

Investigating Cultural Beliefs, Socioeconomics, and Aggressive Tendencies

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Abstract

Understanding the cultural differences in aggression remains a challenge (Fry, 1998; Gallardo-Pujol et al., 2019). Socioeconomic status, cultural beliefs, and societal norms have been identified as possible influences on aggressive behavior (Cohen et al., 1996; Greitemeyer & Sagioglou, 2018). This study attempted to identify any significant relationships between endorsed cultural constructs (i.e., face, dignity, and honor culture), socioeconomics, and aggression through a survey research design. A survey was administered to 124 adults electronically and collected demographic information, ascribed cultural norms (honor, face, and dignity), and levels of aggression (via the Aggression Questionnaire Short Form). Honor cultural logic was significantly associated with overall aggression score ($p = 0.007$), physical aggression score ($p = 0.001$), and verbal aggression score ($p = 0.02$), while Dignity was associated with hostility score ($p = 0.009$). When controlling for household income and perceived socioeconomic status (SES), Honor remained significantly associated with overall aggression, physical aggression, and verbal aggression ($p = 0.02$). Dignity remained significantly associated with hostility ($p = 0.005$). When controlling for gender and assessing the interaction between gender and honor cultural logic, Honor was no longer associated with any of the measures of aggression. Subjective SES was found to have moderate negative correlations with overall aggression score ($r = -0.31, p = 0.0004$), physical aggression ($r = -0.22, p = .02$), and hostility ($r = -0.29, p = .001$). No significant relationships were observed between other aggression scores and measures of SES (i.e., subjective social status and household income) or between culture logics and either measure of SES.

Keywords: culture, honor, dignity, face, aggression, gender, socioeconomics

Chapter 1

In an effort to understand the relationship between culture logics and violence, Fergusson (2016) investigated the relationship between cultural logics (i.e., honor, face, and dignity) and constructs (i.e., anger, discrimination, and reaction to offensive behavior) in an adult population that were from or resided in the United States Virgin Islands (USVI). At the time of the study, the USVI was ranked number three for intentional homicides compared to other international and regional countries (United Nations Office on Drugs and Crime [UNODC], n.d.). The study found a moderate positive correlation between the likelihood of reconciling after offensive behavior in individuals with certain cultural beliefs (i.e., dignity and face cultures). One of the identified limitations of the study was a lack of sample diversity. Many of the participants in the study were educated (61% completed at least 4 years of college), and there was no representation of individuals who engaged in aggressive or violent behaviors. Thus, it was difficult to identify the cultural influences of aggression to resolve conflict.

Fischer et al. (2009) found that an individual's behavior was predictable due to subjective personal values, norms, beliefs, and other aspects of the individual's cultural construct. An individual's ascribed cultural beliefs can also influence their reaction to perceived provocative situations (i.e., being taunted, shoved, insulted). They may produce various possible reactions to a single offensive situation (i.e., confrontation, withdrawal, or humor). Leary et al. (2015) stated that people who usually overreact to trivial but perceived offensive encounters create awkward situations and conflicts. This overreaction can become the catalyst for the subsequent escalation of externalized behaviors such as

domestic violence, child abuse, righteous indignation, moral outrage, crimes of passion, and road rage.

Literature Review

This chapter attempts to explain the relationship between aggression and a person's cultural construct by discussing potentially influential factors and how culture may shape them.

Aggression

Individuals who engage in externalized behavior appear to have limited awareness or concern about their impact on others (Miller & Eisenberg, 1988), which may also increase their tendency toward violent behavior. Externalized behavior is a broad category of inappropriate actions directed outwards that cause harm to others and have a direct impact on society (DeYoung et al., 2008; Hinshaw, 1992; Liu, 2004; Loeber & Burke, 2011). Some examples of externalized behavior are stealing, aggression, gang fighting, illicit drug use, disruptiveness, and impulsivity.

Aggression is defined as any behavior directed by one or more individuals towards another person(s) with the intent to harm him or her (Severance et al., 2013). Anderson and Bushman (2002) explained that human aggression has four components: (a) it is an observable act or behavior; (b) it is intentionally aimed at someone else to cause immediate harm; (c) it involves people, and if inanimate objects are involved, the behavior is carried out with the intent of harming the other person (e.g., slashing the tires of the target's car); and (d) it is motivated to avoid harm.

Allen and Anderson (2017) described violence as an extreme form of aggression, with the goal being to inflict severe physical harm. They also stated that aggressive and

violent behaviors are conceptualized on a spectrum ranging from minor acts of aggression (e.g., pushing) to extreme acts of violence (e.g., homicide). Hence, not all aggressive behaviors are classified as violent, but all violent behaviors are perceived as aggression. For example, a child pushing someone off a bike or swing set is an example of aggression, while a school shooting can be both aggressive and violent (Anderson & Heusman, 2003).

Types of Aggression

Hostile Versus Instrumental Aggression. Human aggression can be categorized as hostile or instrumental depending on the individual's motive. Bushman and Anderson (2001) described hostile aggression as impulsive and angry and noted that the individual's behavior is often driven by their emotions and desire to hurt someone. In contrast, instrumental aggression is premeditated and driven by the person's desire to achieve a goal (e.g., acquire money or restore justice). It is not driven by their emotions and may not include the intent to cause harm to others.

Direct and Indirect Aggression. Richardson and Green (2006) described direct aggression as behavior that is delivered face-to-face either physically (e.g., hitting) or verbally (e.g., yelling) to the target individual to cause harm. Indirect aggression refers to aggressive behavior that is covert, conducted through another person or object (e.g., gossiping about someone or destroying their belongings) instead of directly in front of the target person's face (Archer, 2001; Archer & Coyne, 2005; Richardson & Green, 2006). Archer (2001) explained that this type of aggression is a less dangerous approach to hurting someone and is used to cause reputational harm. It is also less likely to be retaliated against if the aggressor successfully masks their aggressive intent and has a

slower effect rate than physical aggression (more dangerous and immediate gratification if successful). In terms of social context, Richardson and Green (2006) found that the kind of relationship the aggressor has with their target can significantly identify which type of aggression they are more likely to use. They found that direct aggression was most likely used in romantic relationships, and indirect aggression was more likely to occur in friendship relationships.

Influential Factors of Aggression

Aggression is a multifaceted social behavior with many influences and manifestations. Various factors were identified as potential influencers of violence. The following section discusses some of these elements and how they impact the rate of aggression and violence.

Biological Influences. Recent research has started to link hormones and biological factors with violence (Simister & Cooper, 2005). Hormones are chemical messengers secreted by the endocrine glands and transmitted into the bloodstream where they travel to tissues and organs to induce specific physiological and behavioral responses (Brain & Susman, 1994). Relationships have been identified between high levels of testosterone and an increased likelihood of engaging in aggressive behavior (Carré et al., 2017; Cohen et al., 1996). In a review of available literature on aggression in women, Denson et al. (2018) reported that the evidence suggests that the role of cortisol in aggression remains unclear; however, women high in testosterone and low in cortisol display heightened levels of aggression. They also reported that high levels of progesterone and estradiol are associated with low levels of aggression. Oxytocin may increase aggression by heightening women's reactivity to a provocative situation while

altering their perception of danger, typically deterring most women from reacting by reducing anxiety levels.

Gender. Studies have investigated the influence of gender on both direct and indirect aggression. Males are more inclined to engage in direct aggression, specifically physical aggression, compared to females. Females, on the other hand, are more likely to use indirect aggression rather than direct aggression (Björkqvist, 2018; Björkqvist et al., 1992; Crick & Grotpeter, 1995; Denson et al., 2018; Green et al., 1996; Walker et al., 2000). Archer's (2000) meta-analysis of sex differences in physical aggression toward heterosexual partners found that women were slightly more likely to use one or more acts of physical aggression more frequently than men. He also reported that women were more inclined to be injured by their partners than men, while men were more likely to cause an injury.

Socioeconomic Status. Socioeconomic status (SES) is defined by the individual's status in income, education, and occupation compared to other members of their community. Henry (2009) found that people with lower incomes are aware of their lower social ranking, have more negative life experiences across environments (e.g., work, home, etc.), are more likely to act defensively in social interactions, are less trusting of others, and believe that others are trying to take advantage of them.

Subjective SES is the individual's perception of their socioeconomic standing. Adler et al. (2000) reported that although objective measures of socioeconomic status are related to an individual's subjective perceptions of their SES, the subjective socioeconomic status impacts an individual's well-being more than their objective socioeconomic status. Greitemeyer and Sagioglou (2016, 2018) conducted several

experimental studies and found that participants in low SES conditions were more aggressive than those in high and medium SES conditions. Also, subjective SES was more predictive of aggressive behavior than objective SES. Individuals with low SES had increased aggression toward targets they perceived to be the source of their experience of disadvantage and neutral targets. When controlling for demographics and objective SES, Greitemeyer and Sagioglou (2018) found that income was significantly related to aggression, while education was not.

Temperature. A possible explanation for regional differences in rates of aggression and violence is temperature variation (Anderson, 1989; Anderson et al., 1995; Jacob et al., 2007; Mishra, 2014; Nisbett, 1993; Simister & Cooper, 2005). The temperature-aggression hypothesis suggests that regions with uncomfortably hot temperatures cause aggression to escalate and simultaneously impair one's judgment (Anderson, 1989). Both archival data and field studies identified a relationship between hotter temperatures and aggressive behaviors (e.g., rape, assault, domestic violence, and murder), as well as an increase in hostile affect, cognition, motives, behaviors, and physiological arousal despite the absence of a reasonable target for those feelings (Anderson, 1989, 2001; Anderson et al., 1995). Jacob et al. (2007) found that the adverse effects of hot weather remained consistent, influenced various types of violent crime (e.g., domestic violence, use of a weapon, and violence between strangers), and increased property crime rates. Simister and Cooper (2005) suggested that the human body becomes overwhelmed at high temperatures and triggers increased adrenaline levels. They concluded that an individual could cope with a range of typical temperatures in their location, but once temperatures become extreme, crime rates increase.

Provocation. Provocative situations usually elicit intense negative emotions, such as anger, shame, or guilt, despite the cultural values that are endorsed by the individual (Krys et al., 2017). The individual's anger and need for retaliation can generate different responses, such as aggression (i.e., indirect, direct, or displaced), withdrawal, or assertive confrontation (Averill, 1983). Other possible responses to provoking situations are humor and amusement. According to Krys et al. (2017), individuals in American society are expected to control their impulses by using humor as an appropriate response to provoking situations in which aggression may be the initial response. Humor can be used aggressively (e.g., teasing, sarcasm, and ridicule) and can substitute for physical aggression.

Theories of Aggression

Researchers from various fields of study (e.g., psychology, sociology, and history) have analyzed aggression from their perspective, thus contributing to the vast literature on aggression available today. This section explores theories of aggression through different lenses.

Frustration-Aggression Theory. When obstacles prevent people from achieving their goals or desired outcome, they become frustrated (Dollard, 1998). Frustration-Aggression theory suggests that some form of frustration functions as a precursor to aggression. The concept of aggression then acts as a response targeted at causing injury to another person or object, which sometimes presents itself in overt behavior. However, it may also exist in the form of fantasies, dreams, or detailed revenge plans. Aggression can be directed at what is perceived as the source of the aggression or displaced towards others or oneself (e.g., self-harm and suicide).

Attachment Theory. Attachment theory assumes that individuals are driven by natural selection to connect with a parent or surrogate identified as their caregiver and protector (Bowlby et al., 1989). Attachment is an emotional or affectional bond created with a caregiver during childhood that influences the individual's emotional development into adulthood (Ainsworth, 1989; de Souza et al., 2016). Ainsworth (1989) explained that the origin of attachment occurs when an individual tries to remain close to their significant caregivers. Attachment behavior is thought to have evolved through natural selection due to the survival advantages gained from the protection of an adult caregiver.

Whale et al. (2018) found a correlation between individuals who reported higher levels of having an avoidant attachment style and increased aggression levels (i.e., physical aggression, anger, and hostility). Ratip (2013) analyzed studies conducted in an institutional setting and found that violent offenders had higher temperament scores for insecure attachment styles than those with secure attachment styles. Ratip also noted higher rates of insecure attachment styles were found in the offending population than in nonoffending populations.

Social Learning Theory. Social learning theory focuses on the environmental forces in one's life (Muro-Ruiz, 2012). Children are still exposed to aggressive or violent behaviors in their homes, schools, communities, and media. For instance, these individuals may have experienced corporal punishment, which subsequently encourages violent responses in the future. Corporal punishment uses noninjurious open-handed hitting or objects (e.g., a belt) to inflict pain to change a child's behavior. The primary goals of corporal punishment are to increase the child's immediate and long-term compliant behavior while decreasing the child's aggressive and antisocial behavior

(Gershoff, 2010). Various studies have examined the relationship between corporal punishment and deviant behavior. Gold (1958) discussed differences in child-rearing practices and their relationship to hostile behaviors and coping with frustration. Gold found a positive correlation between physical punishment and the rate of homicide, thus concluding that children who were physically disciplined were more inclined to use aggression toward others.

More recent studies have reported the association of aggression in corporally punished children with the high frequency and severity of punishment associated with an increased risk of antisocial behavior development (Gershoff, 2010; Hecker et al., 2014). Gershoff (2010) mentioned that corporal punishment did not encourage internalized reasoning for appropriate behavior since it is an external source associated with compliance. For example, if a parent uses physical discipline on their child, it models the use of force to achieve a desired behavior or outcome. The child then observes their parent's use of aggression as a valuable tool to attain goals and is more likely to mimic aggressive behavior in the future to get what they want (Gershoff, 2010).

Script Theory. Huesmann (1988) stated that learning results from an individual's behavior and observing others' behaviors. Exposure to aggressive behavior at a young age increases the individual's chances to respond to frustrating situations with aggression, therefore creating aggressive scripts. Huesmann explained that scripts are learned during early development and are programs for an individual's behavior. They are then stored in their memory and later used as rules for behaving and solving social problems. The more the scripts are rehearsed, the more accessible they become and generalized across various situations (Anderson & Bushman, 2002).

Mass Media. Mass media has an influential role in society and often normalizes violence for its viewers. Research shows that human behavior is influenced by direct and observational experiences (Bandura, 2001). Weber et al. (2006) discussed the impact of the evolution of violence in video games, from fighting as cartoon-like characters to using a more realistic representation of violence. Individuals who consistently play violent games are more likely to imitate the observed behavior in real-life situations, normalize aggressive or hostile behavior, and demonstrate an increase in aggressive cognition and affect. Also, these individuals were more likely to become desensitized to violence and develop a biased perception of what is considered aggressive behavior (Greitemeyer, 2014; Markey et al., 2015; Weber et al., 2006). Another caveat of the mass media's display of violence is that aggression is often used to resolve conflict in violent games and television programs, resulting in physical aggression being interpreted as an acceptable form of behavior. This glamorizes and portrays physical aggression as successful while trivializing the effects of violence on others (Bandura, 2001).

Defining Culture

Culture is a broad, multifaceted social construct that is created by members of a population and is comprised of traditions, competencies, ideas, schemas, symbols, values, institutions, goals, rules and regulations, artifacts, and social practices (Bond, 2004; Cohen, 2009; Hart, 2016). From a psychological perspective, culture is a shared system of beliefs, values, and expectations of how individuals should act toward each other, thus having the capability to influence one's behavior in complex and subtle ways (Bond, 2004; Kim, 2012).

According to Cohen (2009), culture is difficult to define because of the elements that compose it, including material culture (e.g., goods, services, technology), subjective culture (e.g., ideas and knowledge shared within a group), and social culture (i.e., established rules of social behavior and institutions). Religion, socioeconomic status, and regional norms can vary in a country, while various groups possess uniquely different cultural dynamics. Individuals from different geographic regions in the same country can have very different norms and values.

Triandis (2007) explained that culture was initially perceived as adaptive interactions among people and their environment, which were subsequently created as shared elements passed down to future generations. When people interact with each other in their physical and social environment, behavioral norms are established, and relationships become internalized (Triandis, 2007). However, cultural differences are often overly simplified and viewed as primarily geographic or ethnic differences.

Culture, Aggression, and Violence

Understanding how culture influences aggression continues to be a work in progress (Fry, 1998; Gallardo-Pujol et al., 2018). “Aggression exhibits significant cross-cultural variability in both meaning and enactment” (Severance et al., 2013, p. 836). Behavior is defined by influential social groups (Faust, 1985). The levels of tolerance and acceptance of aggression, the perception of conflict, and how it is resolved vary from culture to culture (Bond, 2004; Fry, 1998; Fry & Fry, 1997). Gallardo-Pujol et al. (2018) analyzed the revised version of the Aggression Questionnaire (Bryant & Smith, 2001) to see if the meaning of aggression remained consistent among different cultures (Spain, Hong Kong, and the United States). They found that aggression was similarly defined in

both the Spanish and Chinese versions of the questionnaire, but not when both versions were compared to the American version. Thus, a culturally blind approach prevents understanding aggressive behavior's universal and culture-specific aspects.

Hart (2016) identified culture as a determining factor in decision-making regarding why or how individuals engage in violent acts and how the community reacts to such behavior. Galtung (1990) defined cultural violence as any aspect of a culture that may normalize or legitimize violence. Cultural violence allows violent behavior to be perceived or felt as appropriate, thus being accepted. Galtung listed religion, ideology, language, art, and empirical and formal science as aspects of culture that have been used to legitimize violence.

Cultural Constructs and the Self

Aslani et al. (2013) identified social identity as one of the core concepts of cultural psychology; mainly, it is a person's perception of their value in society. Aslani et al. explained that self-worth within a culture depends on stability and the hierarchy of the social structure.

Sherman and Cohen (2006) stated that individuals are inclined to perceive themselves positively, such as being genuine and possessing integrity. Believing one's self to be motivated by integrity is universal. However, the methods used to protect oneself differ across cultures (Krys et al., 2017). Cultural constructs influence how the self is valued (internally, externally, or both) and how intrinsic worth is maintained and protected (Krys et al., 2017; Leung & Cohen, 2011).

Stets and Burke (2014) explained that self-worth is the level of positive feelings (i.e., good and valuable), self-acceptance, or self-respect that individuals have about

themselves. Stets and Burke further stated that self-worth is rooted in the thought that people desire to view themselves favorably, thus behaving in ways that maintain and enhance that positive perception of themselves. Self-worth is acquired in two ways: from within or from what an individual is told by others (Kim et al., 2010). Three types of culture concerning self-worth have been recognized: honor, dignity, and face.

Honor Culture

Julian Pitt-Rivers defined honor as the value an individual sees within himself “but also in the eyes of society. It is his estimation of his worth, his claim to pride, but it is also the acknowledgment of that claim, his excellence recognized by society, his right to pride” (Kim & Cohen, 2010, p. 539). Societies endorsing honor cultures emphasize the importance of strength and social regard related to the self, family, reputation, and property.

Characteristics of Honor Culture. Cohen and Vandello (2004) identified honor cultures as places where great politeness and hospitality are used to decrease the likelihood of offending someone. Offensive behavior, even when unintentional, can initiate a cycle of retaliation and retribution lasting a lifetime or spanning generations. Despite qualities of hospitality and politeness in honor cultures, violence can quickly occur as a reaction to a perceived threat (Cohen et al., 1996). These reactions within honor cultures have been studied in controlled laboratory settings (Cohen et al., 1996) and through analysis of archival data from studies on violent-crime rates in the United States (Cohen, 1998). Research on individuals from honor cultures in the United States found that they were more accepting or tolerant toward the death penalty and

endorsed aggressive retaliation as an appropriate response to perceived insults and threats to their honor (Cohen et al., 1996; Krys et al., 2017; Nisbett, 1993).

Another characteristic of honor culture is having higher levels of cultural gender inequality. Corcoran and Stark (2018) explained that honor culture disproportionately affects men since it supports traditional masculinity. Furthermore, masculinity is privileged within honor cultures, and patriarchal cultural belief systems predominate; thus, men's and women's gender roles become socialized. Corcoran and Stark also found that regional and higher frequencies of cultural gender inequality were significantly associated with violent crime rates in honor culture regions compared to nonhonor culture regions. Also, the less respected women were within the region's culture, the more violent crime rates increased.

Honor Culture in the South. The regions where honor culture thrives in the United States are described as hotter, more impoverished, and more socially unstable than other states that do not endorse an honor culture (Brown et al., 2009). Honor cultures are commonly found in the Southern parts of the United States: Delaware, Maryland, Virginia, West Virginia, North Carolina, South Carolina, Georgia, Florida, Kentucky, Tennessee, Alabama, Mississippi, Arkansas, Oklahoma, Louisiana, and Texas (Cohen, 1998; Cohen & Nisbett, 1994; Frey et al., 2015; Shackelford, 2005). Homicides and assaults have been found to occur at higher rates in these regions of the United States (Ayers, 1991; Blau & Blau, 1982; Gouda & Rigterink, 2017; Nisbett, 1993). The South has been considered more violent than the northern part of the United States (Frey et al., 2015; Hackney, 1969; Nisbett, 1993). Outside the southern United States, honor culture

exists in South America (referred to as machismo culture in Latin America), the Mediterranean, and Eastern Europe (Krys et al., 2017).

Cohen et al. (1996) explained that retaliatory behavior is evident historically and economically in the South. The economy of the South is primarily based on herding livestock and is more accepting of specific forms of violence (Grosjean, 2014). Cohen et al. (1996) indicated that herders were prepared to use force to protect themselves and their property when inadequate law enforcement and their livelihoods were jeopardized. Cohen (1996) suggested that honor culture customs are embedded in Southern states' laws and policies. Such influences can be found in the looser gun control laws, less restrictive self-defense statutes, and feelings threatened when Congress votes on foreign policy issues.

Southern Violence. There have been many attempts to understand the epidemic of violence in this region. Hackney (1969) referred to this epidemic as “Southern violence.” He contended that Southern violence was primarily the result of a distinct cultural pattern that developed in the South and has persisted despite significant economic and structural changes.

Nisbett (1993) offered a cultural explanation and implied that Southern violence was more likely to have developed from cultural influences than the other suggested hypotheses (e.g., temperature, poverty). Nisbett believed that the attitudinal differences relating to self-protection, socialization of children, response to insults, and the high rates of argument-related homicides compared to felony-related homicides supported this hypothesis. Areas of the South with a predominant herding economy are inclined to

violence based on substantial similarities between past and present cultures, such as the need for self-defense and protection.

Acceptable Violence and Aggressive Behaviors. In studies, Southerners were found to be more accepting of certain types of violence than other groups (Cohen & Nisbett, 1994; Nisbett, 1993). Violence was more likely to be endorsed for self-protection and in response to insult. Compared with Northerners, Nisbett (1993) found that Southerners were more likely to believe in spanking as a form of discipline, and fathers expected their children to fight if they were bullied. The level of approved violence was limited to responding to an assault, self-protection, or socializing children.

In the South, men are compelled to retaliate once offended or risk losing respect before their family and peers. Here, revenge is used to restore lost honor and is perceived as a moral obligation to provide justice while preventing future victimization (Frey et al., 2015). The slightest disagreement can threaten one's reputation and social status in honor cultures (Cohen et al., 1996). The need for revenge to right the wrongs they have experienced or witnessed against someone they care for may be one of the driving forces for violent responses. Seltzer (2014) described revenge as a miscarriage of justice often misconceived as synonymous with attaining justice. Seltzer described justice as primarily rational, impersonal, and an impartial act of vindication used to attain resolution and restore balance. In contrast, Seltzer defined revenge as a personal act of vindictiveness generated from emotions and fulfills a desire for retaliation.

The need for self-protection holds high precedence; therefore, power and hierarchy are developed through social means, providing the foundation for honor cultures. In honor cultures, an individual's self-worth is contingent on personal and public

views of oneself (Leung & Cohen, 2011). The risks of being disrespected, insulted, or targeted in future altercations increase if an individual does not defend himself. It also indicates that the individual is weak and incapable of protecting himself, his possessions, or his loved ones (Shackelford, 2005). The actions taken in honor cultures can be physical and deadly if guns are easily accessible (Cohen & Nisbett, 1994).

Cohen and Nisbett (1994) explained that cultures that struggle with an inadequate judicial system could develop into an honor culture. Immigrants from the South arrived from herding economies on the fringes of Britain. Cohen et al. (1996) described the culture the individuals immigrated from as lawless and unstable, marked by political upheaval and clan rule. Individuals from Britain's border countries were described as being compelled to be self-reliant in order to establish justice. When they later settled, they integrated these customs and mindsets when establishing justice and order. Despite the dissemination of frontier conditions and the decline of the herding economy in the South, honor culture customs remained, and thus violence occurring from honor culture norms can still be found.

Further Examples of Honor Culture. Honor-based norms are endorsed by many people who differ in religious and secular beliefs, ethnicity, socio-economic status, language, and countries of origin and residence (Sedem & Ferrer-Wreder, 2015). In a sample of 160 Brazilian male convicts, de Souza et al. (2016) investigated the individual's tendency toward criminal homicide based on theories of socioeconomic frustration, decision-making processes, emotional attachment, testosterone, moral development, moral values, and the culture of honor. There was no significant difference in income, education level, economic frustration, developmental level, and moral values.

When testing for a culture of honor, 63% of individuals convicted of homicide identified honor as their motivation for the crime. In contrast, those who committed other crimes identified material gain as motivation.

Using archival data, Brown et al. (2009) examined the concept of honor culture as a predictor of school violence in high schools, specifically investigating the rates of school shootings over a 20-year period and the percentage of high school students who reported having brought a weapon to school in the previous month. The authors controlled for demographic characteristics identified in earlier studies on violent crimes in an adult population (i.e., social and economic insecurity, average temperature, index of rurality). Their findings suggested that high-school students in honor culture states were significantly more inclined to disclose bringing a weapon to school within the past month. Also, there was a higher prevalence of actual school shootings over a 20-year period in these states compared to high school students from nonhonor culture states. When controlling for temperature, rurality, social composition, and economic and social insecurity, the Brown et al. study could not identify any demographic variables as predictors of school violence.

Dignity Culture

Dignity cultures encourage autonomy and independence (Krys et al., 2017). In contrast to honor cultures, dignity is recognized as something internally possessed within an individual and is not contingent on the evaluation of others (Frey et al., 2015; Kim et al., 2010). Ayers (1991) defined dignity as the belief that everyone possesses an intrinsic value since birth, equivalent to every other person. Self-worth cannot be defined, given, or taken away by others. The person has complete control over defining him or herself.

Individuals of this culture often try to preserve their self-sufficiency by sometimes disregarding the opinions of others and seeking to define themselves in a particular way despite the opinions of others (Kim et al., 2010). An individual's behavior is influenced by their moral standards and not by impulse or circumstance (Leung & Cohen, 2011).

States that endorse this culture can be found among mainstream Anglo Americans in the Northern part of the United States (the North): Connecticut, Illinois, Indiana, Iowa, Kansas, Maine, Massachusetts, Michigan, Minnesota, Missouri, Nebraska, New Hampshire, New Jersey, New York, North Dakota, Ohio, Pennsylvania, Rhode Island, South Dakota, Vermont, and Wisconsin (Cohen, 1998; Frey et al., 2015; Kim et al., 2010). Dignity cultures are also found in Northern and Western European countries as well as Canada (Krys et al., 2017).

The Use of the Law. Campbell and Manning (2014) explained that dignity cultures encourage individuals to avoid insulting others regardless of their intentionality and practice self-restraint. In this culture, individuals are encouraged to resolve conflict directly in a nonviolent way. If this approach does not work and the offensive behavior is severe, the individual is encouraged to involve law enforcement or the judicial system. The authors added that dignity cultures embrace the use of the law for offenses such as theft, assault, or contract breaches; however, the culture opposes the frivolous use of the legal system. Campbell and Manning (2014) suggested that the use of law, order, and commerce influenced the growth of dignity culture. They believed dignity culture was in its *purest* form during the mid-20th century in the United States. During this time, the legal system was stable and robust while deterring hostile and aggressive behavior and encouraging diplomatic confrontation.

Face Culture

While honor cultures are created from rough equals in a competitive environment, Kim and Cohen (2010) explained that face cultures are usually derived from settled hierarchies. Face cultures can be found in East Asia, including China, Korea, and Japan (Krys et al., 2017). Leung and Cohen (2011) explained that face is expressed as what others see and is similar to honor culture's emphasis on the perception of others. Face is also defined as respectability or admiration earned because of one's position/role in a hierarchy. Anyone in a hierarchy has face, and some have more than others. Face can be acquired and given but should never be lost.

In contrast to honor cultures where honor can be taken from others to increase one's honor, it is unacceptable to take face from someone else, and it is encouraged to help maintain the face of others. In addition, Frey et al. (2015) explained that conflict is rarely solved with personal retaliation since it is inappropriate in this culture. Instead, individuals use social hierarchy and present their injustices to persons of higher status/power for resolution. Face cultures embrace the three H's of their culture: hierarchy, humility, and harmony. Hierarchy is respected, humility is often displayed, and harmony is maintained (Leung & Cohen, 2011).

The Chinese Concept of "Face." According to Hu (1944), the desire for prestige is universal across cultures; however, the value assigned and methods for achieving prestige vary greatly. Gaining and losing face are not simply opposite outcomes in a social encounter (Ho, 1976). The concept of face is Chinese in origin and is a literal translation of the Chinese *lien* and *mien-tzu*. The terms vary due to verbal context and can be interchangeable.

Mien-Tzu vs. Lien. Mien-tzu represents the prestige emphasized in China, where acquiring a reputation occurs by being successful in life without ostentation. This type of prestige represents achievement through personal effort or clever maneuvering. Lien, on the other hand, values having respect from others for having a good moral reputation. Individuals strive to maintain integrity and respect in their community. If respect or integrity is lost, one's level of efficiency in functioning in the community deteriorates. The person becomes at risk of living a life of isolation and insecurity. Lien acts as both a social and an internalized sanction to implement moral standards. It symbolizes the level of confidence society has in a person's moral character. Lien can either be entirely lost or maintained.

Hu (1944) clarified that the importance of lien and mien-tzu differs from the social circumstances of ego. A person's lien is perceived as honest and decent among different communities. However, their mien-tzu will vary and is contingent on factors such as family status, personal ties, and the individual's ability to impress people. Therefore, lien within a community acts to protect the socio-economic security of the ego and maintain their self-respect. The type of face relevant to this study is lien as it relates to self-worth and values.

Tiu-Lien. Tiu-lien, or "to lose lien," occurs when there is condemnation by community members for unethical or socially disagreeable behavior (Hu, 1944). Hu (1944) explained that when one loses face, tiu-lien occurs after a single incident in which the individual was challenged and failed to "save face." "Losing face" is a figure of speech referring to public or discrete events with demoralizing repercussions. Ho (1976) elaborated that when face is lost, it can be regained through behaviors such as

compensation, corrective actions, and making up for their shortcomings. Regaining face is not the same as gaining face. Instead, it is a restoration of what the person should have had in the beginning.

Tiu-Lien and Suicide. Besides being condemned by society, Hu (1944) declared that losing lien also negatively impacts a person's confidence and integrity. When individuals lose face, the public disgrace and condemnation may also affect their family's reputation, depending on the severity of their immoral actions. In extreme cases, the loss of lien can drive a person to commit suicide.

Committing suicide is seen as a final attempt to prevent the total loss of face or to regain some level (Hu, 1944). Ho (1976) explained that women from traditional Chinese culture often commit suicide to prove their innocence of being raped or suspected of being raped. Another example of suicide to save one's remaining face is a commander-in-chief who lost a battle but shot himself to avoid being humiliated by being captured alive. In this culture, saving face can be more important than life itself.

Threats to Self-Worth. Severance et al. (2013) investigated the universal and cultural-specific dimensions of aggression across Pakistan (honor culture), Japan (face culture), Israel (dignity culture), and the United States (dignity culture). Both Pakistan and Israel perceived behaviors such as belittling, humiliation, or making someone feel powerless or worthless as threats to one's self-worth. Pakistanis viewed overt actions (e.g., public insults, yelling, using an aggressive tone) as more threatening to their self-worth. At the same time, Israelis perceived covert behavior as more harmful to their self-worth (e.g., ignoring and gossiping). The Japanese regarded verbal assaults as damaging to one's reputation. In the United States and Israel, behaviors that violate the

advancement of individuals were perceived as threatening because they interfered with achievement and personal endeavors. Preventing someone from moving forward in society is highly offensive in the United States because it is an individualistic culture that believes everyone has equal opportunity. It is perceived as selfish for the offender to believe they deserve more opportunities than the person from whom they took opportunities.

Maitner et al. (2017) conducted three studies that investigated emotional responses to insults towards ethnic (group-based offenses) or student identity (individual's social image) within British, American (dignity cultures), and Arab (honor culture) student populations. Compared to the British (dignity culture), Arab participants (honor culture) reported more robust anger responses to insults when their Arab identity was insulted. When the student identity was offended, there was no difference in anger responses between dignity (American) and honor (Arab) cultures. This suggests that cultural values may not apply to all identities and that individuals may react differently depending on what aspects of their identity are threatened. For example, a male student may ignore criticizing comments about him as a student but may react to criticisms targeting his masculinity.

Response to Provocation

Northern vs. Southern Responses. Nisbett (1993) found that in comparison with Northerners, Southern participants tended to respond with more anger to insults and were more likely to suggest violent means to resolve the conflict. In a sample of college students from rural communities, Nisbett (1993) found that southerners were more sensitive to provocation, became angrier, and were more emotionally reactive. In

comparison, northerners remained less bothered by a provoking incident. Similarly, on a biological level, Cohen et al. (1996) found northerners to be generally unaffected by insults, while southerners were found to have increased cortisol and testosterone levels. The southerners thought their masculine reputation was threatened and were more inclined to engage in aggressive and dominant behavior.

Anger, Humor, and Withdrawal. Krys et al. (2017) investigated preferred reactions to provocation by analyzing the three cultural constructs (i.e., honor, dignity, and face) in a sample from Poland, Canada, and China. Anger was found to be the most significant emotional reaction to provocative situations across the three cultures, but cultural endorsement encouraged different responses to such situations. Consistent with previous studies, the authors found that aggression was the preferred reaction to provocation in honor culture (Cohen et al., 1996; Nisbett, 1993). Individuals in dignity cultures preferred amusement and humor reactions, while withdrawal was found in dignity and face cultures. Additionally, across cultures, the participants' urge (i.e., how participants would like to react to provocative scenarios) generated the same emotional reaction (i.e., provocative situations induced anger). However, endorsed culture logics influenced different behavioral intentions (i.e., how participants believed they would behave in provocative scenarios) among the various cultures.

Cross et al. (2013) examined an honor culture (Turkey) in comparison with a dignity culture (Northern USA) and their members' responses to scenarios that threatened honor. In these scenarios, the target was either a victim of a rude affront or falsely accused of an offense. The target responded to either situation by withdrawing or confronting their attacker. Turkish participants approved of the person who did not

respond to the insult compared to the one who confronted the insulter. Concerning false accusations, Turkish participants were more likely to approve of confronting behavior compared with situations where the individual walked away. Cohen et al. (1999) previously found that individuals from honor cultures tend to respond slower to some types of honor threats to avoid initiating a cycle of violence.

The Cross et al. (2013) study also revealed that Americans did not have a solid preference for either withdrawal or confrontation in response to an affront. However, they were more inclined to approve confrontation responses when falsely accused. The authors explained that generally, in dignity cultures, walking away from insults is considered mature. However, being falsely accused threatens one's self-view; therefore, confrontation is an acceptable response to such behavior. The endorsement of withdrawal or confrontation behavior was more substantial in Turkish participants than in Americans, implying stronger cultural norms for desirable behaviors in such situations.

Purpose of the Study

An individual's reaction to provocative situations depends on multiple factors, including cultural background and endorsement (Cross et al., 2012; Kryszewski et al., 2017). Socioeconomic status and cultural and social customs can influence aggression and violence by creating norms and expectations of behavior shaped in a specific cultural or social group (World Health Organization [WHO], 2009). The established standards may not be aligned with an individual's attitudes or beliefs but may start to alter their values once the norm is internalized. Individuals are thus encouraged to abide by the rules set by various internal and external pressures. This study aimed to analyze the relationship

between cultural logic (honor, dignity, and face culture), socioeconomic status, and their influence on aggressive behaviors.

Research Questions

Studies thus far have investigated the various influences of aggressive behavior, such as individual traits (e.g., biological and socioeconomic status) and cultural constructs (e.g., honor culture). Though individuals' proclivity to aggressive or violent behavior from honor culture has been thoroughly investigated (Cohen & Nisbett, 1994; Cross et al., 2013; Krys et al., 2017), some things remain unclear: Does self-reported aggression vary by the culture logic an individual subscribes to? Is the relationship between the level of aggression and cultural logic mediated by socioeconomic status? Is aggression expressed differently by gender for those who subscribe to honor culture? Is there a relationship between socioeconomic status and level of aggression? Is there an association between subjective socioeconomic status and cultural belief?

By understanding the relationship between cultural beliefs and behavior, we can investigate why aggression may occur more frequently in particular circumstances and within specific populations. This insight can provide a foundation for developing intervention or prevention programs.

Chapter 2

This study investigated the relationship between cultural endorsements, aggression, and socioeconomic status (income and education) in a general population. Additionally, the study used a survey research design to identify significant relationships between various types of aggression, endorsed cultural logic, and socioeconomics. The study attempted to answer the following questions and hypotheses based on previous research (Archer, 2000; Björkqvist et al., 1992; Cohen et al., 1996; Crick & Grotpeter, 1995; Cross et al., 2013; Green et al., 1996; Greitemeyer & Sagioglou, 2018; Denson et al., 2018; Walker et al., 2000).

- Research Question 1: *Does self-reported aggression vary by the cultural logic an individual subscribes to?*
 - H₀ There is no difference between cultural beliefs and levels of aggression.
 - H₁ Individuals with honor beliefs are more likely to have higher aggression scores than individuals with nonhonor beliefs.
- Research Question 2: *Is the relationship between the level of aggression and cultural logic mediated by socioeconomic status?*
 - H₀ Individuals' cultural beliefs and aggression scores are not influenced by socioeconomic status.
 - H₁ Honor belief individuals with higher socioeconomic status will have lower aggression scores than honor belief individuals with a lower socioeconomic status.

- H₂ Honor belief individuals with a lower socioeconomic status will have higher aggression scores than honor belief individuals with a higher socioeconomic status.
- Research Question 3: *Is aggression expressed differently by gender for those who subscribe to honor culture?*
 - H₀ There is no relationship between gender and the expression of aggression among honor culture individuals.
 - H₁ Males with honor beliefs are more inclined to engage in physical aggression than females with honor beliefs.
 - H₂ Females with honor beliefs are more inclined to engage in in-direct aggression than males with honor beliefs.
- Research Question 4: *Is there is a relationship between socioeconomic status and level of aggression?*
 - H₀ There is no relationship between socioeconomic status and aggression scores.
 - H₁ Individuals with higher socioeconomic status will have lower aggression scores than individuals with lower socioeconomic status.
- Research Question 5: *Is there an association between subjective socioeconomic status and cultural belief?*
 - H₀ There is no relationship between subjective socioeconomic status and cultural belief.
 - H₁ Individuals with lower subjective socioeconomic status are more inclined to endorse an honor culture belief system.

Participants

Individuals aged 18 and older from the general public were invited to participate in this study. The sample population was comprised of males ($n = 57$), females ($n = 64$), and those who preferred not to answer ($n = 3$). Participants were recruited via social media (e.g., Facebook) and snowball sampling. A link to the survey was posted on social media, with a summary of the purpose of the study, how the results of this study can benefit the community, and how to participate in the survey. Individuals who saw the post were encouraged to share the post on their newsfeeds to encourage other people to participate in the study.

Measures

A pilot study was conducted in 2016 on adult participants from the U.S. Virgin Islands, and subsequent changes to the instrument were made to improve the study's design. The previous instrument used measures provided by Dr. Karin Frey (2016) that examined ascribed cultural norms and identified any relationships with the additional constructs (i.e., anger, discrimination, and reaction to offensive behavior). The current instrument uses the ascribed cultural norms measure from a previous study and an abbreviated aggression questionnaire created by Buss and Warren (2000).

The 54-item survey included items from Frey's (2016) Cultural Logic Instrument and Buss and Warren's (2000) Aggression Questionnaire. Permission was granted by both Dr. Frey and Western Psychological Services (WPS) to use their instruments and electronically administer them to the general public population.

Demographics. Demographic information was collected from each participant, including ethnicity, age, gender, education level, place of birth, socioeconomic status

(SES), and residency for at least six years or more. Both objective and subjective SES were collected. Adler et al.'s (2000) MacArthur Scale of Subjective Social Status (SSS) has been used in previous studies (Du et al., 2022; Lee et al., 2018) to measure subjective socioeconomic status; thus, it was chosen to measure SES in this present study. The SSS was developed to assess participants' perceived socioeconomic status and social position within society. Participants were shown a picture of a 10-rung ladder and asked to imagine that the ladder represented their position in society. They were informed that the top of the ladder represents the people who are best off, whereas the bottom represents the people who are worst off. Participants indicated where they think they are at this time of their life compared to other people in the United States.

Cultural Norms. Frey's (2018) Cultural Logic Instrument measured participants' response styles to 39 items related to cultural beliefs, specifically Dignity, Face, and Honor cultural logic. Changes were made to the 2016 version, such that the language used was simplified, and the format of the instrument was made more accessible. Participants rated their responses using a six-point Likert scale, ranging from 1 (definitely not true) to 6 (definitely true). Scores were calculated for three subscales by summing the items in each respective domain: Honor (Items 1, 5, 12, 14, 18, 23, 24, 29, 30, 34, 36, and 38), Dignity (Items 2, 4, 6, 7, 9, 16, 17, 20, 21, 22, 26, 33, and 39) and Face (Items 3, 8, 10, 11, 13, 15, 19, 25, 27, 28, 31, 32, 35, and 37). Cronbach's Alpha reliability scores for honor, dignity, and face were moderately reliable ($\alpha = .84$, $\alpha = .64$, and $\alpha = .62$, respectively). A binary variable was created for each subscale to indicate whether a participant scored higher than the mean for that subscale ("high") or lower than or equal to the mean ("low"). Those with scores higher than the sample mean value for a given

subscale were labeled as having values consistent with that cultural logic. Since honor, dignity, and face were treated as binary items, reliability for these subscales was not assessed.

Aggression Questionnaire. Buss and Warren's (2000) Aggression Questionnaire (AQ) is a revision of the Buss-Durkee Hostility Inventory (Buss & Durkee, 1957). The questionnaire has been widely used to assess anger and aggression (Archer, 2004; Diamond & Magaletta, 2006; García-León et al., 2002). The original questionnaire consisted of 34 items scored on five scales related to aggression: verbal aggression, physical aggression, anger, hostility, and indirect aggression. In this study, the short version of the AQ, which includes three items from each scale (the first 15 items of the questionnaire), was administered. Buss and Warren reported that the shortened AQ correlated well with the full AQ (PHY = .93, VER = .90, ANG = .90, HOS = .86, IND = .90, and AQ Total Score = .97) and both represented similar constructs. They also stated that the internal reliability estimates on the shortened AQ were lower than on the full AQ but remained mostly within acceptable limits (PHY = .80, VER = .74, ANG = .63, HOS = .72, IND = .62, and AQ Total Score = .90). Each item of the AQ describes traits related to aggression. The participant rates each item description on a scale, with 1 = "Not at all like me" and 5 = "Completely like me."

Each participant's AQ score was calculated by summing responses for all items on the AQ Short Form. Subscale scores were also calculated by summing items on the five AQ Short Form subscales as defined by the authors of the AQ. Instructions described in the AQ scoring manual were used to recode the AQ variables (Buss & Warren, 2000).

Verbal Aggression. Verbal aggression refers to the negative affect expressed in the participant's style and speech content (Buss & Durkee, 1957). Examples of this behavior include yelling, cursing, arguing, and screaming. Items that measure verbal aggression are "My friends say that I argue a lot," "I can't help getting into arguments when people disagree with me," and "I often find myself disagreeing with people." The sum of these three AQ items yielded a Verbal Aggression subscore.

Physical Aggression. The Physical Aggression subscore was created through the sum of scores of three items to measure the participant's tendency to express anger through physical means (e.g., hit, kick, and punch). Items in this category are "I have threatened people I know," "Someone has pushed me so far that I hit him or her," and "I may hit someone if he or she provokes me."

Anger. The anger scale assesses how easily the participant may become angered, with minimal provocation. Items in this category are "I flare up quickly but get over it quickly," "I have trouble controlling my temper," and "At times I get very angry for no good reason." An Anger subscore was created by summing these three items.

Hostility. Feelings of jealousy and hatred of others are measured on the hostility scale. This category's items are "Other people always seem to get the breaks," "At times I feel I have gotten a raw deal out of life," and "I wonder why sometimes I feel so bitter about things." A Hostility subscore was created by summing these three items.

Indirect Aggression. Roundabout behaviors of aggression that are not directed at another person, such as malicious gossiping or slamming doors, are measured on the indirect aggression scale. Items used to measure this scale are "When people are bossy, I take my time doing what they want, just to show them," "I have been mad enough to

slam the door when leaving someone behind in the room,” “If I am angry enough, I may mess up someone’s work.” An Indirect Aggression subscore was created by summing these three items.

Study Procedures

The survey was presented to participants using Qualtrics software. Links to the survey were made available through social media advertisements. The survey took less than 10 minutes to complete. Identifying information was not gathered; therefore, participant identities’ were kept anonymous. Before beginning the survey, the participants were prompted to read the consent form and select “I accept and continue to survey” to provide consent. Through the consent form, participants were informed about the study’s purpose, how their responses would be kept anonymous, and their right to withdraw from the survey at any time without penalty. Upon study completion, the data were given to Dr. Karen Frey for further analysis for ongoing research.

Summary

This study aimed to investigate possible relationships between cultural endorsement, levels of aggression, and socioeconomic factors as moderating variables. The study was administered online to the general population of adults 18 years and older. Cultural beliefs and levels of aggression were measured using rating scales. Data were analyzed through descriptive, correlation statistics, and nonparametric measures. The results of this study were shared with other researchers (Dr. Frey and colleagues) to assist in instrument modifications. They will also be published and presented to an audience of the researcher’s peers.

Chapter 3

This chapter presented the results of the quantitative examination of the relationships between cultural logic, aggression, and socioeconomic status within a general adult population. This goal was attained by conducting descriptive, correlation, and nonparametric analyses. The analytic strategy is presented in detail, including how research questions and hypotheses were tested.

Analytic Strategy

After summing Aggression Questionnaire (AQ) items and creating binary measures for face, honor, and dignity as described above, data were assessed to determine whether the assumptions of the proposed statistical tests were satisfied. For continuous variables, normality was assessed visually and through examining skewness, kurtosis, and results of the Shapiro-Wilk test. If normality assumptions were violated, nonparametric tests were used, as described below. For categorical variables, frequency distributions and cross-tabulations were used to determine whether there were sparse cell counts that might violate chi-square tests' assumptions or lead to model convergence errors in regression analyses.

The linear regression models' covariates and interaction terms were chosen based on *a priori* hypotheses. Forward and backward selection of variables were not used in linear regression model building. Residual plots and R^2 were examined to determine model fit.

Means and standard deviation (SD) were reported for all continuous variables (i.e., age, subjective SES, AQ total score, and AQ subscale scores). Frequencies (*n*) and proportions (%) were reported for all categorical variables (i.e., gender, education,

household income, current location, location of origin, race/ethnicity, and binary culture norms variables). Descriptive statistics are presented in Table 1. Cronbach's alpha was calculated to determine the internal consistency reliability of the AQ as a whole and for each subscale (see Table 2).

Results

Descriptive Results. Descriptive statistics are presented in Table 1. The mean age of the sample was 39.38 years ($SD = 11.18$). Sixty-four participants (51.61%) identified as female, while 57 (45.97%) identified as male. Most participants had at least some college education, with 12 (9.68%) reporting some college but no degree, nine (7.26%) reporting an associate's degree, 36 (29.03%) reporting a bachelor's degree, and 54 (43.55%) reporting a graduate degree. The remaining 10.49% of the sample reported high school or trade school education or less. Exactly one-quarter of the sample ($n = 31$) reported making \$50,000-\$75,000 per year. Approximately the same percent (26.62%) made less than \$50,000. The remaining 48.83% of the sample reported earning \$75,000 or more annually. Most participants ($n = 97$, 78.32%) reported currently living in the United States (U.S.), and 13 (10.48%) lived in the U.S. Virgin Islands. Other participants lived in Australia, Bangladesh, Bolivia, Brazil, Ecuador, France, Ghana, the Netherlands, and South Africa ($n = 1$ for each country), the British Virgin Islands ($n = 2$), and the United Kingdom (U.K.) ($n = 3$). Similarly, most participants' origins were from the U.S. ($n = 68$, 55.74%) or the U.S. Virgin Islands ($n = 29$, 23.77%). In terms of race and ethnicity, most participants identified as either Black ($n = 59$, 47.58%) or White ($n = 54$, 43.55%), with three participants (2.42%) identifying as Asian, seven (5.65%) as Hispanic or Latino, and one as bi-racial (0.81%).

The participants in this study endorsed high scores in multiple values. Sixty-five participants (52.42%) had higher than mean values for honor, 64 (51.61%) had higher than mean values for dignity, and 61 (49.19%) had higher than mean values for Face. The mean AQ score in the sample was 27.61 ($SD = 8.02$). Mean subscale scores were 4.05 ($SD = 2.08$) for physical aggression, 6.11 ($SD = 2.57$) for verbal aggression, 6.58 ($SD = 2.71$) for hostility, 5.58 ($SD = 2.39$) for anger, and 5.32 ($SD = 2.17$) for indirect aggression. In terms of reliability, Cronbach's alpha for the full AQ scale was 0.80. Cronbach's alphas for the subscales were: Physical aggression ($\alpha = .74$), Verbal aggression ($\alpha = .74$), Hostility ($\alpha = .58$), Anger ($\alpha = .65$), and Indirect aggression ($\alpha = .53$).

Table 1*Sample Demographics (n = 124)*

Characteristic	<i>M</i>	<i>SD</i>
Age	39.83	11.18
Perceived social standing	6.08	2.21
Aggression Questionnaire Short Form (Total score)	27.61	8.02
Physical aggression subscale	4.05	2.08
Verbal aggression subscale	6.11	2.57
Hostility subscale	6.58	2.71
Anger subscale	5.58	2.39
Indirect aggression subscale	5.32	2.17
Characteristic	<i>n</i>	%
Gender		
Male	57	51.61
Female	64	45.97
Prefer not to answer	3	2.42
Education		
Junior High School	1	0.81
Some high school	1	0.81
High school or equivalent (e.g., GED)	9	7.26
Trade School	2	1.61
Some college, no degree	12	9.68
Associate's Degree	9	7.26
Bachelor's Degree	36	29.03
Graduate Degree	54	43.55
Household income		
\$1- \$9,999	3	2.42
\$10,000 - \$24, 999	12	9.68
\$25,000- \$49,999	18	14.52
\$50,000 - \$74,999	31	25.00
\$75,000- \$99,999	14	11.29
\$100,000 - \$149,000	24	19.35
\$150,000 and greater	22	17.74
Current Location		
Australia	1	0.81
Bangladesh	1	0.81
Bolivia	1	0.81
Brazil	1	0.81

British Virgin Islands	2	1.61
Ecuador	1	0.81
France	1	0.81
Ghana	1	0.81
Netherlands	1	0.81
South Africa	1	0.81
U.S. Virgin Islands	13	10.48
United Kingdom	3	2.42
United States	97	78.23
Location of origin		
Antigua & Barbuda	2	1.64
Barbados	1	0.82
Brazil	1	0.82
British Virgin Islands	1	0.82
China	1	0.82
Colombia	1	0.82
Dominican Republic	1	0.82
Ecuador	1	0.82
Ghana	1	0.82
Haiti	1	0.82
Jamaica	1	0.82
Netherlands	1	0.82
New Zealand	1	0.82
South Africa	1	0.82
St. Maarten	1	0.82
St. Martin	1	0.82
U.S. Virgin Islands	29	23.77
United Kingdom	4	3.28
United States	68	55.74
Race/ethnicity		
Asian	3	2.42
Black	59	47.58
Hispanic/ Latino	7	5.65
Bi-racial	1	0.81
White	54	43.55
Culture Norms		
High Honor Score	65	52.42
High Dignity Score	64	51.61
High Face Score	61	49.19

Research Question 1. To assess if self-reported aggression varied by cultural beliefs, t-tests were used to determine whether the mean AQ score differed among those who subscribed to honor, dignity, and face cultures compared to those who did not. Wilcoxon Rank Sum tests assessed whether aggression subscores [physical (PHY), verbal (VER), anger (ANG), hostility (HOS), and indirect aggression (IND)] differed between these cultural logic factors. Wilcoxon Rank Sum tests were also used for AQ subscales because they were determined to not be normally distributed, thus violating the assumptions of t-tests.

Those with high honor scores had a significantly higher overall AQ score than those with low honor scores (29.42 for those with high honor vs. 25.63 for those with low honor scores ($p = .007$). No significant differences in overall AQ scores were observed when comparing those with high versus low dignity and face scores. The honor score was also significantly associated with physical aggression. Those with high honor scores had a Physical aggression score of 4.48 compared with 3.58 for those with low honor scores ($p = .001$). Neither face nor dignity was associated with physical aggression scores.

Similarly, high honor scores were associated with verbal aggression, with a mean score of 6.72 for those with high honor scores compared with 5.42 for those with low honor scores ($p = .02$). Hostility scores were significantly associated with only dignity ($p = .009$). Those with high dignity scores had a mean hostility score of 5.98, compared with 7.22 for those with low dignity scores. Neither anger nor indirect aggression scores were associated with any cultural logic. Full results for Research Question 1 are summarized in Tables 2 and 3.

Table 2

Cultural Norms and Aggression Score

Culture norm	<i>M</i> (<i>AQ Score</i>)	<i>SD</i>	<i>p</i>
High Honor	29.42	8.84	0.007**
Low Honor	25.63	6.53	
High Dignity	26.93	8.22	0.34
Low Dignity	28.33	7.81	
High Face	26.92	8.04	0.34
Low Face	28.29	1.03	

Note. This table lists the relationships between overall AQ scores and high and low scores for each cultural logic. Overall AQ score was significantly higher for those with high Honor scores than those with low Honor scores.

Note. ** $p \leq .01$.

Table 3

Cultural Norms and Aggression Subscales

Culture norm	<i>M</i>	<i>SD</i>	<i>p</i>
Physical aggression subscale			
High Honor	4.48	2.42	0.001***
Low Honor	3.58	1.52	
High Dignity	4.09	2.21	0.85
Low Dignity	4.00	2.21	
High Face	3.79	1.81	0.13
Low Face	4.30	2.30	
Verbal aggression subscale			
High Honor	6.72	2.90	0.02*
Low Honor	5.43	1.96	
High Dignity	6.18	2.91	0.81
Low Dignity	6.03	2.16	
High Face	5.67	2.68	0.06
Low Face	6.53	2.40	
Hostility subscale			
High Honor	6.83	2.88	0.42

Low Honor	6.30	2.50	
High Dignity	5.98	2.62	0.009***
Low Dignity	7.22	2.67	
High Face	6.69	2.69	
Low Face	6.47	2.74	0.06
Anger subscale			
High Honor	5.83	2.54	
Low Honor	5.31	2.21	0.26
High Dignity	5.41	2.20	
Low Dignity	5.76	2.59	0.62
High Face	5.32	2.33	
Low Face	5.83	2.45	0.20
Indirect Aggression subscale			
High Honor	5.57	1.33	
Low Honor	5.04	1.97	0.23
High Dignity	5.28	2.02	
Low Dignity	5.35	2.34	0.66
High Face	5.46	2.31	
Low Face	5.18	2.03	0.44

Note. This table lists the relationship between endorsed cultural norms and aggression subscores.

Note. * $p < .05$. *** $p \leq .001$.

Research Question 2. Multiple linear regression was used to assess whether subscribing to Honor, Dignity, and Face cultural logic was associated with the overall AQ score and each AQ subscores, controlling for SES. Using the MacArthur Scale of Subjective Social Status ladder, two measures of SES were used as covariates (i.e., self-reported household income and perceived social standing).

After controlling for household income and perceived SES, Honor was significantly associated with overall AQ score. After controlling for household income,

the overall AQ score for those who subscribed to honor cultural logic would be an estimated 3.43 points higher than those who did not ($p = .02$). After controlling for perceived SES, the overall AQ score would be an estimated 3.64 points higher ($p = .008$). Smaller statistically significant relationships were observed for the physical and verbal aggression subscales. Physical aggression scales would be an estimated 0.85 points higher for those subscribing to Honor cultural logic compared to those who did not, after controlling for household income ($p = .03$) and 0.87 points higher in the model controlling for perceived SES ($p = .02$). Verbal aggression scores would be an estimated 1.17 points higher for those subscribing to Honor culture compared to those who did not when controlling for household income ($p = .01$), and 1.29 points higher when controlling for perceived SES ($p < .001$). Dignity was significantly associated with hostility. The relationship between dignity and hostility remained after controlling for both objective and subjective socioeconomic status.

None of the other cultural logic were associated with overall AQ score. Household income was not associated with the aggression score or subscores when controlling for culture logic. None of the 36 models found a significant relationship between household income and aggression, with the culture logic variables included in the models. Full results from Research Question 2 are summarized in Tables 4 and 5.

Table 4

Cultural Norms and Aggression Scores Controlling for SES

<i>Model</i>	β	<i>p</i>
Controlling for household income		
Honor	3.43	0.02*
Dignity	-2.18	0.15
Face	-1.30	0.39
Controlling for Perceived social standing		
Honor	3.64	0.008**
Dignity	-1.37	0.32
Face	-1.33	0.34

Note: This table assesses the relationships between cultural norms and aggression score after controlling for socioeconomic status using multiple linear regression.

* $p < .05$. ** $p \leq .01$.

Table 5

Cultural Norms and Aggression Subscores Controlling for SES

<i>Model</i>	β	<i>p</i>
Physical aggression subscale		
Controlling for household income		
Honor	0.85	0.03*
Dignity	-0.09	0.83
Face	-0.46	0.25
Controlling for Perceived social standing		
Honor	0.87	0.02*
Dignity	0.10	0.78
Face	-0.51	0.16
Verbal aggression subscale		
Controlling for household income		
Honor	1.17	0.01**
Dignity	-0.09	0.85
Face	-0.79	0.10
Controlling for Perceived social standing		

Honor	1.29	< 0.001 ***
Dignity	0.14	0.76
Face	-0.85	0.07
Hostility Subscale		
Controlling for household income		
Honor	0.45	0.36
Dignity	-1.42	0.005 **
Face	0.24	0.63
Controlling for Perceived social standing		
Honor	0.48	0.31
Dignity	-1.23	0.008 **
Face	0.23	0.63
Anger Subscale		
Controlling for household income		
Honor	0.52	0.25
Dignity	-0.42	0.36
Face	-0.62	0.17
Controlling for Perceived social standing		
Honor	0.51	0.23
Dignity	-0.37	0.39
Face	-0.48	0.26
Indirect Aggression Subscale		
Controlling for household income		
Honor	0.46	0.25
Dignity	-0.17	0.68
Face	0.34	0.41
Controlling for Perceived social standing		
Honor	0.51	0.19
Dignity	-0.06	0.87
Face	0.29	0.45

Note. This table assesses the relationships between cultural norms and aggression subscale scores controlling for socioeconomic status using multiple linear regression.

* $p < .05$. ** $p \leq .01$. *** $p \leq .001$.

Research Question 3. Multiple linear regression was also used to assess whether the relationship between subscribing to Honor cultural logic and aggression (overall AQ

score and subscores) differed based on gender. In this set of models, interaction terms (honor*gender) were added to models. Statistically significant interaction terms indicated that the relationship between honor and aggression scores differed in strength or direction based on a participant’s gender.

Neither the overall AQ Score nor any aggression subscores were significantly associated with Honor logic in models after controlling for gender and the interaction between subscribing to Honor logic and gender. Similarly, gender was not associated with the overall AQ score or any subscores in these models. Finally, no evidence of a significant interaction between gender and honor logic was identified in these models. Full results can be found in Table 6.

Table 6
Honor and Aggression Moderated by Gender

<i>Model</i>	β	<i>p</i>
Full aggression score		
Honor	3.14	0.11
Male gender	-0.35	0.87
Male gender*honor	1.31	0.66
Physical Aggression subscore		
Honor	0.93	0.07
Male gender	0.39	0.49
Male gender*honor	-0.19	0.81
Verbal Aggression subscore		
Honor	1.11	0.08
Male gender	-0.10	0.89
Male gender*honor	0.39	0.68
Hostility subscore		
Honor	0.18	0.79
Male gender	-0.53	0.47
Male gender*honor	0.83	0.41
Indirect Aggression subscore		

Honor	0.18	0.74
Male gender	-0.78	0.18
Male gender*honor	0.91	0.26

Note. The relationships between Honor cultural logic and aggression were analyzed using multiple linear regression, including the assessment of moderation by gender. No significant difference was found between gender and Honor cultural logic.

Research Question 4. Pearson's product-moment correlation was used to assess whether the overall AQ Score was associated with perceived social standing, which was measured using the MacArthur Scale of Subjective Social Status ladder. Spearman's rank correlation was used to assess whether AQ subscores were associated with the MacArthur Scale of Subjective Social Status. This nonparametric test was used because subscale scores were determined as not normally distributed. Spearman's rank correlation was also used to assess relationships between aggression (AQ score and subscores) and household income, an ordinal variable.

A statistically significant moderate negative correlation was observed between subjective social status and the overall AQ Score ($r = -.31, p = .004$). No statistically significant correlation was identified between household income and the overall AQ score. However, significant moderate negative correlations were observed between subjective social status and physical and verbal aggression subscores ($\rho: -.22, p = .02$ for physical aggression and $\rho: -.29, p = .001$ for verbal aggression). Full results for Research Question 4 can be found in Tables 7 and 8.

Table 7

SES Measures and AQ Score.

<i>SES Measure</i>	<i>r</i>	<i>p</i>
Subjective Social Status	-0.31	0.0004***
	ρ	<i>p</i>
Household income	0.02	0.86
Pearson’s Product-moment correlation		
Spearman’s Rank-Order Correlation		

Note. *** $p \leq .001$.

Table 8

SES and Aggression Subscales

<i>Aggression Subscale</i>	<i>SES Measure</i>	ρ	<i>p</i>
Physical Aggression	Subjective Social Status	-0.22	0.02*
	Household income	0.02	0.87
Verbal Aggression	Subjective Social Status	-0.07	0.44
	Household income	0.03	0.81
Hostility	Subjective Social Status	-0.29	0.001***
	Household income	-0.11	0.24
Indirect Aggression	Subjective Social Status	-0.16	0.08
	Household income	0.03	0.75

Note. The correlation between SES measures and aggression subscores were analyzed using Spearman’s Rank-Order Correlation.

* $p < .05$. ** $p \leq .01$. *** $p \leq .001$.

Research Question 5. Wilcoxon rank sum tests were used to assess the relationship between SES (i.e., household income and MacArthur Scale of Subjective Social Status ladder score) and whether an individual subscribed to Honor, Dignity, and

Face cultural logic. All analyses were conducted using SAS 9.4 Statistical Software (SAS Institute, 2013).

No statistically significant differences were observed when assessing the relationship between either subjective social status or household income and cultural logic. Full results can be found in Table 9.

Table 9
SES and Culture Logic

<i>Subjective Social Status</i>	<i>p</i>
Honor	0.73
Dignity	0.95
Face	0.93
<i>Household income</i>	
Honor	0.66
Dignity	0.99
Face	0.98

Note. The relationship between SES and endorsed cultural logic was analyzed using Wilcoxon rank sum tests. No significant relationship was found.

Summary

Demographic information was collected from an adult general population, including ethnicity, age, gender, education level, place of birth, socioeconomic status (SES), and residency for at least six years or more. Both objective and subjective SES were collected. Frey’s (2019) 39-item Cultural Logic Instrument measured participants’ response styles related to cultural beliefs which they refer to as Dignity, Face, and Honor cultural logics. The sample population was comprised of 124 individuals (57 males and

64 females), had an average age of 39.39 years, with the majority residing in the United States (78.32%), had at least some college education (89.52%), and reported earning \$75,000 or more annually (48.83%). Overall aggression scores were significantly higher for those with high Honor scores than those who did not. Honor scores were also significantly associated with Physical aggression. Aggression was not found to be expressed differently by gender for those who subscribed to Honor culture. A moderate negative correlation was observed between subjective socioeconomic status and overall aggression score, as well as in the relationship between subjective social status and physical and verbal aggression subscores. No association was found between socioeconomic status (objective and subjective) and cultural logic.

Chapter 4

In this chapter, the findings are discussed in greater detail. The study's limitations and future directions for the research will also be discussed.

Interpretation and Future Research

Research Question 1 asked, “does self-reported aggression vary by the cultural logic an individual subscribes to?” Similar to previous studies that examined the relationship between honor culture and aggression (Cohen et al., 1996; Cross et al., 2012; Kryz et al., 2017; Nisbett, 1993), this study also confirmed that individuals with honor beliefs were more likely to have higher aggression scores than individuals with nonhonor beliefs. Overall aggression score, physical aggression subscale score, and verbal aggression subscale scores were all significantly higher in those who endorsed honor culture than those who did not. Additionally, those with dignity beliefs were associated with higher hostility scores than those with nondignity beliefs.

In previous research (Cohen et al., 1996; Cross et al., 2013; Kryz et al., 2017; Nisbett, 1993), individuals who endorsed dignity beliefs were more inclined to respond to provocative situations with amusement or humor or to withdraw from the situation. Buss and Perry (1992) defined the hostility scale as the cognitive behavior of aggression, while physical and verbal aggression are described as motor behaviors. The hostility scale is comprised of feelings of injustice, jealousy, hatred, resentment, and suspicion of others' intent. Buss and Perry (1992) reported a strong correlation between anger and hostility and physical and verbal aggression. They explained that anger often preludes aggression and is a high-arousal state that decreases over time. Once feelings of anger dissipate from the individual, it leaves thoughts of ill will, mistrust of others' motives, and other feelings

associated with hostility. Studies (Cohen et al., 1996; Cross et al., 2013; Krys et al., 2017; Nisbett, 1993) have shown that regardless of the endorsed cultural logic, provocative situations generate the same emotional response, which is anger. This study confirmed the previous findings and suggests that individuals from dignity cultures may have similar emotions. However, their response manifests more inwardly as hostility compared to individuals from honor cultures who express their anger in a more outward manner, such as through physical and verbal aggressive behavior.

Finkel and Hall (2018) proposed the I3 (I-cubed) theory, which is a meta-theory that posits an integrative framework that explains the relationship between self-control and aggression. The theory suggests that aggression is caused by three underlying processes: instigation (the exposure to provocative stimuli), impellance (the individual's situational or dispositional traits that makes them more inclined to aggress), and inhibition (situational or dispositional qualities that make the individual more inclined to suppress aggressive impulses). Finkel and Hall's theory further states that when the individual has a higher level of self-control, they can rationalize the situation and suppress their aggressive urge, making them more likely to behave nonaggressively. Self-control is the capacity to restrain or modify one's responses so it aligns with the individual's established standards (morals, values, customs, etc.) which assist with attaining long-term goals (Baumeister et al., 2007). Difficulties maintaining self-control occur when the limited resources used to sustain it are temporarily depleted due to repeated exertion (similar to muscles becoming tired after exercise), making the individual more likely to react aggressively to provocative situations (Baumeister et al., 2007; Denson et al., 2010; Dewall et al., 2007). Rumination after a provocative situation

also depletes self-control and increases aggression (Denson et al., 2012). It is possible that feelings of hostility among those with dignity beliefs may stem from continuous efforts to preserve their self-worth through self-restraint (i.e., disregarding the opinions of others, resolving conflict in a nonviolent way, etc.) and rumination of past transgressions, which led to their inability to sustain self-control, resulting in engaging in aggressive behavior (Baumeister et al., 2007; Denson et al., 2012).

Based on the cited research, it was assumed that those who endorsed honor culture beliefs were more likely to engage in aggressive behavior and have lower socioeconomic status. Men of this culture would have higher aggression levels than females of the same cultural beliefs. However, the findings in this study were inconsistent with supporting some of the previous studies. Suggestions for future research include exploring the relationship between self-control and types of responses to provocation, and to investigate the interaction between hostility among individuals with dignity beliefs. A further step that can be taken is to examine if those with higher levels of hostility also have higher levels of internalized behavior (anxiety, fearfulness, etc.) to determine how they internally regulate their emotional experiences.

Research Question 2 asked, “is self-reported aggression associated with cultural logic, controlling for socioeconomic status (SES)?” It is difficult to ascertain whether the independent and dependent variables are associated because the data was examined in various ways (i.e., honor, dignity, and face versus overall aggression score and subscores). Honor beliefs were found to be significantly associated with verbal, physical, and overall aggression scores, and the relationships remained significant when controlling for either measure of SES. Dignity was also found to be associated with

hostility, and that relationship remained significant after controlling for either measure of SES. Overall, cultural logic was not significantly associated with aggression while controlling for SES, with some exceptions. Six of the 36 models estimated show that cultural logic was associated with aggression. Four of the ten models included honor as a predictor of aggression, and the other two included dignity as a predictor of aggression (Table 5). This is also significant because we often assume SES is a highly influential variable in regard to how one acts out aggressively. However, this study shows that one's adherence to a cultural value (Honor, Dignity, or Face) and overall AQ score remained regardless of their SES, which shows the value as being more significant in influence than SES.

Research Question 3 asked, "Is aggression expressed differently by gender for those who subscribe to honor culture?" Gender was not associated with aggression (overall score or subscale scores) in models controlling for honor. Similarly, in these models, honor was not associated with aggression (overall score or subscale scores) when controlling for gender. Additionally, no interaction was found between gender and subscribing to honor, so the relationship between honor and aggression did not change based on gender. The current findings contradict previous research that suggested women are less aggressive than men (Buss & Perry, 1992; Evola, 2001; Gladue, 1991; Harris & Knight-Bohnhoff, 1996) and that there are gender differences in aggressive behavior (Björkqvist, 2018; Bjorkqvist et al. 1992; Crick & Grotpeter, 1995; Denson et al., 2018; Green et al., 1996; Walker et al., 2000).

Research on honor cultures typically uses all Caucasian male participants (such as Nisbett & Cohen, 1996; Shackelford, 2005). Nisbett and Cohen (1996) theorized that the

female role in Southern honor culture is to help their children learn social norms as it relates to honor culture and to help their sons learn how to defend their honor with aggression or violence when provoked or disrespected. However, research on how aggression appears in women of honor culture and how they compare to females of other cultural logic and their male counterparts remains limited.

To date, research usually focuses on violence in the Caribbean culture and not specifically on aggression. Culture-specific aspects of aggressive behavior may exist and may not be gender-specific in the Caribbean culture. Given that females were more inclined to participate in this study, the resulting sample was not balanced between genders, and the study may not have had sufficient power to test this research question. It is also important to note that the study's sample included participants from the Caribbean. Thus, it is possible that the makeup of the sample may have biased the obtained results. It is also possible that gender roles shaped by the person's culture and upbringing may also explain these results. Future research examining levels of aggression between genders should obtain a more balanced sample that will be more representative of the general population. Future research could explore the cultural context to understand how it may relate to gender differences and examine whether cultural constructs and values may elicit specific types of aggression based on what is deemed acceptable and expected by one's community of influence.

Research Question 4 asked, "Is there is a relationship between socioeconomic status and level of aggression?" There was no relationship between objective socioeconomic status and aggression scores. However, subjective socioeconomic status was associated with levels of aggression. This finding supports Greitemeyer and

Sagioglou's (2016) findings that low subjective socioeconomic status increases levels of aggression. Roughly 44% of the sample possessed a graduate level of education, and about 49% of the sample reported earning \$75,000 or more annually. Nevertheless, the actual income appeared to be irrelevant in this study. This finding suggests that the perception or the experience of being disadvantaged compared to others impacts how one may think and feel about oneself and increases negative emotional responses to a given situation. This concept is better explained through Smith et al.'s (2012) relative deprivation theory which proposes that an individual's belief shapes their emotions, cognitions, and behavior. Therefore, if someone believes they are worse off compared to a given standard, this triggers feelings of anger and resentment. This finding is especially interesting as it highlights that it is not one's actual income that influences aggression and resentment as much as the perception of one's status compared to others.

Social media (Facebook, Instagram, etc.) is often used to compare one's status to others. Social media is often used to share the highlights of a person's life, making it very easy to compare one's stressors of their current life circumstances to other's moments of glory or accomplishments while potentially exacerbating the onlooker's negative affect or cognition. Research has found a relationship between social media use and negative impact on mental health, such as increased feelings of anxiety, depression, loneliness, and isolation (Taylor-Jackson & Moustafa, 2021).

Why are we inclined to compare ourselves and our achievements to others? Festinger's (1954) theory of social comparison postulates that people define their social and personal worth based on how it compares to others. Festinger explained that these comparisons often occur during feelings of uncertainty due to the person's inability to

determine the quality of their work or opinions (e.g., “Am I doing this right?” “Does this look good?”). In such situations, people tend to compare themselves to others who may perform similarly or slightly better than them. Through these comparisons, it may initiate desires to improve or generate feelings of guilt, dissatisfaction, remorse, or other negative feelings and behaviors. Downward comparison theory (Wills, 1981) suggests that individuals experiencing negative affect may increase their subjective well-being by actively or passively comparing themselves to those who are equally unfortunate or more unfortunate. Gerber (2020) stated that people with high self-esteem usually make more downward comparisons than those with low self-esteem. A potential next step for future research would be to see if there was a relationship between individuals with low subjective socioeconomic status, anger, and low self-esteem.

Another area for exploration is to investigate the relationship between age and the levels of anger within individuals with varying levels of education and socioeconomic status. Schieman (2003) found a significant positive interaction between age and education, implying that the negative relationship between age and levels of anger is stronger in people with lower levels of education. Their study also found that the greater the individual’s satisfaction was with their finances, the less likely they were to experience anger across all ages. The perception or experience of not being able to attain basic needs or life goals is an understandable frustration regardless of age and socioeconomic status. This may also explain why those with lower subjective SES experience more aggression.

Research Question 5 asked, “Is there an association between subjective socioeconomic status and cultural belief?” No association was found between

socioeconomic status (objective and subjective) and cultural logic, which does not support the findings of previous studies. It was assumed that people with less income were more likely to endorse honor beliefs due to the identified relationship between lower socioeconomic status and increased aggression (Greitemeyer & Sagioglou, 2016, 2018; Henry, 2009; Kubrin & Weitzer, 2003; Somech & Elizur, 2009). The results did not support the findings of previous studies in identifying a relationship between people with an honor mindset and a lower socioeconomic status which may be due to the current study's methodology of categorizing participants within honor and nonhonor classifications. Participants were classified within each group based on their average score versus a validated cut-off score, resulting in some participants being placed in more than one category, which may have impacted the results.

Study Limitations

Several limitations were identified in this study. The sample size used was relatively small, making it difficult in some cases to determine if a specific outcome was a true finding, increasing the likelihood of a Type II error. Secondly, snowball sampling was used in this study. Because of this sampling method, it is difficult to identify any sampling error that may have occurred or apply the results to a general population based on the acquired sample. Snowball sampling has resulted in a sample with unusually high education and income levels. This study also heavily relied on the participant's ability to accurately self-report information about themselves that some may perceive as sensitive (e.g., age, gender, income, etc.). Participants may have not reported accurate information (e.g., say they are less aggressive than they really are, make more money than they really do, etc.), which may result in social desirability bias. The Aggression Questionnaire Short

Form was not well validated compared to the full version of the Aggression Questionnaire. It did not allow aggression to be measured in many dimensions (Buss & Warren, 2000). Lastly, the assignment of culture logic was based on the mean score instead of a validated cutoff score. Frey (2018) reported that each scale within the cultural norm measure had different number of items. The honor scale was identified as the strongest scale ($\alpha = .84$) compared to the other groups (dignity $\alpha = .64$; face $\alpha = .62$). In an ideal measure, each scale would have the same number of items and similar alpha values. Additionally, while using the mean as a cut-off score, participants' scores varied across scales due to different items in each category, resulting in participants who did not clearly fit in one of the three cultural categories.

Conclusions

The present dissertation examined the relationship between cultural logic (face, honor, and dignity cultures), aggression, and socioeconomic status (objective and subjective). The overall goal of this dissertation was to explore (i) if levels of aggression varied for individuals based on their subscribed cultural logic, (ii) if socioeconomic status (SES) mediated the relationship between aggression and cultural logic, (iii) if aggression was expressed differently by gender among individuals subscribed to honor culture, (iv) if a relationship exists between SES and level of aggression, and (v) if perceived SES is associated with an individual's cultural belief.

In summary, honor cultural logic was significantly associated with overall aggression, physical aggression, and verbal aggression scores. Dignity was associated with hostility score. After controlling for SES, Honor remained significantly associated with overall aggression, physical, and verbal aggression scores, and dignity remained

significantly associated with hostility. After controlling for SES, neither anger nor indirect aggression was associated with cultural logic.

When controlling for gender and assessing the interaction between gender and honor cultural logic, honor was no longer associated with any of the measures of aggression. Further, in these models, gender did not moderate the relationship between cultural logic and aggression. Finally, moderate negative correlations were found between subjective social status and overall AQ score. No significant relationships were observed between other aggression scores and SES (neither subjective social status nor household income) or between culture logic and either measure of SES.

Understanding the perspective of others through their cultural lenses continues to be an area of importance, especially on topics that, if not addressed, can become a public safety concern (e.g., assault, burglary, etc.). Previous studies have thoroughly documented the strong relationship between aggressive behavior and honor culture. This finding has often been the centerpiece of discussion when compared to the research on dignity and face cultures. Some of the findings of this current study did not support the findings of previous research. This may be attributed to the makeup of the study sample. Alternatively, this may have been influenced by the timing of data collection, which was during the COVID-19 pandemic. Thus, findings may have captured the impact or the zeitgeist of living through such an event. During the pandemic, many have experienced some form of financial crisis while living in a time of uncertainty. Many were experiencing depletion of resources, whether physically or emotionally, and with the expectation to cope with it. Experiencing such stressors can increase the likelihood of

becoming more vulnerable to experiencing a mental breakdown or becoming a part of the legal system.

These belief systems and perspectives (i.e., cultural logic and subjective socioeconomic status) can be appropriately addressed through a culturally sensitive psychotherapeutic approach. Individuals may be less resistant to articulating their beliefs (e.g., perception of having low subjective SES despite having a higher objective SES) if the clinician demonstrates understanding and validation of their background and outlook on their lives, resulting in more insights gained on how these factors influence individual's behavior and assisting in decreasing levels of aggression if present. By acknowledging the perspectives of those with low subjective SES and/or their cultural logic, clinicians can begin to understand the root of their aggression, feelings of hostility, or other negative emotions, as well as identify the resources or barriers they need assistance with. In doing so, the clinician can help these individuals attain and maintain what they value most, achieve higher levels of life satisfaction, and cope appropriately with life's unexpected frustrations.

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Appendix A

Consent Form

Investigating Cultural Beliefs, Socioeconomics, and Aggressive Tendencies

Northwest University
College of Social and Behavioral Services

Consent Form

Welcome to Investigating Cultural Beliefs, Socioeconomics, and Aggressive Tendencies, a research study that looks at endorsed cultural constructs, aggression proclivity, and socioeconomics. This study is being conducted by Ferlicia Fergusson, MA at Northwest University.

To qualify for participation, you must be an adult age 18 or older. Completion of this study typically takes approximately 10 minutes and is strictly anonymous. Your responses will be treated confidentially and will not be linked to any identifying information about you. If you agree to participate in this study you will complete questionnaires regarding: demographic information (ethnicity, age, gender, education level, place of birth, socioeconomic status and place of residency), cultural beliefs (as they refer to dignity, face, and honor cultural perspective), and aggression. All data collection and submitted survey information will be password encrypted and stored on a password encrypted device. All data forms and information will be submitted to Dr. Karen Frey for further analysis and to be included in their ongoing research.

The Northwest University Institutional Review Board has approved the study. No deception is involved, and participation in this study poses minimal risk to participants, although some participants may experience emotional distress when answering questions about their aggression. If content of this questionnaire causes you significant distress, please contact the crisis hotline at (800) 273-8255, or local services (counseling center, 911, etc.) phone number. Participation in this study is voluntary, and you may elect to discontinue the questionnaire at any time and for any reason. You may print this consent form for your records. By submitting the survey, you are giving permission to use your responses in this research study.

The results from this study will be utilized for dissertation, publication and/or conference dissemination and may be presented within a variety of psychological forums (formal and informal).

If you have any questions about this study, please contact the principal researcher, (Ferlicia Fergusson, ferlicia.fergusson14@northwestu.edu) If you have further questions, please contact my faculty advisor Dr. Nikki Johnson [at nikki.johnson@northwestu.edu](mailto:nikki.johnson@northwestu.edu). You may also contact the Chair of the Northwest University IRB, Dr. Cherri Seese, [at cherri.seese@northwestu.edu](mailto:cherri.seese@northwestu.edu) or 425-285-2413.

Before beginning the survey, please read this consent form in full. If you understand all information contained in this form and agree to freely participate in this study, please click the "I Agree" button. You may exit the survey at any time.

Thank you for considering participation in this study.

Ferlicia Fergusson
Doctoral Student
ferlicia.fergusson14@northwestu.edu

Appendix B

Demographics

How old are you?

What is your gender?

- Male Female Prefer Not to Answer

Where do you live? (Specify state or country if outside U.S.)

Where are you from? (Specify state or country if outside U.S.)

What is your race/ethnicity?

- Ethnically of Hispanic/Latino origin Asian
 White/European American American Indian/Alaska Native
 Black/African American Native Hawaiian/Other Pacific Islander
 Aboriginal Other (Specify) _____

What is your highest level of education completed?

- Elementary School Associate's Degree
 Junior High School Bachelor's Degree
 Some High School Trade School Degree
 High School or equivalent (e.g. GED) Graduate Degree
 Some College, no degree

Which of these describes your household income?

- \$1 to \$9,999 \$10,000 to \$24,999
 \$25,000 to \$49,999 \$50,000 to \$74,999
 \$75,000 to \$99,999 \$100,000 to \$149,999
 \$150,000 and greater

At the top of the ladder are the people who are the best off, those who have the most money, most education, and best jobs. At the bottom are the people who are the worst off, those who have the least money, least education, worst jobs, or no job. On a scale of 1 (worst off) to 10 (best off) what number best represents where you think you stand on the ladder?



Appendix C

Cultural Logics

These questions are about your beliefs. There are no right or wrong answers. People believe in some of these ideas but not others, but for every idea, there are people who think it is true. Circle a number to show how much each idea is **true or not true for you**.

1	2	3	4	5	6
Definitely Not True	Mostly Not True	Slightly Not True	Slightly True	Mostly Not True	Definitely Not True

What I think:	Not True					True
1. You maintain your dignity if you punish people that double-cross you.	1	2	3	4	5	6
2. I'd rather say "No" directly, than risk having my intentions misunderstood.	1	2	3	4	5	6
3. Having good relationships with others is more important than being right.	1	2	3	4	5	6
4. I like being different from other people.	1	2	3	4	5	6
5. People will take advantage of you if you don't show them how tough you are.	1	2	3	4	5	6
6. I make decisions based on my own opinion & not based on what my friends think.	1	2	3	4	5	6
7. Sometimes you have to tell people they are wrong, even if it embarrasses them.	1	2	3	4	5	6
8. I appreciate it when elders give advice on how to get along with others.	1	2	3	4	5	6
9. I just have to laugh when I do embarrassing things.	1	2	3	4	5	6
10. It's important to blend in with others.	1	2	3	4	5	6
11. It's everyone's duty to help people get along with each other.	1	2	3	4	5	6
12. You have to fight to stop people from taking advantage of you.	1	2	3	4	5	6
13. I always ask my family for advice before I make decisions about my future.	1	2	3	4	5	6

What I think:	Not True	True
14. Only losers let people say insulting things about them & get away with it.	1 2 3 4 5 6	1 2 3 4 5 6
15. You get along with others if you are humble & know your place.	1 2 3 4 5 6	1 2 3 4 5 6
16. I feel proud when I do what I think is right & ignore what others think of me.	1 2 3 4 5 6	1 2 3 4 5 6
17. I treat everyone the same, no matter what their social status.	1 2 3 4 5 6	1 2 3 4 5 6
18. People that have my back can count on me to take their side no matter what.	1 2 3 4 5 6	1 2 3 4 5 6
19. I'm extremely careful not to embarrass other people.	1 2 3 4 5 6	1 2 3 4 5 6
20. You should follow your dreams, even if your family disapproves of your choices.	1 2 3 4 5 6	1 2 3 4 5 6
21. I enjoy negotiating for my point of view when opinions differ.	1 2 3 4 5 6	1 2 3 4 5 6
22. Friends do favors for each other without having to be paid back every time.	1 2 3 4 5 6	1 2 3 4 5 6
23. It's important to punish people who say bad things about your family or friends.	1 2 3 4 5 6	1 2 3 4 5 6
24. You lose respect if you back down from a fight.	1 2 3 4 5 6	1 2 3 4 5 6
25. Being different from other people makes me feel uncomfortable.	1 2 3 4 5 6	1 2 3 4 5 6
26. I'd rather feel good about my actions than have others think well of me.	1 2 3 4 5 6	1 2 3 4 5 6
27. You maintain your dignity when you do your best in a humble way.	1 2 3 4 5 6	1 2 3 4 5 6
28. My relationships are more important than my individual accomplishments.	1 2 3 4 5 6	1 2 3 4 5 6
29. You should always punish those who betray you.	1 2 3 4 5 6	1 2 3 4 5 6
30. It is important to tell people about your individual accomplishments.	1 2 3 4 5 6	1 2 3 4 5 6
31. I would reconsider my future goals if my family disapproved.	1 2 3 4 5 6	1 2 3 4 5 6
32. I never accept a favor I can't repay.	1 2 3 4 5 6	1 2 3 4 5 6

What I think:	Not True			True
33. I act the same no matter whom I'm with.	1	2	3	4 5 6
34. My honor is more important to me than anything else.	1	2	3	4 5 6
35. I have trouble saying "No" if a friend asks me to do a favor.	1	2	3	4 5 6
36. I feel proud when I show others they can't push me around.	1	2	3	4 5 6
37. I avoid conflict, even if it means some disappointment.	1	2	3	4 5 6
38. I do not allow anyone to insult my friends and family.	1	2	3	4 5 6
39. Peacemakers have dignity and the respect of others.	1	2	3	4 5 6

Appendix D

Aggression Questionnaire

	Not at all like me	2	Somewhat like me	3	4	Completely like me	5
40. My friends say that I argue a lot.	1	2	3	4	5		
41. Other people always seem to get the breaks.	1	2	3	4	5		
42. I flare up quickly, but get over it quickly.	1	2	3	4	5		
43. I often find myself disagreeing with people.	1	2	3	4	5		
44. At times I feel I have gotten a raw deal out of life.	1	2	3	4	5		
45. I can't help getting into arguments when people disagree with me.	1	2	3	4	5		
46. At times I get very angry for no good reason.	1	2	3	4	5		
47. I may hit someone if he or she provokes me.	1	2	3	4	5		
48. I wonder why sometimes I feel so bitter about things.	1	2	3	4	5		
49. I have threatened people I know.	1	2	3	4	5		
50. Someone has pushed me so far that I hit him or her.	1	2	3	4	5		
51. I have trouble controlling my temper.	1	2	3	4	5		
52. If I'm angry enough, I may mess up someone's work.	1	2	3	4	5		
53. I have been mad enough to slam a door when leaving someone behind in the room.	1	2	3	4	5		
54. When people are bossy, I take my time doing what they want, just to show them.	1	2	3	4	5		

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Appendix E

Permission to Use Instruments

Re: survey

Karin FREY <karinf@uw.edu>

Mon 6/4/2018 10:33 PM

To: Ferlicia Fergusson <ferliciaf@hotmail.com>

1 attachments (144 KB)

0 Norms survey 4.1.doc;

Hi Ferlicia,

The revised instrument & grading key are attached.

The honor scale is comprised of the majenta items. This is the strongest scale, with an alpha of .84

If you decide to administer only the honor scale, you might be interested in the strong negative loadings for 2 items each from the face (# 11 & 15) and dignity (# 9 & 26) scales. They might be worth adding in any case.

Dignity scale, aqua items, alpha of .64

Face scale, yellow items. The alpha differs radically depending if we ask about personal beliefs (alpha = .62) or

about family beliefs (alpha = .81). You'll see the alternate wording re: family highlighted in green.

Let me know if you have questions

Karin

On Sat, Jun 2, 2018 at 7:01 PM, Ferlicia Fergusson <ferliciaf@hotmail.com> wrote:

Hi! I was wondering if you were able to send me both revised instrument and grading key this weekend.

Ferlicia Fergusson, MA

ferliciaf@hotmail.com

(cel) 340-690-2267

On May 14, 2018, at 7:50 PM, Karin FREY <karinf@uw.edu> wrote:

Thanks for the heads up, Ferlicia.

We'll have it to you with a grading key

On Mon, May 14, 2018 at 1:25 PM, Ferlicia Fergusson <ferliciaf@hotmail.com> wrote:

Hi!

I am currently putting my proposal together to submit to my dissertation chair, and I need to include the measure. Whenever you have the chance to email the revised version will be fine. My official proposal will be submitted in early June, so I will need it by the end of May. Also, is there a grading tool that you used for the measure?

Ferlicia



July 14, 2021

Ferlicia Fergusson, MA, LMHCA
 PsyD Graduate Student
 Northwestern University
 9811 134th St., Apt 13-101
 Puyallup WA, 98373
 US

Re: Aggression Questionnaire (AQ)

Dear Ms. Fergusson,

In follow-up to your email application of 06Jul'21, this letter serves to provide WPS' terms that will permit you to modify the administration and scoring format of the indicated AQ material and to administer and score the resulting modified English language AQ via a secure, password-protected, online environment (herein "format modification"), for sole application within your registered, scholarly study, examining the relationship of endorsed cultural norms (honor culture, dignity culture, and face culture) and aggression.

Western Psychological Services will authorize you to conduct the indicated format modification of the above-defined AQ material, subject to satisfaction of the following conditions:

1. You acknowledge that the WPS permissions extended for the format modification described herein are limited solely to the registered study, and not for continued or commercial use of any kind. Any further use of the format modification beyond the permissions specifically extended herein must be subject to new WPS permission arrangements, on a project-by-project basis.
2. With specific regard to the format modification:
 - a. Access to the AQ content in administration must be granted via a secure website (e.g., password-protected to the individual participant).
 - b. Only modification to format is permitted.
 - i. AQ content as delivered for the project must be fully parallel with and identical to the entire prevailing item set, response categories, and scoring keys as published by WPS.
 - ii. AQ item content must not be interspersed with any other item content that might be included as part of the measure's customized delivery for use within the registered study.
 - c. Each reprint (or viewing) of the AQ content—such as on each screen of the item presentation—must bear the required copyright notice that will be provided to you by WPS (ref. condition 5); this same copyright notice must also be affixed to all project documentation related to the format modification.
 - d. You acknowledge that WPS maintains full ownership over the underlying WPS intellectual property – including and not limited to test directions, items, responses, scoring keys, and interpretation data – for the AQ content being permitted for use within the described format modification.
 - e. You shall not share any part of the format modification outside of the immediate research team for their use within the registered study.

Ferlicia Fergusson, MA, LMHCA
PsyD Graduate Student
Northwestern University
July 14, 2021
Page Two of Three

- f. You shall clearly refer to the format modification in all write-ups, papers, articles, and other reports for the study, and shall also refer to the underlying AQ content by its full original title and/or original acronym as asserted by WPS, without exception.
 - g. Following completion of the research you agree to destroy or otherwise securely archive the format modification in keeping with your institutional requirements.
 3. You must purchase from WPS a non-exclusive license for the number of AQ administrations required to conduct and complete the study using the format modification. License fees for this described use of the indicated materials shall be as follows:
 - a. Per-use fees: \$2.12 each (equivalent to the cost of purchasing original forms at prevailing price, less 20%; minimum 100 uses).
 - b. One-time administrative fee: \$30.00.
 4. The fees noted herein must be prepaid in U.S. dollars drawn on a U.S. bank (Visa, MasterCard, Discover and American Express are accepted and swiftest), and are non-refundable. To ensure proper handling of your licensing arrangements, and to guarantee the rates in condition 3 above, you must send the payment to rights@wpspublish.com, with a signed copy of this letter, within the next 30 days. *Please allow the emphasis that you must contact WPS Rights & Permissions for licensing purposes; WPS Customer Service can assist you only with physical and Online Evaluation System (OES) materials.*
 5. Upon receipt of the required fees (ref. conditions 3 and 4) and full signature to this letter, WPS will send to you a "Certificate of Limited-use License." The Certificate will provide a copyright notice that must appear on each reprint/viewing of the material and within your project documentation (ref. condition 2), and it will officially serve as your authorization to initiate the permitted format modification.
 6. You agree to provide WPS with one copy of all articles (including research reports, convention papers, journal submissions, theses, etc.) that report on the AQ uses within the registered research. The articles should be marked to the attention of WPS Rights & Permissions (rights@wpspublish.com). WPS reserves the right to cite or reference such reports; you will, of course, receive proper acknowledgment if we use your research results.
 7. You acknowledge that—by undertaking a licensed format modification of WPS's proprietary, formally published material—you assume full and sole responsibility for the WPS-proprietary content used within your study and related results determined as a result of the investigation. You agree to indemnify WPS, its assignees and licensees, and hold each harmless from and against any and all claims, demands (threatened or filed), losses, damages, liabilities, costs, and expenses, including attorneys' fees, arising in any way out of the use of WPS-published material within the registered study, regardless of the nature or origin of such claims and expenses, except for claims of copyright violation related to the underlying WPS intellectual property. You acknowledge that this broad indemnification and agreement to hold WPS harmless is a material term of its arrangement with WPS, and WPS would not enter into this arrangement without assurance that you would take full and complete responsibility to defend, indemnify, and hold WPS harmless from any such claims and expenses.

Ferlicia Fergusson, MA, LMHCA
PsyD Graduate Student
Northwestern University
July 14, 2021
Page Three of Three

- 8. This agreement shall be governed by the laws of the State of California, and any legal action related in any way to this agreement must be filed in the State of California. All intellectual property rights associated with the content discussed herein remain the property of WPS. If any portion of this agreement is deemed as unenforceable or otherwise not applicable, all remaining clauses and content herein shall remain in full force. Any copies, facsimiles, or electronic versions of this agreement may be used just as an original.

NOTE: To source the administration instructions, item content and scoring guidelines needed for your customized application, please refer to the AQ Manual (W-371B). In case you do not have (or have direct access to) the AQ Manual, this message serves for the next 60 days as your authorization to purchase one at 20% Research Discount (and note that discounted orders cannot be completed on our website); if you have questions about ordering the Manual, contact WPS Customer Service at 800/648-8857 or 424/201-8800, weekdays 6:00am to 2:30pm Pacific Time.

WPS appreciates your research interest in the AQ, as well as your consideration for its copyright. Please feel free to contact me if you have any questions. I look forward to your reply.

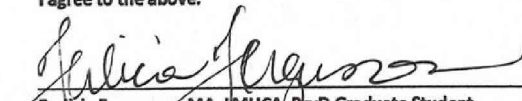
Sincerely,

Fred Dinkins

Digitally signed by Fred Dinkins
DN: cn=Fred Dinkins, o=us,
email=f.dinkins@wpspublish.com, c=US
Date: 2021.07.14 09:35:30 -0700

Fred Dinkins
Rights & Permissions Manager

I agree to the above.



 Ferlicia Fergusson, MA, LMHCA, PsyD Graduate Student
 For: Northwestern University

Date: 7-14-2021