 1. The contrast between two conceptual priming tasks - the SWT and PCT - did not produce the predicted, interactive effect. Rather, two main effects explained small amounts of variance for the two dimensions of the MJT: Individualizing and Binding Foundations.

The first main effect demonstrated that, regardless of which Self-Construal was primed with the SWT, participants primed with an Independent Self-Construal PCT displayed slightly higher endorsement for Individualizing foundations (MJT-I) than their counterparts receiving the Relational Self-Construal PCT. This is in keeping with the argument that being primed to think more about oneself as an individual entity should focus awareness on individual survival needs. Similarly, a significant main effect was observed whereby, regardless of which PCT was administered, a Relational Self-Construal SWT corresponded with higher endorsement for Binding foundations (MJT-B). This suggests that being made to think of interpersonal relationships increases awareness of moral foundations concerned with maintenance of bonds.

Aim 2. Testing whether a prepotent Relational Self-Construal would mitigate Disfluency more effectively than a prepotent Independent Self-Construal required there to have been significant interactive effects detected, and none were. Specifically, it was expected that the differences in DV means between Fluent (Independent-Independent Self-Construal, Relational-Relational Self-Construal) and Disfluent (Independent-Relational Self-Construal, Relational-Independent Self-Construal) Experimental groups would be lowest if the Prepotent Self-Construal were Relational rather than Independent. Had a prepotent Independent Self-Construal corresponded with less difference between

Fluent and Disfluent groups, hypotheses based on AIT would have been supported. Had a prepotent Relational Self-Construal corresponded with less difference between Fluent and Disfluent groups, hypotheses based on NCT would have been supported. However, support for either theoretical framework required the presence of interaction effects, which there were none.

Model 2. A 2 (SWT: Independent, Relational) x 3 (PCT: Independent, Relational, Control) ANOVA was conducted to assess whether Disfluent Experimental groups (Independent-Relational Self-Construal, Relational-Independent Self-Construal) would exhibit significantly different patterns in DV means compared with corresponding Control Groups (Independent Self-Construal, Relational Self-Construal). Two main effects were detected, although only one accounted for a statistically significant portion of model variance.

Aim 1. No interaction effects between were observed between conceptual priming tasks intended to establish a Prepotent Self-Construal (SWT) and an Emergent Self-Construal (PCT). However, two main effects were detected: PCT predicting MJT-I neared significance ($p = .05$), HC predicting MJT-B achieved significance ($p = .00$).

The non-significant main effect of PCT on MJT-I mirrored its effect in Model 1: regardless of which Self-Construal was primed with the SWT, participants primed with an Independent Self-Construal PCT displayed slightly higher endorsement for Individualizing foundations (MJT-I) than their counterparts receiving the Relational Self-Construal PCT. However, this effect was above a threshold alpha level of $p = .05$, and should be interpreted with skepticism. This is in keeping with the argument that being primed to think more about oneself as an individual entity should focus awareness on

individual survival needs. A significant effect for HC as a continuous covariate was observed when predicting Binding foundations (MJT-B) such that a stronger Honor Mindset predicted greater acceptance of Binding morals. This effect corroborates the argument that strength of an Honor Mindset corresponds with consideration for interpersonal reputation and bonds, which was also seen with Model 1 findings.

Aim 2. It was expected that the differences in DV means between Disfluent Experimental groups (Independent-Relational Self-Construal, Relational-Independent Self-Construal) and Control Groups (Independent Self-Construal, Relational Self-Construal) would be lowest if the Prepotent Self-Construal were Relational rather than Independent. Had a Prepotent Independent Self-Construal corresponded with less difference between Fluent and Disfluent conditions, hypotheses based on AIT would have been supported. Had a Prepotent Relational Self-Construal corresponded with less difference between Fluent and Disfluent conditions, hypotheses based on NCT would have been supported. However, support for either theoretical framework required the presence of interaction effects, which there were none.

Model 3. A 2 (HC: Low, High) x 2 (PCT: Independent, Relational) ANOVA was conducted to assess whether Disfluent conditions (Low HC-Relational Self-Construal, High HC-Independent Self-Construal) would exhibit significantly different patterns in DV means compared with corresponding Control Groups (Low HC, High HC). This analysis approach tested not an experimental design, but rather a quasi-experimental design in that Honor was measured rather than manipulated, and it was paired in analyses with a manipulated predictor, i.e., Self-Construal. One main effect was detected for HC, namely HC predicted endorsement for binding foundations (MJT-B).

Aim 1. Use of the SWT rather than the PCT task permitted a conceptual modification of Study 1, i.e., a different conceptual priming task was used as a method of activating either an Independent or Relational Self-Construal. As in Study 1, participants' Honor endorsement (HC scale) was entered as a dichotomous predictor, and was expected to interact with the type of Self-Construal made active by the SWT, either precipitating Fluency or Disfluency. The inability to detect an interaction effect between either level of HC and either Self-Construal variation of the SWT suggests that this pairing - between HC and SWT - is not sufficient for research wishing to elicit and measure Disfluency.

Aim 2. According to the NCT framework, an interaction between level of HC and type of SWT should have been observed such that displaying high HC endorsement would correspond with a smaller difference between Fluency and Disfluency groups than displaying low HC endorsement. No interaction effect was found when predicting any of the outcome measures. Thus, this comparison was not possible.

Conclusions.

Main effects of conceptual priming task were not expected, and pose an issue worth addressing if a dual-priming manipulation is to be used for studying Disfluency. That effects were only seen for the Moral Judgments Task sub-dimensions - Individualizing and Binding foundations - suggests that measures of construal (BIF) and unethical decision making (UDMT) may not be sensitive enough to capture the effects of having had one's Self-Construal influenced by conceptual priming.

Aim 1 of Study 2 sought to demonstrate the efficacy of a dual-priming manipulation to produce measurable evidence of Disfluency. Support was not found, as

no interaction effects predicted significant model variance for any of the outcomes measured. Aim 2 of Study 2 was to demonstrate that a prepotent Relational Self-Construal would correspond with smaller Disfluency effects than a prepotent Independent Self-Construal. Had such an effect been observed, Niche Construction Theory would have been supported, whereas Action Identification Theory would not have been supported.

Limitations.

The Pronoun Circling Task was modified from its original version, which was used in Study 1. This decision was made due to concern that males and females would have different, association-based reactions to completion of the PCT, namely that the original version recounting a trip into the city would produce a threat response in females not likely to be activated in males. Thus, Study 2 reframed the PCT as a campus visit scenario so that the imagery depicted a familiar and non-threatening context for both. However, because analyses were conducted on only females, this revision of the PCT was unnecessary.

Furthermore, interpretations of the effect of honor endorsement (HC) and of effects observed when estimating endorsement for moral foundations (i.e.,. MJT-I and MJT-B) should be made carefully. The Honor Concerns measure was administered at a different time than the actual study, and was used as an indicator of the degree to which participants had a chronically active Honor Mindset. While the HC has been used in past research to demonstrate endorsement for prototypical Honor values, it has not previously - to this author's knowledge - been used as an indication of one's default awareness corresponding with a Relational Self-Construal. The Moral Judgments Task (MJT) was

reduced to 13 items on the basis of previous experience with the scale rather than strong theoretical grounds. Moreover, internal consistencies of the two dimensions assessed - Individualizing and Binding - are notoriously low (i.e., lower than a benchmark Cohen's alpha coefficient of a = .70).

General Discussion

Review of Aims and Hypotheses. The present dissertation served two aims. Aim 1 tested methodology for eliciting and evaluating size of Cultural Disfluency effects. Aim 2 tested the hypothesis that strength of Prepotent Mindset (weak or strong Honor endorsement in Study 1) and level of Prepotent Self-Construal (Independent or Relational in Study 2) is predictive of size of Disfluency effects observed.

In Model 1 of both studies, DV means observed in Disfluent conditions were predicted to significantly differ from DV means observed in Fluent conditions. In Model 2 of both studies, DV means observed in Disfluent conditions were predicted to significantly differ from DV means observed in Control Groups, i.e., conditions where Fluency or Disfluency was not manipulated with a conceptual priming task. Model 3 in Study 2 repeated Model 1 of Study 1, but with the SWT used as the conceptual priming task intended to elicit Cultural Disfluency. No specific predictions were made for the efficacy of the PCT (Study 1) vs. SWT (Study 2) as a mechanism for instigating an Emergent Mindset.

Summary Findings for Predictions. Support for neither Aim 1, nor Aim 2 was found. Support for the efficacy of eliciting Cultural Disfluency hinged on significant interaction terms being detected between prepotent strength of Honor Mindset and an activated self construal in Study 1, but no such evidence was found. Support for the

hypothesis that a strong, Prepotent Honor Mindset (Study 1) and an activated, Prepotent Relational Self-Construal (Study 2) would produce less Disfluency than a weak Honor Mindset and activated Independent Self-Construal, respectively, was also not detected. However, several main effects deserve attention.

Main effects of Prepotent Honor Mindset in on HP and MJT-B suggests a robust relationship between latent Honor endorsement and attitudes corresponding with an relation-centric value system. The "robustness" is evidenced by strong to medium effect sizes on these two outcomes despite participants' having received a conceptual priming task theoretically likely to alter their mindset. Additionally, that the PCT in Study 1 produced small main effects on HP and BIF suggests an unexpected independence between Mindset and Self-Construal - in fact, this is the opposite of what was predicted by fundamental theory.

Limitations.

Analyses. Strength of Prepotent Mindset was operationalized as low and high scores on the HC, which relied on an artificial categorization of participants as having either a weak or strong Honor Mindset, i.e., a median split was conducted. While this corresponds with a theoretical premise that low vs. high scores correspond with accessibility of Honor Mindset and enhances ease of interpretation, this approach costs statistical power and increased likelihood of a Type II Error. Analyses predicting MJT-I and MJT-B should be interpreted with caution, as the outcomes displayed weak internal consistency.

Order of outcome measures. Order of measures was counterbalanced in two separate blocks in Study 1 to account for possible order effects. No effects of Order were

detected in the presented analyses, and creating order effects reduced the usable sample sizes to predict effects of interest. Specifically, sex could have been entered as a predictor had Order not been manipulated.

Untested validity of outcome measures. First, the Honor Prototypes (HP) measure that was created for use in Study 1 provided a means of assessing whether Disfluency effects would be strong enough to affect changes in cultural values, specifically those representing Honor endorsement. This usage has not previously been validated, and items were also altered from their original form. Thus, while effects hold face validity in representing prototypes of Honor values, they should still be interpreted cautiously. Second, a subset of items were administered from the Moral Judgments Task (MJT) based on previous experience with the scale rather than strong theoretical grounds. Similar to the HP, construct validity of conclusions becomes questionable once an existing measure is not used as intended.

Untested use of the predictor measures. Use of the Honor Concerns (HC) scale as an indication of participants' chronic level of Prepotent Honor endorsement, though theoretically plausible, has not been previously argued or supported. Moreover, low levels of HC were operationalized as producing effects similar to an Individualistic Mindset, and thus an Independent Self-Construal. Again, while theoretically arguable, it has not been explicitly tested or validated. Conclusions drawn from HC effects in the present dissertation should be interpreted cautiously.

Sex was not analyzed. Effect of participant sex was not analyzed, though it has been shown to significantly moderate effects related to Self-Construal (Cross & Madson, 1997; Markus & Oysterman, 1989) and culture (Crowder and Kemmelmeier, 2017). In

both of the current studies, too few males participated to evaluate an effect of sex on Disfluency.

Future Directions. At the time of writing this dissertation, a similar endeavor has been completed that tests two meaningful effects Disfluency on a person's understanding of the world around them, i.e., cultural "inherence" "essentialism" (e.g., Lin, Arieli, Oyserman, 2019). Future efforts should focus on the cross-validation of effects described by these authors, as current effects were less than encouraging.

Presuming the refinement of future methods for validly and reliably eliciting and measuring Disfluency, attention should be paid to the effects of prolonged states of Disfluency on human social development. If prolonged states of Disfluency do predict meaningful influence on social development, understanding of the impact of currently shifting cultural and political norms may benefit from understanding how people moderate Disfluency.

Future work on predictors of Disfluency should be situated within a CuPS framework, namely the perspective that observed behavior is a product of cultural influence (Cu), personal traits (P), and situational cues (S; Cohen & Leung, 2010; Leung & Cohen, 2011). From a CuPS perspective, states of Disfluency become algebraically predictable. Extrapolating, future research on Disfluency should investigate intercultural competencies - traits, capabilities, attitudes, and worldviews - to determine what predicts its frequency and effects (Leung, An, & Tan, 2014).

Lastly, future work may be hastened by reducing confusion caused by incongruent terminology - specifically, treating Honor Culture as "Relationalism" may more effectively fit it into the hierarchical structure posed by Gaertner et al. (2012) and

Sedikides et al. (2013), i.e., Independent Self-Construal > Relational Self-Construal > Collective Self-Construal. Doing so will make easier the discussion of Culture as a reflection of the types of Mindset and levels of Self-Construal that are common within a group.

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Appendix A - Tables

Table 1. Characteristics of Levels of Self

Level of Analysis	Self-Concept	Basis of Evaluation	Frame of Reference	Basic Social Motivation
Individual	Personal	Traits	Interpersonal Comparison	Self-Interest
Interpersonal	Relational	Role Performance	Reflection	Other's Benefit
Group	Collective	Prototype Achievement	Intergroup Comparison	Collective Welfare

Note. Table adapted from Gardner and Brewer (1996, Table 1, pp. 84)

Appendix B - Materials

Honor Concerns (HC)
Ijzerman, Dijk, & Gallucci, 2007

1 --------- 2 --------- 3 --------- 4 --------- 5 --------- 6 --------- 7 --------- 8 --------- 9

Strongly disagree — Neutral — Strongly agree

1. My honor depends on the appreciation and respect that others have for me.
2. I could not have respect for myself if I did not have any honor.
3. I think that a public humiliation would be one of the situations that would violate my honor the most.
4. To maintain my honor, I have to be loyal to my family, regardless of the circumstances.
5. I think that honor is one of the most important things that I have as a human being.
6. I think that the honor of a man would be violated if he were humiliated publicly by others.
7. It is my duty to be constantly prepared to defend the honor of my family.
8. A family member would violate my honor if he/she were to do something disgraceful.
9. My honor is the basis for my self-respect.

Appendix B - Materials

Pronoun Circling Task (PCT - Study 1)
Gardner, Gabriel, & Lee, 1999

Independent Self-Construal Condition Prompt

The following scenario describes a trip into the city. Imagine you have ventured into a new city by yourself. You are exploring it, and discovering how you feel about it. In order to ensure active engagement in this task, please circle all pronouns that you encounter while reading.

> "I go into the city often. My excitement grows as I see the skyscrapers come into view. I allow myself to explore every corner of the city, never letting an attraction escape my attention. My voice fills the air and street as I wander. I try to see all noteworthy sights. I window shop, and everywhere I go, I see my reflection looking back at me in the spotless glass. When night comes, I linger, because my time in the city is coming to an end. When I finally must leave, I do so knowing that I will soon return. It feels as though this city is my own."

Please reflect on the story you just read, and then describe how it made you feel.

Relational Self-Construal Condition Prompt

The following scenario describes a trip into the city. Imagine that you and a group of close friends have ventured into a new city. You are exploring it, and discovering how you all feel about it. In order to ensure active engagement in this task, please circle all pronouns that you encounter while reading.

> "We go into the city often. Our excitement grows as we see the skyscrapers come into view. We allow ourselves to explore every corner of the city, never letting an attraction escape our attention. Our voice fills the air and street as we wander. We try to see all noteworthy sights. We window shop, and everywhere we go, we see our reflection looking back at us in the spotless glass. When night comes, we linger, because our time in the city is coming to an end. When we finally must leave, we do so knowing that we will soon return. It feels as though this city is our own."

Please reflect on the story you just read, and then describe how it made you feel.

Appendix B - Materials

Pronoun Circling Task (PCT - Study 2)
Adapted from Gardner, Gabriel, & Lee, 1999

Independent Self-Construal Condition Prompt

The following task will ask you to imagine that you have recently been accepted to OU. You decide to tour the campus during the summer to get a feel for what it will be like once school begins, but also because it is likely that the campus will be empty and free to explore.

> After I decided to attend OU, I came to see the campus. Looking at my map, I saw that the Memorial Union was the starting point for a walking tour. As I walked through the Union, I explored the elegant conference rooms upstairs and the food court in the basement. Moving to the North Oval, I saw a mixture of classical and modern architecture, as well as creative sculptures. I also noticed many trees and fountains near the library plaza. Inside the library, I looked at the meeting rooms and study carrels, and I could smell old books the entire time. When I arrived at the dormitories, I imagined myself having all-night study sessions. The last few stops were the recreational facilities and stadiums, which gave me great opportunities to take photos. Before ending the tour, I took time to reflect on all that I have seen.

Relational Self-Construal Condition Prompt

The following task will ask you to imagine that you have recently been accepted to OU. You decide to tour the campus during the summer to get a feel for what it will be like once school begins, but also because it is likely that the campus will be empty and free to explore.

> After we decided to attend OU, we came to see the campus. Looking at our maps, we saw that the Memorial Union was the starting point for a walking tour. As we walked through the Union, we explored the elegant conference rooms upstairs and the food court in the basement. Moving to the North Oval, we saw a mixture of classical and modern architecture, as well as creative sculptures. We also noticed many trees and fountains near the library plaza. Inside the library, we looked at the meeting rooms and study carrels, and we could smell old books the entire time. When we arrived at the dormitories, we imagined ourselves having all-night study sessions. The last few stops were the recreational facilities and stadiums, which gave us great opportunities to take photos. Before ending the tour, we took time to reflect on all that we had seen.

Appendix B - Materials

Sumerian Warrior Task (SWT)
Adapted from Trafimow, Triandis, & Goto, 1991

Relational Self-Construal Condition Prompt

> Sostor, a warrior in ancient Sumer, was largely responsible for the success of Emperor Sargon in conquering Mesopotamia. As a result, he was rewarded with a small kingdom to rule. About 10 years later, Sargon was conscripting warriors for a new war. Sostor was obligated to send a detachment of soldiers to aid Sargon. He had to decide who to assign as commander of the soldiers. After thinking about it for a long time, Sostor eventually decided on Tiglath, whom Sostor had mentored personally.
>
> This appointment had several advantages. For example, the appointment would demonstrate Sostor's dutifulness to those living in his kingdom. Moreover, demonstrating wisdom by choosing Tiglath would reflect well on Sostor's closest family and allies.

Independent Self-Construal Condition prompt

> Sostor, a warrior in ancient Sumer, was largely responsible for the success of Emperor Sargon in conquering Mesopotamia. As a result, he was rewarded with a small kingdom to rule. About 10 years later, Sargon was conscripting warriors for a new war. Sostor was obligated to send a detachment of soldiers to aid Sargon. He had to decide who to assign as commander of the soldiers. After thinking about it for a long time, Sostor eventually decided on Tiglath, whom Sostor had mentored personally.
>
> This appointment had several advantages. Selecting a warrior whom he had trained personally would reflect well on Sostor's own skills and abilities. Moreover, having Tiglath represent him in battle would elevate Sostor's own prestige.

Appendix B - Materials

Behavioral Identification Form (BIF)
Vallacher & Wegner, 1989

Instructions

Any behavior can be described in numerous ways. For example, one person might describe a behavior as "writing a paper," while another person might describe the same behavior as "pushing keys on the keyboard." Yet another person might describe it as "expressing thoughts." This task focuses on your personal preferences for how a number of different behaviors should be described. Below you will find several behaviors listed. After each behavior, there will be two different ways in which the behavior might be identified. For example:

1. Attending class
a. Sitting in a chair
b. Looking at a teacher

Your task is to choose the identification that best describes the behavior for you. Simply select the option you prefer. Be sure to respond to each item. Remember, select the description that you personally believe is more appropriate for each pair.

1. Making a list: a) Getting organized[a], b) Writing things down
2. Reading: a) Following lines of print, b) Gaining knowledge[a]
3. Joining the Army: a) Helping the Nation's defense[a], b) Signing up
4. Washing clothes: a) Removing odors from clothes[a] , b) Putting clothes into the machine
5. Picking an apple: a) Getting something to eat[a] , b. Pulling an apple off a branch
6. Chopping down a tree: a) Wielding an axe, b) Getting firewood[a]
7. Measuring a room for carpeting: a) Getting ready to remodel[a], b) Using a yardstick
8. Cleaning the house: a) Showing one's cleanliness[a], b) Vacuuming the floor
9. Painting a room: a) Applying brush strokes, b) Making the room look fresh[a]
10. Paying the rent: a) Maintaining a place to live[a] b. Writing a check
11. Caring for houseplants: a) Watering plants, b) Making the room look nice[a]
12. Locking a door: a) Putting a key in the lock, b) Securing the house[a]
13. Voting: a) Influencing the election[a], b) Marking a ballot
14. Climbing a tree: a) Getting a good view[a] , b) Holding on to branches
15. Filling out a personality test: a) Answering questions, b) Revealing what you are like[a]
16. Tooth-brushing: a) Preventing tooth decay[a], b) Moving a brush around in one's mouth
17. Taking a test: a) Answering questions, b) Showing one's knowledge[a]
18. Greeting someone: a) Saying hello b) Showing friendliness[a]

19. Resisting temptation: a) Saying "no", b) Showing moral courage[a]
20. Eating: a) Getting nutrition[a], b) Chewing and swallowing
21. Growing a garden: a) Planting seeds b) Getting fresh vegetables[a]
22. Traveling by car: a) Following a ma, b) Seeing countryside
23. Having a cavity filled: a) Protecting your teeth[a] b, b) Going to the dentist
24. Talking to a child: a) Teaching a child something[a], b) Using simple words
25. Pushing a doorbell: a) Moving a finger, b) Seeing if someone is home[a]

Appendix B - Materials

Honor Prototypes (HP)
Adapted from HIM and HIW

1	2	3	4	5	6	7
Strongly disagree	Disagree	Somewhat Disagree	Neither disagree nor agree	Somewhat Agree	Agree	Strongly agree

1. It is important to remember that one's actions reflect one's family name.
2. It is important to avoid any behavior that might bring shame on one's family.
3. People should be willing to die for their family.
4. People should stand by their significant other at all times.
5. In most situations, people should not tolerate disrespect.
6. People have the right to act with physical aggression toward another who steals from them.
7. It is important not to leave a score unsettled.
8. It is important to be seen as tough in the eyes of one's peers.
9. It is important not to back down from a fight.
10. People should be able to "pull themselves up by their bootstraps" when the going gets tough.

Appendix B - Materials

Moral Judgments Task
Graham, Haidt, and Nosek, 2009

1	2	3	4	5	6
Strongly disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly agree

Individualizing Foundations (MJT-I)

Harm/Care

1. If I saw a mother slapping her child, I would be outraged.
2. Compassion for those who are suffering is the most crucial virtue.
3. The government must first and foremost protect all people from harm.

Fairness

4. If a friend wanted to cut in with me on a long line, I would feel uncomfortable because it wouldn't be fair to those behind me.
5. When the government makes laws, the number one principle should be ensuring that everyone is treated fairly.

Binding Foundations (MJT-B)

Ingroup/Loyalty

6. If I knew that my brother committed a murder, and the police were looking for him, I would turn him in. (Reverse scored)
7. When it comes to close friendships and romantic relationships, it is okay for people to seek out only members of their own ethnic or religious group.

Authority

8. If I were a soldier and disagreed with my commanding officer's orders, I would obey anyway because that is my duty.
9. Respect for authority is something all children need to learn.
10. When the government makes laws, those laws should always respect the traditions and heritage of the country.

Purity

11. People should not do things that are revolting to others, even if no one is harmed.
12. I would call some acts wrong on the grounds that they are unnatural or disgusting.
13. Chastity is still an important virtue for teenagers today, even if many don't think it is.

Appendix B - Materials

Unethical Decision Making (UDMT)
Detert. Trevino, & Sweitzer, 2008

0 ---------- 1 ---------- 2 ---------- 3 ---------- 4 ---------- 5 ---------- 6
Not at all Likely — Highly likely

1. You work in a fast-food restaurant in downtown [City X]. It's against policy to eat food without paying for it. You came straight from classes and are therefore hungry. Your supervisor isn't around, so you make something for yourself and eat it without paying.
2. You work as an office assistant for a department at [University Y]. You're alone in the office making copies and realize you're out of copy paper at home. You therefore slip a ream of paper into your backpack.
3. You're preparing for the final exam in a class where the professor uses the same exam in both sections. Some of your friends somehow get a copy of the exam after the first section. They are now trying to memorize the right answers. You don't look at the exam, but just ask them what topics you should focus your studying on.
4. You've waited in line for 10 minutes to buy a coffee and muffin at Starbucks. When you're a couple of blocks away, you realize that the clerk gave you change for $20 rather than for the $10 you gave him. You savor your coffee, muffin, and free $10.
5. You get the final exam back from your professor and you notice that he's marked correct three answers that you got wrong. Revealing his error would mean the difference between an A and a B. You say nothing.
6. Your accounting course requires you to purchase a software package that sells for $50. Your friend, who is also in the class, has already bought the software and offers to lend it to you. You take it and load it onto your computer.
7. Your boss at your summer job asks you to get confidential information about a competitor's product. You therefore pose as a student doing a research project on the competitor's company and ask for the information.
8. You are assigned a team project in one of your courses. Your team waits until the last minute to begin working. Several team members suggest using an old project out of their fraternity/sorority files. You go along with this plan.