

The psychological structure of aggression across cultures[†]

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Summary

To date, the vast majority of the research on aggression has been conducted on Western samples. This research expands the culture-bound understanding of aggression by examining universal and culture-specific dimensions that underlie the psychological structure of aggression. Drawing on cultural logics of honor, dignity, and face, we examine the construal of aggression across Pakistan, Israel, Japan, and the United States. Multidimensional scaling analyses revealed potentially universal dimensions of aggression. In all four nations, dimensions of *damage to self-worth* and *direct versus indirect* aggression emerged, and a *physical versus verbal aggression* emerged in Pakistan, Israel, and Japan. In addition, an *infringement to personal resources* dimension emerged in the United States and Israel, and a *degree of threat* dimension emerged in Pakistan. Further, results demonstrated cultural specificity in terms of (i) where aggressive behaviors fell along each dimension and (ii) meanings that defined each dimension across cultures. These findings have implications for the prevention and attenuation of intercultural conflicts as well as the advancement of the cross-cultural psychology and the aggression literatures. Copyright © 2013 John Wiley & Sons, Ltd.

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Examples of cross-cultural misunderstandings abound as global interdependence plays an increasingly crucial role in modern organizations (Gelfand, Erez, & Aycan, 2007). Cross-cultural discrepancies in individuals' construal of events can produce wide-ranging consequences, ranging from minor (and even humorous, such as former U.S. President Kennedy's "Ich bin ein Berliner" comment in which he unwittingly referred to himself as a jelly doughnut) to catastrophic. For example, in 2005, the Danish newspaper *Jyllands-Posten* published a series of 12 cartoons depicting satirical caricatures of the Muslim prophet Mohammed. Soon thereafter, the same cartoons were reprinted in other European news outlets. The aftermath of the publication unleashed numerous attempts at revenge on behalf of offended Muslims around the world. For example, a knife-wielding Pakistani student burst into the office of the German *Die Welt* newspaper with the intent to kill the editor for reprinting the cartoon. Further, in 2008, more than 2 years after the original publication, the Danish embassy in Pakistan was bombed as a consequence of a reprinting of the cartoon. The journalism community defended their publication of the cartoon by asserting their right to free speech, noting that figureheads of other world religions were also subject to satire. Islamic critics, however, heeded the publication as a "deliberate provocation and insult to their religion" (Anderson, 2006).

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[†]This paper is dedicated to our dear friend and co-author, Nazar Soomro.

This incident highlights how the same event can be construed in highly disparate ways by individuals from different cultures, as well as the potential for such misunderstandings to escalate into a potentially catastrophic situation. In this case, the publication of the cartoon depicting Mohammed in unflattering ways was perceived as humiliating and, moreover, as a violation of Muslims' honor. This begs the question, what underlies these cultural differences in the perception of aggressive acts?

Aggression exhibits significant cross-cultural variability in both meaning and enactment (e.g., Bergeron & Schneider, 2005; Bond, 2004; Forbes, Zhang, Doroszewicz, & Haas, 2009), yet to date, the vast majority of research on aggression has been conducted in the West. This culture-blind approach limits our understanding of the universal and culture-specific construals of aggressive acts. Failing to account for the possibility of cultural differences in the construal of aggression sets the stage for intercultural misunderstandings. The current work sheds light on how individuals from different cultures interpret aggressive behavior by examining universal, yet culturally nuanced, dimensions of aggression.

The general proposition we advance in this research is that although there may be potentially universal (i.e., etic) dimensions upon which aggression is perceived, there are important culture-specific (i.e., emic) construals of aggression that render identical acts to be perceived quite differently across cultures. Cultural psychologists have noted that cultural meanings are a product of intrapersonal structures that develop through experience (Strauss & Quinn, 1997). Other work has examined how the social construction of reality influences individuals' perception of types of aggression such as workplace deviance (Bowles & Gelfand, 2010), arguing that it is inherently subjective. Marrying these lines of work, we suggest that perceptions of aggressive acts are not objective per se, but are socially constructed along cultural lines. As such, individuals' understanding of the same potentially universal dimension may still reflect some culture-specific differences.

This research makes a number of theoretical and practical contributions. We advance the aggression literature by illustrating empirically the dimensions on which individuals perceive aggressive acts across cultures, thereby documenting the subjective nature of aggression and the metrics on which individuals perceive them. We also advance the culture literature by illustrating that culture affects not only the way that aggressive acts are interpreted but also how expanding our study beyond Western borders illuminates new dimensions of the construal of aggression. From a practical point of view, a more complete conception of aggression is the first step toward understanding how and why cultural misunderstandings centered around aggressive acts arise. This knowledge can shed light on the origin of past and existing conflicts as well as methods for the prevention (or attenuation) of future conflicts.

In what follows, we provide an overview of potentially universal dimensions of aggression before turning to more specific study goals. We then discuss how cultural logics of honor, dignity, and face may affect individuals' social construction of aggression. Finally, we present a multidimensional scaling (MDS) study of aggression conducted in the United States, Israel, Japan, and Pakistan and discuss the theoretical and practical implications of the results.

Typologies of Aggression

Aggression encompasses any form of behavior directed by one or more persons toward the goal of harming one or more others in ways that the intended targets are motivated to avoid (Neuman & Baron, 1998, 2005). Numerous typologies of aggression have been proposed by scholars across disciplines including psychology, criminology, and sociology. These vary along the lines of severity (e.g., minor vs. serious; Bennett & Robinson, 2000; Robinson & Bennett, 1995), form (e.g., direct vs. indirect and verbal vs. physical; Buss, 1961), motivation (e.g., hostile vs. instrumental; Feshbach, 1964), temporal orientation (chronic vs. acute; Birkelbach & Pool, 2008), proactivity (e.g., proactive vs. reactive; Farmer & Aman, 2009), and target (e.g., acquainted vs. unacquainted; Campbell, Gorman, & Muncer, 1999; organizational vs. interpersonal; Robinson & Bennett, 1995), among others.

One primary goal of this research was to explore whether there are some potentially universal dimensions of aggression that exist. From an evolutionary perspective, universal dimensions of aggression might arise given that

aggressive acts fundamentally threaten humans' emotional and physical well-being (Buss & Shackelford, 1997). Certain dimensions of aggression are likely to be salient in any context because the ability to detect such aggression has a direct impact on fitness—in this sense, being able to detect certain types of aggression is a matter of life or death. For example, it is crucial to detect aggressive acts that destroy one's resources (e.g., food and shelter) or could damage one's physical well-being (such as physical assaults) in order to survive and produce viable offspring (which is commensurate with definitions of fitness; Darwin, 1859). We explore a number of potentially universal dimensions of aggression in the succeeding text. Although potentially universal dimensions of aggression may exist, we also argue that dominant focal concerns (Mesquita & Frijda, 1992) that are cultivated in particular cultural contexts can also affect perceptions *within* the context of universal dimensions of aggression. Later, we propose five potentially universal, yet potentially culturally nuanced, dimensions of aggression that fall into two main categories: (i) form of aggression (physical vs. verbal aggression and direct vs. indirect aggression) and (ii) actual or potential damage resulting from aggression (degree of threat, infringement to personal resources, and damage to self-worth).

Physical versus verbal aggression

Physical versus verbal aggression (Buss, 1961) is a potentially important dimension on which aggression is construed across cultures. Physical aggression entails assaulting a target using body parts or weapons, whereas verbal aggression entails assaulting a target through spoken or written means (Buss, 1961). The verbal–physical distinction has been found across numerous studies. For example, several widely used measures of aggression incorporate a physical–verbal dimension, such as Buss and Perry's (1992) aggression questionnaire and Olweus's (1977) aggression inventory. Further, Muncer, Gorman, and Campbell (1986) identified a physical versus verbal dimension and later replicated this finding in a follow-up study (Campbell et al., 1999). The physical versus verbal dimension is also evident in literature on workplace aggression. For example, Baron and Neuman (1996) discussed dimensions upon which workplace aggression varies and found that verbal aggression is much more common than physical, whereas Gruys and Sacket (2003) identified “inappropriate verbal actions” and “inappropriate physical actions” as separate dimensions of counterproductive work behavior. This physical–verbal distinction is also evident in proverbs and idioms across cultures, such as the American idiom “sticks and stones can break my bones but words will never hurt me,” the Israeli proverb “words hurt like a knife,” and the Chinese saying “the man who strikes first admits that his ideas have given out.” Further, the consequences of physical versus verbal aggression are, by and large, qualitatively different, with physical aggression resulting in bodily harm and verbal aggression resulting in emotional or relational damage. In all, this research suggests that the physical versus verbal nature of acts is a salient dimension upon which individuals construe aggression.

Direct versus indirect aggression

Another potentially important dimension on which aggression is construed across cultures is *direct versus indirect* aggression (Buss, 1961), which is related primarily to third-party involvement and aggressor identification. Whereas direct acts involve delivering aggression to the target himself or herself, indirect acts involve aggressing against someone or something other than the target as a means of harming the target. Examples of indirect aggression include spreading rumors about a target, attacking a target's family member, or damaging a target's property, whereas examples of direct aggression include physically attacking or insulting the target. Further, whereas the aggressor is easily identifiable in the case of direct aggression, it is more difficult to identify indirect aggressors. In this case, the victim need not be present when indirect acts of aggression are committed (Buss, 1961). The direct–indirect dimension has been found in a number of studies. For example, indirect aggression is a factor of the Buss–Durkee Hostility Inventory (Buss & Durkee, 1957), and Campbell, Muncer, and Bibel (1985) found

evidence for a direct versus indirect dimension in an MDS study. Neuman and Baron (1997) also classified workplace aggression along a direct (e.g., insulting someone) versus indirect (e.g., hiding needed resources) continuum. The developmental psychology literature has also found evidence for the direct versus indirect distinction (Lagerspetz, Björkqvist, & Peltonen, 1998; Österman, Björkqvist, & Lagerspetz, 1998; Vaillancourt, Brendgen, Boivin, & Tremblay, 2003).

Related to the direct–indirect distinction is overt versus covert aggression (e.g., Gelfand et al., 2001). In overt aggression, the aggressive intent of the perpetrator is transparent and direct, whereas in covert aggression, this intent is often hidden or ambiguous. As such, covert aggression is subtle, indirect, and concealed in nature. The overt–covert dimension has emerged in the study of conflict frames across cultures (e.g., Gelfand et al., 2001), conflict management across cultures (Ohbuchi & Takahashi, 1994), workplace aggression (e.g., Arnold, Dupré, Hershcovis, & Turner, 2011; Björkqvist, Österman, & Hjelt-Bäck, 1994; Kaukiainen et al., 2001), racism (Beal, O’Neal, Ong, & Ruscher, 2000), and sex differences (e.g., Tomada & Schneider, 1997; Verona, Reed, Curtin, & Pole, 2007), among others. By way of its third-party involvement, indirect aggression is highly covert in nature. In contrast, direct aggression is highly overt by way of its targeted delivery. Thus, despite nuanced differences in their definitions, the direct–indirect and overt–covert dimensions are often perceived as highly interrelated.

Degree of threat

Whereas the two aforementioned dimensions of aggression (physical vs. verbal and direct vs. indirect) relate to the *form* of aggression, the next three dimensions we discuss are related to actual or potential damage caused by aggression. The first of these, which we label *degree of threat*, concerns the perceived intensity of an aggressive act and its consequences. This dimension conveys crucial information regarding the speed and intensity with which a target must react in face of aggression—either to avoid aggression altogether or to mitigate its negative effects. Nearly all animals have developed the ability to detect threat through either sensory organs or communication with others (Wiley, 1983). The clear evolutionary advantage of threat detection is survival, as those who are unable to ascertain the severity of impending harm are likely to perish. For humans, the detection of the degree of harm—either physical or socioemotional—may also increase an individual’s ability to survive. Accordingly, we predict that across cultures, there will be a strong universal in terms of how threatening an aggressive act is perceived to be. Degree of threat is also discussed in the literature as severity, a dimension that several scholars use to classify aggressive acts. For example, a minor versus severe dimension emerged in Robinson and Bennett’s (1995) MDS study of deviant workplace behavior. Other workplace aggression research distinguishes between low intensity (e.g., workplace incivility; Blau & Anderson, 2005) and high intensity (e.g., workplace violence; Baron & Neuman, 1996) aggressive acts. More specifically, Glomb (2002) described low level (e.g., spreading rumors) versus extreme (e.g., physical assault) types of workplace aggression and noted that incident severity predicted more detrimental outcomes. In all, this research suggests that the threat associated with an aggressive act is of central importance in construing conflicts.

Infringements to personal resources

Another potentially universal dimension of aggression concerns *infringements to personal resources*. This dimension fundamentally refers to the extent to which aggressive behaviors are directed toward taking away tangible or intangible resources to which the target is rightfully entitled or has earned. A similar dimension (infringements to the self) emerged in the study of conflict episodes by Gelfand et al. (2001) in the United States and Japan, with episodes involving the denial of something that is rightfully deserved falling at the high end of this dimension. Infringing upon what an individual deserves or taking what belongs to another are perceived as injustices and are a focal interest of both legal and religious authorities. For example, laws prohibit the theft of material and intellectual

property, as does religious doctrine (e.g., “thou shalt not steal,” Exodus 20:15, The Bible; “cut off the hands of thieves,” Sura 5:38, The Qur’an). Further, evidence of this dimension exists in the animal kingdom, as members of most species have developed tactics to protect their resources (e.g., food and social status) and behave aggressively when these resources are threatened. Further, male members of species tend to develop traits (e.g., physical size) that indicate their ability to acquire resources as a mate attraction tactic (Buss, 1994). Attending to the procurement and protection of vital resources serves a clear evolutionary advantage.

Damage to self-worth

A final dimension of aggression that we propose may be found across cultures, and one that has not been discussed in the extant literature, concerns *damage to self-worth*. At its core, self-worth concerns feeling that one “matters,” that one has significance in the eyes of others—in other words, that one is deemed *worthy* by cultural standards. As such, behaviors that damage self-worth are directed toward making someone feel small, powerless, humiliated, or otherwise worthless. The notion of self-worth has been broadly discussed under the guise of positive self-regard (Gaertner, Sedikides, & Cai, 2012; Sedikides, Gaertner, & Toguchi, 2003), competence or effectance (Elliot & Dweck, 2005; White, 1959), achievement, self-esteem, mastery, and control motivations (Fiske, 2004).

Indeed, self-worth is a powerful and universal concern. It serves a crucial evolutionary function, as self-esteem provides important cues on an organism’s social standing (e.g., with respect to dominance relationships; Barkow, 1980), which ultimately contribute to reproductive success (Sedikides et al., 2003). In addition, as noted by Sedikides et al. (2003), the importance of self-worth is further demonstrated by the fact that self-esteem has been shown to buffer against many emotional and behavioral problems (Anderson, 1999; Kurman & Sriram, 1997; Leary, 1999; Leary, Schreindorfer, & Haupt, 1995) and has been linked to optimism, resiliency, and successful coping with adversity (Bonanno, Field, Kovacevic, & Kaltman, 2002; Stein, Folkman, Trabasso, & Richards, 1997; Taylor & Armor, 1996). Others have posited the pursuit of self-worth as a core motivation underlying human behavior (e.g., Kruglanski, Chen, Dechesne, Fishman, & Orehek, 2009; Kruglanski & Orehek, 2011; Kruglanski et al., in press). Given that self-worth is a central concern in any culture, people may evaluate aggressive acts in terms of their implications for damage to self-worth. Despite this universality, however, self-worth is likely imbued with culture-specific meanings that guide individuals’ interpretation of aggressive behaviors. We turn to culture-specific manifestations of aggression in the next section.

The preceding discussion leads to the following research question.

Research Question 1: Is aggression construed along the dimensions of physical versus verbal aggression, direct versus indirect aggression, degree of threat, infringements to personal resources, and damage to self-worth across cultures?

Cultural specificity within dimensions

Although we expect that several dimensions of aggression will be common across cultures, we also anticipate that these dimensions could be construed differently as a function of culture. One cultural framework that has important implications for the construal of aggression is the cultural logics of honor, dignity, and face (Leung & Cohen, 2011). As explained by Leung and Cohen (2011), a cultural logic “weaves together various scripts, behaviors, practices, and cultural patterns around [a central theme], giving them a meaning and a certain logical consistency and coherence for the people of a culture” (p. 508). In particular, these logics differ with respect to the meaning and importance of social standing, public image, norms of exchange, punishment, and trustworthiness. The samples in this study, from the United States, Pakistan, Israel, and Japan, differ markedly in terms of their logics of honor, dignity, and face, as detailed later, with implications for how they construe aggressive acts.

In particular, Pakistan is an culture of honor (Bowman, 2007). Pitt-Rivers (1966) defines honor as “the value of a person in his own eyes, but also in the eyes of his society. It is his estimation of his own worth, his claim to pride, but it is also the acknowledgment of that claim. . . his right to pride” (p. 21). In such cultures, both the external (i.e., other-generated) and internal (i.e., self-generated) evaluation of the self are crucial. In other words, “honor must be claimed, and honor must be paid by others” (Leung & Cohen, 2011, p. 509). Individuals go to great lengths to uphold the reputation of oneself and one’s family (Vandello & Cohen, 2003). Hence, respect is a norm within cultures of honor, whereas payback serves as an organizing principle for individuals’ interactions (Kamir, 2002; Leung & Cohen, 2011). It is critical to respond swiftly and strongly to any challenges to one’s honor by punishing the offender. Accordingly, individuals from honor cultures attempt to cultivate a formidable reputation so as to dissuade others from transgressing in the first place. Moreover, people are not born with honor, but must earn it through rigid adherence to a specific cultural code. In the same way that honor can be earned, it can also be lost—in particular, through social errors committed by the self or a close other (Kamir, 2002). Given their highly collectivistic nature, members of cultures of honor maintain an interdependent self-construal (Markus & Kitayama, 1991), which makes honor loss contagious among family members, close friends, or others with intimate ties (Gelfand, Shytenberg, Lee, Lun, Lyons, Bell, et al., 2012; Uskul, Cross, Sunbay, Gercek-Swing, Ataca, 2012). Further, people in honor cultures have a “keen sensitivity to the experience of humiliation and shame” (Miller, 1993, p. 116), given that this experience translates directly into honor loss.

Honor, as a dominant logic in some cultures, pervades individuals’ everyday interactions and may serve as a crucial frame for the interpretation of aggressive acts, even along universal dimensions of aggression. For example, it is likely that the dimension of damage to self-worth is highly imbued with issues of honor, reputation, and status in honor cultures. As such, behaviors that target one’s reputation and social standing (e.g., gossiping, excluding, insulting someone in public, and ignoring) might be seen as especially damaging to self-worth in cultures of honor. Further, given the highly collectivistic nature of cultures of honor, behaviors that damage one’s relationships or social network might have connotations of disrespect or maliciousness. Similarly, certain aggressive behaviors may be seen as especially threatening in honor cultures. Members of cultures of honor tend to hold an interdependent self-construal (i.e., where one sees the self as fundamentally connected to others) as well as strong in-group–out-group distinctions (Triandis, 1989). In such contexts, the group is of the utmost importance, as it provides access to vital resources such as food, water, support, and shelter. Accordingly, behaviors that cause one to be separated from the group (i.e., gossiping, exclusion) might be perceived as more threatening than in individualistic cultures that endorse an independent self-construal (i.e., where the self is seen as detached from collectives). In the same vein, the primacy of the group in cultures of honor might also influence which behaviors are classified as physical versus verbal. In a culture where group membership and livelihood are inextricably linked, it may be the case that social ostracism is seen as causing real, physical harm. In contrast, behaviors such as excluding someone are unlikely to be seen as physically harmful in cultures in which the individual takes precedence over the group.

In contrast to Pakistan, the United States is a dignity culture¹ (Leung & Cohen, 2011). Ayers (1984, p. 19) described dignity as “the conviction that each individual at birth possessed an intrinsic value at least theoretically equal to that of every other person.” In other words, “all men are created equal” (The Declaration of Independence, 1776). In these cultures, there is a universal and unwavering acknowledgement of inalienable human worth, and although some argue that only truly grave behaviors may result in a loss of dignity, others maintain that dignity can never be lost (Kamir, 2002). In contrast to honor cultures, internal (i.e., self-generated) evaluations are of the utmost importance, whereas external (i.e., other-generated) evaluations are secondary. As such, insults and other aggressive acts cannot, in theory, damage one’s fundamental sense of self. Ayers (1984, p. 20) captured this notion

¹It is important to note that a substantial body of work has demonstrated that the U.S. South has a culture of honor (e.g., Cohen, Nisbett, Bowdle, & Schwarz, 1996; Nisbett, 1993; Nisbett & Cohen, 1996), which may very well guide the interpretation of aggression in this area. However, our sample is drawn from the greater Washington, DC, metropolitan area, which is highly representative of a dignity culture as opposed to a culture of honor.

well by explaining that “dignity might be likened to an internal skeleton, to a hard structure at the center of the self.” Unlike members of honor cultures, then, individuals in dignity cultures need not go to great lengths to prove themselves to others, nor assess their self-worth on the basis of others’ behaviors. Further, dignity loss is not contagious in the same way as honor loss. Because of their highly individualistic nature, members of dignity cultures hold an independent self-construal and thus see others’ (even close others’) actions as largely unreflective of the self (Gelfand et al., 2012).

Dignity cultural logics have implications for how aggression may be construed along different dimensions. For example, damage to self-worth might not be imbued with as many elements such as honor, reputation, and status, given that self-worth is theoretically more stable and less able to be stolen in dignity cultures. Further, we might see that infringements to resources is a highly salient dimension in dignity cultures given the focus on individual rights, autonomy, and deservingness. This is consistent with the research by Gelfand et al. (2001) that showed that Americans perceived conflicts in terms of how much they infringed upon tangible and intangible resources to which individuals are entitled. Accordingly, the evaluation of aggressive acts that deny something to which one is rightfully entitled may be a highly accessible “cognitive hammer” through which aggressive acts are viewed in individualistic cultures. In addition, individuals from dignity cultures might place special emphasis on direct (versus indirect) aggression. As a result of their highly independent and individualistic nature (Triandis, 1989), aggression that is direct might be seen as more permissible and, accordingly, less threatening, given that it is a norm within dignity cultures.

Merging both honor and dignity cultures, Israel is situated in the Middle East, but maintains a unique identity separate from the Arab world and heavily influenced by the West. Indeed, scholars have long noted that Israel has elements of honor cultures, but also emphasizes values of independence and autonomy that characterize dignity cultures. In fact, Kamir (2002) noted that the Hebrew word *kavod* translates into both “honor” and “dignity” (Levy, 1995). Israel is a cultural “melting pot,” its society comprising multiple sub-groups (e.g., Muslim Arabs, Christian Arab, Sephardic Jews, Ashkenazy Jews, and Jews from the former Soviet Union). Studies of cultural values (Hofstede, 1980; House, Javidan, & Dorfman, 2001; Schwarz, 1996) have found Israel to embody a combination of the Eastern and Western value systems. For example, Efrat-Treister and Rafaeli (2011) suggested that Israeli Muslim Arabs and Israeli Sephardic Jews may entertain a culture that includes elements of other Arab cultures, whereas Israeli Christian Arabs and Israeli Ashkenazy Jews may entertain a culture that includes elements of European cultures. As such, Israel is a particularly interesting culture to examine in the context of the current study, because it is similar to the United States on its dignity orientation but similar to Pakistan on its honor orientation. Accordingly, Israelis could perceive self-worth through the lens of honor as in Pakistan, but also might perceive infringements to personal resources as particularly salient as in the United States.

Finally, Japan is a culture that emphasizes face (Leung & Cohen, 2011) an individual’s claimed sense of positive image in the context of social interaction (Oetzel & Ting-Toomey, 2003) as discussed earlier. Similarly, Ho (1976, p. 883) defined face as “the respectability and/or deference which a person can claim for himself from others by virtue of [his or her] relative position in a hierarchy.” This highlights the importance of status in face cultures, which largely dictates how individuals must behave. In particular, one must not attempt to claim more face than others are willing to grant, as this would disturb the social hierarchy and result in social sanctions against the individual (Kim, Cohen, & Au, 2010). Accordingly, individuals in face cultures have developed norms of modesty, humility, and self-control to avoid potentially overstepping status boundaries (Kim, Cohen, & Au, 2010; Kurman & Sriram, 2002; Lalwani, Shavitt, & Johnson, 2006). Moreover, the internal evaluation of the self matters little in face cultures, given that worth is socially conferred (Kim, Cohen, & Au, 2010; Lee, Kam, & Bond, 2007). Further, face cultures tend to be highly interdependent. As such, maintaining harmony and preserving *others’* face is also of the utmost importance. Ho (1976) explained that the influence of face in social interactions can lead to fear of shame or retaliation. As such, face cultures emphasize harmony in order to avoid such negative consequences. When conflict does arise, it is handled through largely *indirect* means so as to avoid calling attention to the self and disrupting social harmony (Ohbuchi & Takahashi, 1994).

Like honor and dignity, face should also have an influence on how aggression is perceived, even across potentially universal dimensions. For example, behaviors that threaten one's social status, such as public insults, as well as those that cause embarrassment or humiliation, such as gossiping, should be evaluated as especially harmful to self-worth. In addition, behaviors directed at those *close* to the target (e.g., family members) may be seen as especially destructive or harmful in face cultures, where the self is merged with the close others, as opposed to in a dignity culture, where the self and others are seen as largely separate (Triandis, 1989). Previous work has demonstrated that indirect aggression is particularly common in face cultures given that it allows the perpetrator to save face (Ohbuchi & Takahashi, 1994). Given the relative infrequency of direct aggression in face cultures, direct behaviors will likely be perceived as much more threatening than in dignity cultures. Consistent with the perpetration of aggression through largely indirect means, it may also be the case that verbal, as opposed to physical, aggression is emphasized in face cultures. Physical aggression tends to be overt in nature, given its easily observable consequences. Verbal aggression, in contrast, is comparatively subtle in nature and may thus allow perpetrators to maintain face by avoiding attention, consistent with norms for humility and harmony.

On the basis of the preceding discussion, we present the following research question.

Research Question 2: Is there cultural specificity in the meaning of behaviors along potentially universal dimensions of aggression?

Overview of Research

The goals of the current study are two-fold. We seek to (i) identify universal dimensions of aggression and (ii) examine whether these dimensions are culturally nuanced in important ways. To these ends, we employed an MDS approach using data collected in four nations: the United States, Pakistan, Israel, and Japan. MDS is ideally suited for these goals, as it identifies the underlying dimensions upon which participants *perceive* stimuli (i.e., aggressive behaviors) by creating a spatial configuration of where stimuli fall in space. Moreover, this inductive technique allows for the emergence of representations that may not exist in conscious awareness (Pinkley, 1990).

Furthermore, consistent with cross-cultural theory (Triandis, 1983), we used a combined *emic* (culture specific) and *etic* (universal) approach in our MDS design and analysis. Specifically, we examined how American, Pakistani, Israeli, and Japanese participants interpreted the same set of aggressive behaviors. This design produced four separate MDS spaces, each illustrating culture-specific cognitive representations of the same set of aggressive behaviors. In addition to being a culturally sensitive design, this approach enabled us to define universals in representations of aggressive behaviors. Few studies have examined construal of aggression. Those that have (Campbell et al., 1985, 1999; Forgas, Brown, & Menyhart, 1980; Muncer et al., 1986; Smith et al., 2002) focused on highly specific conflict episodes. To the best of our knowledge, our work is of the first to use MDS techniques to examine general aggressive behaviors, thereby providing a foundation to understand the potentially universal and culture-specific psychological structure of aggression.

Method

The study method involved three phases, described as follows.

Phase 1: Generation of behaviors and evaluation dimensions

Behaviors (i.e., aggressive acts) used as stimuli in the current study included the following: (i) hit someone, (ii) ignore someone, (iii) damage someone's property, (iv) push someone, (v) steal from someone, (vi) threaten someone, (vii) insult someone publicly, (viii) yell at someone, (ix) use an aggressive tone of voice with someone, (x) interrupt someone, (xi) make angry gestures at someone, (xii) exclude someone, (xiii) sabotage someone's work, (xiv) insult

someone's family publicly, and (xv) gossip (spread rumors) about someone behind their back. These behaviors were framed at a general level rather than providing a specific context (e.g., work, home, and school) or person involved (e.g., friend, stranger, and boss) to examine a general theory of the structure of aggression (i.e., one that would transcend contexts and situations) across cultures.

This list of behaviors was developed through a pilot study whose purpose was to shed light on aggressive behaviors and dimensions that might be important in cultures other than Western societies, with the end goal of developing a universally meaningful and diverse set of aggressive behaviors. Given that the aggression literature is primarily based on Western samples and conducted by Western researchers, we wanted to ensure that our choice of behaviors would be representative of broad and culturally shared conceptualizations of aggression.

These 15 behaviors were selected through an iterative process. We first began by compiling a broad database of aggressive behaviors identified in the literature. To this end, 26 different measures of aggression were examined, and aggressive behaviors were extracted. Given that the majority of these measures was reflective of Western conceptualizations of aggression (i.e., conducted on Western samples by Western researchers), this corpus of behaviors was supplemented by analysis of interview transcripts regarding conflict situations conducted in seven Middle Eastern countries (Lebanon, Turkey, United Arab Emirates, Egypt, Pakistan, Iraq, and Jordan) conducted by our research group. This corpus of behaviors was then pared down by removing redundant, low frequency, highly contextualized, and unclear behaviors. Subsequently, we ensured that we had a wide range of aggressive behaviors, including variability on the target of the aggressive behavior (harm to emotional well-being, physical well-being, reputation/relationships, and tangible belongings) and the mechanisms through which aggression is enacted (verbal, nonverbal, physical, direct, and indirect) to ensure that our set of behaviors would sufficiently cover the construct space of aggression. The resulting corpus included 69 unique aggressive behaviors.

This corpus of behaviors was then evaluated by subject matter experts (SMEs) from Pakistan ($N=10$), Israel ($N=7$), and Japan ($N=6$), who were asked to rate each of the 69 behaviors on its relevance/importance, clarity, and severity.² These ratings were then used to select a final list of 15 behaviors that was designed to (i) ensure the behaviors were relevant and meaningful in all settings and (ii) reduce redundancy in behaviors that capture the same construct. In particular, behaviors that were regarded as largely irrelevant, unclear, or minor were eliminated first. For example, the behavior "attempting to steal a dating partner" was rated as low on relevance in Pakistan, whereas "being stubborn" was rated low on relevance in Japan, and "invading someone's personal space" was rated low on relevance in Israel. In addition, behaviors with core similarities were collapsed—for example, "excluding someone from social activities" and "failing to involve someone in a decision they should have been involved in" were collapsed into "excluding someone," whereas "gossiping about someone behind their back" and "passing confidential information about someone on to others" were collapsed into "gossiping," and "hitting someone" and "attacking with a physical object" were collapsed into "hitting someone." Finally, all authors (who represent many different countries) collectively chose the final 15 behaviors to ensure that behaviors were meaningful in each culture, could be translated, and, most importantly, represented many different possible dimensions of aggression.

Phase 2: Multidimensional scaling procedure

Participants included a total of 409 undergraduate students, with 109 from the United States (19 percent men, mean age = 20.91 years, $SD=4.82$), 98 from Pakistan (48 percent men, mean age = 21.58 years, $SD=2.19$), 103

²Although a separate sample of American SMEs did not provide ratings of the 69 behaviors (as did SMEs from other nations in our sample), these behaviors were selected from a primarily Western body of literature and accordingly, already deemed relevant, clear, and important among Americans. As such, we had no reason to believe that the stimuli did not adequately capture American construals of aggression. Nonetheless, authors from the United States were heavily involved in the stimuli selection process and provided input to ensure that behaviors were, in fact, representative of aggression in the United States.

from Israel (51 percent men, mean age = 24.82 years, $SD = 3.04$), and 99 from Japan (45 percent men, mean age = 20.56 years, $SD = 1.22$). Students were drawn from a wide variety of majors and attended universities in the following locations: College Park, MD (United States), Jamshoro (Pakistan), Haifa (Israel), and Tokyo (Japan).

Participants were asked to compare every possible pair of the 15 behaviors (105 pairs) on the basis of perceived similarity (using a 1–7 scale, 1 = *not at all similar*, 7 = *extremely similar*; see Appendix for exact instructions). Ten pairs of behavior were included twice for reliability purposes. Subsequently, an aggressive behavior by aggressive behavior (15×15) diagonal matrix of proximities³ was created for each of the participants (Kruskal & Wish, 1978). Following Kruskal and Wish's (1978) procedure, American, Pakistani, Israeli, and Japanese participants' judgments were grouped by country, resulting in four sets of multiple individual matrices for the MDS analyses. We then used a dimension reduction technique to translate our data into meaningful sets of macro-dimensions describing the aggressive behavior space for each country. As we aimed to control for individual differences, we chose the INDSCAL procedure as our scaling method.⁴ Kruskal's stress formula 1 provided a goodness-of-fit measure, allowing for comparison of different spatial configurations (from two through five dimensions) representing the stimulus space. Finally, as recommended by Kruskal and Wish (1978), we gathered additional data in Phase 3 to help interpret these dimensions.

Phase 3: Unidimensional item ratings for labeling of dimensions

After completing Phase 2, participants were asked to rate each of the 15 aggressive behaviors along items related to targets of aggression and mechanisms through which aggression is enacted. These items were derived using an approach similar to Phase 1. First, existing typologies of aggression were reviewed. A total of 42 articles were examined, and 25 unique dimensions of aggression were identified (e.g., physical, verbal, instrumental, and hostile). Simultaneously, the aforementioned sample of SMEs from Pakistan, Israel, and Japan was asked to perform a Q-sort of the 69 aggressive behaviors (referenced earlier) into categories based on perceived similarity and to provide a label for each category. These labels were used to construct potential unidimensional item scales. We then extracted the core meaning of each category in order to identify the key target of aggression (e.g., physical well-being and reputation/relationships) or mechanism through which aggression is enacted (e.g., verbal and physical) associated with the category. These key items were then compared with the previously identified dimensions of aggression (e.g., Buss's seminal typology of physical vs. verbal, and direct vs. indirect), and redundant items were removed. In addition, new unidimensional item scales were added from our SMEs in other cultures, such as damage to honor ("to what extent does this behavior damage one's honor?"), face ("to what extent does this behavior damage one's face?"), and superiority ("to what extent is this behavior a demonstration of being superior?"). Finally, the authors collectively chose a set of 25 target- and mechanism-related items that could be translated, were meaningful in each culture, and were highly diverse.

Participants rated each behavior along these 25 items using a 1–7 Likert-type scale (1 = *not at all* and 7 = *very much*). The final mechanism-related items included (to what extent is this behavior) harmful, destructive, threatening, immoral, callous, disrespectful, verbal, physical, active, direct, passive, indirect, selfish, a demonstration of being superior, and humiliating; and the final target-related items included (to what extent does this behavior damage one's) reputation, emotional well-being, physical well-being, relationships, honor, dignity, face, status, autonomy, and competence.

³Data were converted into dissimilarities by subtracting each raw value from eight and then analyzed using the scaling procedure ALSCAL in SPSS statistical package (Young, Takane, & Lewycky, 1978).

⁴INDSCAL is a method for exploring complex three-way (row * column * individual), two-mode datasets. The main advantage of this method over Euclidean, non-weighted procedures is that the aggregation over the sources shows an average pattern that is common to all sources, while still allowing an examination of differences and weights among the sources (Borg & Groenen, 2005; Carroll & Arabie, 1980; Takane, Young, & DeLeeuw, 1977). We used the SPSS ALSCAL algorithm. A weighted, nonmetric approach was used, which assumes that the data are ordinal. Because it was also assumed that similarity ratings were continuously distributed, ALSCAL untied any tied ratings.

Per Kruskal and Wish (1978), we used multiple regression analyses to examine how well the ratings of each item on these unidimensional scales were predicted by its location in the multidimensional space. In statistical terms, the unidimensional item values were regressed onto each dimension in a chosen configuration. For an item to be useful for interpretation, it must have a significant beta weight (standardized regression coefficient) on a dimension, indicating that the scale corresponds to the attributes in the multidimensional space (Kruskal & Wish, 1978). The items loading highest (i.e., with highest beta values) on a given dimension are generally used for interpretative purposes (Kruskal & Wish, 1978). If an item loads on all dimensions equally, however, it is not as useful for labeling a dimension (as it does not differentiate between the dimensions). As such, if an item loaded on multiple dimensions with a difference of less than .10 between loadings, the item was not used for interpretative purposes. In addition, as per Kruskal and Wish (1978), we also inspected the order of the actual behaviors on each dimension in conjunction with the regression analysis for purposes of labeling. As a behavior with extreme coordinates on a certain dimension is a good exemplar of the pertinent pole of this dimension, we mainly used behaviors at the extremities of the dimensions for interpretative purposes.

Results

Figure 1 presents MDS stress values for two through five dimensions for all of the multidimensional spaces derived through the Kruskal's Stress formula 1 (Kruskal, 1964). As recommended by Kruskal and Wish (1978), elbow tests were conducted to examine changes in stress values between solutions (e.g., three dimensional vs. four dimensional) for each nation. These analyses were supplemented by the use of an interpretability criterion (Borg & Groenen, 2005; Kruskal & Wish, 1978) to choose the best fitting solution to describe the MDS spaces for each nation. More

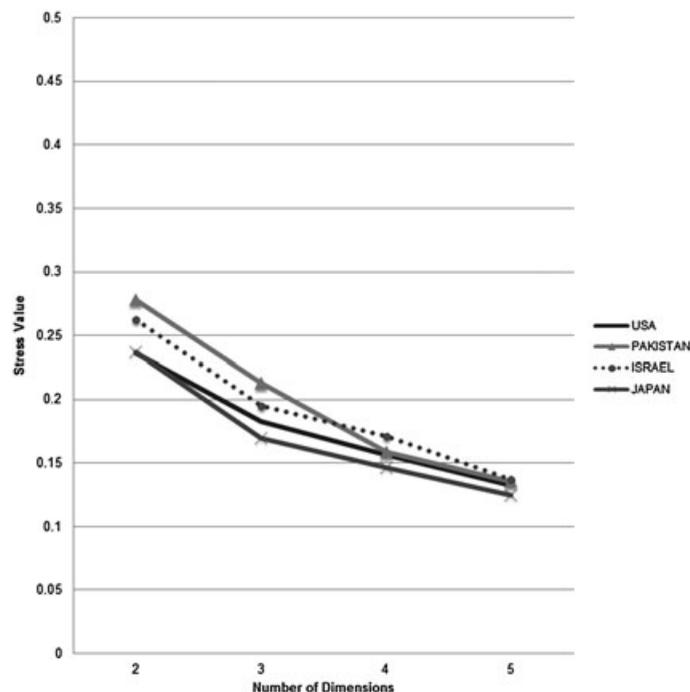


Figure 1. Stress values for the multidimensional space for each nation

Table 1. Overview of dimension labels in all four multidimensional scaling spaces.

Dimension	Pakistan	Israel	Japan	U.S.
Damage to self-worth	X	X	X	X
Direct versus indirect	X	X	X	X
Physical versus verbal	X	X	X	-
Infringement to personal resources	-	X	-	X
Degree of threat	X	-	-	-

specifically, we examined how the unidimensional scale items loaded across dimensions by regressing the unidimensional item values onto the dimensions in each solution.

For Pakistan, the stress value decreased substantially until it reached the four-dimensional solution. Therefore, the elbow test (Kruskal & Wish, 1978) clearly suggested a four-dimensional solution as best fitting for this group. Moreover, using the interpretability criterion, the multiple regression analyses of the unidimensional scales illustrated a clear interpretation for the four-dimensional solution as compared with a three-dimensional solution in Pakistan. For Israel, Japan, and the United States, the decrease from three to four dimensions was less substantial than for Pakistan, leaving both the three- and four-dimensional solutions as possible options to consider for these three nations. The interpretability criterion (Borg & Groenen, 2005; Kruskal & Wish, 1978) was thus additionally used to choose the best fitting solutions for the description of Israel, Japan, and the United States MDS spaces. Comparing the interpretability of the three- and four-dimensional solutions, we concluded that the four-dimensional solution clearly offered the most comprehensible interpretation of the MDS space for Israel. For both the United States and Japan, the three-dimensional solutions allowed for much clearer and more meaningful interpretations of the MDS spaces, whereas the four-dimensional solutions proved very difficult to interpret.⁵

In what follows, we elaborate on the labeling of each of the dimensions in each of the MDS spaces. Table 1 provides an overview of the dimensions and labels that emerged in the four MDS spaces. Table 2 presents the order of behaviors along each dimension for each nation. Tables 3–6 present the loadings of the unidimensional items across all dimensions for each nation. Below, we first discuss dimensions that emerged across all four nations (damage to self-worth and direct versus indirect), followed by dimensions that emerged in three nations (physical versus verbal in Pakistan, Israel, and Japan), two nations (infringements to personal resources in Israel and the United States), and only one nation (degree of threat in Pakistan).

Damage to self-worth

The *damage to self-worth* dimension refers to the extent to which aggressive acts are perceived as humiliating and thus cause damage to one's self-esteem and/or public image. This dimension emerged in all four nations. The high end of this dimension involved aggressive acts that were directed toward making someone feel small, powerless, humiliated, or otherwise worthless and included behaviors such as "insult someone publicly," "insult one's family publicly," or "gossip." The unidimensional items associated with high damage to self-worth were humiliating and damaging to emotional well-being. Although damage to self-worth emerged across all samples, it was also imbued with culture-specific meanings visible in *which behaviors* were perceived to be particularly damaging to self-worth as well as the specific unidimensional items associated with this dimension. As discussed in the

⁵ R^2 average values for the regression models using coordinates of the dimensions as predictors of the unidimensional items values were significantly higher for the four dimensional solution than for the three-dimensional solution for Israel and for the three dimensional solutions than for the four-dimensional solutions for Japan and the United States.

Table 2. Order of behaviors along dimensions of aggression for each nation.

Dimension	Pakistan	Israel	Japan	U.S.
High	1. Exclude 2. Insult family publicly 3. Insult publicly 4. Gossip 5. Ignore 6. Aggressive tone 7. Yell	1. Exclude 2. Ignore 3. Gossip 4. Push 5. Insult family publicly 6. Hit 7. Insult publicly	1. Insult family publicly 2. Steal 3. Insult publicly 4. Damage property 5. Gossip 6. Threaten 7. Aggressive tone	1. Insult family publicly 2. Insult publicly 3. Threaten 4. Gossip 5. Yell 6. Aggressive tone 7. Damage property
Damage to self-worth	8. Hit 9. Damage property 10. Push 11. Angry gestures 12. Steal 13. Sabotage work 14. Interrupt	8. Threaten 9. Angry gestures 10. Yell 11. Aggressive tone 12. Sabotage work 13. Interrupt 14. Damage property	8. Exclude 9. Hit 10. Yell 11. Ignore 12. Interrupt 13. Sabotage work 14. Angry gestures	8. Angry gestures 9. Hit 10. Sabotage work 11. Steal 12. Push 13. Exclude 14. Ignore
Low	15. Threaten	15. Steal	15. Push	15. Interrupt
Direct	1. Push 2. Hit 3. Yell 4. Ignore 5. Aggressive tone 6. Exclude 7. Insult publicly	1. Threaten 2. Insult family publicly 3. Yell 4. Insult publicly 5. Aggressive tone 6. Hit 7. Gossip	1. Hit 2. Threaten 3. Yell 4. Aggressive tone 5. Damage property 6. Angry gestures 7. Push	1. Hit 2. Push 3. Threaten 4. Angry gestures 5. Damage property 6. Steal 7. Aggressive tone
Direct versus indirect	8. Threaten 9. Angry gestures 10. Interrupt 11. Sabotage work 12. Insult family publicly 13. Damage property 14. Gossip	8. Push 9. Damage property 10. Steal 11. Angry gestures 12. Sabotage work 13. Exclude 14. Interrupt	8. Insult publicly 9. Insult family publicly 10. Steal 11. Interrupt 12. Sabotage work 13. Gossip 14. Exclude	8. Yell 9. Sabotage work 10. Interrupt 11. Insult family publicly 12. Insult publicly 13. Gossip 14. Exclude
Indirect	15. Steal	15. Ignore	15. Ignore	15. Ignore
Physical	1. Damage property 2. Hit 3. Sabotage work 4. Exclude 5. Steal 6. Push	1. Hit 2. Push 3. Damage property 4. Sabotage work 5. Steal 6. Threaten	1. Steal 2. Damage property 3. Interrupt 4. Sabotage work 5. Hit 6. Push	
Physical versus verbal	7. Threaten 8. Insult family publicly 9. Insult publicly 10. Ignore 11. Gossip 12. Aggressive tone 13. Yell 14. Angry gestures	7. Exclude 8. Ignore 9. Angry gestures 10. Gossip 11. Insult family publicly 12. Aggressive tone 13. Yell 14. Interrupt	7. Threaten 8. Gossip 9. Exclude 10. Ignore 11. Insult family publicly 12. Yell 13. Aggressive tone 14. Insult publicly	
Verbal	15. Interrupt	15. Insult publicly	15. Angry gestures	

(Continues)

Table 2. (Continued)

Dimension	Pakistan	Israel	Japan	U.S.
High		1. Gossip 2. Sabotage work 3. Steal 4. Insult family publicly 5. Damage property		1. Steal 2. Sabotage work 3. Damage property 4. Gossip 5. Hit
Infringement to personal resources		6. Insult publicly 7. Exclude 8. Ignore 9. Interrupt 10. Hit 11. Threaten 12. Push 13. Aggressive tone 14. Yell		6. Insult family publicly 7. Exclude 8. Push 9. Ignore 10. Threaten 11. Insult publicly 12. Interrupt 13. Angry gestures 14. Aggressive tone
Low		15. Angry gestures		15. Yell
High	1. Aggressive tone 2. Threaten 3. Yell 4. Insult family publicly 5. Hit 6. Insult publicly			
Degree of threat	7. Steal 8. Damage property 9. Angry gestures 10. Push 11. Sabotage work 12. Gossip 13. Interrupt 14. Exclude			
Low	15. Ignore			

succeeding text, damage to self-worth was construed as an honor violation in Pakistan and Israel (but not elsewhere), reflecting the centrality of honor in the evaluation of worth in the Middle Eastern context.

Pakistani participants

Behaviors on the high end of this dimension in Pakistan included “exclude someone,” “insult someone’s family publicly,” and “insult someone publicly” at the high end, whereas behaviors on the low end included “threaten,” “interrupt,” and “sabotage someone’s work” (Table 2). Items that loaded on the high end of this dimension included humiliating ($\beta = .68, p < .001$), damaging to honor ($\beta = .75, p < .001$), damaging to emotional well-being ($\beta = .75, p = .01$), damaging to dignity ($\beta = .74, p = .01$), damaging to reputation ($\beta = .71, p = .01$), damaging to status ($\beta = .70, p = .01$), damaging to relationships ($\beta = .69, p = .01$), and damaging to face ($\beta = .65, p = .01$; Table 3). Items loadings on this dimension are similar to Israel (discussed in the succeeding text) and demonstrate that self-worth is strongly associated with one’s honor, social status, and public image (i.e., face) in both nations. Moreover, social ostracism (i.e., exclusion) was perceived as highly damaging to self-worth, which reflects the critical importance of groups in clan-based social systems characteristic of the Middle East. Together, these results illuminate the construal of damage to self-worth as akin to honor violations in the Middle Eastern context. It is interesting to note that there were many unidimensional scales that loaded on this dimension in Pakistan (unlike in the United States,

Table 3. Multiple correlations, *F* ratios, and standardized beta values (regression weights) of descriptors on dimensions of aggression for Pakistan.

		R ²	F (4,14)	Damage to self-worth	Direct versus indirect	Physical versus verbal	Degree of threat
To what extent is this behavior...	Harmful	.91	21.79**	0.00	-0.45**	0.71**	0.42**
	Destructive	.28	18.19**	0.14	-0.59**	0.63**	0.32*
	Threatening	.63	6.94**	0.00	0.00	0.13	0.86**
	Immoral	.54	5.72*	-0.14	-0.28	-0.01	0.78**
	Callous	.72	12.58**	0.43**	-0.15	0.64**	0.54**
	Disrespectful	.77	7.45**	0.53**	0.35	-0.15	0.51**
	Verbal	.22	8.63**	0.35*	-0.06	-0.60**	0.50**
	Physical	.61	2.16	-0.21	0.38	0.55*	0.13
	Active	.74	4.42*	-0.21	-0.07	0.12	0.76**
	Direct	.45	4.27*	-0.15	0.45*	0.14	0.62**
	Passive	.62	2.49	0.54*	-0.21	-0.25	-0.34
	Indirect	.57	8.30**	0.33	-0.64**	-0.08	-0.42*
	Selfish	.45	3.84*	0.51*	-0.32	0.50*	0.16
	A demonstration of being superior	.32	1.85	0.32	0.40	-0.07	0.35
To what extent does it damage...	Humiliating	.05	12.44**	0.68**	0.21	0.04	0.56**
	Reputation	.34	5.62*	0.71**	-0.08	-0.04	0.44*
	Emotional wellbeing	.44	7.40**	0.75**	0.14	0.28	0.33
	Physical wellbeing	.33	5.05*	-0.10	0.32	0.73**	0.28
	Relationships	.17	3.85**	0.69**	0.03	0.38	0.09
	Honor	.57	9.40**	0.75**	0.08	0.05	0.48**
	Dignity	.04	7.78**	0.74**	-0.01	0.17	0.46*
	Face	.30	10.18**	0.65**	0.08	0.55**	0.37*
	Status	.17	6.44**	0.70**	-0.02	0.37	0.39*
	Autonomy	.05	26.09**	0.50**	-0.20	0.76**	0.34**
	Competence	.05	0.97	0.42	0.12	0.30	-0.08

Note. Beta values in boldface were used to interpret the dimensions.

* $p < .05$; ** $p < .01$.

discussed in the succeeding text), suggesting that this is a very important dimension that activates multiple meanings in Pakistan.

Israeli participants

In Israel, items associated with the high end of this dimension included humiliating ($\beta = .74$, $p = .01$), damaging to face ($\beta = .78$, $p < .001$), damaging to relationships ($\beta = .77$, $p < .001$), damaging to status ($\beta = .73$, $p = .01$), damaging to honor ($\beta = .71$, $p < .001$), damaging to reputation ($\beta = .66$, $p = .01$), and damaging to emotional wellbeing ($\beta = .62$, $p = .01$; Table 4). Behaviors at the high end of this dimension were distinctly related to social ostracism, as well as highly indirect in nature: "exclude someone," "ignore someone," and "gossip about someone" (Table 2). For Israeli participants, self-worth is particularly linked to social status and image. Further, the covert nature of assaults on self-worth is notable in Israel, as the behaviors falling at the high end of this dimension in other nations were more overt in nature. Behaviors at the low end of this dimension in Israel included "steal from someone," "damage someone's property," and "interrupt someone." What is also apparent is that damage to tangible goods (e.g., belongings and work) is seen as having little to do with honor. These results imply that worth is contingent not upon personal belongings and accomplishment but rather honor, social standing, and public image in these contexts.

Japanese participants

In Japan, the high end of this dimension included "insult someone's family publicly," "steal from someone," and "insult someone publicly." The low end included "push someone," "use angry gestures," and "sabotage someone's work"

Table 4. Multiple correlations, *F* ratios, and standardized beta values (regression weights) of descriptors on dimensions of aggression for Israel.

		R ²	F (4,14)	Damage to self-worth	Direct versus indirect	Physical versus verbal	Infringement to personal resources
To what extent is this behavior...	Harmful	.88	18.44**	0.28*	0.30*	0.70**	0.49**
	Destructive	.79	9.35**	0.34*	0.26	0.64**	0.48**
	Threatening	.86	15.45**	0.17	0.60**	0.70**	0.04
	Immoral	.92	28.41**	0.27*	0.39**	0.58**	0.61**
	Callous	.62	4.14*	0.28	0.39	0.66**	-0.07
	Disrespectful	.89	20.43**	0.28*	0.41**	0.49**	0.65**
	Verbal	.83	11.93**	0.08	0.49**	-0.77**	0.00
	Physical	.84	13.61**	0.01	-0.13	0.92**	-0.02
	Active	.81	10.44**	-0.08	0.59**	0.63**	0.14
	Direct	.60	3.81*	0.01	0.53*	0.43	-0.36
	Passive	.74	7.30**	0.40*	-0.55**	-0.44*	0.16
	Indirect	.66	4.86*	0.26	-0.34	-0.32	0.59*
	Selfish	.81	10.78**	0.02	-0.15	0.43*	0.74**
	A demonstration of being superior	.42	1.77	0.45	0.31	0.08	-0.33
To what extent does it damage...	Humiliating	.77	8.16**	0.74**	0.41*	0.25	0.22
	Reputation	.79	9.53**	0.66**	0.38*	-0.08	0.49**
	Emotional wellbeing	.73	6.86**	0.62**	0.30	0.37*	0.43*
	Physical wellbeing	.68	5.42*	0.34	0.15	0.78**	-0.16
	Relationships	.82	11.15**	0.77**	-0.03	0.00	0.49**
	Honor	.82	11.62**	0.71**	0.36*	0.15	0.47**
	Dignity	.77	8.37**	0.35*	0.22	0.51**	0.61**
	Face	.78	8.88**	0.78**	0.37*	-0.01	0.25
	Status	.77	8.18**	0.73**	0.21	0.09	0.47*
	Autonomy	.85	13.70**	0.35*	0.20	0.75**	0.39*
	Competence	.59	3.63*	0.45	-0.04	0.51*	0.40

Note. Beta values in boldface were used to interpret the dimensions.

* $p < .05$; ** $p < .01$.

(Table 2). Items associated with high damage to self-worth included humiliating ($\beta = .60$, $p = .01$), harmful ($\beta = .63$, $p = .01$), callous ($\beta = .83$, $p < .001$), immoral ($\beta = .77$, $p < .001$), disrespectful ($\beta = .75$, $p = .01$), and damaging to emotional well-being ($\beta = .71$, $p = .01$; Table 5). The evaluation of damage to self-worth as highly immoral, harmful, and callous is unique to Japan and demonstrates that such offenses are perceived as especially grave violations. Given the primacy of public image (i.e., face) and social standing in Japan, behaviors resulting in humiliation and damage to social capital are particularly salient in this context. It is especially interesting that "stealing" was seen as an assault on self-worth, which may reflect the loss of face when one's belongings are targeted. Like Pakistan and Israel, there were many unidimensional scales that loaded on this dimension in Japan, suggesting that self-worth is imbued with multiple connotations in Japan.

U.S. participants

Behaviors that fell on the high end of this dimension in the United States included "insult someone's family publicly," "insult someone publicly," and "threaten someone." Acts at the low end included "interrupt someone," "ignore someone," and "exclude someone" (Table 2). Unidimensional items loading on the high end of this dimension included humiliating ($\beta = .71$, $p = .01$), damaging to reputation ($\beta = .67$, $p = .01$), and damaging to emotional well-being ($\beta = .62$, $p = .01$; Table 6). It is worth emphasizing that other aggressive behaviors with highly relational

Table 5. Multiple correlations, *F* ratios, and standardized beta values (regression weights) of unidimensional items on dimensions of aggression for Japan.

		R ²	F (3,14)	Damage to self-worth	Direct versus indirect	Physical versus verbal
To what extent is this behavior...	Harmful	.60	5.58*	0.63**	-0.12	0.46*
	Destructive	.40	2.40	0.33	0.50	0.27
	Threatening	.33	1.80	0.57*	-0.07	0.03
	Immoral	.80	15.13**	0.77**	-0.31*	0.34*
	Callous	.78	12.69**	0.83**	-0.20	0.20
	Disrespectful	.73	9.80**	0.75**	-0.33	0.17
	Verbal	.62	6.05*	0.29	-0.12	-0.71**
	Physical	.68	7.72**	-0.49*	0.37	0.50*
	Active	.76	11.81**	0.24	0.81**	0.31
	Direct	.71	8.77**	-0.09	0.82**	0.13
	Passive	.85	21.33**	-0.16	-0.87**	-0.31*
	Indirect	.80	14.90**	0.28	-0.83**	-0.02
	Selfish	.72	9.24**	0.57**	-0.14	0.64**
	A demonstration of being superior	.42	2.65	0.24	0.30*	-0.51
To what extent does it damage...	Humiliating	.71	9.19**	0.60**	-0.33	-0.44*
	Reputation	.71	9.03**	0.43*	-0.44*	-0.53**
	Emotional wellbeing	.72	9.62**	0.71**	-0.34	-0.23
	Physical wellbeing	.34	1.91	-0.25	0.45	0.24
	Relationships	.68	7.95**	0.36*	-0.59**	-0.41*
	Honor	.65	6.78**	0.47*	-0.38	-0.48*
	Dignity	.63	6.16*	0.51*	-0.36	-0.43*
	Face	.60	5.46*	0.46*	-0.36	-0.47*
	Status	.48	3.39	0.38	-0.44	-0.34
	Autonomy	.27	1.37	0.01	-0.41	-0.33
	Competence	.11	0.43	-0.08	-0.29	0.13

Note. Beta values in boldface were used to interpret the dimensions.

* $p < .05$; ** $p < .01$.

consequences (e.g., “exclude” and “ignore”) were very high on this dimension in Pakistan and Israel, but fell on the low end of this dimension in the United States. Together, these results reflect the importance of one’s social self (with insult seen as a major infringement on public image), but at the same time, reflect the comparatively individualistic nature of one’s construal of self-worth in the United States, where social rejection or exclusion from the group were not perceived as particularly damaging to the self. As noted earlier, fewer items load uniquely on the damage to self-worth dimension in the United States, whereas this dimension is imbued with many more elements in other nations.

In sum, results showed that damage to self-worth emerged across all nations, but was imbued with culture-specific meaning across samples.

Direct versus indirect aggression

The *direct versus indirect* aggression dimension emerged in all four samples. This dimension differentiates between acts that are directed specifically at the target of aggression and are easily observable, and acts that are more concealed and involve aggressing against someone or something other than the target as a means of harming the target. The main items used to interpret this dimension included direct and indirect, although many nations (the United

Table 6. Multiple correlations, *F* ratios, and standardized beta values (regression weights) of descriptors on dimensions of aggression for the U.S.

		R ²	F (3,14)	Damage to self-worth	Direct versus indirect	Infringement to personal resources
To what extent is this behavior...	Harmful	.74	10.43**	0.48*	0.19	0.68**
	Destructive	.81	15.16**	0.42*	0.20	0.76**
	Threatening	.93	45.46**	0.65**	0.61**	0.22
	Immoral	.94	56.06**	0.51**	0.10	0.81**
	Callous	.89	30.05**	0.58**	0.13	0.73**
	Disrespectful	.79	13.43**	0.50**	0.03	0.73**
	Verbal	.68	7.83*	0.54**	-0.39*	-0.50*
	Physical	.77	11.98**	-0.11	0.72**	0.47**
	Active	.81	16.03**	0.39*	0.71**	0.31*
	Direct	.79	14.09**	0.45**	0.73**	0.00
	Passive	.79	13.67**	-0.31*	-0.80**	0.10
	Indirect	.77	12.16**	-0.23	-0.79**	0.28
	Selfish	.81	15.90**	-0.14	-0.24	0.86**
	A demonstration of being superior	.35	1.95	0.50	0.16	-0.24
To what extent does it damage...	Humiliating	.64	6.59**	0.71**	-0.36	0.26
	Reputation	.71	8.99**	0.67**	-0.31	0.47*
	Emotional wellbeing	.73	9.91**	0.62**	-0.45*	0.46*
	Physical wellbeing	.54	4.37*	0.07	0.67**	0.26
	Relationships	.50	3.61*	0.36	-0.53*	0.36
	Honor	.65	6.78**	0.59**	-0.22	0.53*
	Dignity	.61	5.78**	0.57*	-0.24	0.52*
	Face	.29	1.49	0.38	0.19	0.31
	Status	.60	5.59*	0.51*	-0.34	0.52*
	Autonomy	.64	6.57**	0.42*	-0.15	0.68**
	Competence	.49	3.58	0.35	-0.32	0.55*

Note. Beta values in boldface were used to interpret the dimensions.

* $p < .05$; ** $p < .01$.

States, Israel, and Japan) also construed this dimension in terms of active or passive aggression. Behaviors on the direct end of this dimension included “yell,” “threaten,” and “hit,” whereas behaviors on the indirect end of this dimension included “gossip,” “exclude,” or “ignore.”

Pakistani participants

In Pakistan, behaviors on the direct end of this dimension included “push someone,” “hit someone,” and “yell at someone,” whereas behaviors on the indirect end included “steal from someone,” “gossip about someone,” and “damage someone’s property” (Table 2). For Pakistan, the item loading on this dimension was indirect (which loaded on the indirect end of this dimension, $\beta = -.64$, $p < .001$; Table 3). Pakistani participants thus placed greater emphasis on the indirect (versus direct) end of this dimension, perceiving acts that are performed by the aggressor in a hidden and covert manner as similar to each other and distinct from other behaviors. Further, it should be noted that indirect behaviors are specifically related to damage to resources—both tangible (damage to belongings by stealing and damage to property) and intangible (damage to reputation or relationships via gossip). As such, this dimension primarily represents duplicitous acts directed toward taking one’s tangible and intangible resources.

Israeli participants

In Israel, the items associated with the ends of dimension were direct ($\beta = .53$, $p = .03$) on one end versus passive on the other ($\beta = -.55$, $p = .01$; Table 4). Behaviors on the direct end included “threaten someone,” “insult someone’s

family publicly,” and “yell at someone,” whereas behaviors on the opposite end included “ignore,” “interrupt,” and “exclude.” The indirect (or passive) end of this dimension mirrors solutions in the United States and Japan (discussed later) and involves relationally harmful behaviors. However, contrary to U.S. and Japanese participants, who associated direct aggression with physical aggression, highly direct behaviors in Israel had a distinctly verbal nature. It is also noteworthy that acts targeting one’s family (i.e., insulting one’s family publicly) were perceived as direct only in Israel, which may reflect a strong association between the family and the self.

Japanese participants

In Japan, the direct ($\beta = .82, p < .001$) and active ($\beta = .81, p < .001$) items loaded on the direct end of this dimension, whereas the passive ($\beta = -.87, p < .001$), indirect ($\beta = -.83, p < .001$), and damaging to relationships ($\beta = -.59, p = .01$) items loaded on the indirect end (Table 5). Behaviors on the direct end of the dimension included “hit someone,” “threaten someone,” and “yell at someone,” whereas the most indirect acts included “ignore someone,” “exclude someone,” and “gossip about someone” (Table 2). Further, Japanese participants evaluated indirect aggression as synonymous with passive aggression, whereas direct aggression was perceived to be active in nature. The direct versus indirect dimension plays a critical role in the Japanese context, which is consistent with the high values of items loadings on both ends of this dimension that reflect a very clear distinction between the direct and indirect ends.

U.S. participants

In the United States, the direct end of this dimension included “hit someone,” “push someone,” and “threaten someone.” The indirect end of this dimension included “ignore someone,” “exclude someone,” and “gossip about someone” (Table 2). The items that loaded on the direct end of this dimension included direct ($\beta = .73, p < .001$), physical ($\beta = .72, p < .001$), active ($\beta = .71, p < .001$), and damage to physical well-being ($\beta = .67, p = .01$). The items loading on the indirect side of this dimension included passive ($\beta = -.80, p < .001$), indirect ($\beta = -.79, p < .001$), and damaging to relationships ($\beta = -.53, p = .03$; Table 6). U.S. participants thus strongly associated directness with physical aggression, clearly differentiating acts that are physically harmful from acts that are relationally harmful. Like Japanese participants, U.S. participants also merged the passive versus active dichotomy with the direct versus indirect dimension.

In sum, results showed that direct versus indirect aggression emerged across all nations, but exhibited cultural variability in both the behaviors and items associated with this dimension.

Physical versus verbal aggression

The *physical versus verbal* dimension emerged in Pakistan, Israel, and Japan. This dimension differentiates between aggression perpetrated through physical means or directed toward one’s physical sphere, and those that are purely verbal or expressive in nature. The primary items used to interpret this dimension were verbal, physical, and damaging to physical well-being. Behaviors on the verbal end of the dimension included “yell” and “use an aggressive tone of voice,” and behaviors on the physical end included “hit” and “damage property.” In general, verbal aggression was perceived as opposite from physical aggression, although cultures varied in the clarity of this distinction. Further, it should be noted that physical aggression involves not only harm to one’s body but also harm to physical belongings in a broader sense (e.g., property and belongings). Similarly, the verbal end included different forms of expression and communication, reaching beyond purely verbal acts, including such behaviors as “use angry gestures.” Numerous cultural differences emerged, especially regarding the types of behaviors that are categorized as physical (and illustrates how different spheres of one’s life are “embodied” cross cultures) versus verbal in a given culture, as well as regarding the additional components associated with the physical/verbal distinction across nations.

Pakistani participants

The items that loaded on this dimension were damage to physical well-being ($\beta = .73, p = .01$), damage to autonomy ($\beta = .76, p < .001$), harmful ($\beta = .71, p < .001$), and callous ($\beta = .64, p = .01$) on one end and verbal ($\beta = -.60, p = .01$; Table 3) on the other. Behaviors on the physical end included “damage someone’s property,” “hit someone,” and “sabotage someone’s work” on the physical end of this dimension, whereas behaviors on the verbal end included “interrupt,” “use angry gestures,” and “yell at someone” (Table 2). The perception of physical assault as harmful, callous, and damaging to autonomy in Pakistan, a finding that also emerged in Israel, speaks to the serious nature of physical consequence, either to one’s resources or one’s body, in these contexts. Interestingly, for Pakistani participants only, “exclude someone” was also placed at the physical end of the dimension. Social exclusion, therefore, is perceived as highly physical in Pakistan. This may be because social exclusion has real, physical consequences in a culture with closely knit and largely interdependent social structure such as Pakistan. Taking away one’s social support and presence in these communities is thus tantamount to undermining one’s autonomy and physical well-being and even, in the extreme, one’s ability to survive.

Israeli participants

In Israel, items loading on this dimension include physical ($\beta = .92, p < .001$), damage to physical well-being ($\beta = .78, p = .01$), damage to autonomy ($\beta = .75, p < .001$), harmful ($\beta = .70, p < .001$), threatening ($\beta = .70, p < .001$), callous ($\beta = .66, p = .01$), and destructive ($\beta = .64, p = .01$) on the physical end and at the opposite end of the continuum, verbal ($\beta = -.77, p < .001$; Table 4). Behaviors on the physical end of this dimension included “hit someone,” “push someone,” and “damage someone’s property,” whereas behaviors high on the verbal end included “insult someone publicly,” “interrupt,” and “yell at someone” (Table 2). Overall, the Israeli solution was similar to the Pakistani solution.

Japanese participants

In Japan, items loading on this dimension included verbal ($\beta = -.71, p = .01$) and damaging to reputation ($\beta = -.53, p = .01$; Table 5). Behaviors on the verbal end included “use angry gestures,” “insult someone publicly,” and “use an aggressive tone of voice,” whereas behaviors on the opposite end included “steal from someone,” “damage someone’s property,” and “interrupt someone” (Table 2). It is interesting to note that these behaviors all target one’s physical belongings, rather than the body itself. This may reflect the relative rarity of violent crime in Japan, which is likely a function of its tight culture (Gelfand et al., 2011). Instead, Japan placed greater emphasis on the verbal (versus physical) end of this dimension, and the association of verbal aggression with damage to reputation was unique to Japan. This reflects the effectiveness of targeting one’s social image (i.e., reputation) as a means of expressing aggression and doing so in a verbal as opposed to physical manner so as to avoid large-scale disruption and highly visible consequences.

In sum, physical versus verbal aggression emerged in three of the nations we examined, but exhibited cultural differences in behaviors characterizing each end of the dimension as well as items loading along this dimension.

Infringement to personal resources

The *degree of infringement to personal resources* dimension emerged in the United States and Israel. This dimension fundamentally refers to the extent to which aggressive behaviors are directed toward damaging or taking away personal resources to which the target is rightfully entitled or has earned. For both the United States and Israel, the behaviors on the high end of this dimension included “steal from someone” and “sabotage someone’s work”, which are clearly directed toward one’s tangible belongings. However, other behaviors (such as “gossip about someone”) that were also high in both countries were more relational in nature, thus implying that behaviors targeted toward one’s personal social network are also seen as major infringements. Items loading on the high end of this dimension included selfish and disrespectful in both nations. Conversely, behaviors at the opposite end of this dimension

included “use angry gestures,” “yell at someone,” and “use an aggressive tone of voice,” which are examples of more benign acts that only signal frustration or hostility, while still avoiding substantive damage. Although this dimension was very similar in the United States and Israel, some differences appeared regarding what was perceived as a valuable personal resource, as well as the items associated with this dimension.

U.S. participants

Behaviors on the high end on this dimension in the United States included “steal from someone,” “sabotage someone’s work,” and “damage someone’s property” (Table 2), which are highly reflective of damage to personal belongings or accomplishments. The items that loaded on the high end of this dimension included selfish ($\beta = .86$, $p < .001$), immoral ($\beta = .81$, $p < .001$), destructive ($\beta = .76$, $p < .001$), disrespectful ($\beta = .73$, $p < .001$), callous ($\beta = .73$, $p < .001$), damaging to autonomy ($\beta = .68$, $p = .01$), and harmful ($\beta = .68$, $p < .001$; Table 6). Together, these results indicate that damage to material belongings as well as professional accomplishments is seen as a major violation in the United States and carries a host of highly negative implications. In particular, infringements to resources were seen as damaging to autonomy, which is a key value in an individualistic culture like the United States. In addition, however, “gossip about someone” was also placed relatively high on this dimension, which suggests that Americans see social capital as an important resource as well. The acts on the low end of this dimension included “yell at someone,” “use an aggressive tone of voice,” and “make angry gestures.” These are all communicative acts that were not perceived as malicious or threatening to resources in the United States. It is notable that many unidimensional scales loaded on this dimension in the United States, suggesting infringements to personal resources are imbued with multiple meanings in this context (as compared with self-worth for Pakistan, Israel, and Japan).

Israeli participants

In Israel, behaviors on the high end of this dimension included “gossip about someone,” “sabotage someone’s work,” and “steal from someone.” The low end of this dimension mirrored the same set of behaviors as in the United States: “make angry gestures,” “yell at someone,” and “use an aggressive tone of voice” (Table 2). The items that loaded on the high end of this dimension included selfish ($\beta = .74$, $p < .001$), disrespectful ($\beta = .65$, $p < .001$), damaging to dignity ($\beta = .61$, $p = .01$), and indirect ($\beta = .59$, $p = .01$; Table 4). These results demonstrate that Israeli participants, similar to U.S. participants, perceive damage to material belongings as well as professional accomplishments as highly disrespectful and selfish. However, “gossip about someone” and “insult someone’s family publicly” were placed significantly higher on this dimension in Israel than in the United States, which suggests that Israeli participants see social capital as a more central resource than U.S. participants.

The infringements to resources dimension did not emerge across samples. However, given the importance of personal resources in cultures of dignity, it is interesting that this dimension emerged in the United States (an exemplary dignity culture) and Israel (which incorporates elements of both dignity and honor cultures).

Degree of Threat

The *degree of threat* dimension emerged as a separate dimension only in Pakistan. This dimension fundamentally relates to the extent to which an aggressive act may damage a victim via either physical or emotional pain. This dimension conveys information regarding the potential gravity of an aggressive situation. The major item that was useful in interpreting this dimension was threatening. It is important to note that although the threatening item was meaningful in all the other nations only in Pakistan did threat emerge as the defining feature of a dimension.

Pakistani participants

The items associated with this dimension included threatening ($\beta = .86$, $p < .001$), immoral ($\beta = .78$, $p = .01$), active ($\beta = .76$, $p = .01$), and direct ($\beta = .62$, $p = .01$; Table 3). The acts “use an aggressive tone of voice,” “threaten someone,” and “yell at someone” fell on the high end of the continuum, and “ignore someone,” “exclude someone,” and

“interrupt someone,” fell on the low end (Table 2). The characterization of verbal behaviors (e.g., “use an aggressive tone of voice” or “yell”) as threatening conveys that verbal aggression is perceived as more threatening in Pakistan than in other cultures. This may be reflective of an important feature of cultures of honor, where once a verbal declaration of violent intent has been made, it is then treated as an obligation. In other words, a statement is seen not as a mere threat, but as a promise. In this context, a strong loading of the immoral and callous items on this dimension may reflect the gravity of threat and intimidation in Pakistan.

Discussion

Virtually all societies and species engage in aggressive behavior. However, the way in which aggression is both expressed and interpreted may vary substantially across cultures. Nonetheless, few studies have examined cultural differences in the construal of aggression, instead tending to focus on Western samples. However, given the potentially catastrophic consequences of culturally contingent discrepancies in the construal of aggressive acts (e.g., the Danish cartoons depicting Mohammed discussed in the introduction), a more comprehensive and nuanced understanding of cross-cultural differences in aggression is crucial. This work sought to identify the psychological dimensions upon which aggression is perceived, positing that universal dimensions might exist, but that important cultural differences would emerge along these dimensions. In doing so, we first conducted a comprehensive review of the extant literature across multiple disciplines supplemented by input from international SMEs and interviews conducted with Middle Eastern populations to capture the broadest possible range of aggressive behaviors, dimensions, and characteristics (i.e., unidimensional scale items). Subsequently, international samples from the United States, Pakistan, Israel, and Japan compared pairs of aggressive behaviors (e.g., hit someone and gossip about someone) with respect to similarity and provided an evaluation of each aggressive behavior across unidimensional items related to target (e.g., disrespectful, immoral, and selfish) and mechanism (e.g., damaging to one’s status, reputation, and face) characteristics. Finally, MDS analyses were conducted to illuminate the emergent dimensions of aggression in each nation.

The results provided support for culturally shared dimensions of aggression. In particular, three dimensions related to the actual or potential damage of aggressive acts emerged (damage to self-worth, infringements to personal resources, and degree of threat), whereas two dimensions related to the form of the aggressive act emerged (direct vs. indirect and physical vs. verbal aggression). However, not all dimensions emerged in each nation, and further, important cultural nuances emerged along each dimension in terms of both (i) the meaning of each dimension and (ii) the behaviors that define each dimension.

Damage to self-worth emerged as a strong potentially universal dimension of aggression and involves behaviors directed toward making someone feel small, powerless, humiliated, or otherwise worthless. In both Pakistan and Israel, this dimension primarily represents assaults on one’s honor, particularly through damage to one’s social standing. Social exclusion was perceived as an especially severe threat to self-worth and communicates the vital importance of group membership in these typically clan-based societies. Ostracism is not only related to relational and emotional damage but may also block one’s access to vital resources (e.g., food and shelter), ultimately compromising one’s survival in these contexts. Further, behaviors targeted toward tangibles (e.g., sabotaging work) were seen as minor assaults on self-worth in the Middle East, implying that material goods have little to do with worth in these nations. However, whereas Pakistanis perceived overt behaviors (e.g., public insults) as especially damaging to self-worth, Israelis saw more covert behaviors (e.g., ignoring and gossiping) as harmful to self-worth. Results also showed that Japanese construals of damage to self-worth were highly imbued with morality, respect, threat, and harm, speaking to the gravity of these types of assault. In face cultures, where public image is of the utmost importance, assaults on one’s worth are especially egregious. In contrast to the Middle East and East Asia, although the self-worth dimension emerged in the United States, it was not associated with as many meanings, and certain behaviors that have important implications for self-worth found in other cultures were not found in the

United States. For example, social exclusion and being ignored were viewed as very minor in terms of damage to self-worth in the United States, consistent with a dignity orientation and individualistic focus.

Direct versus indirect aggression also emerged as a strong potential universal dimension across all cultures. This dimension relates to whether aggression is perpetrated directly toward the target of interest and is out in the open versus aggression directed toward someone or something other than the target as a way of harming the target, often in a concealed manner. Nearly all cultures (except Pakistan) construed this dimension along an active versus passive continuum as well. One interesting difference concerns the fact that damage to relationships was associated with indirect aggression in the United States and Japan, but with damage to self-worth (i.e., honor) in Pakistan and Israel; this speaks to the relevance of honor to one's relationships in the Middle East. It is also noteworthy that Americans associated direct aggression with physical harm (a finding that also emerged in Japan and Pakistan, but to a lesser degree), whereas in Israel, highly direct behaviors were exclusively *verbal* in nature. The characterization of direct aggression as primarily verbal in Israel may indicate that verbal attacks are especially effective in targeting a specific individual in this context (more so than physical acts). Finally, only in Japan was direct aggression perceived as destructive. Japan places a premium on humility, rather than self-assertion (as is consistent with a cultural logic of face; Leung & Cohen, 2011) and values maintaining social harmony. Accordingly, conflict is generally handled through indirect and covert means in Japan (Gelfand et al., 2001; Ohbuchi & Takahashi, 1994), and instances of direct aggression are seen as especially severe.

The *physical versus verbal aggression* dimension refers to damage caused through physical means (e.g., use of body parts and weapons) versus damage caused through spoken means. This dimension emerged Pakistan, Israel, and Japan. In both Pakistan and Israel, physical aggression was associated with harm to autonomy, thus implying that physical assaults (either to the body or to belongings) undermine one's ability to take care of the self. Physical aggression was also perceived as harmful and callous, thus highlighting the gravity of physically harmful consequences in these nations. However, Pakistanis also evaluated exclusion as highly physical, whereas Israelis and Japanese did not. In tight-knit Pakistani communities, social exclusion may translate into real, physical consequences via the removal of both social support and even vital resources. It is also worth noting that Israelis imbued physical aggression with threat and destructiveness, showing that one's sense of security is strongly associated with physical well-being in this context. In contrast, Japanese primarily focused on the verbal end of this dimension and associated verbal assaults with damage to one's reputation, a key resource in face cultures. The emphasis on verbal, as opposed to physical aggression, in Japan is consistent a focus on avoiding large-scale disruption to social harmony. Whereas physical aggression results in easily observable consequences and thus calls attention to the perpetrator, verbal aggression is comparatively subtle. This physical versus verbal aggression dimension did not emerge in the United States, although Americans did imbue highly direct behaviors (i.e., those that fell at the direct end of the direct versus indirect dimension) with physical consequence.

The *infringements to personal resources* dimension emerged in the United States and Israel. This is particularly interesting because of the strong role of dignity in these cultures. As discussed, the United States (and to a lesser degree, Israel) is a prime example of a dignity-based individualistic culture in which the self is defined by one's own endeavors, in which autonomy and justice are key concerns, and in which one's self-worth cannot be easily taken away (Leung & Cohen, 2011). Thus, behaviors that specifically speak to violations of one's own self-advancement (e.g., sabotaging one's work) were seen as infringements upon one's personal resources. These behaviors were considered selfish because, in an individualistic culture where everyone has equal opportunity, no one deserves more opportunity than anyone else. However, infringements to personal rights were associated more with one's social network (e.g., gossiping) in Israel than in the United States, which reflects the importance of social capital in Israel. Further, this dimension was related to harm to autonomy and competence in the United States, which are key dignity-related constructs and illustrate the critical importance of personal resources to Americans.

The *degree of threat* dimension emerged only in Pakistan and, refers to the intensity of the potential physical or emotional pain that may be inflicted upon the victim. Notably, Pakistanis perceived verbal behaviors (e.g., yelling and using an aggressive tone) to be very threatening, which may reflect a norm in cultures of honor where aggressive intent is first stated and then enacted. We may only speculate as to why this dimension emerged uniquely in

Pakistan, but we suggest that it is largely a function of history of widespread conflict in this region paired with low scores on several quality of life indices (e.g., political stability and security, health; Economist Intelligence Unit, 2005). Japan and the United States have enjoyed domestic peace in recent history, and although Israel has been plagued by conflict, its citizens maintain a relatively high quality of life, which may make threat less salient. In contrast, Pakistanis' everyday lives are characterized by some degree of threat, posed either by immediate conflict or more distal concerns.

Theoretical implications and future directions

This work advances a culturally sensitive understanding of aggression, illustrating the dimensions upon which individuals perceive aggressive acts and the characteristics that define them. Importantly, we move beyond a culture-blind understanding of aggression, utilizing different cultural samples to identify universal, yet culturally nuanced, dimensions of aggression. By performing a comprehensive survey of the aggression literature and consulting with cultural experts from each of our sample countries, we were able to address multiple theoretical perspectives on aggression and ensure that our final materials were not laden with Western biases. Our results offer a clear depiction of how aggression is perceived across and within cultures, including both what types of behaviors constitute different dimensions of aggression and the appraisals associated with such behaviors.

One major contribution of these findings is that even potentially universal dimension of aggression are construed differently as a function of culture. Because the salience of certain events and violations can differ substantially because of cultural differences in focal concerns (Mesquita & Frijda, 1992), we might find that discrepancies in priorities influence downstream appraisals of aggressive acts. For example, the evaluation of exclusion as harmful to self-worth in the Middle East illustrates this region's highly collectivistic focus, whereas the evaluation of exclusion as largely irrelevant to self-worth in the United States illustrates a highly individualistic focus. In whole, this work demonstrates how a universal recognition of aggressive acts is subtly nuanced in terms of particular cultural logics.

This work also demonstrates how certain dimensions may be more or less salient across cultures, as evidenced by the emergence of an infringements dimension only in the United States and Israel and a threat dimension only in Pakistan. Cultural differences in the importance attributed to personal resources and individual accomplishments are reflected through the emergence of the infringements to personal resources dimension in cultures that emphasize dignity (the United States and Israel), but not elsewhere. Similarly, although participants from all nations saw threat as relevant to certain dimensions of aggression (e.g., physical aggression in Israel), degree of threat did not serve as the primary identifier for a dimension anywhere but Pakistan.

Further, this work highlights how applying the cultural logics of honor, dignity, and face (e.g., Kamir, 2002; Leung & Cohen, 2011) to samples of interest can offer a richer and deeper understanding of cross-cultural phenomena. That is, broadening our examination of cultural values beyond those typically studied can advance the literature significantly. There is ample theory supporting honor as an important cultural construct, as well as evidence linking it to individuals' responses to conflict (e.g., that members of cultures of honor are more likely to endorse aggression norms; Nisbett & Cohen, 1996; Vandello, Cohen, & Ransom, 2008). However, this is the first work to demonstrate how attacks on self-worth may be construed as honor violations in the Middle East and thus highlights this dimension as an important topic for further exploration. We note that although our samples were mainly from the U.S. North, there is a distinct possibility that the honor frame would be more accessible in the U.S. South. Future research should investigate this possibility.

In addition to enhancing our current understanding of aggression, this work also presents several potentially fruitful avenues for future aggression research. Whereas our focus was on illuminating underlying dimensions on which aggressive acts are based, future research can now address the consequences of construals of aggression across cultures. For example, given that honor loss has shown to relate to overt fighting in order to reclaim one's reputation in the eyes of the self and others (e.g., Cohen et al., 1996; Nisbett, 1993; Nisbett & Cohen, 1996), the behaviors that are seen as

particularly damaging to self-worth should result in more extreme conflict escalation in Pakistan and Israel than in cultures in which self-worth is associated with constructs other than honor (e.g., the United States and Japan).

The meaning of specific behaviors can also inspire new research. For example, exclusion was evaluated as physically harmful in Pakistan. This suggests that exclusion might be *embodied* as physically painful in Pakistan; that is, exclusion may in fact affect feelings of physical pain when they occur. Neuroscience research could examine whether exclusion indeed activates areas in the brain associated with physical harm differentially across cultures. In addition, future research could address whether acts that are high on a specific dimension call for a specific kind of retaliation (e.g., physical aggression may incite a physical response). More generally, by understanding the psychological dimensions underlying aggressive acts, we can begin to build theory about why aggressive acts might relate to different responses across cultures.

Practical and organizational implications

Beyond theoretical contributions, this work highlights the importance of understanding others' mental models when responding to potentially aggressive situations. Specifically, this research has important implications for intercultural negotiations and collaborations. Although there are potentially universal dimensions of aggression, the results suggest that definitions of aggressive acts can also be highly cultural in nature. One implication of this analysis is that it may be difficult for people of one culture to perceive important themes related to aggressive acts that are *emic* to another culture. Given that differences in frames have been found to impede conflict resolution (Drake & Donohue, 1994), negotiations (Brett & Okumura, 1998; Gelfand & McCusker, 2002; Liu, Friedman, Barry, Gelfand, & Zhang, 2012), and multicultural collaborations (Salas, Salazar, & Gelfand, 2013), it is critical to develop training programs to help individuals understand how and why aggressive acts are construed differently across cultures. For example, individuals in the United States would benefit from understanding how Japanese construe verbal assault as an attack on one's reputation. Verbal aggression did not emerge as particularly salient in the United States, so Americans might easily overlook the implications of verbal aggression in other cultures. As such, something as simple as an American using an aggressive tone of voice when speaking to someone in the Japanese context could result in far graver consequences than intended.

More generally, when people from different cultures apply disparate frames to interpret the same aggressive act, they may make different attributions for each other's behaviors, which may ultimately create an additional layer of latent conflict that makes it even more difficult to negotiate or collaborate across cultures. Accordingly, these findings can also serve to inform diplomatic endeavors to resolve international incidents and can also be used to better train and educate the military, government, and businesses when engaging in intercultural negotiations and collaborations.

Limitations

Although this work takes an important step forward in illuminating the influence of culture on perceptions of aggression, our results raise questions that await future investigation. In generating a condensed set of aggressive behaviors, we purposefully eliminated details about context whenever possible, as such information could result in too narrow of an interpretation (e.g., "threatening to reveal private information about someone" was shortened to "threatening someone"). However, acts of aggression rarely unfold devoid of any context, and not all of our behavioral stimuli occur discretely from one another. For example, exclude someone was found on the high end of the physical dimension for Pakistan but not for other nations. Although it could be that acts of exclusion are construed as inherently more physical, it could also be that acts of exclusion frequently occur in tandem with other physical acts (e.g., pushing someone) in Pakistan. An additional area of future research might explore the contexts in which these behaviors occur in order to more thoroughly understand the meaning of these dimensions. For example, because of the importance of reputation in honor and face cultures, whether a behavior occurs in public or private could bear crucial importance for interpretations and appraisals. Although some aggressive behaviors necessarily occur in the public eye (e.g., gossiping about someone involves some degree of public observation), other acts could occur in

both public and private contexts. As such, the context could lead to divergent appraisals for dignity and honor cultures. For example, certain “physical” behaviors could become more humiliating in countries such as Pakistan and Israel if committed in the public eye, such as pushing someone in front of significant others. However, the public nature of the behavior might not be regarded as severely in dignity cultures where reputation is less of a concern.

In addition, our participants were undergraduate students, which raises the issue of how our findings might generalize to non-student samples. Future research needs to examine construals of aggression among non-student samples. Nevertheless, we believe that our findings are likely representative of how aggression might be construed by other samples. Numerous scholars have argued that students might provide an understanding of the psychological processes operating within organizations given that there is little reason to believe that such processes are sample dependent (Greenberg, 1987; Locke, 1986). Further, Anderson, Lindsay, and Bushman (1999) found considerable correspondence between effect sizes of similar variables from laboratory versus field studies across a range of topics (e.g., aggression, helping, leadership style, social loafing, self-efficacy, depression, and memory). Accordingly, psychological theory is likely to generalize across samples making our choice of samples appropriate to start with.

Finally, our multinational sample consisted of four cultures that exhibited variability across several dimensions. However, future research is also needed on samples in Europe, Latin America, and Africa. Although these cultures undoubtedly share similarities with the Middle Eastern, East Asian, and Western samples we examined, they likely differ in important ways, too. As such, extending aggression research to a truly global level is important toward establishing a strong and comprehensive understanding of universal dimensions of aggression.

Conclusion

Aggression is a universal phenomenon that not just humans, but all species, experience and witness. This work illustrates the existence of common culturally shared dimensions of aggression, along with the emergence of dimensions of aggression unique to specific cultures. Further, this work shows that although conceptions of aggressive acts are to some extent universal, there are important cultural nuances that emerge along potentially universal dimensions of aggression. This work advances a more comprehensive yet refined understanding of the psychological structure of the aggression across cultures and contributes to both theory and practice related to culture, aggression, and their intersection.

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APPENDIX: INSTRUCTIONS PROVIDED TO PARTICIPANTS IN PHASE 2

Judgments of Behavior Study

In this study, we will ask you to make judgments about whether certain behaviors are similar or not at all similar. There are no right or wrong answers. We are just interested in your opinions.

On the following pages, you will find pairs of different behaviors. After reading each pair, please make your judgments about whether or not the two behaviors are similar or not similar.

Each pair of situations or activities will be presented along with the following scale. Please circle the most appropriate response on the scale.

1	2	3	4	5	6	7
Not at all similar			Somewhat similar			Extremely similar

For each pair, if you think that the characteristics of the two behaviors are not at all related, you would circle the "1." If you think that the characteristics of the situations are extremely similar, you would circle the "7." Of course, you should also use the full range of the scale. In other words, choose 1, 2, 3, 4, 5, 6, and 7 depending on the degree to which you think the behaviors are similar.

The behaviors that you will be presented include:

1. Hit someone
2. Ignore someone
3. Damage someone's property
4. Push someone
5. Steal from someone
6. Threaten someone
7. Insult someone publicly
8. Yell at someone
9. Use an aggressive tone of voice with someone
10. Interrupt someone
11. Make angry gestures at someone
12. Exclude/ostracize someone
13. Sabotage someone's work
14. Insult someone's family publicly
15. Gossip (spread rumors) about someone behind their back

Please proceed through the following paired comparisons quickly by responding according to your first impression of similarity and do not refer back to earlier responses.