Aggression and emotions: cultural and individual differences

Dahamat Azam, M.N.B.

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AGGRESSION AND EMOTIONS: CULTURAL AND INDIVIDUAL DIFFERENCES

Naqi Dahamat Azam

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Proefschrift

Ter verkrijging van de graad van Doctor
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door

Naqi Dahamat Azam

geboren te Kuala Lumpur in 1986

CONTENTS

This thesis is dedicated to the memory of my late father,
Dahamat Azam,
who believed in and inspired me.

For my wonderful mother, Sa'diah,
and my favourite little brother, Aiman Nazmi,
who are always behind me through thick and thin.

For my caring and lovely wife, Nazathul Sofia,
who always provides me with endless encouragement and support.

For my dearest children: Fateh, Hakim and Ariff,
Who are always the sources of joy to me

CHAPTER | 1

GENERAL INTRODUCTION

Aggression is described as "any form of behaviour directed toward the goal of harming or injuring another living being who is motivated to avoid such treatment" (Baron & Richardson, 1994, page 7). Occasionally, aggression is necessary, for example to help stop danger or a life-threatening situation. Yet in everyday life, aggression is viewed as maladaptive because of its negative impact on people's social relationships.

Research shows that children start to display aggressive behaviour as early as 17 months of age (Tremblay et al., 2004). However, aggressive behaviours in toddlerhood are still socially acceptable, because it is regarded as children's unregulated strategies for showing their frustration with achieving their goals. As they mature, children acquire emotional and social skills from their environment – such as through observing and learning from interactions with their parents, siblings, and teachers – which helps them obtain their goals in ways that do not necessarily jeopardise their relationships (Baron & Richardson, 2004). This positive development helps children and adolescents control and reduce their aggression.

However, some adolescents are prone to commit aggression. For example, bullying, which is a form of aggression, is commonly experienced in adolescents globally. For instance, about 38% adolescents have been involved in bullying in the United States (Modecki, Minchin, Harbaugh, Guerra, & Runions, 2014), 10.6% to 18.8% adolescents in Western European countries such as the Netherlands (Craig et al., 2009), and ranging from 18.5% to 71.4% adolescents in East Asian countries (Laeheem, Kuning, Mcneil, & Besag, 2008; Mat Hussin, Abd Aziz, Hasim, & Sahril, 2014; Pradubmook-Sherer & Sherer, 2016; Yodprang, Kuning, & McNeil, 2009). In Malaysia, bullying has a high prevalence, involving 20.0% to 53.2% of Malaysian children and adolescents (Wan Ismail, Nik Jaafar, Sidi, Midin, & Shah, 2014).

Back in the 1980's and 1990's, most Malaysian researchers focused their studies on juvenile delinquency and crime. Fewer studies focused on aggression in more common, everyday-life situations of most adolescents, such as bullying and fights among peers. In recent years, very few studies have been conducted in Malaysia to understand the roots of aggression in Malaysian children and adolescents. For example, Kong, Maria Chong, and Samsilah (2012) determined the main aggressive behaviours that are frequently shown by school children, with hostility as the most frequent and physical aggression as the less frequent behaviour. Earlier, Yahaya, Boon, Ramli, Hashim and Idris (2010) examined the perception of secondary school students toward aggression, finding that aggressive behaviours were driven by factors such as school environment, lack of attention by parents and own attitude. In addition, previous researchers only focused on one dimension of aggression, the form in which the aggression took place (e.g., physical aggression or verbal aggression). To date, none considered different functions of aggression, such as proactive versus reactive aggression.

What is proactive and reactive aggression? Why they are important to study? Proactive aggression refers to goal-oriented aggressive behaviour that anticipates rewards, as the benefits of that behaviour (Kempes, Matthys, de Vries, & van Engeland,

2005; Vitaro, Brendgen, & Tremblay, 2002). Bullying is considered a form of this type of aggression, because it is aimed at gaining power (Crick & Dodge, 1999; Hamarus & Kaikkonen, 2008). Proactive aggression can exist even without provocation or any feelings of anger. In contrast, reactive aggression refers to aggressive behaviour in response to provocation or a perceived threat, and it has an emotional basis, most commonly related to anger (Vitaro & Brendgen, 2005; Green, 2001). Research results support the importance of making a distinction, as proactive aggression is related to callous unemotional traits, higher psychopathic tendencies, and fewer empathic responses; but reactive aggression in contrast is related to intense negative emotions and peer victimization (Crick & Dodge, 1996; Hubbard, McAuliffe, Morrow, & Romano, 2010; Polman, De Castro, Thomaes, & Van Aken, 2009). In other words, the two types of aggression are distinct in terms of situation (existence of provocation) and emotion (arousal of anger).

By studying both proactive and reactive aggression, one can examine the root cause of aggression in adolescents: whether the problems are related to emotional (e.g., anger) or instrumental aspects (e.g., gaining power), or a combination of both. Information thus gained will be beneficial, and can be used to develop plans or strategies to prevent child aggression from becoming more severe, especially in school settings. Undoubtedly, the presence of aggressive children and bullies at school can explain teaching and learning difficulties in the classroom (Juvonen, Graham, & Schuster, 2003), while also exposing adolescents to danger at school, including risk of injury and psychological distress (Dill, Vernberg, Fonagy, Twemlow, & Gamm, 2004; Sun & Shek, 2012).

The **aim of this thesis** is to examine aggressive behaviours, aggression-related behaviours, and emotions that influence adolescents' social relationships on a daily basis. The thesis takes a cultural approach by comparing Malaysian and Dutch adolescents (at the country level), by examining adolescents' endorsement of cultural values (at the individual level), and by examining adolescents' perception of closeness to friends and family members (at the interpersonal level).

The **significance of this thesis** is threefold: 1) The majority of studies examining adolescents' aggressive and aggressive-related behaviours and emotions stem from samples from Western societies, such as the US and Western Europe. Little is known about proactive and reactive aggression in adolescents from other parts of the world, including Malaysia. Therefore, the current thesis will provide insight into which outcomes are generalizable across countries, and which outcomes are specific to a certain country. 2) Similarly, this thesis brings the field forward by examining possible underlying cultural mechanisms that may explain differences between countries. Where comparisons between Malaysian and Dutch adolescents can provide insight into how behaviours may manifest differently between countries, considering adolescents' endorsement of cultural values and their perception of interpersonal closeness may help explain why the groups might differ. 3) As noted before, there is a high level of juvenile delinquency and student misconduct in Malaysia. Malaysia is

therefore a valuable country in which to study adolescents' aggressive and aggressive-related behaviours and emotions. Outcomes and related suggestions are expected to be particularly valuable for Malaysian and Dutch practitioners dealing with aggressive behaviours.

THEORETICAL BACKGROUND

The social-ecological model by Bronfenbrenner (1994) postulates five different ecological systems (i.e., microsystem, mesosystem, exosystem, macrosystem, and chronosystem) with which an individual (at the centre of the circle) interacts, and which help in shaping the developmental outcomes of him or herself (see Figure 1).

In this thesis, our attention is first on the individual adolescent, including the adolescent's aggressive and aggressive-related behaviour and emotions. Next, our focus is on two ecological systems from Bronfenbrenner's model. The first system is the microsystem, the closest support system to adolescents. This system includes the peer group. Bronfenbrenner (1979) argued that peers serve as one of the two primary dimensions of influence for adolescent socialization, besides family (parents and siblings). Parents play an undeniable role in shaping children's attitudes at home. However, as adolescents spend increasingly more time in and out of school with their peers, and shift their focus accordingly, close friends and other interactions with peers become more influential during adolescence (Brechwald & Prinstein, 2011).

The second system from Bronfenbrenner's model that will be considered in this thesis is the macrosystem, which is a larger system that encompasses norms, values and cultures. Although this system may seem far removed from an individual's direct
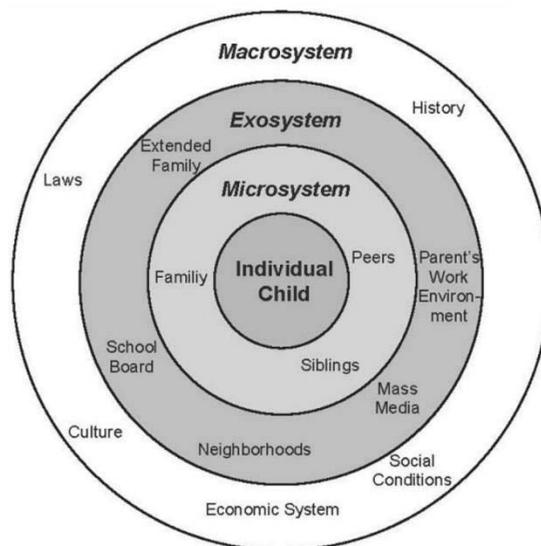

Figure 1. Bronfenbrenner's social-ecological model
(Graphic source: https://munsonmissions.org/tag/bronfenbrenner/)

world, it influences how the individual thinks, feels, and behaves. From birth, children are raised within a cultural context in which they internalize cultural values, norms, and practices.

Taken together, Bronfenbrenner's model provides a framework for examining the adolescents' aggressive and aggression-related behaviours and emotions in a socio-cultural context.

Cultural values

Every culture has its own set of values, and these values shape individual ways of thinking, feeling, and behaving (Neuliep, Chaudoir, & McCroskey, 2001). A simple example that shows how culture can influence behaviour is that eating pork can be considered to be tasty and tempting in many societies, but unacceptable in others. Another example, perhaps more complex, is that committing suicide can be regarded as being against the law, *haram* (according to Islamic law; meaning: forbidden) and taboo in many countries, but some countries allow it for medical reasons, or see it as honourable (Abdel-Khalek, 2004; Chen, Choi, & Sawada, 2009; Van Der Maas et al., 1996). These examples indicate how important culture is to one's life; how culture teaches what feelings are appropriate; and influences what actions are to be taken. The same influence might also be visible in adolescent aggression. In this thesis, we concentrate our attention on cultural values, namely individualism and collectivism, in the context of adolescent aggression and aggression-related behaviour and emotions.

Traditionally, cross-cultural psychological research distinguishes between individualistic and collectivistic cultures. In individualistic cultures, predominantly seen in Western societies such as in the Netherlands and the United States, individuals tend to perceive the self as being independent and autonomous, and separate from others (Markus & Kitayama, 1991). In these cultures, individuals highlight the concerns, needs, and welfare of the self (Hui & Triandis, 1986; Matsumoto, 1990). Individualistic values therefore reflect doing one's own thing, individual freedom, and personal uniqueness, regardless of what others might think (Triandis, 1995). Collectivistic cultures, in contrast, are predominantly seen in (East) Asian societies, as in Malaysia and Japan. In these cultures, individuals tend to perceive the self as being dependent on and part of their social group, such as family and friends. In these cultures, individuals focus on the concerns, needs, and welfare of the group. Collectivistic values therefore reflect group membership, social harmony, and cohesion (Triandis, 1995).

The contrasting characteristics between individualism and collectivism may reflect how unique the values are embedded in one's culture. Also, it may explain differences in people's propensity for aggression. For example, a person who highly endorses individualistic values may behave aggressively to protect him/herself from losing self-esteem if someone "attacks" his/her positive self-evaluation, or restricts his/her highly valued independence (Salmivalli, 2001). However, the antecedents for aggression may be different for someone who highly endorses collectivistic values. Since these individuals may strive for harmonious and conflict-free relationships,

anyone or anything that can reduce their group identity, or make relational ties between in-group members more fragile, could be considered a threat. To maintain their stable position in their group, they might do whatever it takes, which could include bringing harm to those who threaten this highly valued group-identity and harmony (Triandis, 1995).

Note that these different antecedents for aggression based on cultural differences would apply especially to reactive aggression, i.e., aggression as a reaction to a perceived threat. Since proactive aggression can arise without provocation or anger feelings (Vitaro et al., 2002), we see no reason that cultural values would affect the occurrence of this kind of aggression in adolescents' daily life situations. To the best of our knowledge, no other study has yet taken into account the role of different cultural orientations in the functions of aggression. This study is the first to do so.

A dilemma to be solved when studying cultural differences is to choose the best methodological approach to assess the effect that culture can have on behaviour, or in this case, aggressive and aggressive-related behaviour and emotions in particular. To date, different levels of analysis can been employed that all have their advantages and disadvantages (Wang, 2018).

At a country-level of analysis, individuals from typical individualistic countries (e.g., the Netherlands) and typical collectivistic countries (e.g., Malaysia) are compared. Whether countries are referred to as individualistic or collectivistic stems from Hofstede's (1984) country scores on individualism and collectivism. Hofstede's approach suggests that the country-of-origin can be reliably classified according to an individualism-collectivism dimension that is considered to be static in nature. Hofstede's approach is supported and widely used internationally, and many studies have deepened our understanding in this respect. Yet, one major flaw of this approach is that its broad, macro-level view may oversimplify individual identities and differences within cultures. Not all Western people are fully individualistic-oriented, and Eastern people also exhibit more or less individualistic characteristics, depending on the situation. Moreover, by comparing individuals from different countries researchers can assume, but cannot be certain what is driving any differences they may find. The underlying mechanism might be cultural factors, but might also be other factors such as language, SES, or level of urbanisation (Oyserman, Coon, & Kemmelmeier, 2002).

At an individual level of analysis, individuals' endorsement of cultural values is taken into account. Cross-cultural psychologists like Oyserman et al. (2002) and Singelis (1994) argued that it is important to measure individualism and collectivism at the individual level, since both cultural values are not mutually exclusive and can coexist within a person. Examining the unique level of collectivism and individualism within participants of a study opens the possibility of examining the extent to which certain values are more or less important to each participant, and affect psychological functioning on an intra- and interpersonal level, as in aggression and emotion regulation.

At an interpersonal level of analysis, researchers consider the perception of closeness between individuals. Individuals who construe the self as being part of their social group (e.g., friend and family) perceive themselves as being closer to members of their social group than those who construe the self as independent from others. A study by Holland, Roeder, Baaren, Brandt and Hannover (2004), for example, suggests that self-other closeness is more visible in individuals who are loyal and dependent on other people than individuals who are self-centred. Studies have used this interpersonal level of analysis as a way to measure individualism and collectivism (e.g., Uleman, Bardoliwalla, Rhee, Toyama, & Semin, 2003; Uskul, Hynie, & Lalonde, 2004). Note that individualism-collectivism in this approach are two sides of one dimension (interpersonal connectedness), and a person is either high on one and low on the other, or vice versa.

In this thesis, we have employed all of the above three levels of analysis to examine the effect of culture on adolescents' aggressive behaviour, aggressive-related behaviour, and emotions.

Emotion regulation

Emotions are an important aspect of daily life, because they serve social and communicative roles. Feeling happy, for example, signals that something good has happened and the situation is free from conflicts and tensions. This can bring positivity and closeness to a relationship between two individuals (e.g., friendship) (Demir, Doğan, & Procsal, 2013; van Workum, Scholte, Cillessen, Lodder, & Giletta, 2013). Meanwhile, feeling angry signals that someone else's action is perceived as undesirable and blameworthy, which can put a friendship at risk or evoke aggression (Bowker, Rubin, Burgess, Booth-LaForce, & Rose-Krasnor, 2006). Therefore, to preserve good relationships and be able to function optimally within their environment, adolescents must learn how to regulate their emotions adequately, and communicate them appropriately.

Research suggests that children and adolescents who are able to better regulate their emotions tend to develop better self-control skills, particularly in managing the excessive experience of negative emotions (Loeber & Hay, 1997). Moreover, deficits in emotion regulation will increase the likelihood of developing psychopathology (Cole & Deater-deckard, 2009; Kim & Cicchetti, 2010), emotional-base problems (Garnefski, Kraaij, Terwogt, Jellesma, & Rieffe, 2007; Suveg & Zeman, 2004) and aggression (Röll, Koglin, & Petermann, 2012). In fact, adolescents with higher capability for regulating their own emotions effectively show lower levels of aggression (de Castro, Merk, Koops, Veerman, & Bosch, 2005; Laible, Carlo, Panfile, Eye, & Parker, 2010; Marsee & Frick, 2007; Mclaughlin, Hatzenbuehler, Mennin, & Nolen-hoeksema, 2011; Röll et al., 2012).

Emotion regulation is defined as a process where a person monitors, evaluates and modifies his or her emotion within him/herself internally, or externally with other people, in the emotion communication (Thompson, 1994). Gross and Thompson

Situation   Attention   Appraisal   Response

Figure 2. Emotion Process

(2007), (Figure 2) explain that emotion regulation starts with the emotion-generative process. Normally, the experience of an emotion begins with a psychologically relevant **situation**. For example, you are studying for your examination and suddenly you hear loud music from your neighbor's house. Since the noise interrupts your reading, your **attention** is now directed to the situation. During that time, your body also experiences physiological changes (e.g., increase in heart rate and blood pressure), a clear indication of emotional arousal. **Appraisal** takes place when emotional information conveyed by the visual and auditory channels is sent to the brain to be evaluated cognitively. Then, possibly different action tendencies can be identified; whether you want to let your neighbor know how annoyed you are with the noise; or you just continue with reading, trying to ignore the music, or you go out for a while and have some drinks. The **actual response** is the action that is chosen and executed.

Yet, before executing any action, several aspects need to be considered, in which cultural differences may play a role. The so-called cognitive control system accounts for a reappraisal of the emotion, and enables people to adaptively respond to an emotionally arousing situation (Gross & Thompson, 2007). Question is, what is adaptive? Different social demands might call for different emotional reactions, and these differ by culture. For example, is it important to keep a harmonious relationship with your neighbor (collectivistic goal), or do you want to pass your exam (Individualistic goal)?

To discuss emotion regulation from a cross-cultural perspective, we consider three aspects of emotion regulation, namely: emotional reactivity and coping strategies. These two aspects are chosen based on the idea that the establishment of a successful exchange of emotional information can only occur when children and adolescents: (i) are aware of the intensity of their own emotions, (ii) understand their own and others' emotions, and (iii) react appropriately to their and others' emotions (Halberstadt, Denham, & Dunsmore, 2001).

Emotional reactivity refers to the varying intensities and levels of emotional arousal induced by specific stimuli (Shapero & Steinberg, 2013). In this thesis, we examine the intensity of basic emotions such as anger and fear, and moral emotions such as shame and guilt. Research argues that basic emotions – anger and fear – are universally recognised and experienced, although the expression may differ, with Asian adolescents being less confrontational in conflict situations than their peers from individualistic societies (Novin, Rieffe, Banerjee, Miers, & Cheung, 2011). Therefore, the intensity of these emotions is expected to be similar, across cultures. Yet, this may not be the case for moral emotions. According to the literature, shame and guilt are regarded as more culturally bound, rather than universal in nature (Benedict,

1946; Hofstede, 2011; Markus & Kitayama, 1991). Shame is seen as more adaptive, appreciated, and necessary in Eastern societies, as guilt is in Western societies (Anolli & Pascucci, 2005; Bedford & Hwang, 2003; Cole, Tamang, & Shrestha, 2006). Yet, compared to guilt, shame creates more negative consequences, such as aggression. – especially when shame is expressed when one experiences losing face – in Eastern cultures (Bedford & Hwang, 2003; Li, Wang, & Fischer, 2004; Midlarsky, Venkataramani-Kothari, & Plante, 2006; Yoshioka & Choi, 2005). It is therefore yet unknown how these different emotions are related to aggression, across cultures.

Coping strategies refer to regulating the emotional impact of a stressful event (Lazarus & Folkman, 1984). In this thesis, three kinds of coping styles are examined, namely approach coping, avoidant coping, and maladaptive coping. Approach coping refers to active attempts to resolve the conflict, including confronting the friend directly and seeking social support to talk about what happened (Wright, Banerjee, Hoek, Rieffe, & Novin, 2010). It is normally related to positive and favorable outcomes, such as low levels of aggressive behaviors (Blechman, Prinz, & Dumas, 1995; Folkman & Moskowitz, 2004).

Avoidant strategies refer to the attempt to withdraw from the situation, including walking away from the conflict and seeking distraction (cognitively or behaviorally) (Kochenderfer-Ladd & Skinner, 2002; Wright et al., 2010). Avoidant coping can bring more negative social consequences that include increased anger and aggression (Blechman et al., 1995; D'zurilla, Chang, & Sanna, 2003; Folkman & Moskowitz, 2004).

Maladaptive strategies refer to internalizing behaviors (e.g., ruminating and worrying) and externalizing behaviors (e.g., hitting and screaming). Compared with approach and avoidant coping, these coping strategies are more negative in nature. Several studies have shown the ineffectiveness of maladaptive coping in reducing aggression. Instead, maladaptive coping promotes more aggressive behaviors (Crick, Ostrov, & Werner, 2006; Hampel, Manhal, & Hayer, 2009). However, note that these studies were all conducted in Western societies, and that information about the effectiveness of different coping strategies is yet unknown in East Asian societies, such as in Malaysia.

Peer interactions

Peers can be defined as the same-age group of people such as classmates and school friends. Having a friend is important for sharing experiences, feelings, and thoughts on life, and it greatly influences the formation of a given person's behaviour (Berndt, 1982, 2002; Hamzah, Suandi, Krauss, Hamzah, & Tamam, 2014). Peers play an important role in human life, especially in human development and growth. Effective relationships with peers can enhance one's psychological wellbeing and happiness (Durlak, Weissberg & Pachan, 2010), and peers are the most influential group during adolescence, besides family.

Adolescents usually rely upon their peers as significant sources to inflate self-esteem, gain self-identity, acquire social support, and learn essential social skills

(Newcomb & Bagwell, 1995). Also, relationships with peers help adolescents to stave off feelings of isolation and hopelessness (Cheng & Furnham, 2002). Moreover, close relationships between peers facilitate learning and improve academic outcomes (Wentzel & Watkins, 2002). As a result, adolescents who are closely affiliated with their peer group are often better in academic achievement, which gives them greater potential to be successful in later stages of life. An ideal friendship is always born from these positiviteness.

However, peer relations in adolescents are not necessarily always positive. There are times and situations when the peer-to-peer relationship can go wrong. Jealousy, dominance, competition, and betrayal are the most common causes that can hinder peer interactions (Adams & Laursen, 2007; Berndt, 2004). Consequently, behaviors such as aggression and bullying can be enacted, as powerful tools to demand respect from peers. These problematic behaviors have damaging consequences in many aspects of an individual's development (i.e., physical, emotional and social). Although powerful, bullies often have difficulty building intimate and positive relationships with peers. This situation creates identity confusion in bullies, a psychological crisis that contains a sense of isolation, feeling insecure, and negative self-concept (Erikson, 1994). With all the loneliness, they struggle to transition successfully to adult life.

Indeed, previous literature has suggested that aggression in adolescence is primarily influenced by peer interactions (Espelage, Holt, & Henkel, 2003; Hartup, 2005). The presence of positive interaction and empathy between individuals in a peer group will decrease the likelihood of aggression (Girard et al., 2011). In contrast, negative peer interaction, including peer rejection, increases the tendency of rejected adolescents to behave aggressively, over non-rejected adolescents (Dodge et al., 2003; Lansford, Malone, Dodge, Pettit, & Bates, 2010).

Note that some features of peer relationships can be culturally influenced, either directly or indirectly, and this could further influence aggressive behaviors in children. For example, in collectivistic cultures, such as in Malaysia, which emphasize values such as interdependence and conformity, interpersonal relationship is usually built upon harmonious, supportive, and non-confrontational relationships (Benjamin, Schneider, Greenman, & Hum, 2001; French, Rianasari, Pidada, Nelwan, & Buhrmester, 2001; Zhang et al., 2013). These characteristics are in contrast to those in individualistic cultures, such as the Netherlands, where self-determination, independence, and self-reliance are highly valued (Triandis, McCusker, & Hui, 1990). Consequently, children in collectivistic cultures report less peer conflict than those in individualistic cultures (Benjamin et al., 2001; Orlick, Zhou, & Partington, 1990).

AIM AND OUTLINE OF THIS THESIS

The overarching aim of this thesis is to examine aggressive behaviours, aggressive-related behaviours and emotions that influence adolescents' social relationships on a daily basis. The thesis takes a cultural approach by comparing Malaysian and Dutch adolescents (country level), by examining adolescents' endorsement of cultural

values (individual level), and by examining adolescents' perception of how close to friends and family members (interpersonal level). This aim is reflected in the following chapters, which consist of two validation papers and three empirical papers:

Chapter 2 describes the process of translation and validation of the Malaysian version of a self-report Instrument for Reactive and Proactive Aggression (IRPA). Construct and concurrent validity of the questionnaire were tested, with related constructs such as delinquency and victimization.

In **Chapter 3**, we examined the validity of the Individualism-Collectivism Questionnaire for Youth in a Malaysian and a Dutch population. In the following **Chapter 4**, we studied the moderating effects of individualism and collectivism at country and individual levels on the relationship between coping strategies and moral emotions with reactive versus proactive aggression.

In **Chapter 5**, we investigated the relationship between emotional reactivity (fear, anger, shame and guilt) with bullying and victimization across individual and cultural variation in a Malaysian and Dutch adolescent samples.

In **Chapter 6**, we examined how closeness to friends and cultural differences affect the relationships between coping strategies and friendship quality in Malaysian and Dutch adolescents.

In **Chapter 7**, the General Discussion, we present the overall findings of this study and their implications.

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CHAPTER 2

AGGRESSION IN MALAYSIAN ADOLESCENTS: VALIDATION OF THE IRPA SELF-REPORT TO MEASURE REACTIVE AND PROACTIVE AGGRESSION

ABSTRACT

Motives for aggression can be reactive or proactive. While research on these motives for aggression exists in Western societies, little is known about their prevalence in a non-Western society such as Malaysia. The first step to narrow this gap is to validate an instrument, which measures levels of reactive and proactive aggression. In the present study we translated the IRPA (instrument for reactive and proactive aggression) self-report, and examined its psychometric properties in 957 Malaysian adolescents. Participants completed the IRPA self-report along with instruments measuring victimization, delinquency, shame, and guilt. The outcomes confirmed the expected two-factor structure, good internal consistency and validity of the IRPA self-report in a Malaysian sample.

Aggressive behaviour can cause serious harm, including physical and emotional injuries, with long-term negative consequences for both the victim and the aggressor (Umukoro, Aladeokin, & Eduviere, 2013). Although aggressive adolescents are prevalent around the globe, some studies indicate that the prevalence of aggression among adolescents in developing countries is higher than in developed countries (e.g., Akiba, LeTendre, Baker, & Goesling, 2002).

Malaysia, an advanced developing country in Southeast Asia, is one of these countries where aggressive-related behaviours (e.g., bullying, physical fighting) is reported in 28% of adolescents (Mat Hussin, Abd Aziz, Hashim, & Shahril, 2014) compared to 13.3% of the Dutch adolescents for example (Jansen, Veenstra, Ormel, Verhulst, & Reijneveld, 2011). This has urged the Malaysian government to give a high priority to prevention. Although questionnaires in Malaysian national language (i.e. Malay) are available that measure various forms of aggression (i.e., physical/verbal aggression, anger and hostility; Ahmad & Mazlan, 2012), there is yet no questionnaire measuring the underlying motivation for this aggression. By understanding the motives behind the aggression, prevention and intervention efforts can be more focused, efficient and effective. The question is whether such a questionnaire that is developed and validated in Western samples can also be applied in other, non-Western samples such as Malaysia. Therefore, in the current study, we translated and validated a self-report questionnaire for motives underlying aggression in Malay.

REACTIVE AND PROACTIVE AGGRESSION AND THEIR BEHAVIOURAL CORRELATES

Albeit all acts of aggression by definition are related to norm-transgressing behaviours, the underlying motives can vary. These motives are broadly divided into two categories. First, reactive aggression reflects out of control, overheated reactions in response to something (potentially) harmful, thus aimed at protecting something important to the self. Second, proactive aggression reflects cold-blooded actions to achieve a certain goal, without consideration for the harm caused to other(s) (Card & Little, 2006; Crick & Dodge, 1996).

Consequently, the behavioural outcomes and correlates between two aggression motives vary. Reactive aggression as a reaction to provocation is related to intense negative emotions (e.g., anger and shame) (Crick & Dodge, 1996; Hubbard, McAuliffe, Morrow, & Romano, 2010). Furthermore, adolescents who score high on reactive aggression often feel threatened by others and report high levels of peer victimisation (Polman, Orobio de Castro, Thomaes, & Van Aken, 2009). In contrast, proactive aggression, being instrumental and aimed at self-gain, is related to lower levels of guilt and shame (Fite, Rubens, Preddy, Raine, & Pardini, 2014), making it possible to harm someone without feeling bad about it.

PRESENT STUDY

The aim of the present study was to translate and examine the Instrument for Reactive and Proactive Aggression (IRPA) self-report, that presents common forms

of aggression, and has proven strong psychometric properties in Western samples (Rieffe et al., 2016). We choose to study early adolescence (12-15 years olds), as this age-group represents an important social and psychological transition between childhood and adolescence (Gleason et al., 2004). Also, adolescents in this age-group are particularly prone to aggressive behaviors, which occur more often during this developmental period (Arnett, 1999; Fung, Raine, & Gao, 2009; Lahey et al., 2000).

First, we tested the two-factor structure. Second, we examined the internal consistency of the scales for reactive and proactive aggression. Third, we examined the associations of these two scales with related variables. Based on the literature, we expected that reactive aggression would be related to higher levels of victimization, shame and anger, whereas proactive aggression would be related to lower levels of guilt. Moreover, we expected higher levels of both reactive and proactive aggression in boys than girls, in line with the original study (Rieffe et al., 2016) and other prior studies (e.g., Salmivalli & Helteenvuori, 2007).

METHOD

Participants and Procedure

We collected data from two samples of Malaysian adolescents (Table 1). Sample 1 consisted of 168 adolescents (56% boys, aged 13 to 15) from one school in an urban area and Sample 2 consisted of 789 adolescents (39.6% boys; aged 12 to 14) from four schools in mixed urban/rural areas. Schools for participation were randomly selected from three different areas in Peninsular Malaysia (i.e. Selangor, Johor and Kelantan) in order to better understand the Malaysian adolescent population. A selection criterion for schools was that the Malay language was the principal language.

The study duration was approximately one hour, which was conducted during regular school hours. Participants were asked to respond to a set of self-report questionnaires, as detailed below. Prior to the data collection, approval was obtained by the psychology ethical board of Leiden University, and consent was obtained from the Economic Planning Units under the Malaysia Prime Minister Department, the Ministry of Education, the school principals, and all of the participants.[1] After the school agreed to participate, the school principal and teachers decided which classes would participate. All students in the selected classes participated unless they were absent on the day of the data collection. The students were given a multi-colour ink pen as compensation for their participation.

Self-report Measures

The IRPA self-report (Rieffe et al., 2016) consists of 36 items, measuring children's and adolescents' reactive and proactive aggression using six types of aggressive behaviours: kicking, pushing, hitting, name-calling, arguing, and lying or saying bad things about someone. For example, "In the last four weeks, I kicked someone

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[1]   Given that Malaysia has actively applied the *in loco parentis* doctrine in its educational system, no active parental consent was needed.

Table 1. Demographic Characteristics of the Participants

	n (%)	
	Sample 1	Sample 2
Gender		
Male	94 (56.0)	303 (39.5)
Female	74 (44.0)	465 (60.5)
Ethnicity		
Malay	87 (51.8)	676 (88.1)
Chinese	60 (35.7)	84 (11.0)
Indian	20 (11.9)	2 (.03)
Others	1 (0.6)	5 (.07)
Living Status		
Urban	168 (100.0)	382 (48.4)
Suburban	-	233 (29.5)
Rural	-	174 (22.1)

Note: n (%) = number of cases and its percentage.

because…"[2]. Participants are asked to rate how often they performed this behaviour using a five-point scale ranging from 1 (*never*) to 5 (*always*) for three reasons which indicated their reactive aggression (I was mad, I was bullied, I was kicked) and three reasons which indicated their proactive aggression (I wanted to be mean, I took pleasure in it, I wanted to be the boss). See Appendix for the Malay version of the IRPA self-report.

The Victim Questionnaire (Rieffe, Camodeca, Pouw, Lange, & Stockmann, 2012) assesses victimization in children by asking if they had been bullied in the previous two months. Ten items featuring victimization behaviours were presented (e.g., call names, take things away), in which each of them was rated by using a three-point scale (1 = *(Almost) never*, 2 = *Sometimes*, 3 = *Often*). One item ('Are you invited to birthday parties?') needed to be coded reversely.

The Brief Shame and Guilt Questionnaire for Children (Novin & Rieffe, 2015) consists of 12 vignettes to measure shame- and guilt-proneness in children and adolescents. After reading each vignette, participants were asked how guilty and ashamed they would feel on a three-point scale (1= *Not at all*, 2= *A little*, 3= *A lot*).

The Mood Questionnaire (Jellesma, Rieffe, Terwogt, & Kneepkens, 2006) is a 20-item self-report that features four basic emotions (i.e., fear, anger, sadness, happiness). This questionnaire asks adolescents to rate how frequently they felt these emotions in the past four weeks using a three-point scale (1= (*Almost*) *never*, 2 = *Sometimes*, 3 = *Often*). For the purpose of this study, the four anger items were used for analyses.

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[2]   If participants did not behave this way in the last four weeks, they would report "never" on all reasons.

Translation Procedure

Prior to instrument translation, we first obtained the permission from the first author to translate the English versions of the instruments into Malay. The Malay-translated instruments then were back-translated, performed by a bilingual translator. The original and back-translated English versions were compared and checked for language consistency.

Statistical Analyses

First, we tested the construct validity of the reactive and proactive subscales by fitting a two-factor model using a principal factor analysis (PCA) with Oblique rotation technique on Sample 1, and a confirmatory factor analysis (CFA) with Robust Maximum Likelihood Estimation with Satorra – Bentler (SB) correction on Sample 2 due to the presence of multivariate kurtosis in our data (Mardia's normalized estimate =144.72).

We evaluated the goodness of fit of CFA using χ^2/df < 5.0, Goodness of Fit Index (GFI) > .90, Comparative Fit Indices (CFI) > .95, the Standardized Root Mean Square Residual (SRMR) ≤ .05, and the Root Mean Square Error of Approximation (RMSEA) < .08 (Hooper, Coughlan, & Mullen, 2008). Second, we used Cronbach's alpha to assess the internal consistencies of the scales. Third, we used partial correlations to test the convergent validity of the reactive and proactive subscales with bullying, victimization, shame, and guilt.

In this study, the CFA was conducted using EQS version 6.1 (Bentler & Wu, 2002) and other statistical analyses were conducted with two-sided test (significance level of .05) performed by the IBM SPSS version 22 (IBM Corp, 2013).

Missing Data Analysis

Sample 2 had few missing values (0.7%). Given that the Little's MCAR test (*p* > .05) indicates that these missing values were random, we included all participants and used listwise deletion for the cases with missing values.

RESULTS

Descriptives

Overall, participants in both samples reported higher levels of reactive than proactive aggression. In Sample 2, boys scored higher on reactive and proactive aggression than girls (Table 2).

Construct validity of the Reactive-Proactive Aggression Questionnaire

The PCA revealed the two expected factors with eigenvalues above 1 (Table 3). The first factor, explaining 59.16% of the variance (eigenvalues = 3.55), consists of three proactive aggression motives. The second factor, explaining 18.53% of the variance (eigenvalues = 1.11), consists of three reactive aggression motives.

Table 2. Means, Standard Deviation of the Malaysian IRPA and Gender Differences

	Score range	M (SD)			
		Total	Boys	Girls	t
1. Reactive Aggression					
Sample 1	1 – 4.50	1.97 (.75)	2.04 (.74)	1.87 (.76)	1.50
Sample 2	1 – 4.75	1.75 (.67)	1.92 (.72)	1.63 (.60)	5.88**
2. Proactive Aggression					
Sample 1	1 – 4.72	1.53 (.71)	1.58 (.71)	1.46 (.71)	1.16
Sample 2	1 – 4.75	1.27 (.50)	1.39 (.63)	1.20 (.39)	4.59**

*p<0.05; **p < .01; ***p < .001
Note: M = mean; SD = Standard Deviation; t = Student's t test.

In Sample 2, we identified 40 cases with univariate and/or multivariate outliers in the aggression questionnaire. The results did not differ when excluding these cases. Therefore, we decided to keep all cases in our analyses.

Prior to the CFA, item parcelling was applied to reduce the effect of non-normality (Hau & Marsh, 2004). The 36 items were grouped into six parcels or subscales based on the reactive/proactive aggression motives. The factor score of each parcel was used as an indicator for one of the two latent constructs. As shown in Figure 1, the fit measures of the two-factor model were satisfactory and the factor loadings ranged from .68 to .84.

Also, we considered an alternative one-factor model (supplementary Figure S1). Unfortunately, the fit measures of the one-factor model were not adequate and the higher values of Akaike Information Criterion (AIC) and Bayesian Information Criterion (BIC) of one-factor model against the two-factor model explained the inadequacy of the one-factor model.

Table 3. Principal Component Analyses for Malaysian IRPA (Sample 1; n = 168)

	Factor Loadings*		
	Mean (SD)	Component 1	Component 2
1. I was angry	2.05 (.89)		.67
2. I was bullied	1.69 (.83)		.80
3. I was kicked	2.16 (.89)		.98
4. I wanted to be mean	1.46 (.71)	.90	
5. I took pleasure out of it	1.72 (.92)	.82	
6. I wanted to be the boss	1.40 (.77)	.93	

* Only factor loadings above .40 are presented in the Table.
Note: M = mean; SD = Standard Deviation.

Additionally, all measures showed an adequate internal consistency with Cronbach's alpha values from .67 to .95 in both samples (supplementary Table S1). Also, we calculated the composite reliabilities of both reactive and proactive aggression constructs based on the factor loadings and the results showed high

SB χ^2/df of 3.28
GFI = .97
CFI = .97
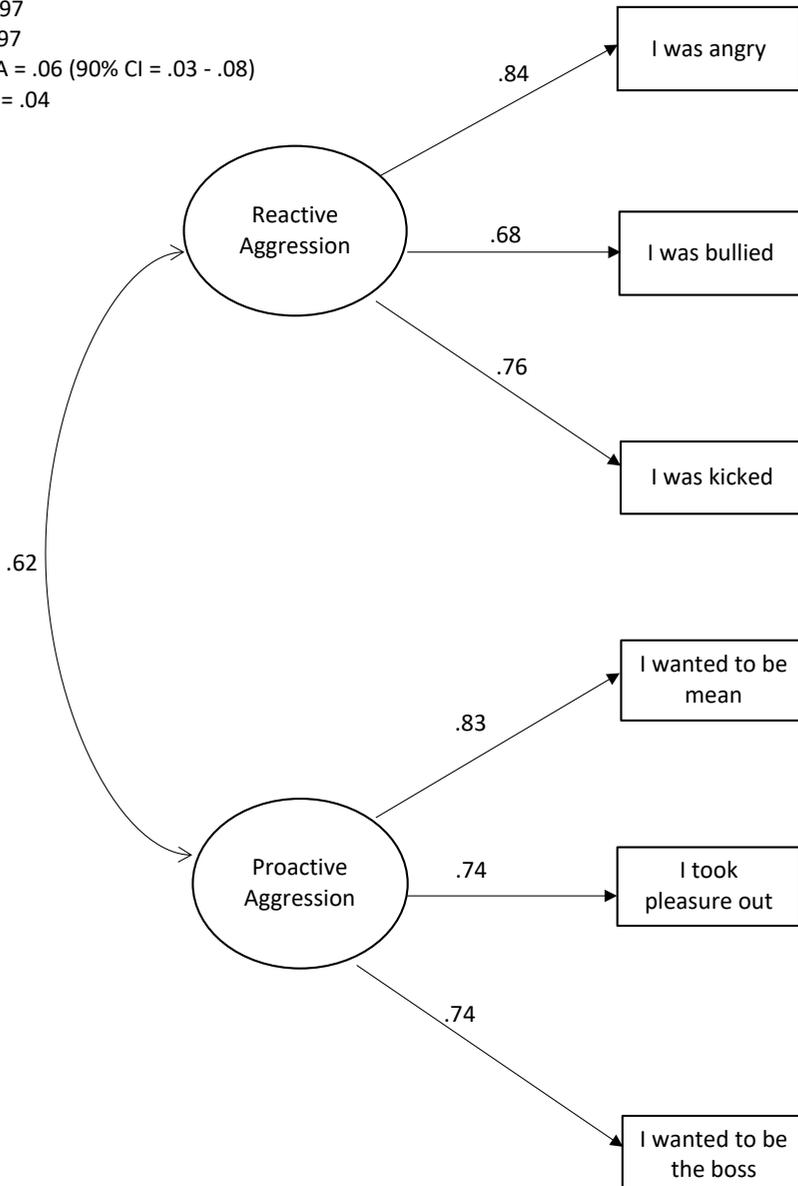RMSEA = .06 (90% CI = .03 - .08)
SRMR = .04

Figure 1. Confirmatory Factor Analysis of the Malay self-report IRPA (Sample 2; n = 789)

measurement reliability of the self-report IRPA (reactive aggression = .81, proactive aggression = .82).

Relations of self-reported aggression with victimization, anger, shame- and guilt-proneness

Given that reactive and proactive aggression were closely related (r = .51, p < .001), we conducted partial correlations to analyse the relationships between reactive aggression and the other variables, while controlling for proactive aggression, and vice versa. Table 4 shows the results of partial correlation analyses with bootstrapping between the independent variables (victimization, anger, shame- and guilt-proneness) and the reactive and proactive aggression scales of the Malaysian self-report. As shown, reactive aggression was positively related to victimization and anger, while proactive aggression was negatively related to shame- and guilt-proneness. However, reactive aggression was not related to shame after we adjusted for multiple comparisons.

DISCUSSION

We translated and tested the self-report IRPA in a non-Western country, Malaysia. Along with good and satisfactory internal consistencies, questionnaire successfully fitted the expected two-factor structure. With respect to the convergent validity, proactive and reactive aggression showed distinct associations with victimization, anger, shame-proneness, and guilt-proneness. In line with existing literature, reactive aggression was related to higher levels of victimization and anger, whereas proactive aggression was related to lower levels of guilt- and shame-proneness (Fite et al., 2014; Hubbard et al., 2010; Polman et al., 2009).

Based on these outcomes we conclude that the motives of aggression (i.e. proactive and reactive aggression) in Malaysian adolescents can be differentiated using the Malay version of the IRPA self-report. Yet, we recommend future studies to replicate our study by performing multi-group analyses in different (non-Western) populations, as well as in clinical samples, for example juvenile or other high-risk adolescents. Furthermore, given that this study was correlational, longitudinal studies could further explore the predictive power of reactive and proactive aggression in a variety of Western and non-Western adolescent populations. Also, considering that the nature of our samples might be different (urban versus urban-rural mix), this may

Table 4. Partial Correlations for Victimization, Shame, Guilt and Anger measures on Reactive and Proactive Aggression (Sample 2; n = 789)

	Victimization	Shame	Guilt	Anger
IRPA (Reactive)	.45***	.07	-.04	.23***
IRPA (Proactive)	-.06	-.14***	-.14***	.01

Note: *p<0.05; **p < .01; ***p < .001

as well influence the outcomes of our study. For example, our preliminary analysis suggests that levels of aggression in adolescents from rural areas are lower than adolescents from urban areas. Therefore, future studies should consider examining how socio-economic factors (e.g., urbanization) and geographic factors (e.g. different states in a country) can influence the levels of aggression, and the underlying factors of the behaviour.

In conclusion, the IRPA self-report is suitable for a Malaysian population, allowing future studies to obtain important insights into the antecedents and consequences of the different motives underlying adolescent aggression in Malaysia.

ACKNOWLEDGEMENTS

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CHAPTER 3

VALIDATION OF THE INDIVIDUALISTIC-COLLECTIVISTIC VALUE QUESTIONNAIRE FOR YOUTH

ABSTRACT

Individualism and collectivism are the most well-known and most often used cultural dimensions in psychology. Yet, a validated questionnaire measuring individualistic and collectivistic values in children and adolescents does not exist. Instead, differences between youngsters from various cultures are often assumed based on prior cross-national typologies. Therefore, we aimed to develop and validate the Individualistic-Collectivistic Value Questionnaire for Youth (ICQ-Y) in two distinct cultural groups: Dutch and Malaysian adolescents (N= 783; 54% girls; M_{age} = 12.8 years). The findings in both groups confirmed the two-factor structure (individualism, collectivism) and showed good internal consistencies. Additionally, the ICQ-Y showed good concurrent validity: endorsement of individualistic values was associated with higher levels of autonomy and delinquency, whereas endorsement of collectivistic values was associated with higher levels of interpersonal closeness, conformity, collective self-esteem, and prosocial motivation. As such, the scale is suitable to measure individual differences in youngsters' endorsement of individualistic and collectivistic values.

In psychology, individualism and collectivism are the two most popular cultural dimensions that are used to examine and understand differences between cultural groups. This is not without reason; individualism and collectivism are the key concepts of many (cross-) cultural theories (e.g., Hofstede, 1980; Kagîtçįbasiį, 1997; Kashima, Kashima, & Aldridge, 2001; Triandis, 1995) and the distinction is strongly supported by empirical evidence (for reviews see Cross, Hardin, & Gercek-Swing, 2010; Oyserman & Lee, 2008). Where individualism (also labeled idiocentrism or independence) centralizes the concerns of the autonomous individual, collectivism (also labeled allocentrism or interdependence) centralizes the close bond with and the concerns of (members of) the social group (e.g., family, friends, community, country) (Triandis, 1995; Markus & Kitayama, 1992).

In studies with children and young adolescents, researchers typically use participants' geographical location or prior cross-national typologies (e.g., Hofstede, 1980) to distinguish individualistic (i.e., those from Western societies) and collectivistic groups (i.e., those from Asian societies). Children and adolescents' individualistic and collectivistic values are rarely measured at an individual level and validated self-reports suitable for these age groups, to our knowledge, do not exist. A scale measuring youngsters' endorsement of individualistic and collectivistic values would allow researchers to examine the relationships between cultural values and their variables of interest more directly. The present study aims to fill this gap by developing and examining the validity of the Individualistic-Collectivistic Value Questionnaire for Youth in two distinct cultural groups: Dutch and Malaysian adolescents.

Individualism and Collectivism

Individualism and collectivism are constructs that provide a framework to understand differences between cultural groups. Both constructs refer to the relationship between individuals and their social groups. The two constructs differ however in what is emphasized.

Within individualism, the emphasis is on the independent individual. Individuals perceive themselves as being autonomous and separate from others (Markus & Kitayama, 1991). The focus is on concerns, needs, and welfare of the individual (Matsumoto & Juang, 2004). Core individualistic values therefore reflect doing one's own thing, individual freedom, and personal uniqueness, with little concern of what others might think (Triandis, 1995). Within collectivism, the emphasis is on the individual as a group member. Individuals perceive themselves as embedded in and part of the social group. Focus is on the concerns, needs, and welfare of the social group. Core collectivistic values therefore reflect group membership, social harmony, and cohesion (Triandis, 1995).

From an evolutionary point of view, both individualism and collectivism are considered to be key elements of human culture because they contribute to human survival (Oyserman, Novin, Flinkenflogel, & Krabbendam, 2014). In order to survive, humans need other humans, a stable group, and individual development that

ultimately serves the sustainability of group (Schwartz, 1992). Collectivism facilitates the first two survival needs and individualism the third. As such, theorists argue that human culture includes both individualism and collectivism, which are therefore referred to as being universal elements of culture. Consequently, not only individuals across cultures recognize and understand what individualistic and collectivistic values entail, but also children from a young age (Killen & Wainryb, 2000). That is, by observing and experiencing a broad range of social experiences, young children for example recognize that people have personal goals (related to individualism) as well as duties and loyalties (related to collectivism) (Greenfield, Keller, Fuligni, & Maynard, 2003). Through a process called value socialization, adults use a variety of direct and indirect techniques to communicate values to children (e.g., Grusec & Goodnow, 1994). Children, in turn, internalize these values, especially when they perceive these values accurately and accept rather than reject these values (Grusec & Goodnow, 1994). Research suggests that value similarity between generations is most likely when parents and children are raised in similar geographical and cultural environments (Perez-Brena, Updegraff, Umana-Taylor, 2015). Cultural environments differ however in terms of the degree in which individualistic or collectivistic values are emphasized on a daily basis (e.g., Greenfield et al., 2003).

Ever since Hofstede evaluated countries on an individualism-collectivism dimension (Hofstede, 1980), individuals from Western (European/North American) societies are typically classified as being more individualistic and individuals from Eastern (Asian) societies as being more collectivistic. More recent insights, however, provide a more nuanced view. First, the differentiation between the individualistic West and the collectivistic East appears too much of a generalization. On country-level, some Asian countries for example do not differ in their individualistic-collectivistic score from Western countries, some Asian countries are even less collectivistic than some Western countries, and within countries regions can differ on the individualism-collectivism dimension (Oyserman et al., 2002; Vandello & Cohen, 1999). This shows that using geographical boundaries to distinguish individualistic and collectivistic groups is not sufficient.

Second, using country-level scores or cross-national typologies to classify individuals has two important drawbacks: a) it undermines the heterogeneity of individuals within a society and b) although it is often used to explain between-group differences, the direct relationship with measures of interest cannot be tested (Oyserman & Lee, 2008). Measuring individualistic and collectivistic values on an individual level addresses these drawbacks. That is, by measuring these values, not only individual differences are assessed, but the associations with psychological constructs can also be examined. To date, questionnaires assessing individualistic and collectivistic values are available and validated for adults, but to the best of our knowledge not for children and young adolescents.

Third, increasing evidence from adult samples shows that individualism and collectivism are two separate dimensions on which individuals can score independently,

rather than being the endpoints of the same continuum. Theoretically, individualism and collectivism are both universal constructs that, at least to some extent, are both available within every individual (e.g., Greenfield et al., 2003; Killen & Wainryb, 2000; Oyserman et al., 2014). And indeed, empirical evidence shows that endorsement of individualistic and collectivistic values are not necessarily correlated, or can be even positively correlated (Oyserman et al., 2002; Singelis, 1994; Cross, Bacon, & Morris, 2000). Moreover, these values are often differentially related to psychological functioning as detailed next.

Individualistic and Collectivistic Values Related to Psychological Functioning

Unsurprisingly, studies with adults show that individualistic values are positively related to indices of psychological functioning that reflect thinking of oneself as an independent individual or that facilitate individual development. As such, individualistic values are positively related to autonomy, referring to a person's capacity for independent thinking and behaving (Triandis, 1995; Markus & Kitayama, 1991; Singelis, 1994). Individualism is also positively (and collectivism is negatively) related to delinquency (e.g., Le & Stockdale, 2005; Negy, Ferguson, Galvanovskis, & Smither, 2013). Not only does delinquent behavior such as stealing and joy riding promise personal gains, it may also be a way to explore one's identity by behaving against societal constrains and norms (Le & Stockdale, 2005).

In contrast, collectivistic values are related to indices of psychological functioning that reflect thinking of oneself as part of a social group. Indeed, collectivism is positively related to interpersonal closeness; individuals who highly endorse collectivistic values perceive themselves closer to important others than those with low levels of collectivistic values (Cross et al, 2000; Holland, Roeder, van Baaren, Brandt, & Hannover, 2004). Collectivism is also positively related to collective self-esteem, the positive view of the self as part of a social group (Cross et al., 2000; Luthanen & Crocker, 1992). Additionally, collectivism is related to indices of psychological functioning that promote and facilitate cohesion and harmony in the social group. Between-country comparisons indicate that people living in collectivistic-oriented societies (vs. individualistic-oriented societies) show higher conformity to preferences and norms of the social group (Bond & Smith, 1996; Han & Shavitt, 1994). Correlational studies support these findings by showing that collectivistic values are positively (and individualistic values are negatively) related to higher conformity (e.g., Oishi, Schimmack, Diener, & Suh, 1998). Further, collectivism is positively related to pro-social tendencies such as helping and giving, especially when an in-group member is in need (Kemmelmeier, Jambor, Letner, 2006; Mullen & Skitka, 2009).

Current Study

Already from a young age, children are able to think about themselves (Starmans, 2017) and are able to reflect on their beliefs, norms, and values (e.g., Döring, 2010;

Huesmann & Guerra, 1997; Giles & Heymans). Yet, the development of a self-report questionnaire for children requires specific considerations. In order to avoid confusion and misunderstanding 1) simple language and short sentences should be used, 2) negative worded items should be avoided, and 3) items should be concrete rather than abstract. In addition, related to the specific topic of our questionnaire, a natural dependency of children and adolescents on family should be taken into account.

With this in mind, the aim of the current study was to develop and examine the validity of the Individualistic-Collectivistic Value Questionnaire for Youth (ICQ-Y) in two culturally distinct groups: Dutch and Malaysian. The rationale for including these groups is that the Netherlands and Malaysia highly differ in their individualistic-ratings (80 vs 26, respectively) according to Hofstede's typology (2019). We developed the ICQ-Y by adjusting most items from adult scales that are widely used in the literature and already validated (see Table S1 in the Supplements for detailed information regarding the adjustment of the items). We first examined the construct validity. We assessed the predicted two-factor structure (i.e., individualism and collectivism) across both groups and assessed the reliability of the two scales for each group separately. If measurement invariance was established, we compared endorsement levels of individualistic and collectivistic values between the Dutch and the Malaysian group. Based on Hofstede's typology, we predicted that compared to the Dutch sample, the Malaysian participants would report to endorse individualistic values less and collectivistic values more.

Second, we examined the concurrent validity by assessing the associations between individualistic and collectivistic values on the one hand and self-reported autonomy, delinquency, interpersonal closeness, conformity, collective self-esteem, and prosocial motivation on the other hand. We predicted that more endorsement of individualistic values would be associated with higher levels of autonomy and delinquency. In contrast, we predicted that more endorsement of collectivistic values would be associated with higher levels of interpersonal closeness, conformity, collective self-esteem, and prosocial motivation. We did not expect these relationships to differ between the Dutch and Malaysian youngsters.

METHOD
Participants and procedure
Participants consisted of 509 Dutch and 300 Malaysian participants. Seventeen Dutch (3.3%) and nine Malaysian (3%) participants had incomplete data. Given that this amount of missing cases is negligible and missing values were missing completely at random (Little's MCAR test: p = .147) deleting incomplete cases will not result in bias. The deletion of incomplete data resulted in a final sample of 492 Dutch (54% girls, M_{age}= 12.65, SD= 1.76; 97% born in the Netherlands; self-reported religion: 72% no religion, 19% Christian, 4% Islam, 5% other) and 291 Malaysian (54% girls, M_{age}= 13.10, SD= 0.58; self-reported race: 78% Malay, 4% Chinese, 18% other; self-reported religion: 77% Islam, 7% Christian, 2% Buddhism, 14% other) participants for analyses.

The Dutch participants consisted of two samples that completed different measurements in addition to the measurements that all Dutch participants completed (i.e., ICQ-Y and the Inclusion of Other in the Self). Sample 1 (n=207; 54% girls, M_{age}= 10.98, SD= 1.00) completed the Sociotropy-Autonomy Scale, the Conformity Scale, and the Collective Self-Esteem Scale. Sample 2 (n=291; 54% girls, M_{age}= 14.12, SD= 0.68) completed the Delinquency Questionnaire and the Prosocial Motivation subscale of the Empathy Questionnaire.[1] The Malaysian participants completed all measurements, except the Collective Self-Esteem Scale.

All participants were recruited from their school (13 Dutch and 3 Malaysian schools). They completed the questionnaires in their native language (Dutch and Malay respectively) during regular school hours. Data collection took approximately 45 minutes. In the Netherlands, parental consent was obtained for all participants. In Malaysia, consents were obtained from the Ministry of Education through the Economic Planning Unit under Prime Minister's Department.[2]

Measures

Table 2 presents the psychometric properties including internal consistencies and means (SDs) of all measures as a function of group.

The 12-item *Individualistic-Collectivistic Value Questionnaire for Youth* (ICQ-Y; 6 items individualism, 6 items collectivism; see Table 1) is a compilation of statements derived from various validated questionnaires for adults (i.e., Cross et al., 2000; Oyserman, 1993; Realo, Koido, Ceulemans, & Allik, 2002; Singelis, 1994). We simplified the statements for our age group (e.g., from "My happiness depends on the happiness of those around me" to "I feel happy when my friends and family feel happy") and excluded abstract statements (e.g., "If you know the group I belong to, you'll know who I really am", see Table S1 in the Supplements for detailed information on all items). Participants were asked to rate how much they agreed with each statement on a five-point scale (1= *totally disagree*, 5= *totally agree*).

The *Inclusion of Other in the Self* (IOS) scale (Aron, Aron, & Smollan, 1992) measures interpersonal closeness and consists of seven Venn diagrams of two same-size circles. One circle represents the self and the other circle represents another person. In the first picture, the two circles are right next to each other. In the last, seventh picture, the two circles almost completely overlap. In this study we included two items: "which picture represents the relationship between you and your friends/ family best?" (1= *circles next to each other*, 7= *circles almost completely overlapping).*

To measure autonomy, we slightly adjusted and translated the eight items from the independent goal-attainment scale of the *Sociotropy-Autonomy Scale* (SAS)

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[1] The reason of having two Dutch samples is a practical one: after collecting data from the first sample, we decided to include the delinquency questionnaire and the prosocial motivation scale.

[2] Given that Malaysia has actively applied the *in loco parentis* doctrine in its educational system, no active parental consent was needed. Instead, we obtained permission from the school principals or their deputies to collect data at their schools.

(Bieling, Beck, & Brown, 2000) to make them suitable for children and adolescents (e.g., "It is more important to do what I think is important, than to do what others expect of me"). Participants were asked to rate how much they agreed with each statement on a five-point scale (1= *totally disagree*, 5= *totally agree*).

The *Conformity Scale* (Mehrabian, & Stefl, 1995) consists of 11 statements that measure conformity (e.g., "I often rely upon and act upon the advice of others"). We reworded some of the items to make it suitable for our age group and excluded one item that was not appropriate for children ("I tend to follow family tradition in making political decisions"), resulting in a 10-item scale. Participants were asked to rate how much they agree with each statement on a five-point scale (1= *totally disagree*, 5= *totally agree*). As can be seen in Table 2, the internal consistency of the scale in the Malaysian group was unacceptably low (α = .16). Therefore, we did not use this scale in the Malaysian group in the below analyses.

The *Delinquency Questionnaire* (Theunissen et al., 2014) consists of 10 items that describe minor delinquent offences (e.g., stealing parents' money or destroying public stuffs). Participants were asked to report their engagement in these behaviors in the past year using a three-point scale (1= (*almost*) *never*, 2 = *once or twice*, 3 = *three times or more*).

The Prosocial Motivation scale was derived from the *Empathy Questionnaire for Children and Adolescents* (Overgaauw, Rieffe, Broekhof, Crone, & Güroglu, 2017). The scale consists of six statements that measure the tendency to support a distressed other (e.g., "If a friend is sad, I like to comfort him"). Participants were asked how true each statement is for them (1= *not true*, 2= *somewhat true*, 3= *true*).

The *Collective Self-Esteem Scale* (CSES) (Luthanen, & Crocker, 1992) measures the positivity of a person's group-derived, or social identity. We selected and reworded 10 items to make it suitable for our age group (e.g., "I feel good about the group of friends I belong to"). This scale included items from all the four original subscales (i.e., membership, private, public, identity). Participants were asked to rate how much they agreed with each statement using a five-point scale (from 1= *strongly agree* to 5= *strongly disagree*).

Regarding the translation of the measures, one native Dutch (Malay) speaker with fluent command of the English language translated the English items into Dutch (Malay). These Dutch (Malay) items were subsequently back-translated into English by another native Dutch (Malay) speaker with fluent command of the English language. After back-translations, items that showed inconsistencies were resolved through discussion. Tables S1-S4 and Figure S1 in the Supplements present all the measures in English, Dutch, and Malay.

Statistical Analyses

We tested the construct validity of the individualistic and collectivistic subscales by fitting a two-factor model conducting multi-group confirmatory factor analyses (CFA) in R version 3.2.1 using packages lavaan (Rosseel, 2012) and semTools (semTools

Contributors, 2015). Mardia's normalized coefficients for the Dutch (38.33) and Malaysian (26.28) sample both indicated multivariate kurtosis, therefore all analyses are based on the robust Satorra-Bentler χ^2 statistic. To test for measurement invariance of the ICQ-Y across both groups, we assessed *configural* (i.e., same structure across groups; Jöreskog, 1971), *metric* (i.e, same factor loadings across groups), and *scalar* invariance (i.e., same item intercepts across groups; Byrne, 2006, 2008; Milfont & Fischer, 2010; Vandenberg & Lance, 2000). We evaluated the goodness of fit of the CFA's using $\chi^2/df < 5.0$, Comparative Fit Indices (CFI) >.90, the Standardized Root Mean Square Residual (SRMR) ≤.08, and the Root Mean Square Error of Approximation (RMSEA) <.08 (Hu & Bentler, 1999; Hooper, Coughlan, & Mullen, 2008; Marsh, Hau, & Wen, 2004). We evaluated the measurement invariance by comparing the nested models using ΔCFI with a cutoff point of < 0.01 (Cheung & Rensvold, 2002).

Third, we conducted Cronbach's alpha to assess the internal consistencies of the subscales using IBM SPSS version 23. Additionally, we calculated inter-item correlations, which on average should fall within .15 to .50 (Clark & Watson, 1995). Fourth, we used an ANOVA to test between-group differences (i.e., between the Dutch and Malaysian group) in endorsement levels of individualistic and collectivistic values and within-group differences (i.e., between endorsement levels of individualistic and collectivistic values in both groups).

Fifth, we conducted partial correlations (controlling for the variance between individualistic and collectivistic values) to test the concurrent validity of the Individualistic and Collectivistic subscales with Interpersonal Closeness, Autonomy, Conformity, Collective Self-Esteem, Delinquency, and Prosocial Motivation. In addition, we conducted Fisher r-to-z transformations to test whether the correlations differed in strength between the Dutch and Malaysian group.

RESULTS
Construct validity
The hypothesized two-factor model yielded inadequate fit to the data in both Dutch, $^{SB}\chi^2(53) = 183.76$, $^{SB}\chi^2/df = 3.47$, CFI = .838, RMSEA = .071, SRMR = .068, and Malaysian participants, $^{SB}\chi^2(53) = 173.57$, $^{SB}\chi^2/df = 3.27$, CFI = .894, RMSEA = .088, and SRMR = .091. LMtest statistics revealed a cross-loading of one item ("If I really want something, I go for it, even when my friends wouldn't do that themselves") in both groups, suggesting that this item does not differentiate between Individualistic and Collectivistic Values. We therefore removed this item from the model.

In addition, LMtest statistics indicated error covariance between two items ("If one of my friends does not perform well in school, I believe I should help him/her" and "When my friends need something, I try to help"). Given that the content between these items overlap (i.e., both involve helping a friend) we allowed error covariance between these two items (see Figure 1 for the final model). These alternations resulted in a fairly good model fit in both Dutch, $^{SB}\chi^2(42) = 112.73$, $^{SB}\chi^2/df = 2.68$, CFI = .903, RMSEA = .059, SRMR = .060 and Malaysian participants, $^{SB}\chi^2(42) = 106.39$, $^{SB}\chi^2/df = 2.53$, CFI

= .936, RMSEA = .073, and SRMR = .073. Standardized factor loadings ranged from .390 to .820 (see Table 1). The correlation between the Individualistic and Collectivistic scales was $r(492) = -.03$, $p = .450$, 95% CI [-.12, .06] in Dutch youth, and $r(291) = .28$, $p < .001$, 95% CI [.17, .38] in Malaysian youth.

The multigroup configural model fits well, $^{SB}\chi^2(84) = 219.01$, $^{SB}\chi^2/df = 2.61$, CFI = .921, RMSEA = .064, SRMR = .067. This indicates that configural invariance was achieved. Metric invariance was examined next by constraining factor loadings. This did not result in a decrement in model fit, $^{SB}\chi^2(93) = 244.34$, $^{SB}\chi^2/df = 2.63$, CFI = .912, RMSEA = .065, SRMR = .076, ΔCFI = .009. In addition, constraining intercepts also did not result in a substantial change in ΔCFI ($^{SB}\chi^2(104) = 532.72$, $^{SB}\chi^2/df = 5.12$, CFI = .915, RMSEA = .079, SRMR = .163, ΔCFI = .003), meaning that scalar invariance was established.

Table 1. Items from the ICQ-Y and CFA Factor Loadings as a Function of Group

	Factor Loading	
Item Wording	Dutch $n= 493$	Malaysian $n= 291$
Individualistic Values		
1. I believe that it is better to follow my own ideas than to take suggestions from my friends	.390	.563
3. *If I really want something, I go for it, even when my friends wouldn't do that themselves*	--	--
5. I can make my own decisions. I do not need friends and family for that	.518	.553
7. I feel happier when I make my own choices rather than using my friends' and family's suggestions	.784	.664
9. My own opinion is more important than those of my friends and family	.573	.596
11. I think it's better to have my own opinion than to use the opinion of my friends or family	.411	.599
Collectivistic Values		
2. I feel happy when my friends and family are happy	.678	.771
4. I always do my best to make my family and friends happy	.658	.798
6. If one of my friends does not perform well in school, I believe I should help him/her	.470	.695
8. When I think about myself, I also think about my friends and family	.528	.653
10. Friends and family are an important part of who I am	.530	.810
12. When my friends need something, I try to help	.511	.699

Note. The italicized item was removed due to poor model fit. The Dutch and Malay questionnaires and the full rotation matrix for each sample are available on request.

Reliability

Table 2 presents the psychometric properties of the ICQ-Y. The Individualistic and Collectivistic scales showed good internal consistencies with Cronbach's alpha's ranging from .67 to .88. The interitem correlations were good, ranging from .29 to .55.

Group differences

Table 2 presents the means and standard deviations of the ICQ-Y. Levels of endorsement of individualistic and collectivistic values were compared between the Dutch and the Malaysian group with a mixed 2 (Value: Individualistic, Collectivistic) X 2 (Group: Dutch, Malaysian) ANOVA. Results show that the main effects of Value, $F(1, 781) = 377.37$, $p <.001$, Cohen's $d = 1.39$, and Group, $F(1, 781) = 232.62$, $p <.001$, Cohen's $d = 1.09$, were qualified by a Value X Group interaction effect, $F(1, 781) = 13.94$, $p <.001$, Cohen's $d = 0.27$. Post-hoc tests reveal that the Dutch group reported higher levels of individualistic and collectivistic values than the Malaysian group, $F(1, 781) = 208.73$, $p <.001$, Cohen's $d = 1.03$ and $F(1, 781) = 80.22$, $p <.001$, Cohen's $d = 0.64$, respectively. Furthermore, both the Dutch and Malaysian group reported higher levels of collectivistic than individualistic values, $t(491) = 14.49$,

Table 2. Psychometric Properties of the Measurements by Sample

	Range	No. of Items	Dutch Total Sample (n= 492)		Dutch Sample 1 (n= 200)		Dutch Sample 2 (n= 292)		Malaysian Sample (n=291)	
			α	M (SD)	α	M (SD)	α	M (SD)	α	M (SD)
Individualistic-Collectivistic Value Questionnaire										
Individualistic Values	1-5	5	.67	3.45[a1] (0.64)	-	-	-	-	.73	2.67[b1] (0.86)
Collectivistic Values	1-5	6	.74	4.01[a2] (0.56)	-	-	-	-	.88	3.50[b2] (1.03)
Interpersonal Closeness	1-7	2	.40	5.63[b] (1.04)					.59	5.89[a] (1.27)
Autonomy	1-5	8	-	-	.69	3.79[a] (0.57)	-	-	.82	3.20[b] (0.78)
Conformity	1-5	10	-	-	.62	2.81 (0.46)	-	-	.17	-
Collective Self-Esteem	1-5	10	-	-	.85	4.01 (0.59)	-	-	-	-
Delinquency	1-3	10	-	-	-	-	.81	1.11[b] (0.22)	.88	1.23[a] (0.36)
Prosocial Motivation	1-3	5	-	-	-	-	.74	2.62[a] (0.38)	.71	2.30[b] (0.47)

Note. Differences in letter superscripts indicate significant differences (*p*<.01) between the Dutch and the Malaysian group. Differences in number superscripts indicate significant differences (*p*<.01) between individualistic and collectivistic values within the Dutch and the Malaysian group.

$p <.001$, Cohen's $d = 1.54$, and $t(290) = 12.54$, $p <.001$, Cohen's $d = 1.47$, respectively. Group differences regarding the other variables are presented in Table 2.

Concurrent validity

Table 3 presents the partial correlations of Individualistic and Collectivistic Values with the other constructs. Our rationale for conducting partial correlations by controlling for either Individualistic and Collectivistic Values was the significant positive correlation between the two cultural values in the Malaysian sample. Subsequently, we performed Fisher r-to-z transformations that provided a z value score to indicate whether the correlation coefficients differed between the Dutch and the Malaysian group.

As expected, when Collectivistic Values were controlled for, Individualistic Values were uniquely related to higher levels of Autonomy in both groups, with a stronger association in the Dutch group, $z = 4.20$, $p <.001$. Furthermore, Individualistic Values were related to more Delinquency in both the Dutch and the Malaysian group, with a stronger association in the Malaysian group, $z = 1.99$, $p = .047$.

When Individualistic Values were controlled for, Collectivistic Values were related to higher levels of Interpersonal Closeness and Prosocial Motivation in both groups. The associations with Interpersonal Closeness was stronger in the Dutch than the Malaysian group, $z = 2.99$, $p = .003$. Additionally, Collectivistic Values were uniquely related to lower levels of Delinquency in both groups, with a stronger association in the Malaysian group, $z = 2.02$, $p = .043$. Furthermore, Collectivistic

Table 3. Partial Correlations [95% CI] (Controlling for the Variance between Individualistic and Collectivistic Values) Between the ICQ-Y and the Other Measures

	Dutch Total Sample (n= 492)		Dutch Sample 1 (n= 200)		Dutch Sample 2 (n= 292)		Malaysian Sample (n=291)	
	IND	COLL	IND	COLL	IND	COLL	IND	COLL
IOS	-.03 [-.12, .06]	.33** [.25, .41]	-	-	-	-	.03 [-.09, .14]	.12* [.01, .23]
Autonomy	-	-	.50*** [.39, .60]	.26*** [.13, .38]	-	-	.16*** [.05, .27]	.27*** [.16, .37]
Conformity	-	-	-.43*** [-.54, -.31]	.22** [.08, .35]	-	-	-	-
Collective Self-Esteem	-	-	.11 [-.03, .25]	.39*** [.27, .50]	-	-	-	-
Delinquency	-	-	-	-	.10+ [-.02, .21]	-.14* [-.25, -.03]	.26*** [.15, .36]	-.30*** [-.40, -.19]
Prosocial Motivation	-	-	-	-	-.02 [-.13, .10]	.54*** [.45, .62]	.01 [-.11, .12]	.48*** [.39, .56]

$p<.10$, *$p<.05$, **$p<.01$, *** $p<.001$

Values were related to higher levels Collective Self-Esteem and Conformity, which were only (reliably) assessed in the Dutch group.

Unexpectedly, Collectivistic Values were related to higher levels of Autonomy in both the Dutch and the Malaysian group, no significant group differences in the strength of associations. We also found that Individualistic Values were related to less Conformity in the Dutch group.

DISCUSSION

To date, the majority of the studies with children and adolescents do not consider individual differences in cultural values. Yet, as research on adults informs us, being able to measure cultural values on an individual level can provide valuable empirical and societal insight, especially given the ongoing immigration and increasing cultural diversity in many (Western) societies. The aim of the present study was to develop and validate an individualistic-collectivistic value questionnaire that would be appropriate and comprehensible for young teenagers. We tested the questionnaire's factor structure, psychometric properties, and relationships to other relevant constructs. The results confirmed the expected two-factor model with individualism and collectivism as separate value constructs in both our Dutch and Malaysian groups. Moreover, the two scales had good reliabilities and were predictably related to some relevant constructs. That is, more endorsement of individualistic values was related to higher levels of autonomy, more delinquency, and to lower levels of conformity. More endorsement of collectivistic values, in turn, was related to more interpersonal closeness, pro-social motivation, higher levels of conformity, and collective self-esteem. Taken together, the ICQ-Y provides the opportunity to measure individualistic and collectivistic values on an individual level in teenagers in a valid and easy-to-use way.

In the present study we included Dutch and Malaysian adolescents that according to Hofstede's cultural typology represent youngsters from a typical individualistic and a typical collectivistic society, respectively. Quite notably, on an individual level, this distinction was not reflected in our data. Dutch youngsters reported higher endorsement of both individualistic and collectivistic values compared to their Malaysian counterparts, which cannot be explained by a structural difference in response style. Malaysian adolescents for example reported higher levels of interpersonal closeness and delinquency than their Dutch peers. Does this pose a problem for the validity of the questionnaire? We believe it does not. Although societies are typically represented as more individualistic or collectivistic, this does not necessarily have to be reflected in individuals' values. Indeed, a recent review on studies assessing individualistic and collectivistic values in the United States (typically referred to as individualistic) and Japan (typically referred to as collectivistic) found that only 16% of the studies indicated that Americans were more individualistic-oriented and Japanese were more collectivistic-oriented (Takano & Osaka, 2018). These results highlight the importance of assessing cultural values

on an individual level, rather than assuming that cultural groups differ on cultural dimensions based on prior cross-national typologies. Moreover, while comparing cultural groups on their raw individualistic and collectivistic scores might be useful, it is more interesting and insightful to examine the behaviors and emotions that are associated with the cultural values, and to compare these associations. The ICQ-Y provides a tool to do so.

Analyses within the Netherlands and Malaysia showed that both groups reported to endorse higher levels of collectivistic than individualistic values. Given that in general, individuals are increasingly individualized (Santos, Varnum, Grossmann, 2017), our finding is probably due to the age of our participants. While adolescence is characterized as a universal phase in life in which youngsters become more independent, autonomous, and self-reliant, their needs for being part of a peer group, their concerns for how others may evaluate them, and their social identity increases at the same time (LaGreca & Lopez, 1998; Steinberg & Morris, 2001; Tanti, Stukas, Halloran, & Foddy, 2010). In fact, individualistic and collectivistic values were significantly positively related in the Malaysian sample. The developmental trajectories of cultural values such as individualistic and collectivistic values are largely unexplored. Future (longitudinal) studies which include socialization practices and intergenerational transmission would provide valuable insight into cultural values across a lifespan.

There is also a need for future studies to examine the implications of individualistic and collectivistic values in adolescents in more depth. Our findings suggest that both individualistic and collectivistic values are related to desirable as well as to undesirable outcomes. For example, higher endorsement of individualistic values was related to more autonomy, but also to more delinquency. It is however unclear which factors (e.g., situational or personality) determine *when* individualistic values are related to more delinquency. Likewise, higher endorsement of collectivistic values was related to more interpersonal closeness, conformity, collective self-esteem, and pro-social motivation, but probably only with regard to in-group, not out-group, members. Prior work suggests that collectivism increases the distinction between in-group and out-group members (e.g., Triandis, 1995). Especially during adolescence when peer groups and cliques are very important in youngsters' daily lives, it would be interesting to examine how collectivistic values can enhance adolescents' social lives (initiating and maintaining friendship) and how these values can threaten it (e.g., bullying behavior).

In addition, future research examining youngsters' cultural values could benefit from a person-environment approach (e.g., Higgins, 2005). A few adult studies show that the fit between an individual's values and context matters. For example, research has found that individualism was related to more and collectivism was related to fewer social anxiety symptoms in Chinese adults, but not in European Americans (Xie, Leong, & Feng, 2008). In a similar vein, it is likely that the fit between adolescents' cultural values and their immediate cultural environment has implications for their

psychological health. Adolescents with a migration background in particular may (consciously or unconsciously) may experience a misfit between the cultural values with which they were raised and the cultural values from the dominant society. The fit versus misfit experiences between youngsters' values and context may be a plausible explanation for why some adolescents with a migration background experience psychological difficulties and why some do not.

This study has several limitations that should be considered. First, we included two distinct cultural groups (Dutch, Malaysian) to examine the ICQ-Y. Future studies are needed to examine the validity of the ICQ-Y in more cultural groups. For now, the results may not be generalizable across cultural groups. Second, due to limited options in adolescents' questionnaires, all measures, except the ICQ-Y that we developed in Dutch, originated in English and needed to be translated in both Dutch and Malay and sometimes needed to be adjusted for our age group. Although the translation procedure was in accordance with standard procedures and most of the internal reliabilities were at least adequate, it should be noted that these measures were not validated in Dutch or Malay in advance. Yet, by using existing adult measures our study aims could be executed. Only the conformity scale showed such a low internal consistency in the Malaysian sample, that we needed to exclude that measure in the Malaysian sample in our study.

Third, although we found that, as expected, endorsement of individualistic values was related to more autonomy, endorsement of *collectivistic* values was also related to more autonomy in both countries. In hindsight, the autonomy items did not only reflect doing something independently, but often in the context of achievement or doing something well. This matters given that achievement has been related to collectivistic-related concerns, such as making close others proud (e.g., King, 2016). Thus, future studies may want to consider the use of a different autonomy scale. Another plausible reason for the positive relationship between collectivistic values and autonomy is that especially for adolescents, the focus on peers and the need to fit in is part of their process of becoming an autonomous individual. As described above, studies examining how cultural values develop over time could provide more insight. Finally, we would like to note that all our results are correlational and that it is therefore impossible to draw conclusions about cause and effect.

In sum, our ICQ-Y successfully distinguishes between individualistic and collectivistic values and each of the scales are related to relevant constructs. The questionnaire as presented here can be useful in cross-cultural studies. By measuring individualistic and collectivistic values at an individual level, rather than assuming differences in individualism/collectivism based on prior country scores, scholars now can start examining the influence of individualistic and collectivistic values on cognition, emotion, and behavior in young teenagers. We believe that measuring individualistic and collectivistic values in younger children is also feasible, but would require a revised version of the questionnaire including vignettes and/or pictures to make the items even more concrete. We are currently developing such a questionnaire.

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CHAPTER 4

REACTIVE VERSUS PROACTIVE AGGRESSION AND MORAL EMOTIONS: THE MODERATING ROLE OF CULTURAL VALUES

4

AGGRESSION AND MORAL EMOTIONS BETWEEN CULTURE

ABSTRACT

Adolescent aggressors are known to exhibit poor emotional functioning, yet the relevant studies have featured only Western samples. Could cultural background and values moderate different forms of adolescent aggression? The present study investigated relations between coping strategies, moral emotions, and reactive versus proactive aggression in Dutch and Malaysian adolescents, respectively. Besides, we explored the moderating role of cultural values in these relations. A total of 535 young adolescents aged 12 to 14 years old completed self-report questionnaires that measured reactive and proactive aggression, coping strategies of approach and avoidance, moral emotions of shame and guilt, and cultural values of individualism and collectivism. Results confirm the moderating role of country-of-origin on the relation between shame and aggression: shame was positively related to more reactive and proactive aggression in Dutch adolescents, whereas shame was negatively related to proactive aggression in Malaysian adolescents. Across countries, guilt and collectivism were related to less proactive aggression. Adolescents who endorsed individualism were more likely to exhibit proactive aggression when experiencing high levels of shame, regardless of whether they used approach or avoidant coping. Our findings show that cultural background and values should be taken into consideration when attempting to understand the motives for aggression and its emotional correlates in adolescents.

Aggression refers to any intentional behaviour by an aggressor that can seriously hurt or harm a victim, physically and/or psychologically (Anderson & Bushman, 2002), and thus all societies, by definition, want to avoid or diminish. Aggression is prevalent especially during adolescence, with potential negative consequences for all parties involved, which can persist well into adulthood. Therefore, many studies are aimed at understanding the underlying factors that contribute to aggressive behaviours. Two important factors are coping (i.e., regulating negative emotions) and moral emotions (i.e., shame and guilt). These aspects of emotional functioning have been discussed extensively in research on aggression (e.g., Gardner, Archer, & Jackson, 2012; Roos, Hodges, & Salmivalli, 2014; Stuewig, Tangney, Heigel, Harty, & McCloskey, 2010). However, the majority of research targeted Western populations of adolescents. The scarcity of studies on this topic in non-Western adolescents is a gap that needs to be bridged. Moreover, the role of culture itself warrants consideration: every culture has its own values, and these values influence how people think, feel and act (Nisbett, Peng, Choi, & Norenzayan, 2001; Singelis & Brown, 1995). Therefore, the purpose of the present study was to compare the extent to which certain aspects of emotional functioning (i.e., coping and moral emotions) were related to aggression in adolescents from predominantly Western and East Asian cultures (Dutch and Malaysian), while taking into account adolescents' endorsement of cultural values.

Different motives for aggression and their correlates

Research interest in the distinction between different motives for aggression, as in reactive versus proactive aggression, has increased in recent years. Reactive aggression refers to a hostile-impulsive-affective type of aggression. It is related to negative and stressful peer experiences, such as peer rejection and victimization, which are followed by the occurrence of depression in later stages of life (Card & Little, 2006; Polman, De Castro, Thomaes, & Van Aken, 2009; Salmivalli & Helteenvuori, 2007). In contrast, proactive aggression refers to a goal-directed, instrumental-cold-blooded type of aggression (Card & Little, 2006; Crick & Dodge, 1996). It is purposeful and intentional in nature (Dodge & Coie, 1987; Heilbron & Prinstein, 2008), and related to antisocial behaviours such as delinquency and criminality (Card & Little, 2006; Fite, Raine, Stouthamer-Loeber, Loeber, & Pardini, 2010). Adolescents who show proactive aggression are primarily interested in self-gain, and expect rewards (e.g., wanting "to be the boss").

Previous research has shown that the two types of aggression have different emotional and behavioural correlates. First, when dealing with negative emotional arousals, reactively aggressive adolescents tend to use different coping strategies from proactively aggressive adolescents. Approach coping is a form of emotion regulation, whereby an individual approaches the situation and attempts to resolve conflicts through problem solving or seeking social support (Wright, Banerjee, Hoek, Rieffe, & Novin, 2010). Adolescents with higher levels of reactive aggression seem more sensitive to perceived provocation (i.e., to offensive and hurtful action and speech by peers),

and are more likely to use approach coping to confront individuals who provoke them (Csibi & Csibi, 2011; Lobbestael, Cousijn, Brugman, & Wiers, 2016). Avoidant coping, in contrast, is a coping strategy that features withdrawing from conflict situations, including walking away from the conflict and seeking distraction, which might help to calm the situation (Kochenderfer-Ladd & Skinner, 2002; Wright, Banerjee, Hoek, Rieffe, & Novin, 2010). Prior studies show that adolescents who scored higher on reactive aggression were less likely to use avoidant coping strategies (Gardner et al., 2012; Lobbestael, Cousijn, Brugman, & Wiers, 2016). Again, this suggests that these adolescents might prefer confrontation instead.

In contrast, prior research suggests that adolescents with higher levels of proactive aggression tend to use avoidant coping instead of approach coping. Although proactive-aggressive adolescents hurt others to achieve their aims, they themselves prefer to avoid threatening situations (Lobbestael et al., 2016). Children and adolescents high in proactive aggression often ignore, distract their attention, or walk away from conflicts (Champion, 2009). Achieving their aim appears to be their priority, thereby avoiding their own and others' emotions.

In addition to coping strategies, the two types of aggression also relate differently to moral emotions. Previous studies have shown that higher levels of shame contribute to more reactive aggression (Broekhof et al., submitted; Broekhof, Bos, & Rieffe, submitted; Stuewig, Tangney, Heigel, Harty, & McCloskey, 2010). Shame is an unpleasant emotion that arises when individuals fail to meet internalized social standards such as morality (Tracy & Robins, 2004). Adolescents who feel more ashamed over time often seem to respond with more reactive aggression, possibly due to the higher levels of fury or anger that shame can evoke (Lewis, 1971; Thomaes, Stegge, Olthof, Bushman, & Nezlek, 2011).

On the other hand, guilt plays an important role in preventing proactive aggression (Fite, Rubens, Preddy, Raine, & Pardini, 2014; Hubbard, McAuliffe, Morrow, & Romano, 2010; Polman et al., 2009). Guilt is an unpleasant emotion that arises when individuals feel responsible for the damage or injury incurred on others. Individuals who feel guilty usually want to correct the wrong and display empathic behaviours (Haidt, 2003; Olthof, 2012; Olthof, Schouten, Kuiper, Stegge, & Jennekens-Schinkel, 2000). Prior studies have found that adolescents with higher levels of proactive aggression usually show little or no remorse when hurting others, which makes it possible to harm someone without feeling bad about it (Roşan & Costea-Bărluţiu, 2013). This explains why lower levels of guilt are related to more proactive aggression over time (Broekhof et al., submitted; Frick, Cornell, Barry, Bodin, & Dane, 2003).

Notably, patterns between emotional functioning and different motives for aggression in adolescents described thus far are all based on studies involving Western samples. Yet some cross-cultural studies do show how cultural values could influence different motives for aggression, and how these might be related to emotional coping strategies and moral emotions.

Coping strategies across cultures

Although limited in number, a few studies have shown cross-national differences in coping strategies in conflict situations (Lam & Zane, 2004; McCarty et al., 1999; Oláh, 1995). Compared to East Asian samples, approach coping was rated as more desirable in Western samples (Chun, Moos, & Cronkite, 2007; Oláh, 1995), whereas avoidant coping was rated as more desirable in East Asian samples (Bjorck, Cuthbertson, Thurman, & Lee, 2001; Okazaki, 1997).

It has been suggested that these cross-national differences are due to differences in salient cultural values. Individualistic values, which are often salient in Western cultures and endorsed by Western individuals, highlight the needs, concerns, and welfare of the individual (Hui & Triandis, 1986; Triandis, 2001). Collectivistic values, in contrast, are often salient in Eastern cultures and endorsed by East Asian individuals. These values highlight the needs, concerns and welfare of the social group (Hui & Triandis, 1986; Triandis, 2001). Depending on which cultural values are endorsed, individuals are likely to vary in how they cope in a social conflict situation.

In a cultural context where individualistic values are emphasized, approaching the other in a conflict situation may be an adaptive way to ensure that the individual's needs are met (Chun et al., 2007). However, in a cultural context where collectivistic values are emphasized, avoidant strategies may be more adaptive as a way to maintain social cohesion and harmony within the social group (Forbes, Collinsworth, Zhao, Kohlman, & Leclaire, 2011; Trubisky, Ting-Toomey, & Lin, 1991), whereas an approach strategy such as direct confrontation can be viewed as inappropriate and rude (Chen, Hou, & Wu, 2016; Tardif & Wan, 2001), which may intensify the conflict. It should be noted that, even in a cultural context that endorses individualistic values, approach coping strategies could be related to more reactive aggression, because individuals with high levels of reactive aggression can become more easily emotionally overwhelmed in a peer conflict situation and further escalate the conflict, whether they endorse individualistic or collectivistic cultural views. Yet, to our knowledge, there have been no cross-cultural studies examining how coping strategies are related to aggression by comparing Western samples to East Asian samples.

Moral emotions across cultures

Moral emotions such as shame and guilt are regarded differently in East Asian and Western societies. In Western societies, shame is commonly perceived as a negative and unwanted emotion that can diminish self-esteem, and is followed by further negative consequences such as avoidance, withdrawal, and inhibition of social interactions (Haidt, 2003; Keltner & Harker, 1998; Tangney, Stuewig, & Mashek, 2007). However, in East Asian societies, shame is commonly seen as an effective mechanism for self regulation and for complying with group norms (Bedford & Hwang, 2003; Cole, Tamang, & Shrestha, 2006; Fung, 1999). Committing a wrongdoing (e.g., inflicting violence) may cause great shame not only to the individual but also to the community that he or she belongs to. This makes both the individuals and the community loose

face, an affront to be avoided at all costs (Bedford & Hwang, 2003; Li, Wang, & Fischer, 2004; Midlarsky, Venkataramani-Kothari, & Plante, 2006; Yoshioka & Choi, 2005). Therefore, shame could function as a protective mechanism against moral transgression among East Asian adolescents in a way that it does not for Western adolescents. In their study of 12 to 14-years-old adolescents from Malaysia, Azam, Novin, Oosterveld, and Rieffe (2019) found that shame was indeed related to less aggressive behavior, and to less proactive aggression in particular.

In Western societies, striving for one's individual achievements, freedom and autonomy is held in high regard (Oyserman, Coon, & Kemmelmeier, 2002; Triandis, Bontempo, Villareal, Asai, & Lucca, 1988). In such a cultural context, guilt works well as an effective mechanism for social control (Realo, Koido, Ceulemans, & Allik, 2002; Triandis et al., 1988), because by expressing guilt the individual shows responsibility for his or her own negative actions, and willingness to make reparations. A few studies have also stressed the importance of guilt in non-Western cultures. Furukawa, Tangney and Higashibara (2012) examined moral emotions and aggressive-related behaviours in school-aged children from different cultural backgrounds, and found that higher levels of guilt were related to less aggression in Korean children. Azam et al. (2019) showed that higher levels of guilt were related to less proactive aggression in Malaysian adolescents. These findings suggest a potential protective role for guilt in both Western and Eastern culture.

Present study

This study aimed to examine relations between aggression (i.e., reactive, proactive), coping strategies (i.e., approach, avoidance), and moral emotions (i.e., shame, guilt) in adolescents in a cross cultural context. Instead of assuming cultural orientations based on individuals' country of origin, we investigated the potential influences of cultures at both the country level and the individual level. This is because broad, macro-level view may oversimplify individual identities and differences within cultures (Strohmeier, Yanagida, & Toda, 2016; Vu, Finkenauer, Huizinga, Novin, & Krabbendam, 2017), and that individualism and collectivism are not mutually exclusive and can coexist within a person (Coon & Kemmelmeier, 2001; Oyserman et al., 2002). Therefore, we compared adolescents based on their country of origin, where the Netherlands represented an individualistic culture and Malaysia represented a collectivistic culture. Besides, we measured endorsement of individualistic and collectivistic values within individuals. We expected the relationships between reactive/proactive aggression and emotional functioning to be moderated on varying degrees by country-of-origin and by individual endorsement of cultural values.

Based on the literature, we had the following expectations. Regarding reactive aggression, we expected reactive aggression to be positively correlated with approach coping in all adolescents, regardless of their country of origin or their endorsed cultural values. While we expected reactive aggression to be negatively correlated with avoidant coping, we predicted that the correlation would be stronger in Malaysian

adolescents or individuals who endorsed collectivistic values. We expected reactive aggression to be more positively correlated with shame among Dutch adolescents or individuals who endorsed individualistic values.

Regarding proactive aggression: we expected proactive aggression to be positively correlated with avoidant coping. Further, we predicted that the correlation would be stronger in Dutch adolescents or individuals who endorsed individualistic values. In addition, we expected proactive aggression to be negatively correlated with guilt in adolescents from both countries, regardless of their cultural values. Last, we expected proactive aggression to be negatively correlated with shame only in Malaysian adolescents or individuals who endorsed collectivistic values.

METHOD
Participants and Procedure
Participants were comprised of 535 children and adolescents in total, between 12 and 14 years of age, from four secondary schools in the Netherlands (n = 251; 53.4% girls; M_{age} = 13.90, SD = 0.57) and three secondary schools in Malaysia (n = 284; 52.5% girls; M_{age} = 13.09, SD = 0.58), respectively. The study was conducted during regular school hours.

Prior to data collection, the requisite approval was obtained from all relevant administrative bodies and individuals. In the Netherlands, permission to conduct this study was granted by the Psychological Ethics Committee of Leiden University. Similarly, permission was granted by the Government authorities in Malaysia, namely the Economic Planning Unit (EPU) under the Prime Minister's Department, and the Ministry of Education Malaysia. Active informed consent was also obtained from parents or caregivers (in the Netherlands only) or from the school principals or their assistants, and from all participants (in both countries), before data were collected .

Measures
Self-report Instrument for Reactive and Proactive Aggression (IRPA; Rieffe et al., 2016) consists of 36 items, equally divided between reactive and proactive aggression, respectively. Six types of aggressive behaviour were assessed (i.e., kicking, pushing, hitting, name-calling, arguing, and saying bad things or lying about someone else). Participants were asked how frequently (1 = never to 5 = very often), in the past four weeks, they behaved this way (e.g., "Over the last four weeks, I pushed someone because…") for three reactive reasons (e.g., "I was mad; I was bullied; I struck back") and three proactive reasons (e.g., "I wanted to be mean; I took pleasure in it; I wanted to be the boss"). This questionnaire was validated in a Malaysian sample prior to this study (Azam et al., 2019), showing good psychometric properties in terms of factor structure and internal consistencies.

The Brief Shame and Guilt Questionnaire for Children (Novin & Rieffe, 2015) measures proneness to shame and guilt. It is comprised of 12 vignettes that depict

scenarios appropriate for children that have been designed to provoke imagined shame or guilt. A shame vignette can be illustrated as follows: "You are standing in front of the class. You have to give a talk. Everybody is looking at you. You forget what you wanted to say." A guilt vignette can be illustrated as follows: "There is just one biscuit left in the biscuit tin. You quickly put it in your mouth. Now your friend does not have a biscuit." Following presentation of each vignette, participants were asked to rate their feelings of shame or guilt from 1= *not at all* to 5 = *very much.* However, two items of the questionnaire (each representing shame and guilt, respectively) were omitted due to human administrative error.

Coping Scale (Wright, et al., 2010) is a 29-item self-report measure that sheds light on coping strategies adopted by children and adolescents. Three different coping strategies were measured using this scale, as follows: (a) approach (e.g., "I ask someone in my family for advice", "I find a way to solve the problem"), (b) maladaptive (e.g., "I get angry and throw or hit something", "I keep feeling afraid it will happen again"), and (c) avoidance (e.g., "I keep busy so I don't worry about the problem", "I think the problem is not such a big issue"). Participants rated these items from 1 = *almost never* to 5 = *always*. For the purpose of this study, only the 11 approach items and 10 avoidant items were used for analysis.

The Individualism-Collectivism Questionnaire for Adolescents (Novin, Dahamat Azam, Broekhof, Li, Koch & Rieffe, submitted) consisted of 11 items that assessed the extent to which adolescents agreed with individualistic or collectivistic values on a 5-point scale ranging from 1 = *Strongly disagree* to 5 = *Strongly agree*. An example of an individualistic item is, "I can make my own decisions. I do not need friends and family for that." An example of a collectivistic item is, "Friends and family are an important part of who I am."

Table 1 presents the psychometric properties of each measure for the total combined sample, and separately for the two groups. The Cronbach's alpha values between .68 to .94 suggest that all internal consistencies were adequate and within acceptable levels.

Translation of the Questionnaire

Most of the questionnaires used in this study were originally formulated in Dutch; however there were also English versions available. The English versions were first translated into Malay (i.e., the national language of Malaysia) by the first author, after which they were translated back into English by an independent bilingual translator who adopted a back-translation method. Both the original and back-translated English versions were compared and checked for language consistency and coherency. Any inconsistencies were discussed and subsequently resolved. Prior to data collection, a pilot test of the Malay questionnaire was conducted in Malaysia, in which 168 secondary school students participated. Following feedback received from these participants, some minor amendments were made to the Malay versions.

Table 1. Psychometric properties of the questionnaires for reactive and proactive aggression, moral emotions, coping strategies and cultural values

	n items	range	Cronbach's α			M (SD)			T
			Total	Dutch	Malay-sian	Total	Dutch	Malay-sian	
Reactive Aggression	18	1 – 5	.93	.89	.92	1.76 (.72)	1.45 (0.51)	2.02 (0.77)	-10.39**
Proactive Aggression	18	1 – 5	.94	.81	.93	1.44 (.69)	1.09 (0.19)	1.75 (0.81)	-13.33**
Shame	5	1 – 5	.76	.69	.81	3.15 (0.97)	2.86 (0.78)	3.41 (1.12)	-6.98**
Guilt	5	1 – 5	.78	.75	.83	2.98 (1.00)	2.91 (0.84)	3.05 (1.12)	-1.66
Coping									
Approach	11	1 – 5	.85	.89	.82	2.96 (.79)	3.06 (0.83)	2.87 (.74)	2.70*
Avoidant	10	1 – 5	.80	.79	.81	2.64 (.74)	2.70 (0.71)	2.58 (0.75)	1.96
Individualism	5	1 – 5	.76	.68	.73	3.03 (0.87)	3.43 (0.64)	2.66 (0.85)	11.83**
Collectivism	6	1 – 5	.86	.75	.88	3.73 (0.87)	4.00 (0.55)	3.51 (1.03)	6.82**

*p < .001; *p < .01

Statistical Analysis

To examine cultural values as a moderating role in any relationship between social emotions, coping strategies, and reactive or proactive aggression, two separate hierarchical regression analyses were performed. In each analysis, control variables (i.e., gender: -1 = boy, 1 = girl; and centered participants' age) and the centered scores for shame- and guilt-proneness, approach coping, and avoidant coping, were entered into the first model (model 1). Then, the centered scores of individualism and collectivism were entered into the second model (model 2). In the third model (model 3), we added all two-way interactions for shame, guilt, approach coping, avoidant coping with country-of-origin, individualism, and collectivism. The main effect of country-of-origin (-1 = Netherland, 1 = Malaysia) was not analyzed because both Malaysian and Dutch data were centered around the mean within country, to control for across-country differences in the analysis.

Missing Data Analysis

A missing value analysis was conducted prior to data analysis to determine the pattern and proportion of our missing data. Results showed that approximately less than 1% of incomplete cases and values were left unfilled. Furthermore, the non-significant value of the Little's MCAR test (χ^2 = 15.33, DF = 13, p = .287) indicated that the missing data

were missing completely at random. Considering the small values of the missing data, and that the Little's MCAR test was not significant, complete case analysis (*list-wise deletion*) was employed for all further analyses.

RESULTS

Table 2 presents the results of the regression analyses on reactive and proactive aggression, respectively. Additionally, a zero-order correlation matrix is presented in Supplementary Table 1 although not specifically discussed in this study.

Table 2. Regression analysis showing age, gender, shame-proneness, guilt-proneness, approach coping, avoidant coping, and cultural values as predictors of reactive and proactive aggression

Predictor	Reactive Aggression (n = 534)				Proactive Aggression (n = 533)			
	B	SE B	P	R^2 /ΔR^2	B	SE B	p	R^2 /ΔR^2
Model 1				.08/ .08**				.10/ .10**
Age	.11	.05	.021		.12	.04	.006	
Gender	-.15	.03	.000		-.10	.03	.000	
Shame	.08	.04	.027		-.04	.03	.285	
Guilt	-.09	.04	.007		-.10	.03	.002	
Approach	.03	.04	.502		-.05	.04	.207	
Avoid	.08	.04	.042		.10	.04	.004	
Model 2				.09/ .01				.16/ .06**
IND	.08	.04	.030		.10	.03	.002	
COLL	-.03	.04	.446		-.19	.03	.000	
Model 3				.15/ .06*				.23/ .07**
Shame x CNTY	-.08	.04	.027		-.08	.03	.017	
Guilt x CNTY	.01	.04	.737		.00	.03	.895	
APP x CNTY	.10	.04	.024		.02	.04	.519	
AVO x CNTY	.08	.04	.054		.09	.04	.022	
Shame x IND	.02	.05	.675		-.11	.04	.007	
Guilt x IND	.04	.04	.314		.08	.04	.038	
APP x IND	-.01	.05	.786		.09	.04	.037	
AVO x IND	.12	.05	.013		.09	.04	.023	
Shame x COLL	.01	.04	.755		.01	.04	.777	
Guilt x COLL	-.06	.04	.144		.01	.04	.816	
APP x COLL	.03	.05	.544		-.04	.04	.365	
AVO x COLL	-.03	.05	.565		.01	.04	.823	

*p < .01, **p < .001
Note: B = unstandardized regression coefficients; *SE* = Standard Error; p = significant value; Δ *R2* = change in *R2* value; APP = approach coping; AVO = avoidant coping; IND = individualism; COLL = collectivism; CNTY = Country

Cultural values as a moderator between reactive aggression and emotion regulation

The analysis with reactive aggression as the dependent variable showed that older and male participants reported more reactive aggression behaviors (Model 1). Furthermore, higher levels of shame and avoidant coping, as well as lower levels of guilt, were related to more reactive aggression. In Model 2, higher levels of individualism were related to more reactive aggression.

In model 3, country of origin interacted with levels of shame and approach coping. As shown in Figure 1, higher levels of shame-proneness were related to more reactive aggression in Dutch participants (B = .17; p < .001), but no effect was found for Malaysian participants (B = .00; p = .929). Furthermore, in Figure 2, higher levels of approach coping were related to more reactive aggression in Malaysian participants (B = .20; p = .042), but no significant effect was found for their Dutch peers (B = -.18; p = .072).

Also in model 3, individualism interacted with levels of avoidant coping. As shown in Figure 3, higher levels of avoidant coping were related to more reactive aggression in participants with a high level of individualism (B = .13; p = .021), but no effect was found for participants who endorsed a low level of individualism (B = -.05; p = .393).
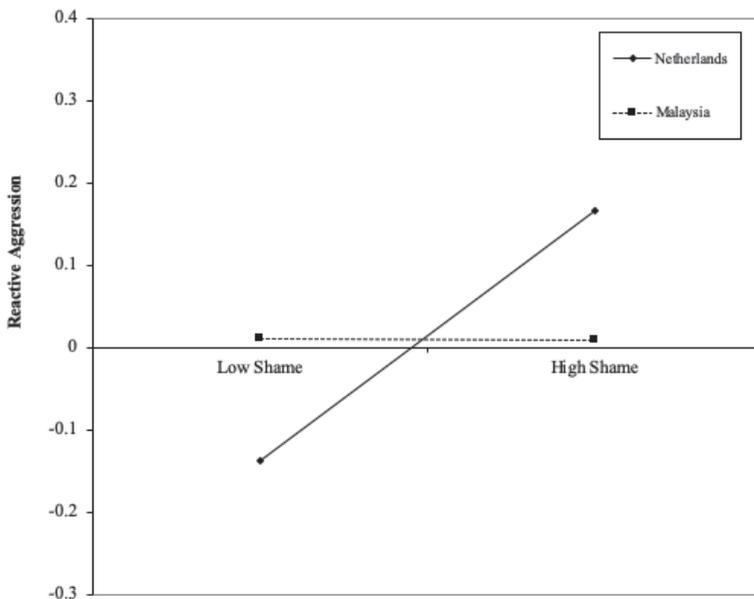

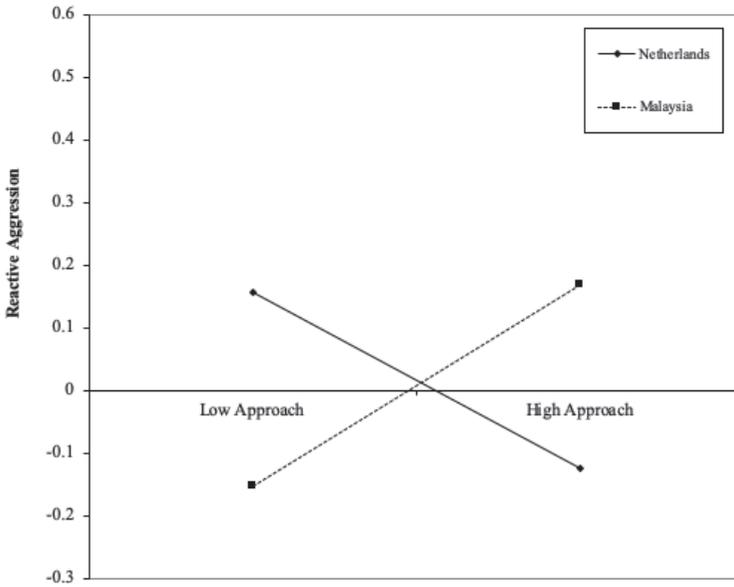Figure 1. The moderating effect of country-of-origin on the relationship between shame and reactive aggression

Figure 2. The moderating effect of country-of-origin on the relationship between approach and reactive aggression
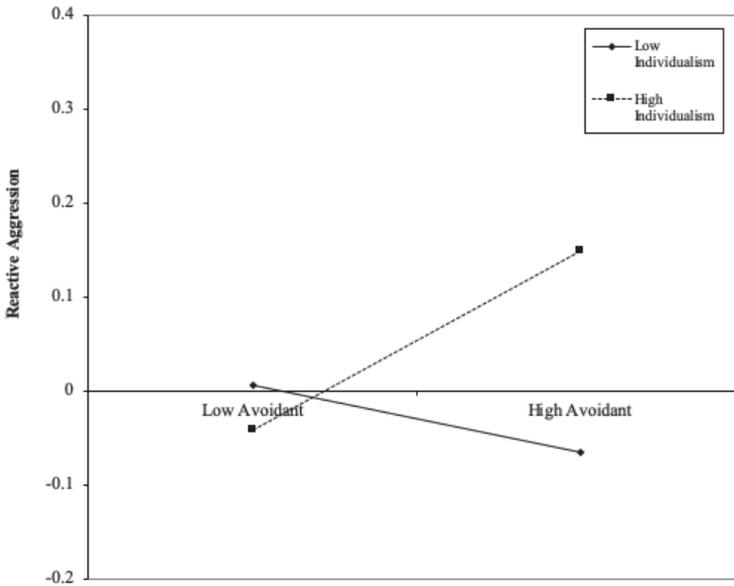

Figure 3. The moderating effect of individualism on the relationship between avoidant and reactive aggression

Cultural values as a moderator between proactive aggression and emotion regulation

The analysis with proactive aggression as the dependent variable showed older and male participants reported more proactive aggression behaviors in model 1. Furthermore, higher levels of avoidant coping and lower levels of guilt were related to more proactive aggression. In model 2, higher levels of individualism and lower levels of collectivism were related to more proactive aggression.

Country of origin interacted with levels of shame and avoidant coping in model 3. As presented in Figure 4, higher levels of shame-proneness were related to less proactive aggression in Malaysian participants (B = -.12; p = .031), but no effect was found for Dutch participants (B = .11; p = .060). Meanwhile, in Figure 5, higher levels of avoidant coping were related to more proactive aggression in Malaysian participants (B = .18; p <.001, but no significant effect was found for Dutch participants (B = .00; p = .893).

Also in model 3, endorsement of individualism interacted with levels of guilt- and shame-proneness, and approach and avoidant coping. As shown in Figure 6, higher levels of shame were related to less proactive aggression in participants with a high level of individualism (B = -.10; p = .045), but no effect was found for participants with a low level of individualism (B = .08; p = .087). Meanwhile, Figure 7 showed that higher levels of guilt were related to less proactive aggression in participants who rated their individualistic values as low (B = -.10. p = .014), but no effect was found for participants who rated their individualistic values as high (B = .02; p = .568).
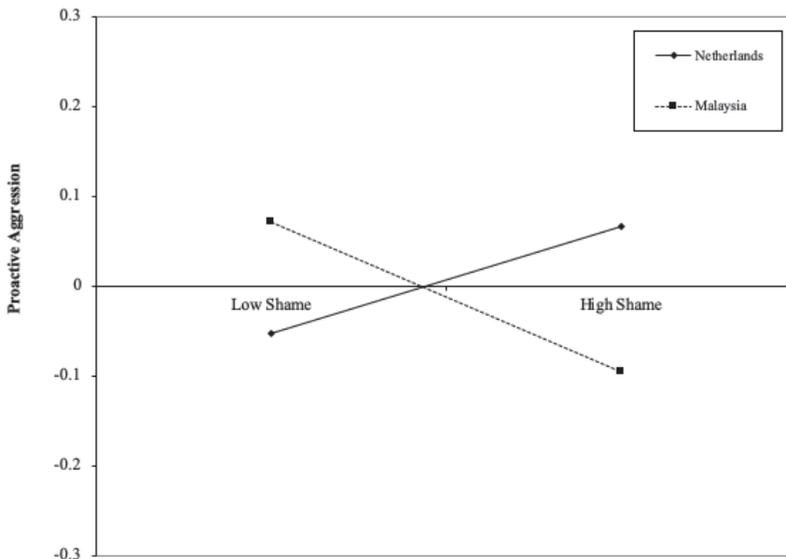

Figure 4. The moderating effect of country-of-origin on the relationship between shame and proactive aggression
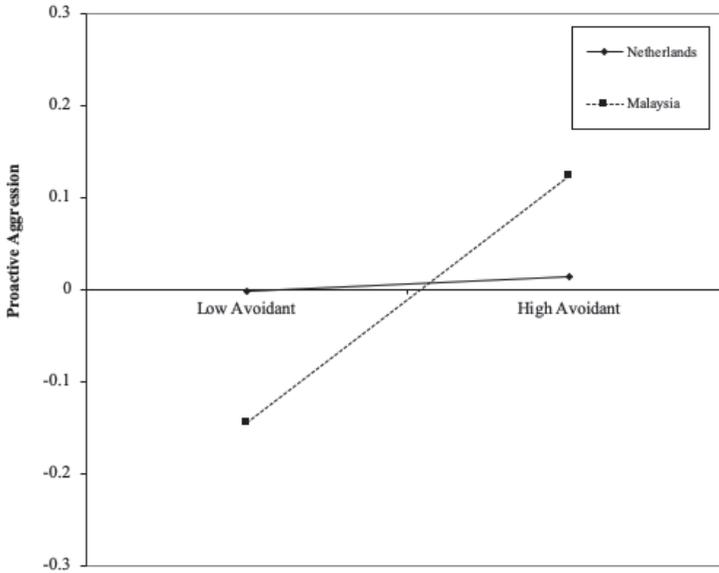
Figure 5. The moderating effect of country-of-origin on the relationship between avoidant and proactive aggression
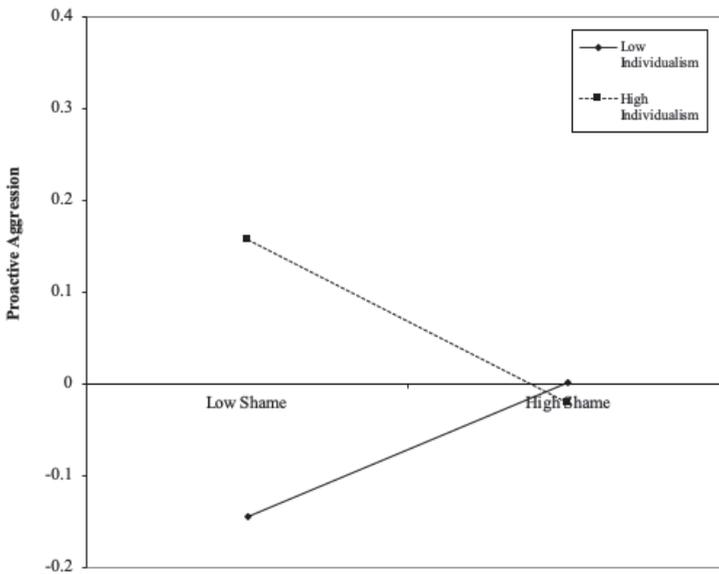

Figure 6. The moderating effect of individualism on the relationship between shame and proactive aggression

In Figure 8, higher levels of approach coping were related to more proactive aggression in participants who had higher levels of individualism (B = .12; *p* = .041), while no effect was found in participants who had lower levels of individualism
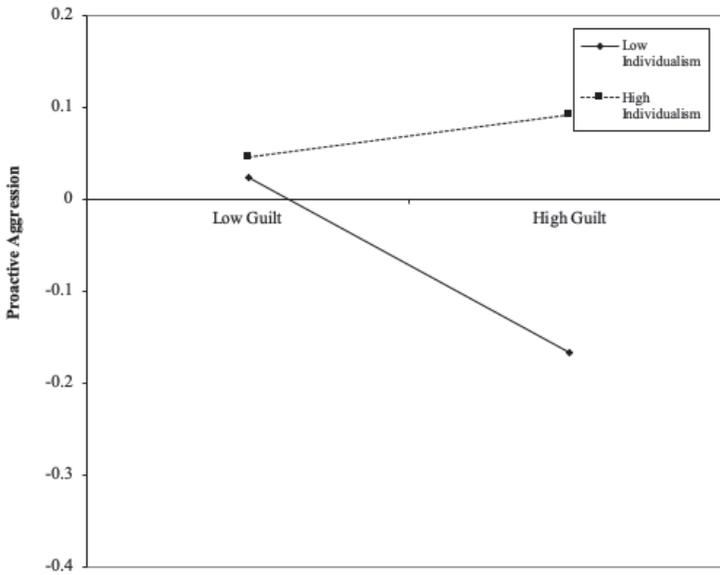
Figure 7. The moderating effect of individualism on the relationship between guilt and proactive aggression
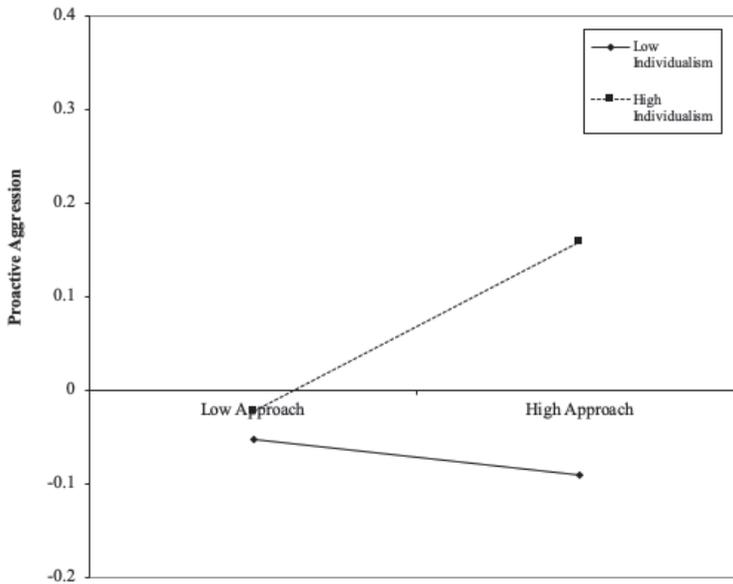
Figure 8. The moderating effect of individualism on the relationship between approach and proactive aggression

(B = -.03; *p* = .661). Meanwhile, Figure 9 shows that higher levels of avoidant coping were related to more proactive aggression in participants who endorsed higher levels of individualism (B = .16; *p* < .001), while no effect was found in participants who endorsed lower levels of individualism (B = .02; *p* = .652).
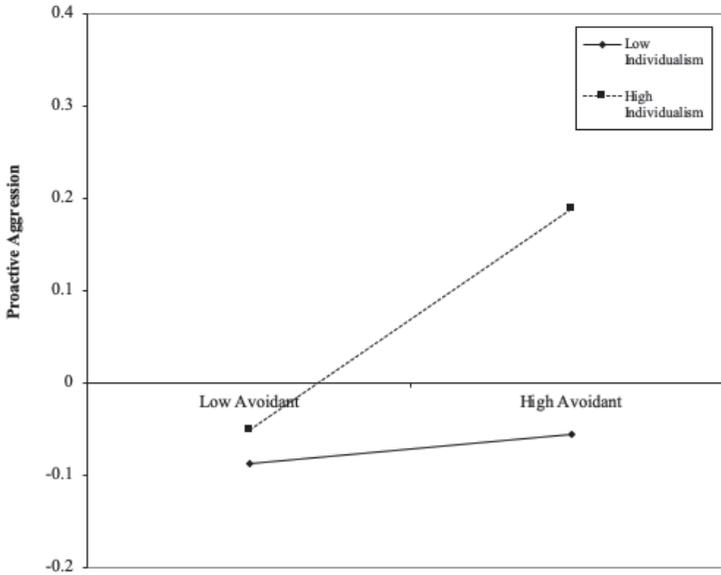
Figure 9. The moderating effect of individualism on the relationship between avoidant and proactive aggression

DISCUSSION AND CONCLUSION

Aggression is a manifestation of uncontrolled and heightened negative emotionality that is especially common during adolescence, a period characterized by "storm and stress" (Arnett, 2006). Aggressive encounters can cause behavioral and mental health problems in both aggressors and victims, and the negative impact is known to persist until adulthood (Rieffe et al., 2016). Research in aggressive behaviours in Western countries highlights the importance of emotion regulation and moral emotions for understanding the different motives of aggression in adolescents. These findings contribute to developing prevention and intervention programs aimed at reducing aggression in Western countries (Broekhof et al., submitted; Csibi & Csibi, 2011; Fite et al., 2014; Frick et al., 2003; Lobbestael et al., 2016). However, it is unclear to what extent these findings can be generalized to adolescents in East Asian countries, where different cultural values prevail. To address the gap, we tested the moderating effects of cultural values by examining the effect of country of origin (i.e., the Netherlands, Malaysia) and endorsement of cultural values (i.e., collectivistic, individualistic) on relations between aggression (i.e., reactive, proactive), coping strategies (i.e., approach, avoidance), and moral emotions (i.e., shame, guilt). Our findings are largely consistent with the findings of Western countries. However, we also have some new outcomes.

Regarding reactive aggression, in line with previous research, we found that reactive aggression was related to more approach coping, but the relation was found only in Malaysian adolescents. Reactive aggression was also related to more shame,

but this relation was found only in Dutch adolescents conform other studies (Broekhof et al., submitted). However, guilt was related to less reactive aggression, and this now applied to adolescents from both countries (Azam et al., 2019, submitted). Regarding proactive aggression, as we expected, proactive aggression was related to more avoidant coping, especially in adolescents who endorsed individualism. Proactive aggression was also related to less guilt, especially for adolescents with low endorsement of individualism. Furthermore, less proactive aggression was indeed related to higher level of shame in Malaysian adolescents.

A novel and intriguing finding in the present study was the moderating role of individualism in relations between proactive aggression and coping. In this study, adolescents were presented with different coping strategies as they related to a peer conflict situation. Coping generally functions as a means to find a balance between individual aims and social goals, especially during conflicts. However, this may constitute a problem for adolescents with higher levels of individualism. Their strong focus on their own needs and goals, accompanied by less focus on maintaining relationships or achieving social goals (e.g., harmony), may promote an imbalance that results in higher rates of proactive aggression. Therefore, whatever coping strategies these adolescents choose (whether approach or avoidant), their focus on individualism above all could increase the risk of proactive aggression. Due to the cross-sectional design of this study, causal inferences cannot be made. However, future studies could further investigate this issue.

In line with previous studies, shame was related to more reactive aggression in Dutch adolescents (Broekhof et al, submitted), whereas shame was related to less proactive aggression in Malay adolescents (Azam et al., 2019). These outcomes support the idea that shame is a culturally embedded construct. Despite being perceived as a negative experience in Western societies that undermines self-esteem and self-worth, shame is highly valued in many Eastern societies, as we previously mentioned. In Eastern societies, shame signals understanding that a wrongdoing could threaten important social ties (e.g., with in-group members such as family, friends, and neighbors), and threatening social ties would need to be avoided at all costs (Ho, Fu, & Ng, 2004). Therefore, shame is seen as an effective mechanism for self control within a social context that is highly valued and supercedes individual needs, thus promoting conformity and social harmony (Bedford & Hwang, 2003; Cole et al., 2006; Fung, 1999). This differential meaning of shame, depending on the social context, probably best explains why shame matters in eliciting defensive-type aggression in Western adolescents, while reducing instrumental aggression in East Asian adolescents.

In line with earlier studies (Azam et al., 2019; Broekhof et al., submitted), the outcomes of this study provide evidence for a protective role for guilt in both a Western country and an East Asian country, but especially for adolescents with low endorsement of individualism. While the protective role of guilt against proactive aggression in Western samples is well-known in the literature (Broekhof et al.,

submitted; Frick et al., 2003), the fact that this also applies to their Eastern peers is relatively new and noteworthy. In fact, admitting a mistake and asking for forgiveness, which are guilt-related behaviors, are also common in collectivistic cultures (Bedford & Hwang, 2003; Merolla, Zhang, & Sun, 2013). The fact that this appears to apply especially to adolescents with low endorsement of individualism suggests that the protective role of guilt is more effective when the adolescent is not focused on his or her own needs and achievements.

This study has several notable strengths: first, this study was among the first that sought to address whether cultural values moderate relationships concerning coping strategies, moral emotions, and reactive versus proactive aggression. Second, we observed country of origin and measured endorsement of cultural values (i.e., individualistic versus collectivistic) in relation to six other factors: coping strategies (i.e., approach, avoidant), moral emotions (i.e., guilt, shame) and aggression (i.e., reactive, proactive) . Thus, different levels of analysis for cultural values have now been conducted in relation to all of these variables, and reveal different effects on these relationships.

Yet, some limitations deserve consideration. First, as mentioned previously, our data, which is cross-sectional in nature, prevents us from establishing causal relations between emotion regulation, moral emotions, and aggression. While the dependent variables were reactive and proactive aggression, the direction of causality remains open for debate. For example, there is a possibility that proactive aggression may influence adolescents' preference for avoidant coping, as has been suggested in previous studies (e.g., Gardner et al., 2012). To address this limitation, we suggest that future research adopt a longitudinal or experimental design, to examine causal relations and directions between variables, cross-culturally.

Second, although the selection of one Eastern and one Western country provide some representation of collectivistic versus individualistic societies, respectively, the degree to which our findings can be generalized remains limited. As every country is unique, with its own values and norms, our findings may not be applicable to populations in other Eastern or Western countries. As such, we suggest that future investigators who may wish to replicate our methodology include samples from a greater number of Eastern and Western countries, for a more representative sample.

Third, our data do not include participants' demographic information. Including information on socioeconomic status (e.g., household income, parental employment, and level of education) may provide more in-depth information about whether aggression and the selection of coping strategies or proneness to certain moral emotions by adolescents are influenced by differences in socioeconomic status, within and among different countries.

Despite the limitations, our study highlights the importance of understanding relations between coping strategies, moral emotions, and reactive versus proactive aggression in the context of different cultures. Adolescent aggression occurs in both Western and East Asian countries. Despite a differential role of shame (i.e., protective

against aggression in East Asian countries, while contributing to more aggression in Western countries), we found many similarities that apply to both countries, such as the protective role of guilt against aggression, and the finding that coping strategies in a peer conflict situation – whether approach or avoidant - were related to more aggression. Importantly, these outcomes mainly applied to adolescents with high endorsement of individualism. Individualism did not play a role in all relations, but when it did, it was always related to more, and never less, aggression. Yet, the protective role of collectivism was most evident in relation to less proactive aggression. Taking these values into account can provide important additional information, when trying to understand the causes of adolescent aggression.

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CHAPTER | 5

BULLYING PERPETRATION AND EMOTIONAL REACTIVITY: THE ROLE OF CULTURAL AND INDIVIDUAL DIFFERENCES

ABSTRACT

Bullies and victims both experience emotional reactivity. Yet do their cultural backgrounds serve as protective factors against involvement in bullying? This study examined relations between emotional reactivity and bullying perpetration or victimization, and the moderating role of cultural values. We examined individualism and collectivism at both the country level (Netherlands, Malaysia) and at the individual levels (across countries). A total of 535 Dutch and Malaysian adolescents 12 to 14 years old completed self-report measures on bullying perpetration and victimization, and emotional experiences of shame, guilt, fear and anger, as well as cultural values of individualism and collectivism. Results from linear hierarchical regression analyses showed that collectivism moderated relations between bullying perpetration and guilt, shame, and fear, whereas country of origin moderated relations between bullying perpetration and anger. The strengths, limitations, and implications of the study for future research are discussed.

Bullying perpetration is a form of aggression that is characterized by physical behaviours such as hitting, or non-physical (psychological) acts such as name-calling or social exclusion (Olweus, 2013). Bullying is regarded as a common problem worldwide, with the highest prevalence during adolescence (Pellegrini, Bartini, & Brooks, 1999; Volk, Camilleri, Dane, & Marini, 2012). It involves an imbalance of power between two parties, the bully and the victim, and it happens repeatedly over time (Olweus, 2013; Smith & Brain, 2000). This frequent abuse of power often causes physical harm and psychological distress to victims, and puts victims at risk for developing mental health problems (Ragatz, Anderson, Fremouw, & Schwartz, 2011; Schneider, O'Donnell, Stueve, & Coulter, 2012). To date, studies that have included participants from Western countries have begun to unravel the different factors contributing to both perpetrators and victims of bullying, and this knowledge has been important for developing ways to prevent bullying. Yet bullying is also a widespread problem in East Asian countries, including Malaysia (Sittichai & Smith, 2015). It is unknown whether the underlying factors found in Western countries can be generalized to Asian countries.

Research on Western samples suggests that bullying perpetration and victimization are both strongly related to negative emotional reactivity (Moore & Woodcock, 2017). Emotional reactivity refers to the varying intensities and levels of emotional arousal induced by specific stimuli (Shapero & Steinberg, 2013). For example, bullies often show elevated levels of anger and low levels of guilt (Mahady Wilton, Craig, & Pepler, 2000; Mazzone, Camodeca, & Salmivalli, 2016). They may harm others without feeling bad about their conduct, or may even feel their behaviour is justified, as in taking an attitude that the victim(s) "deserved it". Meanwhile, victims have been found to frequently feel intense fear and high levels of shame (Menesini & Camodeca, 2008). However, these findings in Western samples may not generalize to members of Asian populations, given cross-cultural differences in emotional reactivity (An, Ji, Marks, & Zhang, 2017; Chentsova-Dutton & Tsai, 2010). In an effort to fill this gap in our knowledge, in the current study we examined the role of emotional reactivity in bullying in adolescents, while also taking into account the role of culture. The role of culture was examined in two ways: first, at the level of country-of-origin, we compared adolescents from a Western, predominantly individualistic-oriented country (the Netherlands) and an East Asian, predominantly collectivistic-oriented country (Malaysia). Second, at the individual level, we examined adolescents' endorsement of cultural values (i.e., collectivism and individualism). While the between-country approach can provide valuable insight into *how* Dutch and Malaysian adolescents differ, it cannot provide insight into *why* such differences may occur. By examining adolescents' endorsement of cultural values, we tested a potential underlying mechanism that might explain between-country differences.

Research on bullying perpetration in East Asian countries

Although most studies on bullying perpetration have been conducted in Western countries, bullying is not a new research topic in East Asia. Numerous studies have

discussed the prevalence and negative consequences of bullying perpetration and victimization in East Asian youth, and these have yielded findings comparable to those of studies on Western adolescents. The literature indicates prevalence rates in East Asian countries range from 18.5% to 71.4% for bullying, and from 17.9% to 80.7% for victimization (Laeheem, Kuning, McNeil, & Besag, 2008; Mat Hussin, Abd Aziz, Hasim, & Sahril, 2014; Pradubmook-Sherer & Sherer, 2016; Yodprang, Kuning, & McNeil, 2009). Yet, reported prevalence rates are lower in Western countries: 3.0% to 23.0% for bullying, and at 8.0% to 46.0% for victimization (Jansen, Veenstra, Ormel, Verhulst, & Reijneveld, 2011; Wolke, Woods, Stanford, & Schulz, 2001). Meanwhile, using a similar measurement (i.e., Olweus Bully/Victim Questionnaire), research shows lower prevalence rates of bullies, victims, and bully-victims (4.6%, 9.5%, 1.9% respectively) in Western samples than in Eastern samples (4.6%, 13.6%, 5.2%) (Liu, Chen, Yan, & Luo, 2016; Solberg, Olweus, & Endresen, 2007). To date, the most frequently identified risk factors for bullying and victimization are demographic factors such as age, i.e., older bullies and younger victims (Laeheem et al., 2008; Pradubmook-Sherer & Sherer, 2016; Seo, Jung, Kim, & Bahk, 2017), male gender (Huang et al., 2016; Yodprang et al., 2009), and low socio-economic status, e.g., parents' education and income (Moon, Morash, & McCluskey, 2012; Zhu & Chan, 2015).

Studies with Western samples have often focused on the role of emotional reactivity in relation to bullying perpetration and victimization. Typically, emotions are seen as an adaptive reaction to the social environment (Scherer, 2000), and emotional reactivity focuses an individual's attention on an event, and emotions serve to provoke the individual to react adaptively: to find a balance between personal gain and worthwhile social relationships with meaningful others, and achieve the best possible outcome (Frijda, 1986). In bullies, however, the aim for personal gain might be higher than the desire for any positive social bond. Studies in Western samples indeed found that youngsters who bully others experience high levels of anger (Bosworth, Espelage, & Simon, 1999; Lonigro et al., 2015), as well as low levels of guilt (Mazzone et al., 2016; Menesini & Camodeca, 2008). Regardless of the cause of their fury, bullies often seem to use anger as a tool to achieve their social goals, i.e., to harm and control their victims and/or preserve a certain social status. Guilt, on the other hand, refers to a social emotion that occurs in response to wrongdoing, e.g., hurting someone emotionally, mentally and/or physically (Baumeister, Stillwell, & Heatherton, 1994). While a guilt-prone person is more likely to confess his or her mistakes, attempt to repair any damages caused, and try to reinstate social relationships (Haidt, 2003; Olthof, Schouten, Kuiper, Stegge, & Jennekens-Schinkel, 2000), fewer of these behaviours are seen in children and adolescents who bully. These youngsters are more likely to exhibit a lack of guilt, as they show little or no remorse upon hurting others (Broekhof, Bos, Camodeca, & Rieffe, 2018; Mazzone et al., 2016; Roberts, Strayer, & Denham, 2014).

Victims, in turn, often react angrily towards provocation or intended harm inflicted upon them (Morrow, Hubbard, Barhight, & Thomson, 2014). In contrast to bullies,

victims report higher levels of fear and shame (Boulton, Trueman, & Murray, 2008; Vidourek, King, & Merianos, 2016). Being bullied is a threatening and distressing experience that makes the victim feel insecure and ashamed, and victims often fear being bullied again (Broekhof et al., 2018). Previous research has indicated a reciprocal relationship between being bullied and shame: being bullied not only elicits shame (Broekhof et al., 2018; Lunde & Frisén, 2011), but, according to a longitudinal study in pre-adolescents, higher levels of shame might also create an easy victim for the bully, thus further increasing the risk of being bullied (Broekhof et al., 2018).

Regarding East Asian populations, the prevalence, risk factors, and consequences of bullying perpetration and victimization have been addressed in prior studies. However, less attention has been paid to the association between emotional reactivity and bullying perpetration or victimization in East Asian cultures. A few studies found high levels of anger and moral disengagement (i.e., low levels of guilt) in Chinese bullies (J. K. Chen & Astor, 2010; Wang, Yang, Yang, Wang, & Lei, 2017), and anxiety problems (i.e., high levels of fear) in Chinese victims (Yen et al., 2013). These findings are in line with those reported in the Western literature. Given the dearth of research conducted in East Asia, one may be tempted to generalize the findings from studies in Western populations to non-Western populations. However, this could be problematic, as Western and East Asian societies are regarded as having different dominant cultural values. These values, in turn, could affect the expectations, emotions, and behavior of bullies and victims, alike.

For example, in Western societies, individuals are more likely to endorse individualistic values, where the core focus is on the individual, and on individuals' needs, wishes, and well-being. In these societies, individuals are more likely to emphasize the individual's responsibilty, and therefore to emphasize guilt as a mechanism for social control (Realo, Koido, Ceulemans, & Allik, 2002; Triandis, Bontempo, Villareal, Asai, & Lucca, 1988). In contrast, East Asian individuals are more likely to endorse collectivistic values, where the core focus is on one's social group, on the group's needs and success, and on an individual's relationship with other in-group members (Oyserman, Coon, & Kemmelmeier, 2002; Triandis, 2001; Wang & Tamis-LeMonda, 2003). In these societies, individuals are more likely to attach more importance to in-group harmony, modesty, and conformity. To protect these values, shame, rather than guilt, is treated as an effective mechanism for social control (Bedford & Hwang, 2003; Cole, Tamang, & Shrestha, 2006; Fung, 1999). For instance, East Asian individuals are more likely to believe they will suffer intense shame if they commit a wrongdoing, such as inflicting violence or disobeying social rules (Bedford & Hwang, 2003; Midlarsky, Venkataramani-Kothari, & Plante, 2006; Yoshioka & Choi, 2005), and that they will, in turn, risk losing face (Li, Wang, & Fischer, 2004).

Thus, there is evidence that emotional reactivity plays an important role in bullying perpetration and victimization in adolescents from Western societies, and that shame and guilt are treated differently in Western and East Asian societies. However, it is yet unknown if or how the intensity of these emotions may be related in the same

way to adolescent bullying perpetration and victimization in East Asian societies. To examine these relationships, we compared adolescents from a typical Western, individualistic-oriented country (i.e., the Netherlands) with adolescents from a typical East Asian, collectivistic-oriented country (i.e., Malaysia), according to Hofstede's cultural index (1984; et al., 2010). Such cultural group comparisons are common, and tap into the best-known and most-used theoretical framework within cross-cultural psychology: the individualism-collectivism framework (Oyserman et al., 2002; Triandis, 1995).

Yet, comparisons between cultural groups do not necessarily test whether any differences that are found are indeed due to differences in levels of individualism versus collectivism. Furthermore, people living in the same country might differ regarding their endorsement of individualism and collectivism, and various studies highlight the heterogeneity of endorsement of cultural values within one society (e.g., Georgiou, Fousiani, Michaelides, & Stavrinides, 2013; Strohmeier, Yanagida, & Toda, 2016). Therefore, in addition to examining the role of culture according to country-of-origin, we also examined the role of culture at an individual level, across country-of-origin, by examining the extent to which individual endorsement of individualism and collectivism, respectively, varied amid relations among emotional reactivity, bullying and victimization.

Present Study

The present study aimed to examine associations between adolescents' emotional reactivity (i.e., fear, anger, shame, and guilt) and bullying perpetration or victimization. We tested how culture affected these relationships in two ways: at the country-of-origin level, by comparing Dutch and Malaysian adolescents; and at the individual level, by examining the influence of adolescents' endorsement of individualism or collectivism, across countries. This allowed us not only to recruit insight into possible country differences, but into possible cultural mechanisms that may underly country differences in the relations between emotional reactivity and bullying or victimization (Oyserman et al., 2002; Strohmeier et al., 2016).

Our objectives fell under two categories. First, we examined differences in the relationship between bullying or victimization and fear, anger, shame, and guilt according to country-of-origin:

» In the Dutch sample, we expected a positive correlation for anger, and a negative correlation for guilt with perpetration of bullying (Broekhof et al., 2018).
» In the Malaysian sample, we expected a positive correlation for anger and a negative correlation for shame with perpetration of bullying, given that shame is a self-regulatory mechanism in East Asian societies (Fung, 1999; Li et al., 2004).
» In both samples, we expected shame, fear, and anger to correlate positively with victimization from bullying. However we expected that the strength of the relationship between shame and victimization would vary by country, with a stronger relation in the Dutch sample than in the Malaysian sample, since

shame is perceived as an adaptive reaction in collectivisitic-oriented but not individualistic-oriented cultures (Fessler, 2004; Triandis et al., 1988).

Second, we investigated any moderating effects for endorsed cultural values (i.e., collectivism and individualism) on relations between emotional reactivity and bullying perpetration or victimization, regardless of country-of-origin:

» In participants reporting high endorsement of individualistic values, we expected less bullying perpetration to be related to more guilt.
» In participants reporting high endorsement of collectivistic values, we expected less bullying perpetration to be related and to more shame.
» We did not expect cultural values to moderate the relationship between anger and bullying perpetration, due to similar results from previous studies conducted in individualistic and collectivistic countries (Bosworth et al., 1999; J. K. Chen & Astor, 2010; Lonigro et al., 2015; Mahady Wilton et al., 2000).
» We did not expect cultural values to moderate relations between victimization and emotional reactivity, except that in participants reporting high endorsement of individualistic values, shame would be related to more victimization.

METHOD
Participants and Procedure
A total of 535 adolescents aged between 12 and 14 years old from four secondary schools in the Netherlands (n = 251; 53.4% girls; M_{age} = 13.90, SD = 0.57) and three secondary schools in Malaysia (n = 284; 52.5% girls; M_{age} = 13.09, SD = 0.58) participated in the study during school hours. Prior to data collection, approval was obtained from all organizations and individuals involved. In the Netherlands, the Psychological Ethics Committee of Leiden University granted permission to conduct this study, and similar permission was granted by the government authorities in Malaysia (i.e., the Prime Minister Department through its Economic Planning Unit (EPU) and the Ministry of Education Malaysia). Also, active informed consent was secured as required by parents or caregivers in the Netherlands, by school principals or their assistants in both countries, and by all participants in both countries, before data were collected[1].

   As detailed below, we used various self-report questionnaires that were all available in English. All questionnaires were translated from English into Malay (i.e., the national language of Malaysia) by taking the following five steps: first, the first author translated all English questionnaires into Malay; second, an independent bilingual translator back-translated the Malay versions into English; third, the original and back-translated English versions were compared and checked for language

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[1]   Given that Malaysia has actively applied the in *loco parentis doctrine* in its educational system, no active parental consent was needed. *In loco parentis* is a legal doctrine that extends parental rights and responsibilities to schools and teachers.

consistency, with any inconsistencies resolved through discussion; fourth, in a pilot study, 168 adolescents completed the questionnaires in Malaysia; and fifth, following the pilot study, a few minor amendments were made to the Malaysian questionnaires, before executing the present study.

Measures

The Bully Questionnaire (Rieffe et al., 2012) started with a short explanation about what is considered bullying (e.g., hitting, kicking, or threatening someone). The participants were presented with the question, "Did you, with the aim of bullying someone, over the last two months . . . " and then nine items for bullying behaviors, to which they could respond using a 3-point scale: 1 = *(Almost) Never*, 2 = *Sometimes*, 3 =*Often*.

  The Victim Questionnaire (Rieffe et al., 2012) consisted of 10 items presenting victimization behaviors (e.g., being called a name, having mean things said to you). The participants were asked about how frequently they had been bullied within a 2-month period by rating the incidence on a 3-point scale: 1 = *(Almost) never*, 2 = *Sometimes*, 3 = *Often*. One item ("Are you invited to birthday parties?") was reverse coded.

  The Brief Shame and Guilt Questionnaire for Children (Novin & Rieffe, 2015) consisted of 12 vignettes measuring shame- and guilt-proneness in children and adolescents. An example of a shame vignettes is: "You hear that you've received a low grade at school when the teacher announces the grades in class." An example of a guilt vignettes is: "Your classmate is using the red pen the whole time. You also need the pen. You snatch away the pen". The participants then were asked to rate their feelings of shame or guilt on a 5-point scale from 1= *not at all* to 5 = *very much*. However, due to human administrative error, two items representing shame and guilt, respectively, were omitted from the questionnaire.

  The Mood Questionnaire (MQ) (Rieffe, Meerum Terwogt, & Bosch, 2004) was used to assess children's self-reported feelings of anger and fear. The children were asked to indicate how they had been feeling over the previous four weeks (e.g., "I felt furious", "I felt frightened"). The questionnaire consisted of a total of 20 items on a Likert-type scale (1 = (*almost) never*, 2 = *sometimes*, 3 = *often*).

  The Individualism-Collectivism Questionnaire for Adolescents (Novin, Dahamat Azam, Broekhof, Li, Koch, & Rieffe, submitted) is an 11-item questionnaire that measures the extent to which adolescents endorse individualistic or collectivistic values, respectively, on a 5-point scale ranging from 1 = *Strongly disagree* to 5 = *Strongly agree*. An example of an individualistic item is, "I feel happier when I make my own choices than using my friends' and family's suggestions." An example of a collectivistic item is, "I feel happy when my friends and family are happy."

  Table 1 presents the psychometric properties of the measures for the total sample, and for the two countries separately. Overall, all measures showed adequate internal consistency reliability (.62 < α < .88).

Table 1. Psychometric properties of the questionnaires for bullying, victimization, moral emotions, moods and cultural values

	n items	range	Cronbach's α			M (SD)			T
			Total	Dutch	Malaysian	Total	Dutch	Malaysian	
Bullying	9	1 – 3	.81	.75	.81	1.33 (0.34)	1.21 (0.25)	1.43 (0.38)	-8.04*
Victimization	10	1 – 3	.83	.77	.72	1.57 (0.41)	1.31 (0.30)	1.79 (0.36)	-16.85*
Shame	5	1 – 5	.76	.69	.81	3.15 (0.97)	2.86 (0.78)	3.41 (1.05)	-6.98*
Guilt	5	1 – 5	.78	.75	.83	2.98 (1.00)	2.91 (0.84)	3.05 (1.12)	-1.66
Fear	4	1 – 3	.75	.79	.62	1.74 (0.49)	1.52 (0.47)	1.94 (0.42)	-10.56*
Anger	4	1 – 3	.76	.85	.64	1.75 (0.48)	1.60 (0.47)	1.89 (0.45)	-7.16*
Individualism	5	1 – 5	.76	.68	.73	3.03 (0.87)	3.43 (0.64)	2.66 (0.85)	11.83*
Collectivism	6	1 – 5	.86	.75	.88	3.73 (0.87)	4.00 (0.55)	3.51 (1.03)	6.82*

*$p < .001$

DATA ANALYSIS AND RESULTS

Missing Data Analysis

Prior to data analysis, we conducted a missing value analysis to determine the proportion and pattern of our missing data. From the results, the non-significant value of the Little's MCAR test ($\chi^2 = 21.35$, DF = 18, $p = .262$) indicated that the missing data were missing completely at random. Also, considering that the amount of missing data was small (2.24% of the incomplete cases, and only 0.56% of the values were left unfilled), we employed complete case analysis (*list-wise deletion*) for all further analyses.

Statistical Analysis

First, the relations between bullying perpetration or victimization and shame- or guilt-proneness, fear, and anger were tested through correlations. All scores were centered around the mean score per country, to control for mean differences between countries that might have been caused by variation in use of the response scales (Field, 2013). We performed Fisher's r-to-z transformations to compare the strength of these relationships between the Dutch and Malaysian samples.

In order to examine any moderating role for cultural values in any relationship between emotional reactivity and bullying perpetration or victimization, two separate hierarchical regression analyses were conducted. In each analysis, we entered our

control variables (i.e., gender: -1 = boy, 1 = girl; and centered participants' age) and the centered scores of shame- and guilt-proneness, fear, and anger in the first model. Country (-1=Netherlands, 1 = Malaysia) was not entered as a main effect in the regression models, because mean scores were centred per country. Interactions with country were added. Individualism and collectivism were entered in the second model. In the third model, we added all two-way interactions for shame, guilt, fear, and anger with country, individualism and collectivism.

Relations between bullying perpetration or victimization and emotional reactivity and cultural values

As presented in Table 2, correlations show that in Dutch participants, bullying perpetration was positively related to anger and negatively related to guilt and collectivism. In Malaysian participants, bullying perpetration was positively related to fear, anger and individualism, and negatively related to shame and collectivism. Victimization was positively related to fear and anger in both samples, but positively related to shame in Dutch participants.

Next, we tested for possible country of origin differences in the correlations. The Fisher's r to z tests revealed significant differences: the strength of the correlation between guilt and bullying (z = - 1.99, p = .047) was stronger for Dutch participants than for their Malaysian peers, whereas the strength of the correlation between collectivism and victimization (z = -2.05, p = .040) was stronger in the Malaysian sample than for their peers in the Netherlands. Supplementary Table 1 presents the correlations between variables in greater detail.

Table 2. Pearson correlation coefficients of shame, guilt, fear, anger and individual IC on bullying and victimization

	r (95% CI)					
	Shame	Guilt	Fear	Anger	Individualism	Collectivism
Bullying						
Dutch (n = 241)	-.08 (-.20 – .05)	-.30*** (-.41 – -.16)	.08 (-.03 – .20)	.20** (.08 – .32)	.11 (-.01 – .22)	-.14* (-.27 – -.01)
Malaysian (n = 282)	-.13* (-.23 – -.03)	-.09 (-.19 – .01)	.17** (.05 – .30)	.29*** (.18 – .41)	.20** (.09 – .30)	-.15* (-.26 – -.04)
Z value	0.52	-2.41**	-1.05	-1.14	-1.01	.17
Victimization						
Dutch (n = 241)	.20** (.04 – .36)	.01 (-.12 – .15)	.31*** (.17 – .43)	.31*** (.19 – .43)	.00 (-.17 – .16)	-.07 (-.23 – .08)
Malaysian (n = 282)	.04 (-.09 – .15)	-.05 (-.18 – .07)	.21*** (.09 – .33)	.24*** (.13 – .36)	.10 (-.03 – .25)	.11 (-.01 – .23)
Z value	1.92	0.74	1.25	0.82	-1.13	-2.08*

*p < 0.05; **p < .01; ***p < .001

Cultural values as the moderator

Table 3 presents the results of regression analyses on bullying perpetration and victimization. In the analysis for victimization, only the first model significantly increased the explained variance. Therefore, only the main effects were included in the table.

The regression analysis with bullying as the dependent variable showed that males reported that they bullied more. Furthermore, higher levels of anger and individualism were related to more bullying, whereas higher levels of guilt and collectivism were related to less bullying.

Table 3. Regression analysis showing gender, shame-proneness, guilt-proneness, fear, anger and cultural values as predictors of bullying and victimization (n = 523)

Predictor	Bullying				Victimization			
	B	SE B	p	$R^2 /\Delta R^2$	B	SE B	p	$R^2 /\Delta R^2$
Model 1				.13/ .13**				.12/ .12**
Age	-.00	.00	.827		.00	.00	.775	
Gender	-.06	.01	.000		-.03	.01	.047	
Shame	-.01	.02	.452		.05	.02	.010	
Guilt	-.04	.02	.019		-.04	.02	.021	
Fear	.07	.03	.060		.13	.04	.000	
Anger	.14	.03	.000		.13	.04	.000	
Model 2				.16/ .03**				
Individualism	.07	.02	.000					
Collectivism	-.05	.02	.006					
Model 3				.21/ .05*				
Shame x CNTY	-.04	.02	.048					
Guilt x CNTY	.05	.02	.007					
Fear x CNTY	-.01	.04	.813					
Anger x CNTY	.08	.03	.018					
Shame x IND	-.02	.02	.483					
Guilt x IND	-.02	.02	.264					
Fear x IND	.04	.04	.405					
Anger x IND	-.01	.05	.820					
Shame x COLL	.05	.02	.014					
Guilt x COLL	-.05	.02	.009					
Fear x COLL	-.13	.04	.003					
Anger x COLL	.04	.04	.332					

*p < .05, **p < .001
Note: B = unstandardized regression coefficients; SE = Standard Error; p = significant value; Δ R^2 = change in R^2 value; IND = individualism; COLL = collectivism; CNTY = Country of Origin (-1=Netherlands, 1 = Malaysia)

Collectivism interacted with the levels of guilt, shame, and fear. Among adolescents who endorsed higher levels of collectivistic values, bullying perpetration was predicted by higher levels of shame (B = .04. p <.001; Supplementary Figure 1), whereas higher levels of guilt predicted less bullying (B = -.03. p <.001; Supplementary Figure 2). Among adolescents who endorsed lower levels of collectivistic values, higher levels of fear predicted bullying perpetration (B = .16. p =.001; Supplementary Figure 3).

In the third model, a significant interaction between country of origin and shame, guilt, and anger was found. Among Dutch participants, higher levels of shame predicted bullying perpetration (B = .03; p =.015; Supplementary Figure 4), but higher levels of guilt predicted less perpetration (B = -.08; p <.001; Supplementary Figure 5). Among Malaysian participants, higher levels of guilt predicted less bullying (B = -.05; p < .001; Supplementary Figure 5), but higher levels of anger predicted more bullying (B = .12; p <.001; Supplementary Figure 6).

The regression analysis with victimization as the dependent variable showed that younger participants reported more victimization. Furthermore, higher levels of guilt predicted less victimization, and shame, anger, and fear predicted more victimization. This applied to all participants, regardless of country or cultural values, since there were no interactions for cultural values or country related to victimization. Supplementary Table 2 presents the results of regression analyses in greater detail.

DISCUSSION AND CONCLUSION

Many studies with participants from Western cultures have provided important insights into underlying mechanisms involved in bullying. These insights are helpful when developing strategies to prevent bullying perpetration and victimization. Yet, bullying is also widespread problems in Asian countries, including Malaysia (Sittichai & Smith, 2015). Thus far, less is known as to whether the same characteristics of emotional intensity that apply to Western adolescent samples also apply in East Asian samples of the same age. This was the focus of the present study.

In general, our findings share many similarities with previous research conducted in Western countries. For instance, higher anger, fear, and shame were related to victimization (Broekhof et al., 2018; Spence, de Young, Toon, & Bond, 2009), and these relations did not differ culturally, either at the country or individual level, as we expected. These outcomes show the negative impact that bullying can exert on victims, which now also appears to be evident in adolescents from the East Asian country of Malaysia. Unexpectedly, higher levels of guilt were related to less likelihood of being bullied in both countries. It is possible that guilt plays a protective and preventive role against being victimized, although the causality of this relationship cannot be established given the cross-sectional nature of the data in our study. Undeniably, guilt-prone individuals are more likely to apologize and make amends for their wrongdoings (Stuewig, Tangney, Heigel, Harty, & McCloskey, 2010; Tangney, Stuewig, & Mashek, 2007). Their reparative efforts to maintain positive and continuous relationships with others might gain them more social support among peers, thus

lowering the probability of being bullied (Murphy, Laible, Augustine, & Robeson, 2015; Roberts et al., 2014).

Regarding bullying, our outcomes partly overlapped with our expectations, but some findings were new and unexpected. As expected, individualism was related to more bullying perpetration for adolescents in both countries, and more anger but less guilt were related to more bullying. Yet, these relationships were affected by the level of endorsement of collectivism or country-of-origin. For instance, the link between guilt and lower levels of bullying perpetration was more apparent in Dutch adolescents, as we expected. Also, the association of shame and fear with bullying was significant only when collectivism or country-or-origin was taken into account.

Regarding fear, outcomes showed that fearful adolescents with low endorsement of collectivism bully more, whereas fearful adolescents with high endorsement of collectivism bully less. Possibly, these fearful adolescents – low in collectivism – bully in defense of feeling threatened, instead of the cold-blooded kind of aggression that other types of bullies might display. As a matter of fact, bullies have been found to enact not only proactive, but also reactive aggression (Camodeca, Goossens, Terwogt, & Schuengel, 2002), which is a response to frustration and, possibly, to fear. Yet, a low sense of collectivism could deprive these adolescents of a feeling of belonging, and increase their sense of loneliness, which may exacerbate an aggressive reaction to fear (X. Chen, Wang, Li, & Liu, 2014; Hsieh & Yen, 2019; Shao, Liang, Yuan, & Bian, 2014). Future studies could further explore the validity of this supposition by taking into account different motives for bullying.

Another intriguing finding was the moderating role of collectivism in relations between shame or guilt, respectively, regarding bullying perpetration. This suggests that relations between shame or guilt and bullying depend on how an adolescent (i.e., the bully) prioritizes the needs and concerns of others. For adolescents low in collectivism, neither shame nor guilt affected their levels of bullying. Yet for those high in collectivism, shame seemed to be a risk factor (more bullying), while guilt seemed to be a protective factor (less bullying). Taken together, these outcomes suggest that – either alone or in combination with other factors – individualism and shame are potential risk factors for bullying, whereas collectivism and guilt are potential protective factors. The design of this study was cross sectional, so future studies should consider a longitudinal design to establish the causality of these relationships. However we could infer from these outcomes that individualism and shame are strongly focused on the individual, yielding an internal focus, whereas collectivism and guilt both imply an external focus on group harmony and the well-being of the other person.

Why is the combination of high collectivism with low shame, specifically, a potential protective factor? Note that especially in collectivistic-oriented cultures, shame is a painful emotion that people tend to avoid due to the fact that it is often a direct consequence of losing face (Bedford, 2004; Li et al., 2004). Keeping face reflects individuals' social prestige, reputation, self-esteem and dignity within their social-

context (Bedford, 2004). Losing face can seriously damage individuals' social integrity, thus affecting their ability to function effectively in those societies (Ho, Fu, & Ng, 2004). Yet, face-saving can protect individuals from feelings of shame, embarrassment and humiliation (Li et al., 2004; Ramli, 2013). This helps collectivistic-oriented individuals harmonize with their surroundings and strengthen interdependence (Hofstede, 1984; Oyserman et al., 2002).This may help prevent negative behaviors such as aggression and violence from happening.

While our expectation that anger would be related to more bullying perpetration was met, we did not expect that the relation would differ between the cultural groups. In this study, we found that anger was related to more bullying in both countries, but the effects were more apparent for Malaysian participants than their Dutch peers. Also, the Malaysian participants bullied less by when they experienced lower rather than higher levels of anger. This suggests that lower levels of anger seem to be related to less bullying in Malaysian adolescents, whereas anger seems quite independent from bullying in Dutch youth. It is possible that in a collectivistic country, where harmony, respect for elders, tolerance, non-confrontation, and politeness are valued (Ramli, 2013; Tamam, 2010), higher degrees of anger are needed to harass or damage someone else. In fact, similar to mechanisms around shame, uncontrollable anger is a dire consequence of losing face, too (Ho et al., 2004). The combination of these negative emotions may create a perfect storm for aggression (Chan, 2006).

Thus, by examining culture from a multi-level perspective (i.e., at both country and individual levels), we could examine whether cultural group differences were explained by endorsement of individualistic and collectivistic values, respectively, as is so often is assumed. Our study shows that differences between a representative individualistic culture (i.e., in the Netherlands) and a representative collectivistic culture (i.e., in Malaysia) did not necessarily reflect how much endorsed individualistic and collectivistic values, respectively, were related to emotional reactivity and bullying perpetration or victimization. The underlying mechanisms that may explain the cultural group differences we found remain unclear, and open for future investigation.

Like every study, ours has a number of limitations that deserve closer attention, and should be addressed by future research. For example, this study selected only one East Asian country and one Western country, which we believe represent an individualistic and a collectivistic culture, respectively. However, it may not be possible to generalize our findings to other populations in East Asia, to other Western countries, or to other parts of the world, because every country and culture is unique in its own. The dissimilarities of values, norms and even socio-demographic factors between countries and cultures should be taken into consideration before generalizing from any results. Therefore, it would be useful for future studies to replicate this study by including samples from more Western and Eastern countries to obtain more representative samples.

Second, due to the cross-sectional nature of our data, our findings did not allow us to study causal relationships among variables. Although bullying and victimization

were the dependent variables, the direction of causality can be debated. For example, a longitudinal study has demonstrated bidirectional associations between emotional reactivity and bullying perpetration and victimization in a sample of Western adolescents (Broekhof et al., 2018). Hence, in order to examine to what extent changes in emotional reactivity may contribute to more (or less) bullying or victimization, and how much bullying or victimization may contribute to emotional reactivity, we recommend that future research use longitudinal design to determine causal effects and directions between the variables cross-culturally.

Third, there is a difference in the way that emotional reactivity and social emotions were measured in our study. Anger and fear were measured by asking respondents how often they experienced these feelings over the past four weeks. Meanwhile, shame and guilt were measured as responses to specific vignettes of daily life situations. While these measures have been validated cross-culturally, future studies might also seek to measure general levels of shame and guilt.

Fourth, our data lacked detailed demographic information from participants. For example, socioeconomic factors such as the household income, parental education, and occupation were not obtained in this study. We believe that collecting this information may provide additional insight into bullying perpetration and victimization between countries with different cultural values and traditions.

The present study, despite its limitations, represents an important step in understanding relations between emotional reactivity and bullying perpetration or victimization in different cultures. Relations we identified between emotional reactivity and bullying perpetration or victimization did not differ much between Dutch and Malaysian adolescents. Indeed, emotions like fear, anger, shame, and guilt play essential roles in the emergence of involvement in bullying in Western populations of adolescents, and this is now evident in a non-Western sample from Malaysia. What is also noteworthy in this study is that regardless of country, different levels of collectivism can serve as either a protective or risk factor in adolescent bullying, depending on which emotions are elicited. This supports the supposition that cultural values such as collectivism and individualism are not mutually exclusive categories that exist solely in and from one culture or another (Coon & Kemmelmeier, 2001; Oyserman et al., 2002). Instead, collectivism exists among individuals across cultures. Nonetheless, this cross-cultural study fills an important gap in the literature by shedding light on adolescent bullying and victimization, and on their relationships with emotional reactivity in a Western and a non-Western sample.

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CHAPTER 6

COPING STRATEGIES AND FRIENDSHIP QUALITY: THE MODERATING ROLE OF INTERPERSONAL CLOSENESS AND COUNTRY OF ORIGIN

ABSTRACT

Best friends can be worse when having conflicts, but do their cultural backgrounds act as risk factors? The present study examined the relationships between coping strategies and positive or negative friendship quality in a sample of Dutch and Malaysian adolescents, and the moderating role of cultural values in these relationships. The sample comprised 535 young adolescents aged 12 to 14 years old who completed self-report questionnaires measuring friendship quality, and coping strategies of approach, avoidance and maladaptive, as well as interpersonal closeness. The bivariate correlation analyses showed similarities and also some differences between the two samples. Further analysis with two hierarchical regression analyses revealed that interpersonal closeness moderated the relationship between negative friendship and avoidance and maladaptive strategies, whereas country of origin moderated the relationship between positive friendship and approach strategy, and between negative friendship and avoidance strategies. Implication of the findings and recommendations for future research were provided.

Friendship is an essential part of teenagers' social lives. Friendship provides the opportunity to form a reliable alliance with those who have similar interests, to receive support when needed, and to serve as a medium to share ideas and beliefs (Berndt, 1982). Moreover, these positive friendship qualities and the bond between peers create a unique sense of belonging that their parents cannot provide (Duck, 2002; Kobak, Rosenthal, Zajac, & Madsen, 2007). As such, friendships play a crucial role in the development of social identity (Doumen et al., 2012; Meeus, Oosterwegel, & Vollebergh, 2002). Friendships also influence youngsters' well-being and mental health. Adolescents with positive friendships tend to be more socially and emotionally competent, have higher self-esteem and perform better at school than those without these friendship qualities (Hiatt, Laursen, Mooney, & Rubin, 2015; Kiuru et al., 2012; Waldrip, Malcolm, & Jensen-Campbell, 2008). In addition, having positive friendship qualities is related to less psychological distress (e.g., loneliness, anxiety, and depression) (La Greca & Harrison, 2005; Parker & Asher, 1993; Schrepferman, Snyder, & Stropes, 2006) and behavioral problems (e.g., bullying and victimization (Bollmer, Milich, Harris, & Maras, 2005; Boulton, Trueman, Chau, Whitehand, & Amatya, 1999).

However, not all friendships are positive: Some friendships have negative qualities, including jealousy, dominance, interpersonal conflict, or betrayal (Adams & Laursen, 2007; Berndt, 2004). Research shows that having negative friendship qualities is related to a decrease in enjoyment and engagement in school (Ladd, Kochenderfer, & Coleman, 1996), and an increase in antisocial and delinquent behaviors (Kupersmidt, Burchinal, & Patterson, 1995), victimization, and social anxiety (Erath, Flanagan, Bierman, & Tu, 2010).

Why do some youngsters develop friendship with positive qualities, while others develop friendships with negative qualities? Prior work suggests that it matters how youngsters deal with their emotions in social situations (Reavis, Donohue, & Upchurch, 2015; von Salisch, 2018). As children grow and develop, they must learn to cope with the intensity of their emotions in ways that are socially acceptable. For example, while it is tolerated to throw a temper tantrum as a toddler, this is usually unacceptable in adolescence. However, what is considered socially acceptable varies cross-culturally (De Leersnyder, Boiger, & Mesquita, 2013; Mesquita & Frijda, 1992). To date, the majority of studies that have examined the relationships between emotional coping and friendships have been conducted in Western countries. The aim of the present study was therefore to bring the field forward by considering cultural factors when examining the relationships between emotion coping strategies in social conflict situations and friendship qualities. Specifically, we took into account culture on a country-level (by comparing adolescents from a typical individualistic and a typical collectivistic country: Dutch and Malaysian adolescents, respectively) and on an individual-level (by assessing the moderating effect of the perceived interpersonal closeness between self and others).

Coping with conflicts and friendship quality in Western adolescents

Regardless of the quality of the friendships, conflicts between friends occur. Indeed, adolescents experience approximately one disagreement per week with their friends (Noakes & Rinaldi, 2006; Raffaelli, 1997). These conflicts can range from mild disagreements to larger arguments that may be difficult or impossible to reconcile. Conflict between friends is not necessarily a bad thing: It can also provide a possibility to learn or improve important social skills, such as enhancing problem-solving and negotiation skills, which can be used to settle disagreements in later life (Adams & Laursen, 2007; Laursen, 1993; Nelson & Aboud, 1985). Nevertheless, conflict often coincides with the experience of intense negative emotions, and coping with the emotions that arise during a conflict situation is a challenging developmental task.

Early in childhood, children are confronted with the need to regulate their emotions to satisfy the expectations of their social context. Over time, the strategies they use to cope with conflict and the intensity of emotions behind it become increasingly sophisticated and advanced as their cognitive and social skills mature (Zimmer-Gembeck & Skinner, 2011). Many years of research in Western societies suggests that the utilization of children's coping strategies is related to the quality of their friendships (Spencer, Bowker, Rubin, Booth-LaForce, & Laursen, 2013). These coping strategies can be grouped into three categories: approach, avoidant and maladaptive.

Approach coping is the most common coping strategy in Western cultures (Eschenbeck, Kohlmann, & Lohaus, 2007), and refers to active attempts to resolve the conflict, including confronting the friend directly and seeking social support to talk about what happened (Wright, Banerjee, Hoek, Rieffe, & Novin, 2010). Children who use more approach coping strategies when resolving conflicts tend to have friendships with more positive friendship qualities (Flynn, Felmlee, Shu, & Conger, 2018; Shin & Ryan, 2012). They often make gestures, such as asking for forgiveness and making amends, to maintain positive and continuous relationships with peers (Stuewig, Tangney, Heigel, Harty, & McCloskey, 2010; Tangney, Stuewig, & Mashek, 2007).

In contrast, avoidant strategies refer to the attempt to withdraw from the situation, including walking away from the conflict and seeking distraction (cognitively or behaviorally) (Kochenderfer-Ladd & Skinner, 2002; Wright et al., 2010). The use of avoidant strategies, such as withdrawal, is also related to positive friendship qualities, especially when this strategy is used for peaceful conflict resolution (Björkvist, Österman, & Kaukiainen, 2000). It is possible that this allows for more time to calm down and relax, thus preventing a person from acting out strongly and making the conflict worse (Rieffe et al., 2018; Rieffe, De Bruin, De Rooij, & Stockmann, 2014). Interestingly, some studies also show that avoidant strategies are also related to friendships with negative qualities (Spencer et al., 2013). Though it remains empirically unclear in what circumstances avoidant strategies are harmful for the social relationship, it is plausible that in some conflict situations, withdrawing from or ignoring the conflict may also worsen the situation.

The above studies indicate that Western adolescents who can regulate their emotions using either approach or avoidant strategies are often successful in minimizing peer conflicts, thus encouraging positive friendship qualities. The third category of coping strategies are maladaptive strategies, which refer to internalizing behaviors, including ruminating and worrying, and externalizing behaviors, including hitting and screaming. Yet, internalizing or externalizing one's emotions may disrupt interpersonal relationships, as emotions can run high in those cases, which could potentially put an end to a friendship (Hammen, 2006; Hektner, August, & Realmuto, 2000).

Cultural Differences

While friendships are experienced and valued across nations (French, Pidada, & Victor, 2005), many features are culturally influenced, including what is considered as being the core characteristics of friendship, the frequency of conflicts with a friend, and how to deal with these conflicts when they arise (Benjamin, Schneider, Greenman, & Hum, 2001; González, Moreno, & Schneider, 2004; Gummerum & Keller, 2008). All cultures have their own set of prominent values and norms, which can directly or indirectly influence the way adolescents interact with their friends. In cross-cultural literature, the most widely known and frequently used distinction is between collectivistic and individualistic cultures. In collectivistic cultures, such as in East Asian countries, individuals typically view themselves as being interdependent (i.e., someone who fits with and is closely related to close others) and highly endorse group-oriented values (e.g., social harmony, similarity, and conformity;Markus & Kitayama, 1991; Oyserman, Coon, & Kemmelmeier, 2002; Triandis, 1995). In individualistic cultures, such as in Western countries, individuals typically view themselves as being independent (i.e., someone who stands out, is separated from others and highly endorses individual-oriented values (e.g., autonomy, self-determination, self-reliance; Markus & Kitayama, 1991; Oyserman et al., 2002; Triandis, 1995).

In line with these differences in interpersonal closeness and salient values, adolescents from collectivistic cultures more frequently consider their friendships to be built upon supportive, harmonious and non-confrontational relationships, and report fewer conflicts than those from individualistic cultures (Benjamin, Schneider, Greenman, & Hum, 2001; French, Rianasari, Pidada, Nelwan, & Buhrmester, 2001; Zhang et al., 2013). When conflicts occur, comparisons between adolescents from East Asian and Western countries show that East Asian adolescents are more likely to use avoidant coping strategies, through disengaging or reacting submissively, whereas adolescents from Western countries opt for an approach strategy more often, such as confronting the peer (French, Pidada, Denoma, McDonald, & Lawton, 2005; Haar & Krahé, 1999; Novin, Rieffe, Banerjee, Miers, & Cheung, 2011). More importantly, in one particular study, Chinese adolescents thought that avoiding a confrontation would evoke more positive reactions from their peer. The Dutch adolescents in this study, however, opted more often for a confrontation, yet were also less expectant

of a positive reaction. Unfortunately, the long-term effects on the quality of their friendships was not measured in this study (Novin et al., 2011). Based on the available studies to date, these outcomes suggest that approach strategies seem to match the *separate* self-other view and individual-oriented values, as typically seen in individualistic cultures, that also stress the importance of speaking up for oneself. Yet, avoidant strategies might be a better match for the *close* self-other view and group-oriented values, as typically seen in collectivistic cultures, which stress the importance of social harmony.

While interesting, these studies do not provide insight into if and how individuals from various countries differ in what it means to use these coping styles for friendship qualities in adolescents. Moreover, these between-country comparisons do not provide insight into the underlying mechanisms that drive the observed differences. The differences in coping strategies between adolescents from Eastern and Western countries seem to reflect interpersonal closeness and salient cultural values, but since it has not yet been tested, we can only make assumptions. Therefore, a more systematic examination of what might underlie cultural differences is necessary.

Present Study

The general aim of this study was to examine the relations between coping strategies (i.e., approach, avoidance, and maladaptive) and positive and negative friendship qualities in adolescents from a cultural perspective. We examined the possible influences of culture in two ways: 1) on a country level by comparing adolescents from a typical individualistic (the Netherlands) and a typical collectivistic country (Malaysia) and 2) on an individual level by considering interpersonal closeness as an underlying mechanism that could explain between group differences.

We first predicted that coping strategy and friendship quality would be moderated by country. Based on earlier studies (French, Pidada, Denoma, et al., 2005; Xu, Farver, Chang, Yu, & Zhang, 2006), avoidant coping may be more strongly related to positive friendship qualities in Malaysian than in Dutch adolescents. In contrast, approach coping may be more strongly related to positive friendship qualities in Dutch than Malaysian adolescents. We expected maladaptive coping to be related to a similar degree to negative friendship qualities in the two countries.

Second, we predicted that the levels of interpersonal closeness between friends would moderate the relationships between coping style and friendship quality, thus providing insight into the underlying reason why the groups from the two countries may differ. Specifically, we predicted that avoidant coping would be more strongly related to more positive friendship qualities in adolescents who perceived themselves as being close to their friends. This is because individuals who feel very close to their friends may use avoidance strategies to keep their friendship positive and enduring (Novin et al., 2011), as this would strengthen social harmony (Markus & Kitayama, 1991; Oyserman et al., 2002; Triandis, 1995). Moreover, we expected that approach coping would be related to more positive friendship qualities in adolescents who

viewed themselves as being more separate from their friends, as they value honesty and speaking up for oneself as important characteristics (Markus & Kitayama, 1991; Oyserman et al., 2002; Triandis, 1995).

METHOD

Participants and Procedure

A total of 535 adolescents between 12 and 14 years old from four secondary schools in the Netherlands (n = 251; 53.4% girls; M_{age} = 13.90, SD = 0.57) and three secondary schools in Malaysia (n = 284; 52.5% girls; M_{age} = 13.09, SD = 0.58) participated in the study during school hours. Prior to data collection, approval was obtained from all organizations and individuals involved. In Malaysia, the government authorities (i.e. Department of Prime Minister through it Economic Planning Unit (EPU), and the Ministry of Education Malaysia) granted us permission to conduct this study at selected national (public) schools. In the Netherlands, ethical approval was granted by the Psychological Ethics Committee of Leiden University. In addition, consent was obtained from the school principals or their assistants (in both countries), the parents or caregivers (only in the Netherlands), and all participants (in both countries) before we started data collection. All participants were thanked and debriefed about the purpose of the study after the completion of data collection.

Measures

The Best Friend Index (Kouwenberg, Rieffe, & Banerjee, 2013) is an 18-item questionnaire that assesses positive (e.g., "My friend makes me feel I do nice things" and "I turn to my best friend for support with personal problems") and negative friendship qualities (e.g., "I am jealous towards my friend" and "My friend says mean things about me to others"). Participants are asked about their best friend (i.e., the availability and name of best friend) before responding to the items on a 3-point scale (1 = *almost never* to 3 = *often*).

Coping Scale (Wright et al., 2010) is a 29-item self-report scale that assesses how children and adolescents cope with bad situations. Three coping strategies are measured using this scale: (a) approach coping (e.g., "I get help from someone in my family" and "I do something to change the situation"), (b) avoidance coping (e.g., "I find lots of other things to think about" and "I ignore the problem") and (c) maladaptive coping (e.g., "I stamp my feet and slam or bang doors I" and "I worry that others will think badly of me"). These items are rated from 1 = *almost never* to 5 = *always*.

The Inclusion of Others in the Self (IOS; Aron, Aron, & Smollan, 1992) assesses interpersonal closeness by showing seven Venn diagrams of two same-size circles. One circle represents the self and the other another person. The diagrams range from 1 (two circles next to each other) to 7 (two circles almost completely overlapping). In this study, we assessed closeness with friends. The item asked "Which picture represents the relationship between you and your friends best?" (1= *circles next to each other*, 7= *circles almost completely overlapping*).

Table 1 presents the psychometric properties of the measures for the total sample and for each country group. Overall, all measures showed adequate internal consistency reliability (.68 < α < .94).

Translation Procedure

All measures were translated from English to Malay for the purpose of this study with permission from the authors. The Malay-translations were back-translated to English by a bilingual translator. The original and back-translated versions were compared and checked for language consistency.

Statistical Analyses

Firstly, correlation analyses were performed to examine the relationships between coping strategies (approach, avoidance and maladaptive) and interpersonal closeness with friendship qualities. All scores were centered around the mean score per country (Andela & Truchot, 2017; Krause & Hayward, 2016). Subsequently, we applied Fisher's r-to-z transformations to test whether correlations differed in strength between the Dutch and Malaysian samples.

Next, to examine the moderating effect of interpersonal closeness and country of origin on the relationships between coping strategies and friendship qualities, we conducted two separate hierarchical regression analyses. In each analysis, our control

Table 1. Psychometric properties of the questionnaires for friendship qualities, coping skills, and interpersonal closeness for the total, Dutch and Malaysian sample

	No. of items	Response range	Cronbach's α			M (SD)			T
			Total	Dutch (n = 251)	Malaysian (n = 283)	Total	Dutch (n = 251)	Malaysian (n = 283)	
Friendship Quality									
Positive	9	1 – 5	.84	.78	.81	3.69 (.75)	4.05 (0.55)	3.37 (0.76)	11.91**
Negative	9	1 – 5	.84	.74	.83	1.90 (.73)	1.57 (0.45)	2.18 (0.80)	-10.95**
Coping									
Approach	11	1 – 5	.85	.89	.82	2.96 (.79)	3.06 (0.83)	2.87 (0.74)	2.70*
Avoidance	10	1 – 5	.80	.79	.81	2.64 (.74)	2.70 (0.71)	2.58 (0.75)	1.96
Maladaptive	8	1 – 5	.76	.68	.78	2.15 (.75)	1.91 (0.62)	2.36 (0.80)	-7.44**
Interpersonal Closeness	1	1 – 7	-	-	-	5.59 (1.37)	5.61 (1.24)	5.57 (1.48)	.32

*p < .01; **p < .001
Note: The t-values represent between country comparisons on the mean levels for each variable.

variables (gender: -1 = boy, 1 = girl; and centered participants' age), and the centered scores of approach-, avoidance-, and maladaptive-coping strategies were entered in the first model. The centered score for interpersonal closeness was entered in the second model. In the third model, we entered all two-way interactions for the three coping strategies with interpersonal closeness or country of origin (-1=Netherlands, 1 = Malaysia).

Missing Data Analysis

To determine the proportion and pattern of our missing data, a missing value analysis was conducted prior to data analysis. The non-significant value of the Little's MCAR test (χ^2 = 6.83, DF = 9, p = .653) indicated that the missing data were missing completely at random. Considering that the amount of missing data was small (1.50% of the incomplete cases, and only 0.37% of the values were left unfilled), complete case analysis (*list-wise deletion*) was employed for all further analyses.

RESULTS

Coping, interpersonal closeness, and friendship quality

Table 2 shows the relationships between coping strategies and interpersonal closeness with friendship qualities. In regards to positive friendship: Approach coping, maladaptive coping and interpersonal closeness were positively related to positive friendship quality in both samples. Avoidance coping was related to more positive friendships, but only in Malaysian participants. In regards to negative friendship quality, all three coping strategies were positively related to negative friendships in Malaysian participants, but only maladaptive coping was related to more negative

Table 2. Pearson correlation coefficients of approach, maladaptive and avoidance coping skills and interpersonal closeness on friendship qualities

| | Coping Strategy | | | Interpersonal Close-ness |
	Approach	Maladaptive	Avoidance	
Positive Friendship				
Dutch	.37***	.12**	-.03	.41***
Malaysian	.42***	.21***	.31***	.12*
Z value	-0.76	-1.04	-4.00***	3.56***
Negative Friendship				
Dutch	-.00	.37***	-.04	-.17**
Malaysian	.21***	.47***	.37***	-.00
Z value	-2.46*	-1.39	-4.87***	-1.96

*p < 0.05; **p < .01; ***p < .001
Note: The z-values are based on Fisher's r-to-z transformations of the correlation coefficients between the Dutch and Malaysian samples. A positive Z-value indicates that the strength of correlations is higher in Dutch sample than the Malaysian sample, and a negative Z-value indicates vice versa.

friendships in Dutch participants. Interpersonal closeness to friends was related to less negative friendships in Dutch participants only. Supplementary Table 1 shows the correlations between variables in more detail.

Further analysis with Fisher's r-to-z transformation showed that the correlation between avoidance coping and positive friendship was stronger in Malaysian participants than in Dutch participants (z = -4.00, p = .000). Yet, a stronger correlation between interpersonal closeness to friends and positive friendship (z = 3.56, p = .000) in Dutch participants, in comparison to their Malaysian peers, was also evident. In regards to negative friendship, the correlations between approach- and avoidance coping with negative friendship were stronger in Malaysian than Dutch participants ($z_{approach}$ = -2.46, p = .014; $z_{avoidance}$ = -4.87, p = .000).

Table 3 presents the results of the regression analyses on positive and negative friendship qualities. The analysis with positive friendship as the dependent variable showed that being female and having higher levels of interpersonal closeness to friends were related to positive friendship. Furthermore, country of origin interacted with levels of approach coping. As shown in Figure 1, higher levels of approach coping were related to more positive friendships in both samples, but the effects were more pronounced in Malaysian (B = .37; p = .000) than Dutch participants (B = .20; p = .000).

Table 3. Regression analyses of age, gender, coping strategies, and interpersonal closeness on friendship qualities

Predictor	Positive Friendship				Negative Friendship			
	B	SE B	p	R^2 /ΔR^2	B	SE B	p	R^2 /ΔR^2
Model 1				.18/ .18***				.22/ .22***
Age	.03	.05	.589		.04	.05	.423	
Gender	.11	.03	.000		-.05	.03	.058	
APP	.29	.04	.000		-.07	.04	.070	
MAL	.01	.04	.726		.40	.04	.000	
AVO	.07	.04	.089		.13	.04	.001	
Model 2				.21/ .03***				.22/ .00
CLOSE	.09	.02	.000		-.03	.02	.175	
Model 3				.23/ .02*				.25/ .03**
APP x CLOSE	-.01	.03	.637		-.07	.03	.026	
MAL x CLOSE	-.01	.03	.674		.09	.03	.004	
AVO x CLOSE	.03	.03	.275		-.00	.03	.908	
APP x CNTY	.09	.04	.032		-.06	,04	.122	
MAL x CNTY	.00	.04	.958		.05	.04	.233	
AVO x CNTY	.07	.04	.095		.11	.04	.004	

*p < 0.05; **p < .01; ***p < .001
Note: B = unstandardized regression coefficients; SE = Standard Error; p = significant value; ΔR^2 = change in R^2 value; CNTY = Country; APP= Approach coping; AVO=Avoidance coping; MAL= Maladaptive coping; CLOSE=Closeness to Friends.
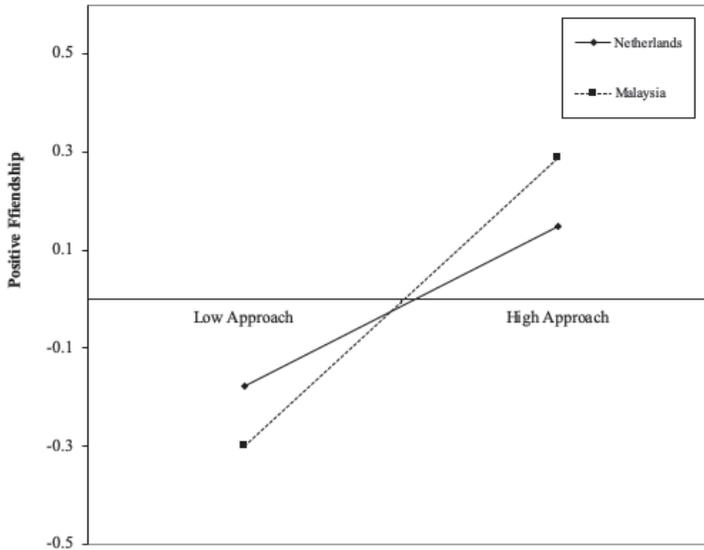
Figure 1. The moderating effect of country of origin on the relationship between approach coping and positive friendship

The analysis with negative friendship as the dependent variable showed that maladaptive and avoidant coping were related to more negative friendships in model 1. Although interpersonal closeness to friends was not significantly related to negative friendship, its interactions with approach and maladaptive coping were significant (Model 3). As shown in Figure 2, higher levels of approach coping were related to less
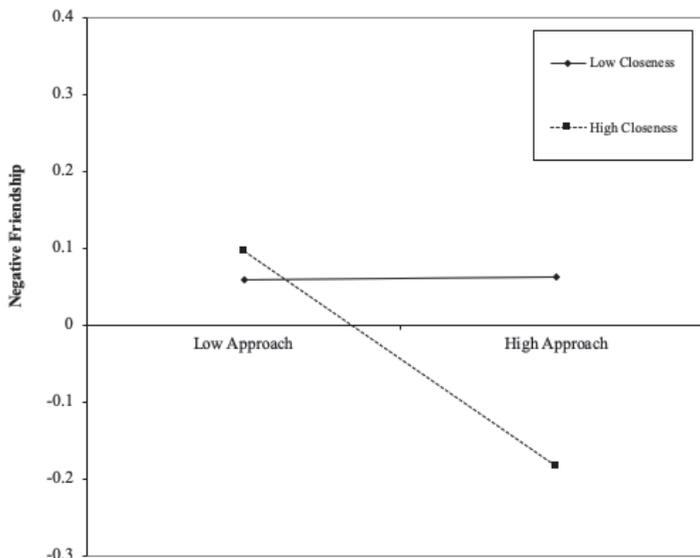
Figure 2. The moderating effect of closeness to friends on the relationship between approach coping and negative friendship
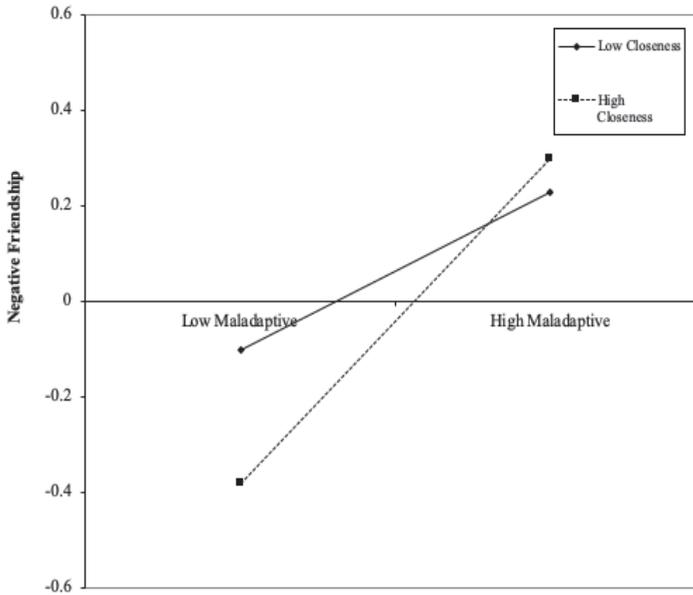
Figure 3. The moderating effect of closeness to friends on the relationship between maladaptive coping and negative friendship

negative friendship qualities in participants who rated their interpersonal closeness as higher (B = -.18. *p* =.001), but no effect was found for participants who had lower interpersonal closeness with friends (B = .00; *p* = .964). Furthermore, though higher levels of maladaptive coping were related to more negative friendships in participants
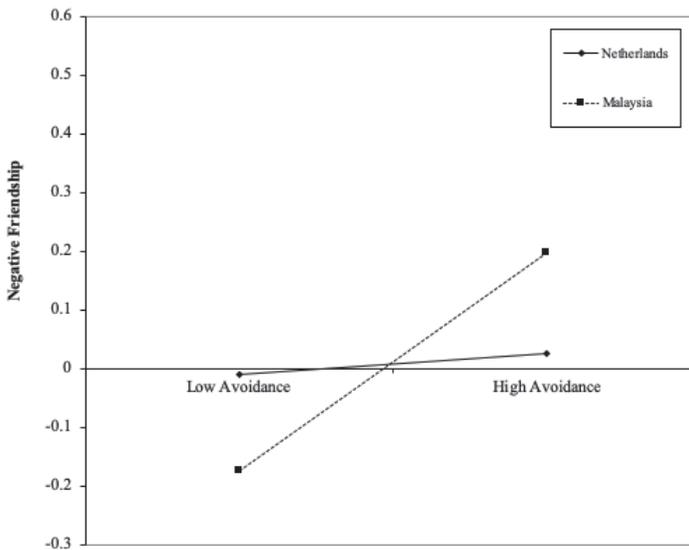

Figure 4. The moderating effect of country of origin on the relationship between avoidance coping and negative friendship

who had high and low levels of interdependence with friends (Figure 3), the effects were more pronounced in participants who were higher in interpersonal closeness (B = .47. p =.000) than participants who were lower (B = .23; p =.000).

As well as this, country of origin interacted with the levels of avoidant coping in Model 3. As shown in Figure 4, higher levels of avoidance were related to more negative friendships in Malaysian participants (B = .25. p =.000), while no effect was found for Dutch participants (B = .02; p = .704).

DISCUSSION

Conflicts in peer relationships are inevitable. The question is how adolescents deal with these conflicts, and whether these strategies strengthen or jeopardize the friendship. Negative emotions can arise during a conflict, but there are different methods of coping with these emotions to keep the situation under control. To date, most studies that have focussed on how different coping strategies can affect friendship quality have been performed in Western countries. It is yet unclear as to what extent these patterns differ from those in East Asian countries, such as Malaysia in particular, and if so, why. These two gaps were the focus of our study.

In general, our findings seem to share similarities with previous research conducted in Western countries, but also showed many unexpected findings regarding the current literature on East Asian countries. That is, approach coping was related to more positive friendship qualities for adolescents in both countries, and it was also related to fewer negative friendship qualities when there was also a high level of interpersonal closeness among the friends. In fact, the relationship between approach strategies and positive friendship was even stronger in Malaysian than in Dutch youths. Despite our expectations, we found that avoidant coping was not beneficial to the relationship. First, avoidant coping was unrelated to positive friendship qualities, but second, it was even related to more negative friendship qualities in Malaysian youth. Furthermore, the relationship between avoidant strategies and friendship quality was unaffected by interpersonal closeness. Lastly, maladaptive coping was examined, and though it was unrelated to positive friendship features for both samples, higher levels were – as expected – related to more negative friendship qualities, especially when relationships were also high on closeness.

Interpersonal closeness is often taken in the literature as an indication of a stronger collectivistic orientation. That is, higher self-other closeness is expected to reflect a higher degree of interdependence and a stronger focus on collectivistic values, such as social harmony and conformity (Markus & Kitayama, 1991). A more separate self-other is expected to reflect a higher degree of independence, and a stronger focus on individualistic values, such as autonomy and speaking up for oneself (Markus & Kitayama, 1991). Regarding approach coping, the outcomes for the Malaysian group seem to match those with higher self-other closeness. Yet, no overlap between country differences and interpersonal closeness was found regarding avoidant and maladaptive strategies, indicating that interpersonal closeness cannot be considered

as being an underlying mechanism that explains the between-country differences in the relationships between coping and friendship qualities.

Moreover, our results seem to only partially fit with the expectations formulated in the Introduction. In fact, the outcomes of this study show that friendships among adolescents from collectivistic cultures in particular, such as Malaysia, or adolescents who are high on interpersonal closeness, benefit from addressing the problem in a peer conflict situation, rather than avoiding or ignoring it. It is possible that Malaysian adolescents have different ways of formulating their concerns in a conflict situation than their Dutch counterparts, who may be more direct and outspoken. The current study examined how often certain strategies were used, but not how they were expressed. A clear outcome of our research was that friendships in an East Asian country, such as Malaysia, improve when interpersonal problems are dealt with. Dutch adolescents, on the other hand, were relatively high on the use of approach strategies, thus the difference in the magnitude of the relationship between approach coping and positive friendship features on a country level may be due to a ceiling effect in the Dutch sample.

Another striking and unexpected finding was that higher levels of interpersonal closeness were related to fewer negative friendship features when approach strategies were used. In other words, close friends also seem to benefit from approaching the problem. Openly discussing interpersonal conflicts may reduce negative aspects, such as rivalry or envy, thereby creating more mutual understanding or respect. Alternatively, lower levels of negative friendship features may lead to more open communication between close friends. Note that this study is cross-sectional, and therefore assumptions about the causality of the identified relationships should be examined in future studies, either experimentally or longitudinally.

This study has strengths that warrant mentioning. Firstly, this study is among the pioneers that address the moderating role of culture on the relationships between coping strategies and friendship qualities. Secondly, we measured cultural factors at a group level (i.e., individualistic vs. collectivistic) and at an individual level (i.e., perceived interpersonal closeness).

Yet, some limitations also warrant acknowledgement. First of all, the selection of one East Asian and one Western country - which we believe represent a collectivistic and an individualistic country, respectively - limits the generalization of our findings. Considering that each country has its own set of values, norms, and rules, it may be difficult to generalize our findings to other populations in East Asia, to other Western countries, or to the rest of the world. Therefore, we suggest that future studies that are interested in replicating our work should include more Western and Eastern countries in order to obtain a more representative sample.

Secondly, as mentioned previously, the cross-sectional nature of our data did not allow for us to establish causal relationships between coping strategies and friendship quality. Although the dependent variables were positive and negative friendship quality, the direction of causality still can be argued. For example, it is also possible

that the negative features of a friendship may influence adolescents' preference to use maladaptive coping strategies, as has been suggested in previous studies (Cillessen, Jiang, West, & Laszkowski, 2005; Kokkinos, Voulgaridou, & Markos, 2016). To address this concern, we call for future research to use a longitudinal or experimental design to examine causal effects and directions between the variables cross-culturally.

Thirdly, our data does not include participants' demographic information. Collecting information on socioeconomic status, such as household income, parental employment and education variables may, for example, provide additional information about whether friendship quality and the selection of coping strategies by adolescents can be influenced by the variation of socioeconomic status within and among different countries.

CONCLUSION

Notwithstanding the limitations, our study is an important step towards understanding the relations between coping strategies, and positive and negative friendships in different cultures. In this study, we found that the directions of the relationships between coping strategies and friendship quality did not differ between Dutch and Malaysian adolescents. Indeed, coping strategies play an important role in predicting the quality of friendship relations in Western adolescents, and this has now also been shown to be the case in East-Asian adolescents, such as in Malaysia. Most importantly and new to the current literature: The quality of adolescents' friendships seem to benefit from addressing, rather than ignoring, the problem in conflict situations, especially in a collectivistic culture or when in friendships rated high on interpersonal closeness. Although we hope that the present study fills an important gap in the literature by gaining insight into friendship quality in young adolescents, and on their association with emotional coping strategies in a Western and an East-Asian cultural sample, this study is only a first attempt to attain a better understanding of these issues. More work is still needed to further deepen our understanding.

6

COPING STRATEGIES AND FRIENDSHIP QUALITY BETWEEN CULTURE

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CHAPTER | 7

GENERAL DISCUSSION

Aggression has a negative impact on adolescent well-being. It gives aggressors the power to do harm to others, and it can damage aggressors and victims alike. Unhealthy friendships, low academic performance, poor mental health, and proneness to problematic behavior are some of its adverse consequences (Cillessen, Jiang, West, & Laszkowski, 2005; Fite, Hendrickson, Rubens, Gabrielli, & Evans, 2013; Marsee, Weems, & Taylor, 2008). Research suggests that the intensity and reactivity of negative emotions (e.g., anger, shame and guilt) as well as emotion dysregulation are often considered to be the root causes of aggression. Yet, many of these previous studies were conducted in Western countries. Regarding Eastern adolescents, although studying how emotional functioning contributes to aggressive behavior could help generate new knowledge, it would also be helpful to understand whether the influence of emotion on aggressive behavior differs based on cultural context. The information gained could be valuable, especially for developing culturally relevant strategies to curb adolescent aggression in different cultures.

The aim of this thesis was to examine aggressive behaviours, aggressive-related behaviours, and emotions that influence adolescents' social relationships on a daily basis. The thesis takes a cultural approach by comparing Malaysian and Dutch adolescents (at the country level), by examining adolescents' endorsement of cultural values (at the individual level), and by examining adolescents' perception of closeness to friends and family members (at the interpersonal level).

However, before doing so, we had to make sure that all instruments that we used to collect the data were applicable to both cultures involved. Therefore, we first translated instruments available in English into Malay, and later validated these to confirm that the factor structure of the translated version was similar enough to the original version. The outcomes from the translation and validation processes are described in the following section.

The use of measures across cultures and languages

The adaptation of Western-based psychological measures in research by non-Western scholars is not strange or new. An enormous number of studies have translated measures that were developed in Western countries, and a significant proportion of studies come from Eastern countries. However, only in recent decades have researchers in Eastern countries made efforts to validate these questionnaires before adopting them in their own research settings. Indeed, although the way people behave, think, and feel is similar across cultures, there are also some culturally embedded differences. As in the examples given in the Introduction of this thesis, not all people eat pork, and not all societies allow suicide. While we appreciate how cultures differ from each other, yet, this is also our concern when it comes to apply Western-based psychological measures in a non-Western sample. In specific, not all measurement items that derived solely from research on Western settings can be understood clearly by non-Western samples. Therefore, adopting Western research concepts and measurements in a non-Western research setting demands careful

evaluation, not only of the quality of the translation, but also of the applicability of each concept in different cultural contexts.

In this thesis, the process of translating and validating three Western-based psychological questionnaires into Malay (the national language of Malaysia) were described in **Chapter 2** and **Chapter 3** (also in Dutch language). Overall, our findings showed that the psychometric properties of the questionnaire were good and adequate. Indeed, the structure of the Instrument for Reactive and Proactive Aggression (IRPA) and the Individualistic-Collectivistic Value Questionnaire for Youth were found to be very similar across cultures (in **Chapter 2** and **3** respectively), which may suggest the universal adaptability of these concepts and questionnaires.

MAIN FINDINGS AND GENERAL DISCUSSION
Guilt and aggression or bullying

Based on studies from Western cultures or countries, guilt has been regarded as an adaptive social emotion that is capable of motivating apologies for wrongdoing. The reparative nature of guilt helps to heal and restore broken relationships. Indeed, all these positive consequences of guilt help people inhibit their desire to be aggressive (Caprara, Barbaranelli, Pastorelli, Cermak, & Rosza, 2002). Yet, guilt is a culturally constructed emotion, and many scholars argue that it is more salient and prevalent in Western societies that emphasize individualism (Realo, Koido, Ceulemans, & Allik, 2002; Triandis, Bontempo, Villareal, Asai, & Lucca, 1988). The limited information available from Eastern countries on the link between guilt and aggression revealed a gap in the literature. To address this, we examined the association between guilt and aggression in Malaysia, a culture that is representative of an Eastern country that strongly emphasizes collectivism.

When examining the relationship between guilt and reactive and proactive aggression in Malaysian adolescents, we found a similar pattern as previously shown by studies conducted in Western countries. For example, **Chapter 2** showed that less guilt was related to higher levels of proactive aggression in Malaysian young adolescents, but no relationship was found between guilt and reactive aggression. In **Chapter 4**, we further studied these relationships by taking into account cultural differences – in particular the individualism and collectivism dimension of culture – at the country (Malaysia versus Netherlands) and individual levels. The results showed that at a larger scale (i.e., at the country level), higher levels of guilt were related to less reactive and proactive aggression in both countries. Collapsed over country, at a smaller scale (i.e., at the individual level), higher levels of guilt were related to less proactive aggression in adolescents who endorsed higher levels of individualistic values. In **Chapter 5**, we examined the relationship between guilt and bullying. Bullying is known as a form of aggression that can comprise of reactive and proactive motives (Camodeca & Goossens, 2005; Salmivalli & Nieminen, 2002). Using similar analyses as in **Chapter 4** (i.e., hierarchical regression analyses), a comparison between countries confirmed that higher levels of guilt were related to less bullying for both

countries, although the influence of guilt was more apparent in Dutch adolescents. Again, collapsed over country, at the individual level, higher levels of guilt were now related to less bullying in adolescents who endorsed higher levels of collectivistic values.

Taken together, these findings highlight two important points. First, the potential protective role of guilt against aggressive behaviors seems similar across countries and cultures. While literature suggests that one country may emphasize guilt more than another (Benedict, 1946; Hofstede, 2011), it is also suggested that guilt is a universal experience that conveys similar meaning across the globe; to motivate other-directed behaviour – reparation – where a wrongdoer has the responsibility to repair the harm he or she has caused (Bedford & Hwang, 2003). Feelings of guilt about one's own wrongdoing motivate people to confess their mistakes, apologize, and ask for forgiveness, in an effort to resolve interpersonal conflicts and improve their relationship (Baumeister, Stillwell, & Heatherton, 1994). This seems to apply to cultures from West and East, alike.

Second, while guilt can protect against aggressive behaviours across cultures, the motivation may be different depending on individual cultural orientations. In our research, we observed that feeling guilty led to less proactive aggression in individualistic-oriented adolescents and less bullying in collectivistic-oriented adolescents, regardless of country of origin. Possibly, for adolescents who endorsed individualistic values, guilt motivated them to take responsibility for their own actions, especially the bad ones. Meanwhile, for the adolescents who endorsed collectivistic values, guilt helped them to amend relationship with others, thereby maintaining in-group harmony.

Putting these points together, we can see in a broader context that it is insufficient to consider only a country-based comparison to understand individual preference related to guilt. Also considering individual cultural orientations could provide additional information to gain a better understanding of the phenomenon under study.

Shame and aggression or bullying

Shame is a social emotion like guilt. However, in nature, these two emotions share fewer similarities than dissimilarities. While guilt is incurred by a specific wrongdoing, shame is incurred by negative judgements of others directed at the self (Baumeister et al., 1994). Also, shame is an avoidance-oriented emotion that motivates escape and withdrawal from social relationships, which contrasts with the nature of guilt, which motivates reparation and prosocial actions (de Hooge, Zeelenberg, & Breugelmans, 2007). Yet, like guilt, shame is a culturally embedded psychological construct. While individuals in Western societies tend to view shame as a negative, aversive, and painful emotion, those in non-Western societies such as in East Asian region tend to value shame more positively. However, due to limited literature available, it was unknown whether variations in shame-proneness can inflict or inhibit more aggression and bullying in Eastern cultures, thus making cross-cultural comparison difficult.

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GENERAL DISCUSSION

Three chapters of this thesis attempt to close the gap left by previous studies. In **Chapter 2**, we found that like guilt, shame was not related to reactive aggression, but instead, was negatively related to proactive aggression, but only in Malaysian adolescents. In **Chapter 4**, we also found that higher levels of shame were related to less proactive aggression in Malaysian adolescents, and in addition, that higher levels of shame were related to higher levels of reactive aggression in Dutch adolescents. In addition, higher levels of shame were related to less proactive aggression in adolescents who endorsed individualistic cultural values. In **Chapter 5**, bullying was our outcome variable. In this study, higher levels of shame were related to more bullying in Dutch adolescents, but lower levels of shame were related to less bullying in adolescents who endorsed high collectivistic values. Overall, the three chapters highlight that the potential protective versus harmful role of shame in relation to aggressive behaviors depends on cultural values, at the country and individual levels.

More specifically, two points should be noted regarding the findings. First, shame can play a maladaptive role in Western countries such as the Netherlands, as is commonly suggested by the literature (Fessler, 2004; Tangney, Wagner, & Gramzow, 1992; Triandis et al., 1988). It is plausible that in Western countries that privilege individual autonomy, shame is commonly treated as a very painful and distressing experience. In that case, shame brings about humiliation and embarrassment, which potentially put one's self-esteem at risk. To protect their self-confidence, Western adolescents are motivated by shame to exhibit aggressive reactions towards disapproving peers (Ahmed & Braithwaite, 2004; Broekhof, Bos, Camodeca, & Rieffe, 2018; Broekhof, Bos, & Rieffe, submitted; Thomaes, Stegge, Olthof, Bushman, & Nezlek, 2011).

Second, in Eastern countries such as Malaysia, shame seems adaptive. As suggested by previous work (Bedford & Hwang, 2003; Fung, 1999; Li, Wang, & Fischer, 2004), shame acts as a behavioral control in Eastern cultures, particularly to prevent individuals from violating the social rules. Although it is regarded as a painful emotion that needs to be avoided at all costs, its relations with losing face may explain why East Asian people value this emotion so much. In East Asian countries, people prefer to escape from feeling shame due to its direct consequence of losing face, to the self and to significant others (Bedford, 2004; Li et al., 2004). Losing face is a serious matter in Eastern cultures that can bring damages to individuals' social prestige, reputation, self-esteem and dignity within their social-context (Bedford, 2004). Later, it can affect an individual's ability to function well in society (Ho, Fu, & Ng, 2004). Therefore, it is important for East Asian adolescents to exhibit appropriate behaviors that match their norms and values for the sake of face-saving, and most importantly, to maintain harmony and coherence in society (Hofstede, 1984; Oyserman, Coon, & Kemmelmeier, 2002). This can prevent negative behaviors such as aggression, bullying, and other kinds of violence from happening.

Third, individual endorsement of cultural values influences the role of shame in insulating against aggressive behaviors differently, from the cross-country comparison

perspective. In our case, individualistic-oriented adolescents exhibited less proactive aggression when feeling more shame, while collectivistic-oriented adolescents bullied less when the intensity of their shame feeling was low. Indeed, these findings contrast with what we found when comparing across countries. This inconsistency shows again that while there are country differences that can be expected from what we know from previous works on the preference of shame (i.e., collectivistic cultures value shame more than individualistic cultures), these differences may not be explained by individuals' individualistic and collectivistic orientation, as one would tend to think.

Anger and fear in aggression or bullying

Anger and fear are like two sides of the same coin (Lazarus, 1991): both are basic emotions with negative valence, but each has a different motivational direction and response. For example, when an individual is harmed, he or she can choose whether to approach the situation by responding with anger and attack, or choose to withdraw from the situation in flight, due to feeling fear. However, arousing fear can also trigger a defensive reaction, such as aggressive acts of retaliation (Crick, Ostrov, & Werner, 2006; Pulkkinen, 1996). While basic emotions such as anger and fear are recognised and experienced similarly worldwide (Ekman & Friesen, 2003; Huang, 1997), there are questions regarding whether the similarities lead to the same consequences, in terms of aggression and bullying across cultures, or differ depending on individual differences in cultural values.

In this thesis, two chapters (i.e., **Chapter 2** and **5**) attempt to fill the gap in the literature. The follows are the summary of findings of the chapters. Regarding anger, we found that higher levels of anger were related to more reactive aggression in Malaysian adolescents in **Chapter 2**. In **Chapter 5**, our cross-cultural study revealed similarity in both Dutch and Malaysian samples that higher levels of anger were related to more bullying, but the effects were more apparent for Malaysian adolescents. These outcomes are consistent with previous studies conducted in Western countries that found that anger is related to more reactive aggression in adolescents (Hubbard, McAuliffe, Morrow, & Romano, 2010; Rieffe et al., 2016; Vitaro, Brendgen, & Tremblay, 2002).

Regarding fear, **Chapter 5** shows no country difference was observed on the relationship between fear and bullying. However, across countries, adolescents who endorsed lower levels of collectivistic values bullied more when experiencing higher levels of fear. Again, collectivistic values seem to endorse group harmony, but in the absence of these values, fear can act as a defensive mechanism.

Coping styles in aggression and friendship

Coping strategies and how people adopt them to cope with life stressors are well-documented (Folkman & Moskowitz, 2004; Lazarus & Folkman, 1984; Windle & Windle, 1996). This includes how these strategies influence adolescents' approach

to dealing with their friendship conflicts, as well as with their maladaptive behaviors such as aggression and bullying. Yet, the majority of past studies were conducted in Western cultures, and the information on whether the different coping strategies could inflict or inhibit more aggression and bullying in Eastern cultures is scarce. Consequently, cultural comparison is difficult to make.

In this thesis, two chapters attempt to address this issue, taking into account cultural differences on country and individual levels. This is because certain coping strategies may be more useful and effective in one cultural context than another. For example, in Western societies that emphasize individualism (i.e., prioritize individual autonomy and self-fulfillment), solving conflicts directly using approach coping strategies, such as confronting or requesting support is more effective, and associated with better outcomes (e.g., positive friendship qualities) (Eschenbeck, Kohlmann, & Lohaus, 2007; Wright, Banerjee, Hoek, Rieffe, & Novin, 2010). Meanwhile, in Eastern societies that emphasize collectivism (i.e., prioritize social harmony and stability), avoidant coping is expected to work better for reducing conflict by withdrawing from a conflict situation or distracting oneself from the worrying thoughts that emerged from the conflict (French, Pidada, Denoma, McDonald, & Lawton, 2005; Haar & Krahé, 1999; Novin, Rieffe, Banerjee, Miers, & Cheung, 2011). While previous work has shown this difference at the country level, one question remains to be answered: Does approach coping also work better in individualistic-oriented adolescents, while avoidance coping works better in collectivistic-oriented adolescents, regardless of country?

In Chapter 4, our findings showed quite the opposite. It was found that avoidant coping was related to more proactive aggression in Malaysian adolescents. Regardless of country, approach and avoidant coping were related to more proactive aggression, especially in adolescents who endorsed individualistic values. In Chapter 6, we investigate how cultural values moderate the relationship between coping strategies and friendship quality. With regard to positive friendship, the results showed that higher levels of approach coping were related to more positive friendships in both Dutch and Malaysian samples, but the effects were more pronounced in the latter. With regard to negative friendship, higher levels of avoidance were related to more negative friendships in Malaysian adolescents. Also, for adolescents who were close with their friends, negative friendship was related to more maladaptive coping and less approach coping.

Despite similarities with previous research, these outcomes tell us three important things. First, across countries, approach strategies may be used more effectively when interacting with friends, but may not work well when trying to solve a conflict with a peer. Possibly, with a friend, adolescents would approach the situation in a more constructive way, whereas with a peer, the adolescent might do it in a more blunt way.

Second, we found that the influence of avoidant coping on aggression and friendship quality did differ between countries, yet the pattern contradicted to our expectations. Indeed, by using avoidant coping, we expected that Malaysian adolescents would

gain positive behavioural outcomes (i.e., less aggression, more positive friendship) than their Dutch peers. However, our analyses show the opposite. Possibly, avoidant strategies such as withdrawal and distancing self from conflicts in the case of friends will not only delay conflict resolution, but may also reflect irresponsibility. Indeed, in friendship, it is always important to be responsible for every (negative) action in order to maintain good relationships with friends. However, being irresponsible to friends by ignoring their needs for a harmonious relationship can only trump self-interest for one's own goals, which in our case, promoting proactive aggression and being dominant in friendship. Yet, this might be different when the conflict concerns outgroup members, but future research could further look into this..

Third, individual cultural orientations can influence the role of coping strategies against aggression. In general, coping strategies function to keep a balance between an individual's and others' goals during conflicts. However, for adolescents who endorsed individualistic values, this may have constituted a problem. Possibly, their strong need to achieve their own goals, with less focus on achieving social goals (e.g., maintaining harmonious relationships), may have caused an imbalance. Therefore, despite whatever strategies these adolescents chose in order to cope with a conflict situation (whether approach or avoidant), their focus on the peer conflict above all might increase the risk of instrumental aggression.

Limitations and directions for future research

The current thesis has contributed to the existing knowledge regarding the link between emotional functioning and aggression and its related behaviors, across two different cultures. While it is commonly practiced to assume an individual's cultural values based on his or her country-of-origin, as per Hofstede's cultural theory (Hofstede, 1984; Hofstede, Jan Hofstede, & Minkov, 2010), research often does not directly test cultural values, and therefore cannot assume that cultural values underlie the country differences we found.

However, some limitations deserve consideration. First, as mentioned several times in the previous chapters, our data, which is cross-sectional in nature, prevents us from establishing causal relationships between emotion functioning and aggression. Thus, this limitation may mean that the direction of causality remains open for debate. To address this limitation, we suggest future research to adopt a longitudinal or experimental design, to examine causal effects and directions between variables, cross-culturally.

Second, all instruments used in this thesis are based on self-report questionnaires, and they were all developed first in Western countries. Although self-report might be the most convenient way of examining internal states, social adaptive and maladaptive behaviours such as aggression, friendship, and bullying might be also measured using a multi-informant and/or multi-method approach to increase the external validity of the outcomes. For example, peer nominations are widely used to study group processes and bullying within a class or group.

Third, the selection of one Eastern and one Western country provide some representation of collectivistic versus individualistic societies, respectively. However it limits the degree to which our findings can be generalized. As every country is unique, with its own values and norms, our findings may not be applicable to populations in other Eastern or Western countries. As such, we suggest that future investigators who may wish to replicate our methodology should include more Eastern and Western countries for a more representative sample.

Fourth, our data did not include participants' demographic information. Including information on socioeconomic status, such as household income, parental employment, and level of education may, for example, provide more in-depth information about whether aggression and the selection of coping strategies or proneness to certain moral emotions by adolescents can be influenced by differences in socioeconomic status, within and among different countries.

CONCLUSION

In this thesis, we aimed to unravel whether the influence of emotion regulation on adolescent social behaviors (i.e., aggression and friendship) varies between cultural background and values. While past studies often used country comparisons as representative of individualistic versus collectivistic cultures, we opted to see how these values differed per individual. With regard to cross-country comparison, the studies in this thesis have replicated some important findings of previous research. Most notably, our findings support the claim that shame plays a protective role against wrongdoing in Eastern adolescents, but Western adolescents are at risk of committing aggression when experiencing intense shame. Yet, similarities between the countries were evident too. For example, guilt protected against aggressive behaviours in both Malaysian and Dutch samples, which was definitely new and little previously explored. In regard to individual cultural orientation, our studies have revealed contrasting findings from the established cross-cultural comparison studies. For instance, we found that higher levels of shame protected individualistic-oriented adolescents against aggressive behaviours, but low levels of shame were needed for collectivistic-oriented adolescents to have the same outcome. The discrepancies in findings between the two cultural contexts suggests the need to consider individual cultural orientation in order to have a complete picture on how culture influences psychological functioning in adolescence, since comparing countries alone provides limited insight.

To conclude, in efforts to promote socially appropriate behaviors in adolescents, the understanding of cultural patterns of emotional regulation is crucially needed. Thus, we hope that this work will spark the interest of future researchers to investigate other cultural dimensions that might stimulate adaptive and positive emotional regulation. For example, Malaysia is one of the countries with the highest level of power distance (Hofstede, 1984; Hofstede, Hofstede, & Minkov, 2010) and due to this status, it may directly or indirectly influence Malaysian adolescents' proneness

to shame and guilt or their preference in applying coping strategies. Nevertheless, this thesis has shown that emotional experiences such as shame and guilt as well as adaptive coping strategies are important in promoting harmonious peer interactions. This could be useful basic knowledge for professionals in developing countries like Malaysia, for the purpose of developing plans to mitigate the prevalence of aggression and its related behaviors in its youth.

ACKNOWLEDGEMENTS

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GENERAL DISCUSSION

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CHAPTER | 8

**SUMMARY &
NEDERLANDSE SAMENVATTING**

SUMMARY

Aggression among peers harms adolescent well-being, and is detrimental to aggressors and victims alike. Research in Western countries suggests that emotional dysregulation, which includes the intensity and reactivity of negative emotions (e.g., anger, shame and guilt), is an important cause of aggression and its related behaviours (e.g., bullying) in adolescents. Yet, regarding Eastern adolescents, it is important to consider the influence of emotional functioning on aggressive behaviours within a cultural context. Every culture has its own set of norms and values that shape culturally appropriate ways of thinking and behaving. Therefore, information gained from cross-cultural perspectives could contribute to a better understanding of the way emotions and aggression work in different cultural contexts. This would support the development of culturally relevant strategies to curb adolescent aggression in different cultures.

The aim of this thesis was to examine aggressive behaviours in relation to the underlying emotional functioning of adolescents in social contexts with different cultural backgrounds. In this thesis, cultural background is included as a variable in two ways. First, the thesis uses a more traditional approach in the literature where two groups of adolescents are compared based on the country where they live and grow up (i.e., Malaysia or the Netherlands). Secondly, we looked at the influence of culture on the individual level, by looking at the extent to which adolescents endorse cultural values.

In order to meet these three objectives, the first step was to ensure that all instruments used for data collection were applicable to both cultures involved. **Chapter 2** and **Chapter 3** of this thesis describe the process of translating two psychological questionnaires (originally designed for Western samples) into Malay (the national language of Malaysia), and of validating the measures in Malaysian adolescent samples. Overall, findings showed that the psychometric properties of the questionnaires were (respectively) good and adequate. In addition, the structures of these two questionnaires (the Instrument for Reactive and Proactive Aggression or IRPA, and the Individualistic-Collectivistic Value Questionnaire for Youth) were very similar across cultures (in **Chapter 2** and **3**, respectively).

Guilt and its relation to aggression and bullying

In studies from Western cultures or countries, guilt is regarded as an adaptive social emotion that motivates apologies and compensatory behavior for wrongdoing. The reparative nature of guilt helps to heal and restore damaged relationships. Indeed, all these positive consequences of guilt help people inhibit their desire to be aggressive (Caprara, Barbaranelli, Pastorelli, Cermak, & Rosza, 2002). Yet guilt is a culturally constructed emotion, and many scholars argue that it is more salient and prevalent in Western societies that endorse individualism (Realo, Koido, Ceulemans, & Allik, 2002; Triandis, Bontempo, Villareal, Asai, & Lucca, 1988). The available

information from Eastern countries on any link between guilt and aggression revealed a gap in the literature. To address this gap, this thesis examined the association between guilt and aggression in Malaysia, a representative Eastern country that strongly endorses collectivism.

When examining the relationship between guilt and reactive versus proactive aggression in Malaysian adolescents, a similar pattern was found to that previously identified in studies conducted in Western countries. **Chapter 2** discusses the finding that less guilt was related to higher levels of proactive aggression in Malaysian young adolescents, while no relationship was found between guilt and reactive aggression. **Chapter 4** further explores these relationships by examining cultural differences, i.e., individualism versus collectivism dimensions of culture at the country level (Netherlands versus Malaysia) and at the individual level. Results showed that at the country level or macro level, more guilt was related to less reactive aggression and to less proactive aggression in both countries. However, collapsed over country, at the individual or micro level, more guilt was related only to less proactive aggression in adolescents who endorsed more strongly individualistic values. **Chapter 5** examines the relationship between guilt and bullying. Bullying is a form of aggression that a person intentionally and repeatedly carries out towards another person who is in a weaker position (Camodeca & Goossens, 2005; Salmivalli & Nieminen, 2002). A comparison between countries confirmed that higher levels of guilt were related to less bullying for both countries, although the influence of guilt was more apparent in the Dutch adolescents. However, when collapsed over country, at the individual level, higher levels of guilt were related to less bullying in adolescents who endorsed more strongly collectivistic values.

Shame and its relation to aggression and bullying

Shame is a social emotion like guilt. However, shame and guilt have more similarities than dissimilarities. While guilt is incurred by a specific wrongdoing, shame is incurred by negative judgements of others directed at the self (Baumeister, Stillwell, & Heatherton, 1994). Also, shame is an emotion that motivates escape and withdrawal from social relationships, which contrasts with the nature of guilt, which motivates reparation and prosocial actions (de Hooge, Zeelenberg, & Breugelmans, 2007). Yet, like guilt, shame is a culturally embedded psychological construct. While individuals in Western societies tend to view shame as a negative, aversive, and painful emotion, those in non-Western societies such as in East Asia tend to value shame more positively. However, due to the limited literature available, we found no evidence of a research literature on variations in shame-proneness in relation to amplified or inhibited aggression and bullying in Eastern cultures. This made cross-cultural comparisons difficult.

Three chapters of this thesis attempted to close the gap left by previous studies. In **Chapter 2** we found that, like guilt, shame was unrelated to reactive aggression, yet negatively correlated with proactive aggression in Malaysian adolescents. In **Chapter 4**

we found that higher levels of shame were related to less proactive aggression in Malaysian adolescents, but to more reactive aggression in Dutch adolescents. Moreover, higher levels of shame were related to less proactive aggression in adolescents who endorsed individualistic cultural values, regardless of country of origin. In **Chapter 5**, shame is examined in relation to bullying. It was found that higher levels of shame were related to more bullying in Dutch adolescents and lower levels of shame were related to less bullying in adolescents who endorsed more collectivistic values. Overall, **Chapters 2, 4 and 5** reveal both protective and harmful roles for shame, respectively, in relation to aggressive behaviors, where the direction of these roles appeared to depend on cultural values at the country and individual levels.

Anger and fear and their relations to aggression and bullying

Anger and fear are like two sides of the same coin (Lazarus, 1991): both are basic emotions with negative valence, but each has a different motivational direction and response. For example, when an individual is harmed, he or she can choose whether to approach the situation by responding with anger and attack, or to withdraw from the situation in flight, due to fear. However, arousing fear can also trigger a defensive reaction, such as aggressive acts of retaliation (Crick, Ostrov, & Werner, 2006; Pulkkinen, 1996). While basic emotions such as anger and fear are recognised and experienced similarly worldwide (Ekman & Friesen, 2003; Huang, 1997), there are questions regarding whether the similarities lead to the same consequences in terms of aggression and bullying across cultures, or differ depending on individual differences in cultural values.

In this thesis, two chapters (**Chapter 2** and **5**) attempt to fill the gap in the literature. Regarding anger, **Chapter 2** discusses the finding that higher levels of anger were related to more reactive aggression in Malaysian adolescents. **Chapter 5** discusses how a cross-cultural study revealed similarities in Dutch and Malaysian samples, where higher levels of anger were related to more bullying; however the effects were more apparent for Malaysian adolescents.

Regarding fear, **Chapter 5** shows that no country difference was observed in the relationship between fear and bullying. However across countries, adolescents who endorsed lower levels of collectivistic values bullied more when experiencing higher levels of fear. Collectivistic values would seem to promote group harmony, and may serve to inhibit aggression. In the absence of these values, fear may provoke a defensive mechanism that increases aggression.

Coping styles in aggression and friendship

Coping strategies, including approach, maladaptive and avoidant strategies, and how people utilize them to cope with life stressors, are well documented in the literature (Folkman & Moskowitz, 2004; Lazarus & Folkman, 1984; Windle & Windle, 1996). This literature addresses how these strategies influence adolescents' approach to dealing with their friendship conflicts, as well as with their maladaptive behaviours such as

aggression and bullying. Yet the majority of past studies were conducted in Western cultures, and information on whether different coping strategies could either increase or inhibit aggression or bullying in Eastern cultures is scarce. Consequently, cultural comparison has been difficult.

In this thesis, two chapters address the role of coping strategies in adolescent aggression, while taking into account cultural differences at the country and individual levels. We theorized that certain coping strategies may be more useful and effective in one cultural context than another. For example, in Western societies that emphasize individualism (i.e., that prioritize individual autonomy and self-fulfillment), it is considered to be more effective, and associated with better outcomes (with more positive friendship qualities) to solve conflicts by using approach coping strategies, as in directly confronting the other person or requesting support (Eschenbeck, Kohlmann, & Lohaus, 2007; Wright, Banerjee, Hoek, Rieffe, & Novin, 2010). Meanwhile, in Eastern societies that emphasize collectivism (i.e., that prioritize social harmony and stability), avoidant coping is expected to work better for reducing conflict, as in withdrawing from a conflict situation or distracting oneself from the worrying thoughts that emerged from the conflict (French, Pidada, Denoma, McDonald, & Lawton, 2005; Haar & Krahé, 1999; Novin, Rieffe, Banerjee, Miers, & Cheung, 2011). Thus, while previous work has shown differences in coping strategies (i.e., approach versus avoidant) at the country level, the question remains: Does approach coping work better in individualistic-oriented adolescents, while avoidance coping works better in collectivistic-oriented adolescents, regardless of country?

Chapter 4 discusses unexpected results. It was found that avoidant coping was related to more proactive aggression in Malaysian adolescents; and regardless of country, approach and avoidant coping were related to more proactive aggression, especially in adolescents who endorsed individualistic values. Possibly, this is because avoidant strategies such as withdrawal and distancing oneself from conflicts with friends may not only delay conflict resolution, but reflect irresponsibility. Also this may have constituted a problem to adolescents who endorsed individualistic values: their focus on the peer conflict above all might increase the risk of instrumental aggression. In **Chapter 6** we discuss how cultural values may moderate the relationship between coping strategies and friendship quality. With regard to positive friendship, results showed that higher levels of approach coping were related to more positive friendships in both Dutch and Malaysian samples, but the effects were more pronounced in the latter. With regard to negative friendship quality, higher levels of avoidance were related to more negative friendships in Malaysian adolescents. Also, for adolescents who were close with their friends, negative friendship was related to more maladaptive coping and less approach coping.

Conclusion

We started this thesis with a lot of questions: Is shame a risk factor for reactive aggression in Malaysian adolescents? Can guilt play a protective role against bullying

in Malaysian adolescents? Can avoidant coping lead to more positive friendship in Malaysian adolescents? Does culture influence behavioural and emotional responses in adolescents? If so, how? Indeed, the eagerness to answer these questions is what drove us to conduct this cross-cultural study in Malaysia and the Netherlands.

Some outcomes were generalizable across countries. For instance, we found that emotional experiences such as guilt and adaptive coping strategies were important in mitigating aggressive behaviours and building harmonious peer interactions in both Malaysia and the Netherlands. Yet, some outcomes were specific to a certain country. For instance, shame played a protective role against aggressive behaviours for our Malaysian sample, while being a risk factor for our Dutch sample. More importantly, we now know that the different manifestation of behaviours between Malaysian and Dutch adolescents does not only depend on their cultural background (i.e., the country that they live). It also depends on the way they endorse certain cultural values, and their view of interpersonal closeness with significant others. All in all, we believe this thesis has begun to fill a significant gap in the literature by shedding light on adolescent aggressive behaviours and their relations with emotional regulation in a Western and non-Western sample.

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8

SUMMARY AND NEDERLANDSE SAMENVATTING

NEDERLANDSE SAMENVATTING

Agressie onder adolescenten is schadelijk voor het welzijn van alle betrokkenen, zowel voor plegers als slachtoffers. Onderzoek onder adolescenten in Westerse landen toont aan dat de ervaring, regulatie en uiting van negatieve emoties zoals boosheid, angst, schaamte en schuld belangrijke oorzaken zijn van agressie en bijbehorend gedrag (zoals pesten) bij adolescenten. Ten aanzien van adolescenten uit Aziatische landen ontbreekt nog veel kennis over dit onderwerp. Toch is het aannemelijk dat culturele context en waarden invloeden hebben op emoties en agressief gedrag. Deze kennis is belangrijk, omdat een beter inzicht kan helpen bij het ontwikkelen van cultureel sensitieve strategieën om agressie bij adolescenten te voorkomen of te verminderen.

Het doel van dit proefschrift was om bij adolescenten agressief gedrag te onderzoeken in relatie tot hun onderliggend emotioneel functioneren, waarbij de vraag centraal stond in hoeverre cultuur hier invloed op heeft. De invloed van cultuur is op twee manieren meegenomen in het proefschrift. Het proefschrift hanteert ten eerste de meer traditionele benadering in de literatuur waarbij twee groepen adolescenten worden vergeleken op basis van het land waar zij wonen en zijn opgegroeid (Maleisië of Nederland). Ten tweede werd gekeken naar de invloed van cultuur op individueel niveau, waarbij werd gekeken naar de mate waarin de adolescenten culturele waarden onderschreven.

Om aan deze doelstellingen te voldoen, was de eerste stap ervoor te zorgen dat alle instrumenten die werden gebruikt in de onderzoeken toepasbaar waren voor zowel de Nederlandse als de Maleisische adolescenten. **Hoofdstuk 2** en **Hoofdstuk 3** van dit proefschrift beschrijven het vertaal-proces en validatie van twee psychologische vragenlijsten in Nederland en Maleisië: Instrument for Reactive and Proactive Aggression of IRPA en de Individualistic-Collectivistic Value Questionnaire for Youth. De bevindingen toonden aan dat de psychometrische eigenschappen van de vragenlijsten (respectievelijk) goed en adequaat waren. Bovendien was de inhoudelijke structuur van beide vragenlijsten in Nederland en Maleisië zeer vergelijkbaar.

Schuldgevoel en zijn relatie tot agressie en pesten

In onderzoeken onder populaties uit Westerse culturen of landen wordt schuld beschouwd als een adaptieve sociale emotie die oproept tot excuses en compensaties na wangedrag. Schuldgevoelens dragen dus bij aan het herstellen van beschadigde relaties. Deze positieve gevolgen van schuld zorgen ervoor dat mensen minder de neiging hebben zich agressief te gedragen (Caprara, Barbaranelli, Pastorelli, Cermak, & Rosza, 2002). Echter, schuld is een cultureel bepaalde emotie en veel wetenschappers beweren dat schuldgevoelens meer voorkomen en zichtbaarder zijn in Westerse, individualistische samenlevingen dan in Oosterse, collectivistische samenlevingen (Realo, Koido, Ceulemans, & Allik, 2002; Triandis, Bontempo, Villareal, Asai, & Lucca, 1988). Echter, de relatie tussen schuld en agressie in populaties uit Oosterse landen was vooralsnog onbekend. In dit proefschrift wordt daarom de associatie tussen

schuld en agressie onderzocht in Maleisië, een representatief Oosters land dat sterk collectivistisch georiënteerd is.

De bevindingen in de Maleisische groep bleek vergelijkbaar met wat eerder in Westerse populaties werd gevonden. Het onderzoek zoals beschreven in **hoofdstuk 2** geeft aan dat minder schuldgevoel gerelateerd is sterkere proactieve agressie (weloverwogen vorm van agressie om een doel te bereiken) bij Maleisische jonge adolescenten, terwijl er geen verband werd gevonden tussen schuld en reactieve agressie (impulsieve vorm van agressie dat een reactie is op een bedreigende situatie). In het onderzoek in **hoofdstuk 4** wordt verder ingegaan op deze relaties door de rol van cultuur te onderzoeken. De resultaten toonden aan dat op macro-niveau (landniveau) er geen verschillen tussen de culturele groepen waren: in beide landen was meer schuld gerelateerd aan minder reactieve agressie en minder proactieve agressie. Echter, op microniveau (individueele niveau) bleken culturele waarden een rol te spelen: meer schuld was alleen gerelateerd aan minder proactieve agressie bij adolescenten die individualistische waarden sterk onderschreven. **Hoofdstuk 5** onderzoekt de relatie tussen schuld en pesten. Pesten is een vorm van agressie die een persoon opzettelijk en herhaaldelijk uitvoert naar een andere persoon die zich in een zwakkere positie bevindt (Camodeca & Goossens, 2005; Salmivalli & Nieminen, 2002). Een vergelijking tussen landen bevestigde dat meer schuld gerelateerd was aan minder pesten in beide landen, hoewel deze invloed van schuld duidelijker was bij de Nederlandse adolescenten. Op individueel niveau bleek een hogere mate van schuld gerelateerd aan minder pesten bij adolescenten die sterker de collectivistische waarden onderschreven.

Schaamte en de relatie tot agressie en pesten

Naast schuld is schaamte een belangrijke emotie om mee te nemen in het onderzoek naar agressief gedrag van adolescenten. Schaamte en schuld hebben overeenkomsten, maar ook de nodige verschillen. Terwijl schuld wordt veroorzaakt door het eigen wangedrag, wordt schaamte veroorzaakt door negatieve oordelen van anderen (Baumeister, Stillwell, & Heatherton, 1994). Daarnaast is schaamte een emotie die vluchten en terugtrekken uit sociale relaties indiceert, terwijl schuld juist leidt tot herstel en prosociale acties (de Hooge, Zeelenberg, & Breugelmans, 2007). Maar net als schuld, is schaamte een cultureel ingebed psychologisch construct. Zo evalueren mensen in Westerse samenlevingen schaamte vaak als een negatieve, aversieve en pijnlijke emotie, terwijl mensen in niet-Westerse samenlevingen, zoals in Oost-Azië, schaamte meer positief labellen. Vanwege beperkt onderzoek in Oosterse populaties, was het echter onbekend of schaamte in Oosterse samenlevingen gerelateerd is aan meer of minder agressief gedrag en pesten.

Drie hoofdstukken van dit proefschrift richten zich op de relatie tussen schaamte, schuld en agressie, rekening houdend met de verschillende culturele context waarin deze plaatsvindt. In **hoofdstuk 2** vonden we dat schaamte, net als schuld, niet

gerelateerd was aan reactieve agressie, maar zoals verwacht, wel gerelateerd was aan minder proactieve agressie bij Maleisische adolescenten. In **hoofdstuk 4** vonden we opnieuw dat meer schaamte gerelateerd is aan minder proactieve agressie bij de Maleisische adolescenten, maar inderdaad, ook zoals verwacht, aan meer reactieve agressie bij de Nederlandse adolescenten. Bovendien was meer schaamte gerelateerd aan minder proactieve agressie bij adolescenten die de individualistische culturele waarden onderschreven. In **hoofdstuk 5** wordt schaamte onderzocht in relatie tot pesten. Het bleek dat meer schaamte gerelateerd was aan meer pesten bij Nederlandse adolescenten. Daarnaast bleek dat minder schaamte gerelateerd was aan minder pesten bij adolescenten die de collectivistische waarden sterker onderschreven. In het algemeen onthullen de **hoofdstukken 2, 4** en **5** beschermende en schadelijke rollen voor schaamte, in relatie tot agressief gedrag. Waarbij de richting van deze rollen afhankelijk bleek te zijn van de culturele waarden op land- en individueel niveau.

Woede en angst en hun relatie tot agressie en pesten

Woede en angst kunnen vergeleken worden met twee kanten van dezelfde medaille (Lazarus, 1991): beide zijn basisemoties die negatief gewaardeerd worden, maar de één zet aan tot het zoeken van toenadering en de andere tot vermijding. Wanneer een persoon bijvoorbeeld wordt geschaad, kan hij of zij kiezen om de situatie te benaderen door te reageren vanuit woede en daarmee de aanval in te zetten of te reageren vanuit angst en zich daarmee terug te trekken uit de situatie, te vluchten. Echter angst kan ook een defensieve reactie teweegbrengen, zoals agressieve wraakreacties (Crick, Ostrov, & Werner, 2006; Pulkkinen, 1996). Hoewel basisemoties zoals woede en angst wereldwijd op dezelfde manier worden herkend en ervaren (Ekman & Friesen, 2003; Huang, 1997), is het de vraag of de wereldwijde overeenkomsten van woede en angst wereldwijd ook leiden tot dezelfde reacties op deze emoties, in termen van agressie en pesten in verschillende culturen, of dat deze verschillen afhankelijk de mate waarin individuen bepaalde culturele waarden onderschrijven.

In dit proefschrift wordt in twee hoofdstukken (**hoofdstuk 2** en **5**) getracht de literatuur op dit gebied aan te vullen. Met betrekking tot woede wordt in **hoofdstuk 2** besproken dat meer woede gerelateerd was aan meer reactieve agressie bij de Maleisische adolescenten. **Hoofdstuk 5** bespreekt hoe intercultureel onderzoek de overeenkomst in de Nederlandse en Maleisische steekproeven zichtbaar maakte, waar meer woede gerelateerd was aan meer pesten; de effecten waren echter duidelijker voor Maleisische adolescenten.

Wat betreft angst, laat **hoofdstuk 5** zien dat er geen verschil tussen de landen wordt waargenomen in de relatie tussen angst en pesten. Over het algemeen pestten adolescenten die de collectivistische waarden minder onderschreven meer, bij het ervaren van meer angst. Collectivistische waarden lijken groepsharmonie te bevorderen en kunnen daarmee dus leiden tot het verminderen van agressie. Bij

afwezigheid van deze collectivistische waarden kan angst een defensief mechanisme uitlokken dat agressie verhoogt.

Omgaan met stijlen in agressie en vriendschap

Copingstrategieën, bestaande uit toenaderings- en ontwijkingsstrategieën, en hoe deze worden toegepast om met stressoren in het leven om te gaan zijn uitgebreid onderzocht (Folkman & Moskowitz, 2004; Lazarus & Folkman, 1984; Windle & Windle, 1996). Het huidige onderzoek richt zich ook op hoe deze copingmechanismes de benadering van adolescenten beïnvloeden in conflicten met vrienden, evenals bij agressie en pesten. Echter het merendeel van eerdere studies is uitgevoerd onder populaties in Westerse culturen, en informatie over de vraag of verschillende copingstrategieën agressie of pesten in oosterse culturen zouden kunnen stimuleren of juist verminderen, is schaars. Daarom was het lastig om een culturele vergelijking te maken.

In dit proefschrift behandelen twee hoofdstukken de rol van copingstrategieën bij agressie van adolescenten. Daarbij wordt rekening gehouden met culturele verschillen op land- en individueel niveau. We hadden de hypothese dat bepaalde copingstrategieën nuttiger en effectiever kunnen zijn in de ene culturele context dan de andere. Bijvoorbeeld in Westerse samenlevingen die individualisme benadrukken (dat wil zeggen dat individuele autonomie en zelfontplooiing voorop staat), wordt het bijvoorbeeld als effectiever beschouwd om conflicten op te lossen door toenaderingsstrategieën te gebruiken, zoals het direct confronteren van de andere persoon of het vragen van hulp. Dit wordt ook geassocieerd met betere resultaten (met positievere vriendschapskwaliteiten) (Eschenbeck, Kohlmann, & Lohaus, 2007; Wright, Banerjee, Hoek, Rieffe, & Novin, 2010). Daarentegen in Oosterse samenlevingen, waarbij meer nadruk ligt op het collectivisme (dat wil zeggen dat prioriteit wordt geven aan sociale harmonie en stabiliteit), wordt vermijdende coping als effectiever beschouwd om conflicten te verminderen. Vermijdende coping bestaat bijvoorbeeld uit zichzelf terugtrekken uit een conflictsituatie of zich af leiden van de nare gedachtes die uit het conflict zijn voortgekomen (French, Pidada, Denoma, McDonald, & Lawton, 2005; Haar & Krahé, 1999; Novin, Rieffe, Banerjee, Miers, & Cheung, 2011). Hoewel eerder onderzoek op landniveau verschillen in copingstrategieën (d.w.z. aanpakken versus ontwijken) heeft aangetoond, blijft de vraag of de 'actieve aanpak'-copingstijl beter werkt bij individualistisch georiënteerde adolescenten, terwijl een vermijdende-copingstijl beter werkt bij collectivistisch georiënteerde adolescenten, ongeacht het land waar de adolescenten wonen?

Hoofdstuk 4 bespreekt de onverwachte uitkomsten die uit dit onderzoek naar voren kwamen. Het bleek dat vermijdende coping gerelateerd was aan meer proactieve agressie bij Maleisische adolescenten. Daarnaast bleek dat ongeacht het land, de 'actieve-aanpak' en vermijdende copingstijl gerelateerd waren aan meer proactieve agressie, vooral bij adolescenten die individualistische waarden onderschreven. Mogelijk komt dit doordat vermijdende strategieën zoals het terugtrekken en afstand

nemen, tussen vrienden niet alleen mogelijke oplossingen voor het conflict vertragen, maar ook een weerspiegeling kunnen zijn van onverantwoordelijkheid. Dit kan ook een probleem vormen voor adolescenten die individualistische waarden onderschrijven. Hun focus op het conflict met leeftijdsgenoten kan het risico op instrumentele agressie vergroten. In **hoofdstuk 6** bespreken we hoe culturele waarden de relatie tussen copingstrategieën en vriendschapskwaliteit kunnen modereren. De resultaten toonden aan dat actief aanpakken gerelateerd was aan meer positieve vriendschappen in zowel de Nederlandse als Maleisische steekproeven, maar de effecten waren zichtbaarder in de Maleisische adolescenten. Daarnaast bleek dat meer vermijding gerelateerd was aan meer negatieve vriendschappen bij Maleisische adolescenten. Ook voor adolescenten die dichter bij hun vrienden stonden, was een onaangepaste coping en minder actief aanpakken gerelateerd aan negatieve vriendschapsgevoelens.

Conclusie

We zijn dit proefschrift begonnen met veel vragen in ons hoofd: is schaamte een risicofactor voor reactieve agressie bij Maleisische adolescenten? Kan schuld een beschermende rol spelen bij pesten voor Maleisische adolescenten? Kan een vermijdende coping leiden tot meer positieve vriendschap bij Maleisische adolescenten? Heeft cultuur invloed op gedrags- en emotionele reacties bij adolescenten? Zo ja, hoe? Het was voor ons van groot belang om deze vragen te beantwoorden. Dit heeft ons gemotiveerd om dit onderzoek in Maleisië en Nederland uit te voeren.

Sommige resultaten waren overeenkomstig in de verschillende landen. We vonden bijvoorbeeld dat emotionele ervaringen zoals schuldgevoelens en adaptieve copingstrategieën belangrijk waren bij het verminderen van agressief gedrag en het opbouwen van harmonieuze relaties met leeftijdsgenoten in zowel Maleisië als Nederland. Toch waren sommige resultaten specifiek voor een bepaald land. Schaamte speelde bijvoorbeeld een beschermende rol voor agressief gedrag binnen de Maleisische groep, terwijl het een risicofactor was voor agressie binnen de Nederlandse groep. Wat echter opvallender is, is dat we nu weten dat de verschillende uitingen van gedrag tussen Maleisische en Nederlandse adolescenten niet alleen afhangen van hun culturele achtergrond (d.w.z. het land waar ze wonen). Het hangt ook af van de manier waarop ze bepaalde culturele waarden onderschrijven, en de mate waarin ze zich verwant voelen aan anderen. Al met al zijn we van mening dat dit proefschrift een belangrijk begin is in het opvullen van gaten in de literatuur door agressief gedrag van adolescenten in relatie tot verschillende emoties/copingstijlen, niet slechts te bekijken in een Westerse steekproef maar daarnaast ook een niet-Westerse steekproef te onderzoeken.

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8

SUMMARY AND NEDERLANDSE SAMENVATTING

APPENDICES &

DATA COLLECTION IN MALAYSIA AND THE NETHERLANDS
Geographical Location of Research

In Malaysia, this study was conducted in selected secondary schools in four states in Peninsular Malaysia, namely Kedah, Selangor, Kelantan and Johor. These states were chosen based on the geographical difference.

In the Netherlands, this study was conducted in selected high schools in 6 cities in provinces such as South Holland (i.e., Leiden, The Hague), North Holland (i.e., Haarlem, Velsen-Zuid), Zeeland (i.e. Middelburg) and Friesland (i.e. Drachten).

Figure 1. The map of Peninsular Malaysia, where the states are categorized in four development regions (Map source: https://www.mlit.go.jp)

Figure 2. The map of Netherland that consists of 12 provinces (Map source: http://ontheworldmap.com/netherlands/)

Sampling

First, a pilot study was conducted in 2014 and participated by 168 school adolescents (56% boys) aged between 13 and 15 from one school in an urban area of Selangor. In the pilot test, we examined the adaptability of our Western-based questionnaires.

Second, we gathered 1427 Malaysian adolescents (605 boys, 794 girls; M age = 13.30 years, SD = 0.69 years) from eight national secondary schools as the participants for our real data collection in 2015. Also, in the same year, we started our data collection in the Netherlands where we recruited 627 adolescents from 8 high schools that were located in 6 different cities (302 boys, 318 girls; M age = 13.83 years, SD = 0.60 years).

Third, another 300 Malaysian adolescents were recruited from four national secondary schools and participated in our data collection in 2017.

Sampling technique

In selecting our Malaysian sample, we the researchers found that the multi-stage cluster sampling could be implemented through three-stage clustering. The first cluster is the region of Peninsular Malaysia. Peninsular Malaysia is divided into four development regions, namely North, Centre, South and East regions. The regions are consisted of several states (see Table 1).

In each region, a state was selected randomly. The purpose of this selection was to make sure that the results of this study could be generalized to Peninsular Malaysia. Therefore, in the first stage of the cluster sampling, four states were randomly selected, namely Kedah, Selangor, Johor and Kelantan, and each selected state represented their development region. The second stage of multi-stage cluster sampling was done by randomly choosing a few districts from the list of districts in each state. The third stage of this cluster sampling was achieved by randomly selecting schools in the selected districts.

To select our Dutch sample, we first chose four provinces out of twelve. Then, we picked one or two cities in each province. In each city, we identified potential schools and contacted the school management to obtain their consents. Only the schools that agreed to participate in the study were selected as research sites.

Measures

Information regarding all variables (i.e., aggressive and aggressive-related behaviours, emotional regulation, cultural values, peer interaction) was collected through a set of self-administrated questionnaires. All variables were measured by using the existing scale/questionnaire that were developed by previous researchers. Table 2 presents brief information about the questionnaires that we used in this study.

Given that this cross-cultural study was conducted in Malaysia, all English versions of the questionnaires used in this study were translated into Malay language, the national language of Malaysia. In order to check for the validity of the Malay translated versions, back-translations were conducted. An independent translator with expertise in both

Table 1. List of Regions and States in Peninsular Malaysia

	Region	States		Region	States
1	North	Perlis	3	South	Negeri Sembilan
		Kedah			Melaka
		Penang			Johor
		Perak			
2	Centre	Selangor	4	East	Pahang
		Federal Territory Kuala			Terengganu
		Lumpur			Kelantan
		Federal Territory Putrajaya			

languages (Malay and English) checked the accuracy of the translation in order to maintain the meaning of each item in the original instruments.

As mentioned before, a pilot study was conducted to check if the questions were clear and could be easily understood. We asked 168 students from one school in an urban area of Selangor to complete a set of questionnaires. We examined the psychometric properties of the students' responses such as internal consistencies (Cronbach's alpha) and factor analyses to confirm that the translation of the questionnaires was good and adequate.

Table 2: List of questionnaires in this study

	Variable	Questionnaire
1.	Aggressive-related behaviours	1. *Self-Report Instrument for Reactive and Proactive Aggression* (IRPA) (Rieffe et al., 2016)
		2. *The Bully-Victim Questionnaire* (Rieffe, Camodeca, Pouw, Lange, & Stockmann, 2012)
2.	Emotion Regulation	1. *Coping questionnaire* (Wright, Banerjee, Hoek, Rieffe, & Novin, 2010)
		2. *Empathy Questionnaire for Children and Adolescents* (EmQue-CA; Overgaauw, Rieffe, Broekhof, Crone, & Güroğlu, 2017)
		3. *Mood Scale* (Rieffe, Meerum Terwogt, & Bosch, 2004)
3.	Cultural values	1. Individualistic-Collectivistic Value *Questionnaire for Adolescent* (Novin, Azam, Broekhof, Li, Koch, & Rieffe, submitted)
		2. *Inclusion of Others in the Self scale* (Aron, Aron, & Smollan, 1992)
5.	Peer Interaction	*Best Friend Index* (Kouwenberg, Rieffe, & Banerjee, 2013)
6.	Personal background	Information regarding respondents' background, such as gender, age, and family SES.

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APPENDIX

SUPPLEMENTARY MATERIALS

Chapter 2

Instrumen Tingkah Laku Agresif Reaktif & Proaktif Malaysia

Berikut merupakan enam pernyataan yang menggambarkan enam tingkah laku agresif yang boleh dilakukan oleh seorang pelajar berserta sebab kepada tindakan tersebut. Anda boleh memilih jawapan sama ada tidak pernah melakukan perkara-perkara tersebut, kadang-kadang melakukannya, atau seringkali dalam tempoh empat minggu lepas.

Nota: Soalan-soalan berikut adalah berkenaan tingkah laku yang buruk dan teruk. Jika anda melakukan tingkah laku tersebut tetapi hanya bermaksud untuk bergurau (contoh: mengejek rakan kerana bergurau), sila tandakan Tidak Pernah.

1. Dalam tempoh 4 minggu lepas, saya menendang seseorang kerana…	Tidak pernah	Jarang	Kadang-kala	Kerap	Selalu
Saya berasa marah	☐	☐	☐	☐	☐
Saya telah dibuli	☐	☐	☐	☐	☐
Saya mahu kelihatan ganas	☐	☐	☐	☐	☐
Saya berasa seronok	☐	☐	☐	☐	☐
Saya mahu menjadi ketua	☐	☐	☐	☐	☐
Saya telah ditendang	☐	☐	☐	☐	☐
2. Dalam tempoh 4 minggu lepas, saya menolak seseorang kerana…	Tidak pernah	Jarang	Kadang-kala	Kerap	Selalu
Saya berasa marah	☐	☐	☐	☐	☐
Saya telah dibuli	☐	☐	☐	☐	☐
Saya mahu kelihatan ganas	☐	☐	☐	☐	☐
Saya berasa seronok	☐	☐	☐	☐	☐
Saya mahu menjadi ketua	☐	☐	☐	☐	☐
Saya telah ditolak	☐	☐	☐	☐	☐
3. Dalam tempoh 4 minggu lepas, saya memukul seseorang kerana…	Tidak pernah	Jarang	Kadang-kala	Kerap	Selalu
Saya berasa marah	☐	☐	☐	☐	☐
Saya telah dibuli	☐	☐	☐	☐	☐
Saya mahu kelihatan ganas	☐	☐	☐	☐	☐
Saya berasa seronok	☐	☐	☐	☐	☐
Saya mahu menjadi ketua	☐	☐	☐	☐	☐
Saya telah dipukul	☐	☐	☐	☐	☐

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APPENDIX

4. Dalam tempoh 4 minggu lepas, saya mengejek nama seseorang kerana…	Tidak pernah	Jarang	Kadang-kala	Kerap	Selalu
Saya berasa marah	☐	☐	☐	☐	☐
Saya telah dibuli	☐	☐	☐	☐	☐
Saya mahu kelihatan ganas	☐	☐	☐	☐	☐
Saya berasa seronok	☐	☐	☐	☐	☐
Saya mahu menjadi ketua	☐	☐	☐	☐	☐
Saya telah diejek	☐	☐	☐	☐	☐

5. Dalam tempoh 4 minggu lepas, saya bergaduh dengan seseorang kerana…	Tidak pernah	Jarang	Kadang-kala	Kerap	Selalu
Saya berasa marah	☐	☐	☐	☐	☐
Saya telah dibuli	☐	☐	☐	☐	☐
Saya mahu kelihatan ganas	☐	☐	☐	☐	☐
Saya berasa seronok	☐	☐	☐	☐	☐
Saya mahu menjadi ketua	☐	☐	☐	☐	☐
Mereka cari gaduh dengan saya	☐	☐	☐	☐	☐

6. Dalam tempoh 4 minggu lepas, saya berbohong dan bergosip tentang seseorang kerana…	Tidak pernah	Jarang	Kadang-kala	Kerap	Selalu
Saya berasa marah	☐	☐	☐	☐	☐
Saya telah dibuli	☐	☐	☐	☐	☐
Saya mahu kelihatan ganas	☐	☐	☐	☐	☐
Saya berasa seronok	☐	☐	☐	☐	☐
Saya mahu menjadi ketua	☐	☐	☐	☐	☐
Mereka bercakap bohong tentang saya	☐	☐	☐	☐	☐

Table S1. The reliability coefficient of the Victim, Shame and Guilt and Mood (anger) questionnaires

	Cronbach's alpha	
	Sample 1	Sample 2
1. Reactive Aggression	.92	.92
2. Proactive Aggression	.95	.94
3. Victimization	.70	.76
4. Shame	.67	.75
5. Guilt	.70	.77
6. Anger	.73	.69

SB χ^2/df of 15.19
GFI = .81
CFI = .76
RMSEA = .14 (90% CI = .12 - .16)
SRMR = .10

I was angry

I was bullied

I was kicked

I wanted to be mean

1-Factor Model

I took pleasure out

I wanted to be the boss

.74

.61

.62

.70

.58

.64

&

APPENDIX
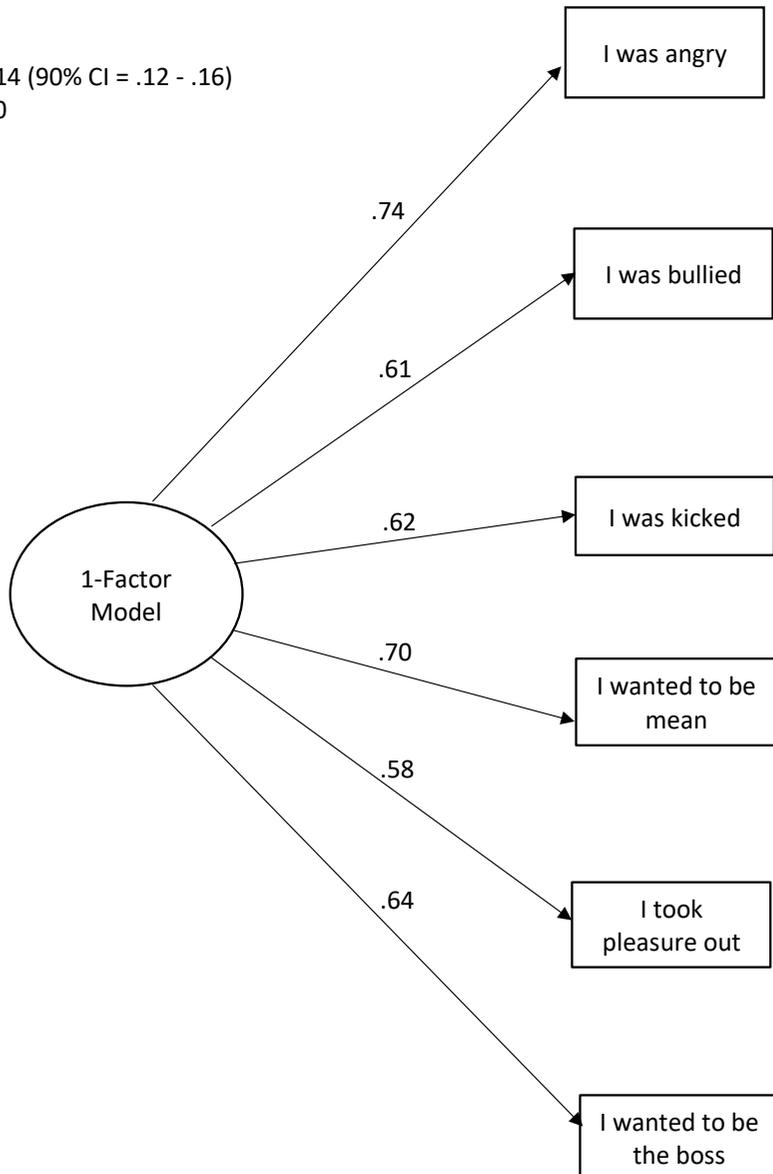
Figure S1. Alternative one-factor model of the Malay self-report IRPA (**Sample 2;** n = 789).

Chapter 3

Table S1. The Individualistic-Collectivistic Value Questionnaire for Youth in English, Dutch, and Malay derived from Adult Questionnaires.

Original Adult Items	English	Dutch	Malay
		Individualism	
It is better for me to follow my own ideas than to take suggestions from my family (Oyserman, 1993)	1. I believe that it is better to follow my own ideas than to take suggestions from my friends	Ik denk dat het beter is mijn eigen ideeën te volgen en te doen wat een vriend(in) zegt.	Saya percaya bahawa mengikut idea sendiri adalah lebih baik daripada menerima pandangan rakan saya.
Being able to take care of myself is a primary concern for me (Singelis, 1994)	3. If I really want something, I go for it, even when my friends wouldn't do that themselves	Als ik graag iets wil, dan ga ik ervoor, ook al zouden mijn vrienden dat niet doen.	Jika saya betul-betul mahukan sesuatu, saya akan berusaha mendapatkannya walaupun rakan-rakan saya tidak akan melakukannya.
I want to decide myself about things related to my life (Realo, et al., 2002)	5. I can make my own decisions. I do not need friends and family for that	Ik kan prima mijn eigen keuzes maken, daar heb ik vrienden en familie niet voor nodig.	Saya boleh buat keputusan sendiri. Saya tidak perlukan rakan-rakan dan keluarga untuk melakukannya.
If I make my own choices I will be more happy than if I listen to other (Oyserman, 1993)	7. I feel happier when I make my own choices rather than using my friends' and family's suggestions	Ik vind het fijner om mijn eigen keuzes te maken dan te luisteren naar de mening van mijn vrienden en familie.	Saya berasa lebih gembira apabila membuat pilihan sendiri daripada mendengar cadangan rakan-rakan.
	9. My own opinion is more important than those of my friends and family	Mijn eigen mening vind ik belangrijker dan de mening van mijn vrienden en familie.	Pendapat saya adalah lebih penting berbanding pendapat rakan-rakan dan keluarga saya.
	11. I think it's better to have my own opinion than to use the opinion of my friends or family	Ik denk dat het beter is om mijn eigen mening te hebben dan om de mening van mijn vrienden of familie over te nemen.	Saya percaya bahawa mempunyai pendapat sendiri adalah lebih baik daripada mengambil pendapat rakan-rakan dan keluarga.

Table S1. (continued)

Original Adult Items	English	Dutch	Malay
	Collectivism		
My happiness depends on the happiness of those around me (Singelis, 1994)	2. I feel happy when my friends and family are happy	Ik voel me gelukkig als mijn vrienden en familie gelukkig zijn.	Saya rasa gembira apabila keluarga dan rakan-rakan saya gembira.
	4. I always do my best to make my family and friends happy	Ik voel me gelukkig als mijn vrienden en familie gelukkig zijn.	Saya sentiasa melakukan yang terbaik untuk membuatkan keluarga dan rakan-rakan gembira.
	6. If one of my friends does not perform well in school, I believe I should help him/her	Als een van mijn vrienden het niet goed doet op school, dan vind ik dat ik hem/haar moet helpen.	Jika seorang rakan saya tidak menunjukkan prestasi yang baik di sekolah, saya rasa saya perlu membantunya.
When I think of myself, I often think of my close friends or family also (Cross, 2000)	8. When I think about myself, I also think about my friends and family	Als ik over mezelf nadenk denk ik vaak ook aan familie en vrienden.	Apabila saya memikirkan diri sendiri, biasanya saya turut memikirkan rakan-rakan dan keluarga saya juga.
My close relationships are an important reflection of who I am (Cross, 2000)	10. Friends and family are an important part of who I am	Mijn vrienden en familie zijn een belangrijk onderdeel van wie ik ben.	Rakan-rakan dan keluarga adalah individu yang penting dalam hidup saya.
Whenever my family needs something I try to help (Oyserman, 1994)	12. When my friends need something, I try to help	Als mijn vrienden iets nodig hebben dan probeer ik te helpen.	Apabila rakan-rakan saya memerlukan sesuatu, saya cuba untuk membantu.

Note. The italicized items in the original adult version were not considered suitable of our age group and were therefore excluded in the children's version

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Table S2. Items of the Independent Goal Attainment scale of the Sociotropy-Autonomy Scale in English, Dutch, and Malay derived from the original adult version.

Original Adult Items	English	Dutch	Malay
If a goal is important to me I will pursue it even if it may make other people uncomfortable.	When I want to accomplish something, I will go for it, even though others may dislike it.	Als ik iets graag wil bereiken, dan ga ik daarvoor, ook al vinden anderen dat niet leuk.	Apabila saya inginkan sesuatu, saya akan berusaha mendapatkannya, walaupun orang lain tidak menyukainya.
The possibility of being rejected by others for standing up for my rights would not stop me.	I will always defend myself even if this would mean that others will not like me anymore	Ik kom altijd voor mezelf op, ook al zullen anderen mij dan misschien niet aardig meer vinden.	Saya akan sentiasa mempertahankan pendirian diri sendiri walaupun saya tidak akan disukai orang selepas itu.
I set my own standards and goals for myself rather than accepting those of other people.	I decide for myself what is important and what I would like to achieve, rather than listening to others	Ik bepaal zelf wat ik belangrijk vind en wat ik wil bereiken in plaats van naar anderen te luisteren.	Saya sendiri yang menentukan apa yang penting dan mahu dicapai, bukannya orang lain.
If I think I am right about something, I feel comfortable expressing myself even if others don't like it.	When I feel I am right, I will speak up, even though others may not like it	Als ik denk dat ik ergens gelijk in heb, zeg ik het gewoon ook al vinden anderen dit niet leuk.	Apabila saya merasakan saya betul mengenai sesuatu, saya akan mengucapkannya walaupun orang lain mungkin tidak suka mendengarnya.
It is more important to meet your own objectives on a task than to meet another person's objective.	It is more important to do what I find important than to meet other people's expectations.	Het is belangrijker om te gaan voor wat ik belangrijk vind en te doen wat anderen van mij verwachten.	Penting bagi saya untuk melakukan apa yang saya rasakan perlu daripada melakukan apa yang orang lain harapkan daripada saya.
When I achieve a goal I get more satisfaction from reaching the goal than from any praise I might get.	I am happier when I accomplish a personal goal than when I'm praised by others.	Ik word blijer van het bereiken van mijn eigen doel, dan van het krijgen van complimenten.	Dapat mencapai matlamat diri membuatkan saya lebih gembira berbanding kepada menerima pujian.
It is more important that I know I've done a good job than having others know it.	It is more important to me to know that I've done something well than being acknowledged by others.	Het is voor mij belangrijker om zelf te weten dat ik iets goed gedaan heb, dan dat anderen vinden dat ik iets goed heb gedaan.	Ia penting untuk saya mengetahui bahawa saya telah melakukan sesuatu dengan baik daripada orang lain menganggapnya begitu.
I enjoy accomplishing things more than being given credit for them.	When I'm successful at something, I am happier with my accomplishment than with the compliments	Ik ben blijer met het bereiken van iets en met de complimentjes die ik ervoor krijg.	Saya lebih gembira mencapai kejayaan berbanding menerima pujian di atas pencapaian itu.

Table S3. Items of the Conformity Scale in English, Dutch, and Malay derived from the original adult version.

Original Adult Items	English	Dutch	Malay
I often rely on, and act upon, the advice of others.	I rely and act on the advice of others.	Ik vertrouw op het advies van anderen en doe vaak wat ze adviseren.	Saya selalu bergantung, dan bertindak atas nasihat orang lain.
2. I would be the last one to change my opinion in a heated argument on a controversial topic.	When I disagree with someone, I usually do not change my opinion	In een discussie verander ik niet vaak van mening.	Ketika saya berselisih pendapat, selalunya saya tidak mengubah pendirian diri.
3. Generally, I'd rather give in and go along for the sake of peace than struggle to have my way.	To avoid an argument, I usually prefer to relent and don't push to get my way	Ik geef vaak de ander gelijk om zo ruzie te voorkomen en strijd te voeren om mijn eigen zin te krijgen.	Untuk mengelakkan pertengkaran, biasanya saya memilih untuk mengalah dan akur daripada mempertahankan diri sendiri.
4. I tend to follow family tradition in making political decisions.	-	-	-
5. Basically, my friends are the ones who decide what we do together	My friends are usually the one's who decide what we will do	Mijn vrienden zijn vaak degene die bepalen wat we gaan doen.	Kebiasaannya, rakan-rakan saya adalah orang yang menentukan apa yang kami lakukan bersama.
6. A charismatic and eloquent speaker can easily influence and change my ideas	A clear and convincing speaker can influence and change my thinking.	Iemand met een duidelijk en overtuigend verhaal kan gemakkelijk mijn ideeën beïnvloeden en veranderen.	Seorang penutur yang jelas dan meyakinkan boleh mempengaruhi dan mengubah pemikiran saya.
7. I am more independent than conforming in my ways.	I would rather decide for myself of what I will do rather than following others.	Ik bepaal vaker zelf wat ik ga doen dan dat ik mij aanpas aan anderen.	Saya lebih suka menentukan sendiri apa yang akan saya lakukan daripada mengikuti apa dilakukan oleh orang lain.
8. If someone is very persuasive, I tend to change my opinion and go along with them.	If someone is very convincing, I tend to change my opinion and go along with him/her.	Als iemand heel overtuigend is, verander ik meestal mijn mening en luister ik meestal naar diegene.	Jika seseorang itu sangat meyakinkan, saya cenderung untuk mengubah pendapat saya dan mengikutnya.
9. I don't give in to others easily.	I don't give in to others easily.	Ik geef niet makkelijk toe aan anderen	Saya tidak mudah mengalah kepada orang lain.

Original Adult Items	English	Dutch	Malay
10. I tend to rely on others when I have to make an important decision quickly.	I tend to rely on others when I have to make an important decision quickly.	Ik luister meestal naar anderen wanneer ik snel een belangrijke beslissing moet nemen.	Saya lebih mudah bergantung terhadap orang lain apabila saya perlu membuat satu keputusan penting dengan segera.

Note. The italicized item in the original adult version was not considered suitable of our age group and was therefore excluded in the children's version

Table S4. Selection of items of the Collective Self-Esteem Scale in English and Dutch, derived from the original adult version.

Original Adult Items	English	Dutch
1. I am a worthy member of the social groups I belong to.		
2. I often regret that I belong to some of the social groups I do	Overall, I like the group of friend that I belong to	In het algemeen vind ik mijn vriendengroep leuk.
3. Overall, my social groups are considered good by others.	In general, others like the group of friends that I belong to	Over het algemeen vinden anderen mijn vriendengroep leuk.
4. Overall, my group memberships have very little to do with how I feel about myself		
5. I feel I don't have much to offer to the social groups I belong to.	I feel I don't have much to offer to the group of friends I belong to.	Ik denk dat mijn vriendengroep niet veel aan mij heeft als vriend(in).
6. In general, I'm glad to be a member of the social groups I belong to.	Overall, I'm happy to belong to my group of friends	Over het algemeen ben ik blij om bij mijn vriendengroep te horen.
7. Most people consider my social groups, on the average, to be more ineffective than other social groups		
8. The social groups I belong to are an important reflection of who I am	I totally fit with the group of friends that I belong to	De vriendengroep waar ik bij hoor past helemaal bij me.
9. I am a cooperative participant in the social groups I belong to.	I cooperate well in my group of friends	Ik ben iemand die goed meedoet in mijn vriendengroep.
10. Overall, I often feel that the social groups of which I am a member are not worthwhile		

Table S4. (continued)

Original Adult Items	English	Dutch
11. In general, others respect the social groups that I am a member of.	Overall, others respect the group of friend that I belong to	Over het algemeen hebben anderen respect voor mijn vriendengroep.
12. The social groups I belong to are unimportant to my sense of what kind of a person I am.		
13. I often feel I'm a useless member of my social groups	I often feel like a useless member of my group of friends	Ik voel me vaak een nutteloos lid van mijn vriendengroep.
14. I feel good about the social groups I belong to.	I feel good about the group of friends I belong to.	Ik voel me goed over de vriendengroep waar ik bij hoor.
15. In general, others think that the social groups I am a member of are unworthy	In general, others think that my group of friends is nice	Over het algemeen denken anderen dat ik een fijne vriendengroep heb.
16 In general, belonging to social groups is an important part of my self-image		

English: Look at below pairs of circles. In each pair of circles, one circle represents you (I) and the other represents your family (F). Now think about you and your family. Which pair of circles fits best with how you see yourself and your family?/ Now think about you and your friends. Which pair of circles fits best with how you see yourself and your friends?
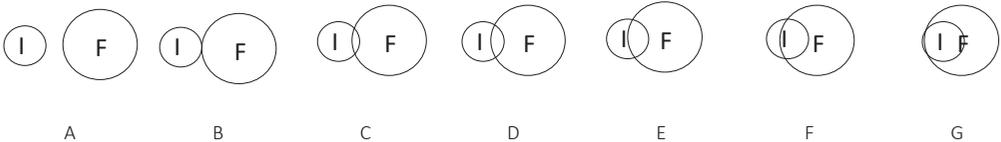
Dutch: Kijk naar de cirkels hieronder. Voor elke mogelijkheid (A, B, C, enzovoorts) is er één cirkel die jou voorstelt (ik) en één cirkel die jouw familie (F) voorstelt. Denk nu eens aan jezelf en je familie. Welk plaatje past het beste bij hoe jij jezelf en je familie ziet? Zet een cirkel om A, B, C, D, E, F of G.
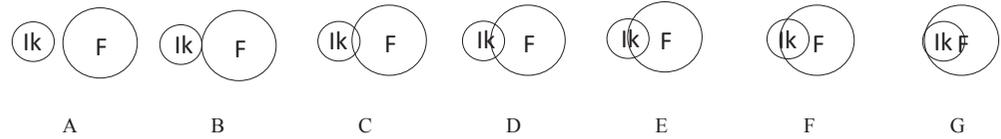
Hieronder zie je nog een aantal cirkels. Er is één cirkel die jou voorstelt (ik) en één cirkel die jouw vrienden en vriendinnen (V) voorstelt. Denk nu eens aan jezelf en je vrienden. Welk plaatje past het beste bij hoe jij jezelf en je vrienden en vriendinnen ziet? Zet een cirkel om A, B, C, D, E, F of G.
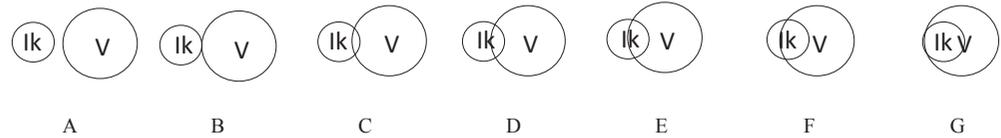
Malay: Perhatikan setiap pasangan bulatan di bawah. Pada setiap pasangan tersebut, satu bulatan mewakili diri anda (S) dan satu bulatan lain mewakili keluarga anda (K). Sekarang, fikirkan tentang anda dan keluarga anda. Manakah antara pasangan bulatan tersebut sangat benar dalam mengambarkan hubungan anda dan keluarga anda?
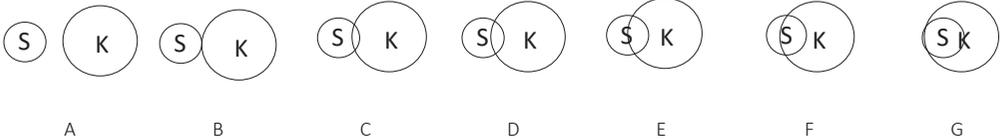
Sekarang, fikirkan berkenaan anda dan rakan anda. Manakah antara pasangan bulatan tersebut sangat benar dalam mengambarkan hubungan anda (S) dan rakan anda (R)?
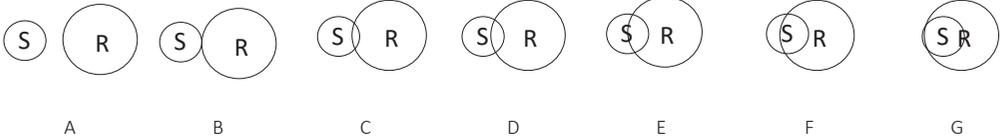
Figure S1. *Inclusion of Other in the Self* (IOS) scale in English, Dutch, and Malay

Supplementary Table 1. Pearson correlation coefficients of shame, guilt, approach coping, avoidant coping and individual cultural values (IC) on reactive and proactive aggression between Dutch and Malaysian samples

r (95% CI)

|	Reactive Aggression	Proactive Aggression	Shame	Guilt	Approach	Avoidant	Individualism	Collectivism
Reactive Aggression	-	.47*** (.36 – .57)	-.05 (-.17 – .08)	-.07 (-.19 – .05)	.17** (.05 – .29)	.21*** (.09 – .32)	.18** (.04 – .29)	-.01 (-.13 – .11)
Proactive Aggression	.53*** (.39 – .63)	-	-.20** (-.30 – -.09)	-.18** (-.29 – -.07)	.10 (-.03 – .23)	.19** (.07 – .32)	.15* (.04 – .27)	-.25*** (-.36 – -.14)
Shame	.07 (-.04 – .19)	-.12 (-.22 – -.03)	-	.62*** (.55 – .70)	.17** (.04 – .29)	.10 (-.04 – .21)	.08 (-.04 – .19)	.27*** (.15 – .38)
Guilt	-.15* (-.29 – -.01)	-.32*** (-.43 – -.21)	.43*** (.31 – .52)	-	.23*** (.11 – .35)	.16** (.04 – .28)	.03 (-.09 – .15)	.35*** (.23 – .45)
Approach	-.25*** (-.37 – -.12)	-.29*** (-.42 – -.17)	.17** (.04 – .29)	.46*** (.34 – .56)	-	.59*** (.47 – .69)	.21*** (.07 – .34)	.41*** (.31 – .50)
Avoidant	-.06 (-.22 – .10)	.06 (-.08 – .20)	-.14* (-.25 – -.00)	.04 (-.09 – .16)	.05 (-.10 – .18)	-	.23*** (.09 – .36)	.30*** (.18 – .39)
Individualism	.01 (-.11 – .13)	.03 (-.08 – .14)	-.24*** (-.36 – -.10)	-.17** (-.30 – -.04)	-.11 (-.23 – -.02)	.06 (-.07 – .19)	-	.29*** (.16 – .40)
Collectivism	-.14* (-.27 – -.00)	-.14* (-.31 – -.00)	.21*** (.08 – .33)	.29*** (.16 – .41)	.43*** (.23 – .55)	.04 (-.10 – .17)	-.02 (-.16 – .12)	-

*p < 0.05; **p < .01; ***p < .001
Note: Correlations below diagonals are from the Dutch sample, and above diagonals are from the Malaysian sample.

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APPENDIX

Supplementary Table 1. Pearson correlation coefficients of shame, guilt, fear, anger and individual cultural values (IC) on bullying and victimization between Dutch and Malaysian samples

r (95% CI)

	Bullying	Victimization	Shame	Guilt	Fear	Anger	Individualism	Collectivism
Bullying	-	.40*** (.26 – .53)	-.13* (-.24 – -.02)	-.09 (-.19 – .01)	.17** (.04 – .30)	.29*** (.17 – .41)	.20** (.09 – .31)	-.15* (-.27 – -.03)
Victimization	.45*** (.34 – .56)	-	.04 (-.09 – .15)	-.05 (-.19 – .07)	.21*** (.09 – .33)	.24*** (.13 – .37)	.10 (-.01 – .22)	.11 (-.02 – .23)
Shame	-.08 (-.20 – .04)	.20** (.02 – .37)	-	.63*** (.55 – .71)	.05 (-.05 – .15)	.04 (-.08 – .15)	.08 (-.04 – .21)	.28*** (.16 – .40)
Guilt	-.30*** (-.41 – -.18)	.01 (-.14 – .17)	.42*** (.31 – .52)	-	.03 (-.09 – .15)	.07 (-.06 – .18)	.04 (-.09 – .17)	.35*** (.24 – .47)
Fear	.08 (-.04 – .21)	.31*** (.16 – .46)	.41*** (.27 – .52)	.24*** (.11 – .37)	-	.52*** (.41 – .62)	.05 (-.08 – .18)	.06 (-.05 – .18)
Anger	.20*** (.08 – .33)	.31*** (.18 – .43)	.07 (-.06 – .20)	-.08 (-.21 – .05)	.33*** (.20 – .45)	-	.16** (.02 – .29)	.08 (-.04 – .21)
Individualism	.11 (-.01 – .23)	.00 (-.16 – .17)	-.23*** (-.36 – -.08)	-.15** (-.30 – -.02)	-.03 (-.17 – .12)	.08 (-.03 – .19)	-	.29*** (.16 – .41)
Collectivism	-.14 (-.28 – -.00)	-.07 (-.22 – .08)	.22** (.08 – .34)	.30*** (.16 – .43)	.10 (-.03 – .21)	-.15** (-.28 – -.02)	-.07 (-.22 – .08)	-

*p < 0.05; **p < .01; ***p < .001
Note: Correlations below diagonals are from the Dutch sample, and above diagonals are from the Malaysian sample.

Supplementary Table 2. Regression analysis showing gender, shame-proneness, guilt-proneness, fear, anger and cultural values as predictors of bullying and victimization

Predictor	Bullying				Victimization			
	B	SE B	p	$R^2/\Delta R^2$	B	SE B	p	$R^2/\Delta R^2$
Model 1				.13/ .13**				.12/ .12**
Age	-.00	.00	.827		.00	.00	.775	
Gender	-.06	.01	.000		-.03	.01	.047	
Shame	-.01	.02	.452		.05	.02	.010	
Guilt	-.04	.02	.019		-.04	.02	.021	
Fear	.07	.03	.060		.13	.04	.000	
Anger	.14	.03	.000		.13	.04	.000	
Model 2				.16/ .03**				
Age	-.00	.00	.999					
Gender	-.05	.01	.000					
Shame	-.01	.02	.566					
Guilt	-.03	.02	.107					
Fear	.07	.03	.043					
Anger	.13	.03	.000					
Individualism	.07	.02	.000					
Collectivism	-.05	.02	.006					
Model 3				.21/ .05*				
Age	-.00	.00	.802					
Gender	-.05	.01	.001					
Shame	-.01	.02	.927					
Guilt	-.03	.02	.057					
Fear	.07	.04	.090					
Anger	.11	.03	.000					
Individualism	.06	.02	.000					
Collectivism	-.65	.02	.000					
Shame x CTY	-.04	.02	.048					
Guilt x CTY	.05	.02	.007					
Fear x CNTY	-.01	.04	.813					
Anger x CNTY	.08	.03	.018					
Shame x IND	-.02	.02	.483					
Guilt x IND	-.02	.02	.264					
Fear x IND	.04	.04	.405					
Anger x IND	-.01	.05	.820					
Shame x COLL	.05	.02	.014					
Guilt x COLL	-.05	.02	.009					
Fear x COLL	-.13	.04	.003					
Anger x COLL	.04	.04	.332					

*p < .05, **p < .001
Note: B = unstandardized regression coefficients; SE = Standard Error; p = significant value; Δ R^2 = change in R^2 value; IND = individualism; COLL = collectivism; CTY = Country of Origin (-1=Netherlands, 1 = Malaysia)
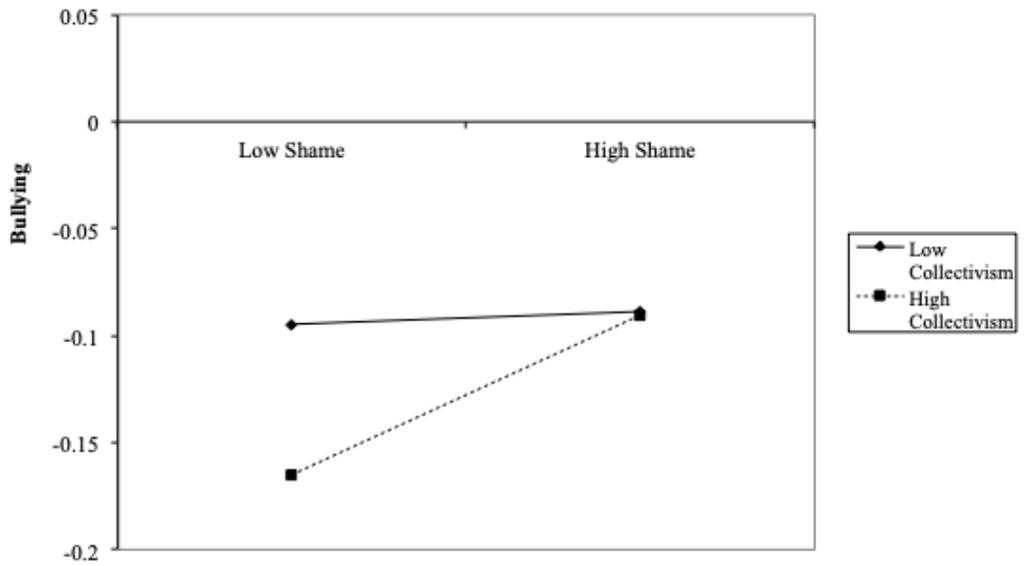
Supplementary Figure 1. The moderating effect of collectivism on the relationship between shame and bullying
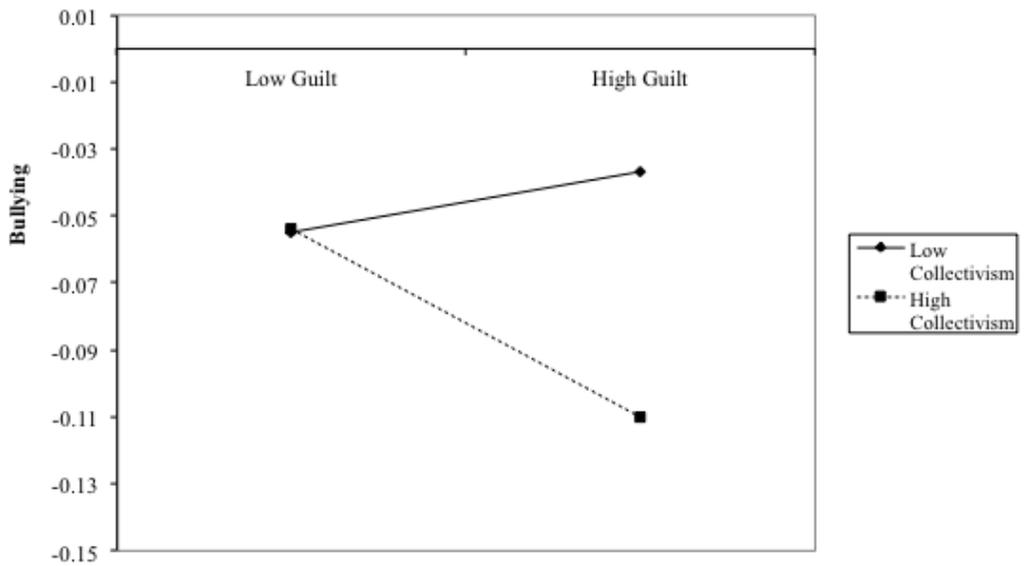
Supplementary Figure 2. The moderating effect of collectivism on the relationship between guilt and bullying
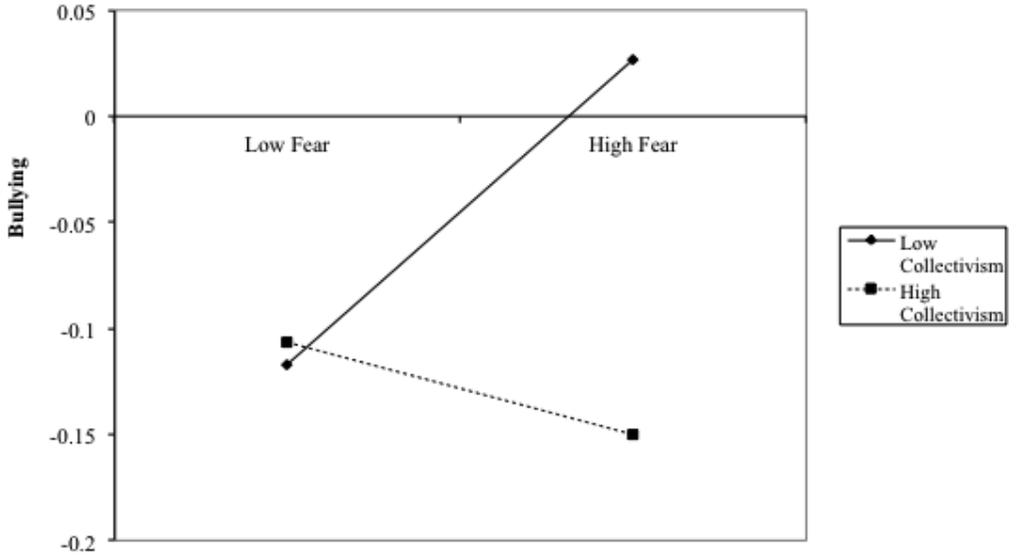
Supplementary Figure 3. The moderating effect of collectivism on the relationship between fear and bullying
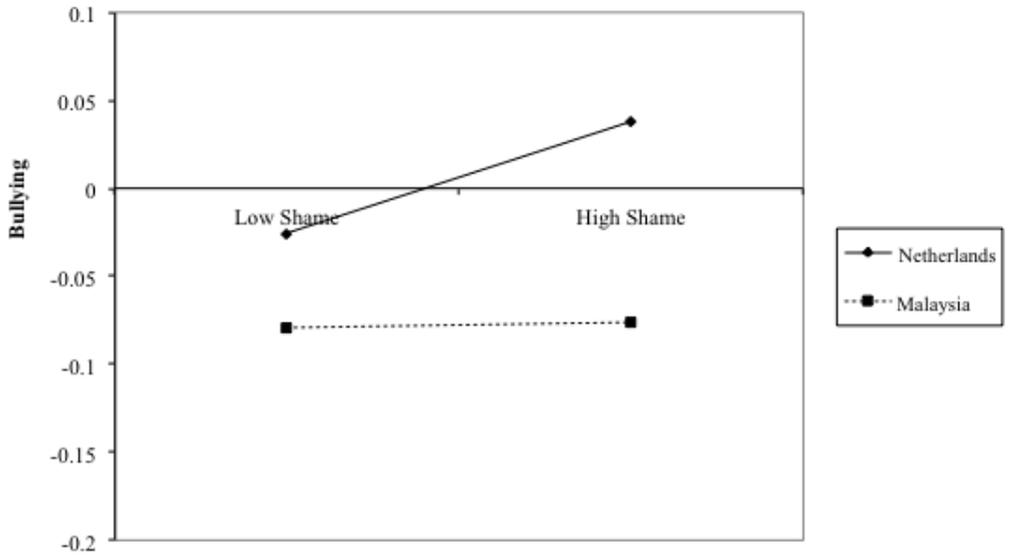
Supplementary Figure 4. The moderating effect of country of origin on the relationship between shame and bullying
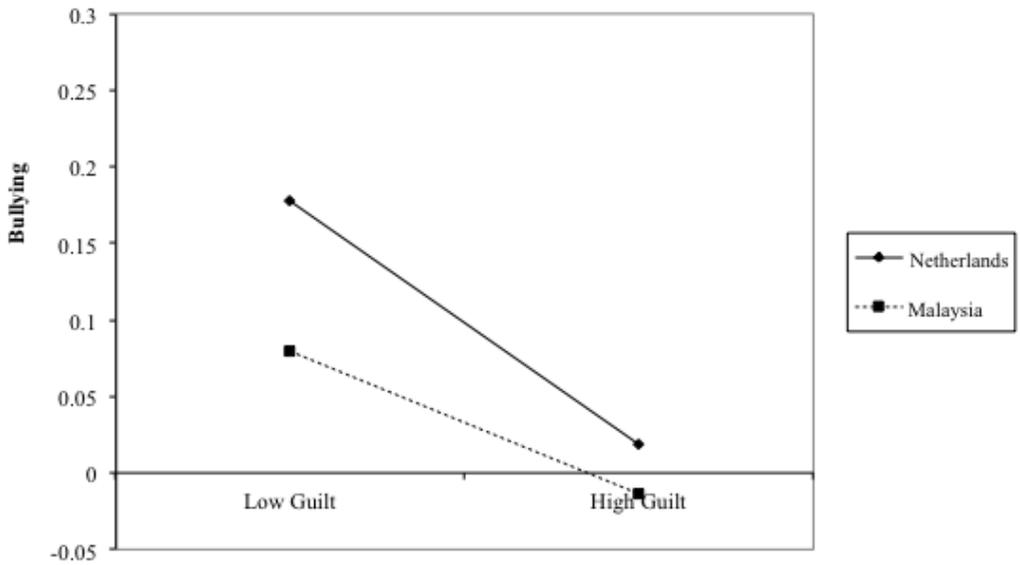
Supplementary Figure 5. The moderating effect of country of origin on the relationship between guilt and bullying
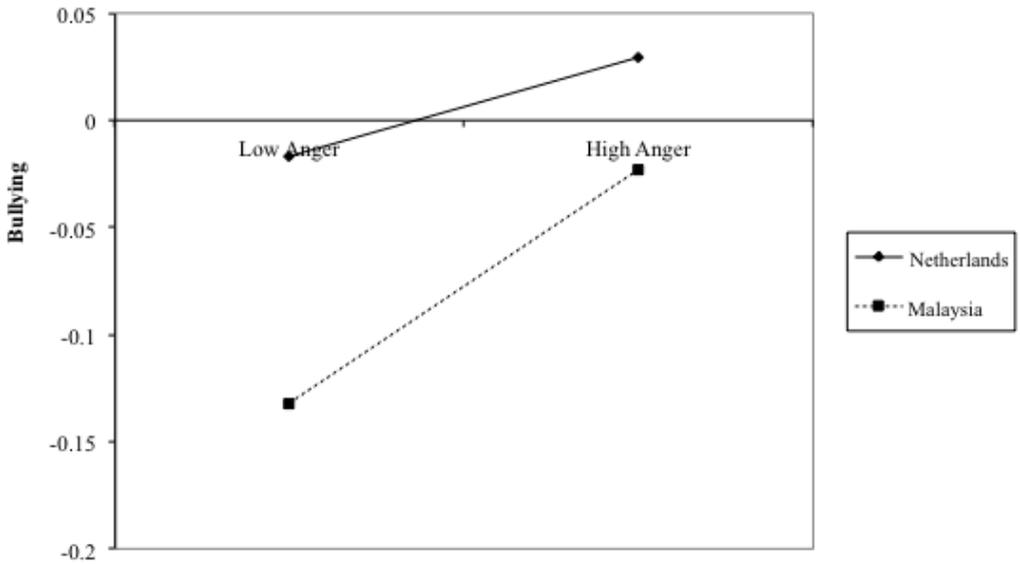
Supplementary Figure 6. The moderating effect of country of origin on the relationship between angry and bullying

Supplementary Table 1. Pearson correlation coefficients of approach coping, maladaptive coping, avoidant coping and interpersonal closeness on positive and negative friendship between Dutch and Malaysian samples.

	Positive Friendship	Negative Friendship	Approach	Maladaptive	Avoidant	Closeness
			r (95% CI)			
Positive Friendship	-	.10 (-.05 – .22)	.42*** (.31 – .52)	.21*** (.09 – .32)	.31*** (.17 – .43)	.12* (-.00 – .25)
Negative Friendship	-.28*** (-.42 – -.14)	-	.21*** (.05 – .35)	.47*** (.34 – .59)	.37***. (.23 – .50)	.00 (-.12 – .10)
Approach	.37*** (.26 – .48)	.01 (-.10 – .13)	-	.51*** (.40 – .60)	.59*** (.48 – .68)	.11 (.00 – .22)
Maladaptive	.13* (-.03 – .27)	.37*** (.23 – .50)	.28*** (.17 – .39)	-	.52*** (.39 – .63)	-.01 (-.11 – .10)
Avoidant	-.04 (-.15 – .08)	-.03 (-.14 – .09)	.03 (-.11 – .17)	-.15* (-.25 – -.04)	-	.10 (-.02 – .20)
Closeness	.41*** (.28 – .53)	-.17** (-.31 – -.03)	.08 (-.04 – .20)	.00 (-.15 – .14)	.06 (-.04 – .16)	-

*$p < 0.05$; **$p < .01$; ***$p < .001$

Note: Correlations below diagonals are from the Dutch sample, and above diagonals are from the Malaysian sample.

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APPENDIX

LIST OF PUBLICATIONS

Dahamat Azam, N., Novin, S., Oosterveld, P., & Rieffe, C. (2019). Aggression in Malaysian adolescents: Validation of the IRPA self-report to measure reactive and proactive aggression. *European Journal of Developmental Psychology, 16*, 2, 225-235. doi: 10.1080/17405629.2017.1360177

Dahamat Azam, N., Novin, S., Li, B., Oosterveld, P., Camodeca, M., Madon, Z., & Rieffe, C. (submitted). Bullying perpetration and emotional reactivity: The role of cultural and individual differences.

Dahamat Azam, N., Novin, S., Li, B., Oosterveld, P. Zainal, M., Schoerke, J., & Rieffe, C. (submitted). Reactive versus proactive aggression and moral emotions: The moderating role of cultural values.

Dahamat Azam, N., Novin, S., Li, B., Oosterveld., P., Mahoney. P., & Rieffe, C. (submitted). Coping strategies and Friendship Quality: The Moderating Role of Interpersonal Closeness and Country of Origin.

Novin, S., **Dahamat Azam, N.**, Broekhof, E., Li, B., Koch, Y., & Rieffe, C. (submitted). Validation of the Individualistic-Collectivistic Value Questionnaire for Youth.

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ACKNOWLEDGEMENTS

CURRICULUM VITAE

Mohamad Naqiuddin bin Dahamat Azam (Naqi) was born on October 10th, 1986 in Kuala Lumpur, Malaysia. He graduated from Mara Junior Science College (MJSC) Transkrian (high school) in 2003. In 2008, Naqi obtained bachelor degree in Human Development at Universiti Putra Malaysia (UPM) with first class honours. After graduation, he started working as an assistant lecturer at the same university. In 2012, he received his master degree in Psychology of Child Development from UPM. Naqi started his PhD research at Leiden University in September 2013, under the supervision of Prof. dr. Carolien Rieffe, Dr. Sheida Novin, and Dr. Boya Li. His research focuses on cultural differences in emotion regulation and adolescent aggression in two countries, namely Malaysia and the Netherlands.