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Private Self-consciousness and Gender Moderate How Adolescents' Values Relate to Aggression

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Abstract

*The relationship between values and aggression and the moderating roles of gender and private self- consciousness (PSC) on these relations were examined. Participants were 642 Arabic and Jewish adolescents in Israel (*M *age = 13.79,* SD = *.51; 53.9 percent females). Values and PSC were measured by self-reports and aggression was measured by peer nominations. Aggression was positively correlated with self-enhancement and openness to change values, and negatively correlated with self-transcendence and conservation values. The results also suggested that PSC and gender play an important role in moderating these relations. The study's contributions to value theory and its practical implications are discussed.*

Keywords: aggression; adolescence; values; gender

Introduction

Values play an important role in understanding adolescents' behavior. Values, or the guiding standards of adolescents' lives, influence which actions are considered more justified than others (Feather, 1995).Therefore, they shape the way adolescents operate in their surroundings, an idea leading many educational programs to attempt to change adolescents' values to modify their behavior (Arieli, Grant, & Sagiv, 2014; Rokeach, 1973), especially aggressive behavior.

However, we suggest that values might not be enough for explaining social behavior. There is evidence that there are not always strong associations between values and behavior (Bardi & Schwartz, 2003). For example, contextual factors such as norms (Bardi & Schwartz, 2003) and educational surroundings (Knafo, Daniel, & Khoury-Kassabri, 2008) may moderate the relationship between them. Personal factors such as private self-consciousness and gender may also have an effect, but research on this remains sparse. In addition, previous studies of adolescents used self-report

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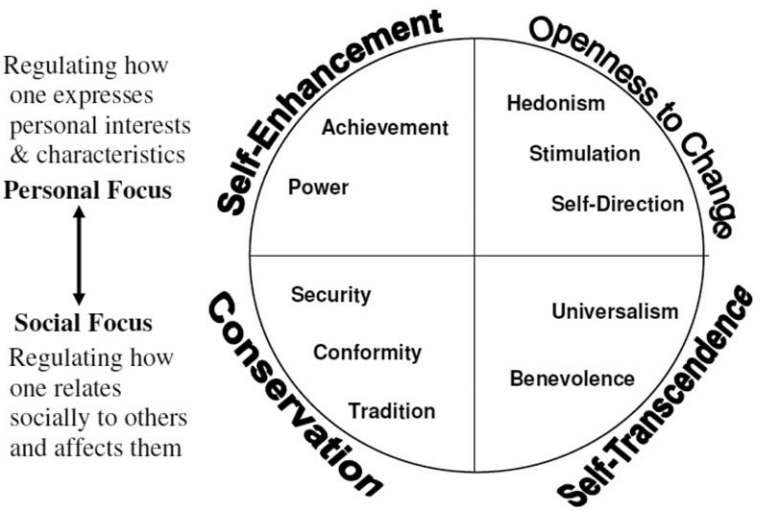

Figure 1. Theoretical Model of the Structure of Relations among 10 Values (from Schwartz, 2010).

questionnaires to assess both values and behavior, which may inflate relations due to shared-method variance (Kristof, 1996; Pozzebon & Ashton, 2009). Self-reports of aggression could also be biased due to social desirability (Paulhus, 1991).

Thus, the current study aims to examine: (1) the relationship between values and peer-nominated aggression, and (2) the moderating roles of gender and private self-consciousness on the relations between values and aggression.

What are Values?

Values are abstract ideas that guide behavior and the evaluation of the self and others. They also vary in relative importance across individuals (Schwartz, 1992). When people find a specific value important, they will usually aim to behave and act by it. Schwartz (1992) has described 10 value types, organized in a circular structure in which adjacent values share similar motivations and values located opposite to each other may be contradictory (see Figure 1). This structure has been found in over 65 countries (e.g., Schwartz & Rubel, 2005). Each value represents a broad motivational goal: *self-direction* (independence of thought and action), *stimulation* (excitement, challenge, and novelty), *hedonism* (pleasure or sensuous gratification), *achievement* (personal success according to social standards), *power* (social status, dominance over people and resources), *conformity* (restraint of actions that may harm others or violate social expectations), *tradition* (respect for and commitment to cultural or religious customs and ideas), *benevolence* (preserving and enhancing the welfare of people to whom one is close), *universalism* (understanding, tolerance, and concern for the welfare of all people and nature), and *security* (safety and stability of society, relationships, and self).

As seen in Figure 1, the 10 values can be gathered into four higher-order groups organized by two orthogonal bipolar dimensions, where each oppositional pole reflects opposing motivations (Schwartz & Boehnke, 2004). Dimension one focuses on the

conflict between self-enhancement and self-transcendence. *Self-enhancement values*, which include power and achievement values, endorse individual personal goals through excelling and by controlling others. *Self-transcendence values* (universalism and benevolence) stress concern for the well-being and interests of others. Dimension two focuses on the conflict between openness to change and conservation values. *Openness to change values* (stimulation, self-direction, and hedonism) pursues change through new ideas, experiences, and actions. On the opposite pole are *conservation values* (conformity, tradition, and security) which emphasize the importance of the status quo to preserve the self and the society. As seen in Figure 1, these four groups fit within two larger groups: values with personal focus (self-enhancement and openness to change values) which highlight one's expression of needs and character, and values with social focus (self-transcendence and conservation values) which stress one's relatedness to others.

Although values share some similarities with other concepts that affect human behavior, such as social goals, attitudes, traits, and needs, it is important to acknowledge their uniqueness (Roccas & Sagiv, 2010). Social goals refer to goals of interpersonal agency and communion (i.e., status/power vs. submission; closeness vs. separation) with peers (Kiefer & Ryan, 2008; Ojanen & Findley-Van Nostrand, 2014; Ojanen, Grönroos, & Salmivalli, 2005; Samson, Ojanen, & Hollo, 2012) whereas values reflect broader motivations that are not necessarily socially specific. Unlike *traits or attitud*es, values present desirable goals that are commendable and worthy. The appraisal of traits could be either positive or negative, and some traits could be experienced as conflicting with adolescents' ideal self-image. For example, adolescents who value security (one of the conservation values) will seek safety in their lives, but the need for security as a trait may make some adolescents feel needy and depressed, possibly causing them to attempt to change this trait in themselves. Finally, as opposed to *needs* which may be unconscious, values are accessible to adolescents' awareness; thus, they can be reflected on and considered.

Direct Relationship between Values and Aggression in Adolescence

Adolescence is a time of change along many dimensions, including values and behavior. Cognitive development moves from concrete operational thinking to formal operational reasoning (Piaget, 1960). The evolution of abstract thinking and the capacity to think beyond specific circumstances allow an individual to reason about what is possible instead of what simply exists, and leads to the ability to consider hypothetical scenarios. The ability to think in multiple dimensions and assess different aspects of a phenomenon (Kuhn, 2009) enable youth to reflect on and evaluate their values (Kuhn, Cheney, & Weinstock, 2000). Thus, in adolescence, when identity is also developing, values evolve and become consolidated (Marcia, 1980). At the same time, changes in neurobiological systems and in social relations could lead to increases in aggression (Moffitt, 1993; Steinberg, 2010). Aggressive behavior at this age will have comprehensive psychological and physical effects on the victim (Rudolph et al., 2013), but it may also affect the aggressor, leading to peer rejection (Bierman, 2004) and other adjustment problems (e.g., Prinstein, Boergers, & Vernberg, 2001; White, Brick, & Hansell, 1993). Due to implications of aggression during adolescence and the well-studied effect of values on behavior (Bardi & Schwartz, 2003; Pozzebon & Ashton, 2009), we suggest that better understanding of the relation between values and

aggression is essential to discerning the complex motivations underlying aggression and for planning programs to prevent it.

Value theory predicts that values which are opposite to one another on the circle (see Figure 1) have conflicting motivations and are linked with opposing behaviors (Bardi & Schwartz, 2003). For example, adolescents who are high in self-enhancement values, which conflict with self-transcendence values, will be involved in more antisocial behaviors (Aquilar, 2013; Knafo, 2003; Knafo et al., 2008; Menesini, Nocentini, & Camodeca, 2013). Adolescents high in self-transcendent values, which support helping others and caring for others' welfare, are typically less aggressive (Knafo et al., 2008; Menesini et al., 2013). Following this line of thought, we hypothesize that self-enhancement values will be positively related to aggression and self-transcendence values will be negatively related to aggression.

We expect the same results for openness to change vs. conservation values. Openness to change values relate to seeking adventure, stimulation, and new ideas and experiences. During adolescence, when aggressive behavior may increase (Moffitt, 1993), these motivations could translate into aggressive behavior (Menesini et al., 2013). Therefore, openness to change values are hypothesized to relate positively to aggression. In contrast, conservation values may lead an adolescent to exercise more restraint in order to meet social expectations. These values are expected to relate negatively to aggression (Knafo et al., 2008).

Private Self-consciousness and Gender as Moderators of Values and Aggression

However, past research finds that associations between values and aggression are low to moderate (Knafo et al., 2008), suggesting that other factors might moderate these relations. It has been suggested that higher levels of private self-consciousness (PSC) will strengthen the relationship between values and behavior (Duval & Wicklund, 1972; Wicklund, 1979). PSC refers to individuals' tendency to be aware of their feelings, thoughts, and values (Fenigstein, Scheier, & Buss, 1975).

PSC increases during adolescence (Rankin, Lane, Gibbons, & Gerrard, 2004), and two main processes are suggested to explain this change. Firstly, adolescents become more involved with their peers, who have an important part in facilitating identity development (Sullivan, 1953). Through appraisal and feedback from their peers, adolescents think more about themselves and reflect on their behavior, emotions, thoughts, and values (Rankin et al., 2004). In fact, an important stage in the movement toward consolidating identity is reflecting on inner values and standards (Berzonsky, 2011). Secondly, the development of abstract thinking and metacognitions throughout adolescence (Kuhn, 2009) allows adolescents to reflect on their own thinking processes and on their values and traits in a less concrete and more sophisticated manner (Harter, 1999).

PSC involves a process of self-evaluation, whereby the self is compared with inner standards, including desirable norms or values (Alberts, Martijn, & de Vries, 2011; Carver & Scheier, 1981). Discrepancies between the self and these standards might cause discomfort (Phillips & Silvia, 2005). Therefore, privately self-conscious people may be more likely to behave in a way that is congruent with their standards or values (Gibbons, 1990; Silvia & Duval, 2001; Wicklund, 1979).

Another mechanism that could explain the role of PSC in value–behavior consistency is suggested by self-perception theory (Bem, 1967). According to this theory,

people observe their behavior and make conclusions about their own values. It is likely that people high on PSC would be more likely to scrutinize their own behavior, and thus their values would be more aligned with their actions.

To date, no study has examined the moderating role of PSC on the relation between values and behavior in adolescents. However, previous studies support the idea that PSC strengthens the relationship between different human characteristics like values and attitudes (Kemmelmeier, 2001). One study found that the association between self-reported aggressiveness and observed aggressive behavior in a lab setting was stronger for university students with high PSC than with low PSC (Scheier, Buss, & Buss, 1978), suggesting that people who are high on PSC are better reporters of their behavior. Similarly, we suggest that the self-reflection that is inherent in PSC may cause greater consistency between values and behavior. Therefore, we hypothesize that PSC will strengthen the relationship between values and behavior.

A final goal of the study was to explore how gender moderates the relations between values and behavior, and how gender may interact with PSC and values to predict behavior. Previous studies have suggested that norms might affect the relationship between values and behavior; when a behavior is not normative (such as aggression, especially among girls; Card, Stucky, Sawalani, & Little, 2008), adolescents find it hard to act according to values that enhance this behavior. Therefore, the more behavior is subject to normative pressure, the weaker the expected relation between values and behavior (Bardi & Schwartz, 2003). Although, in general, aggression is considered undesirable, there are different norms, or social roles, for boys and girls; whereas masculinity is associated with dominance and aggression (Mosher & Sirkin, 1984), femininity is associated with caring and nurturing others (Schwartz & Rubel, 2005). Given this, girls who have strong values found to be positively related to aggression (self-enhancement and openness to change values) will be less free to express their values through aggressive behavior. Therefore, we hypothesize that the relationship between values positively related to aggression (self-enhancement and openness to change values) and aggression will be stronger for boys than for girls. Additionally, no study has examined the interaction of gender and PSC as moderators of the relationship between values and behavior. In the current research, we take a first step toward understanding the joint effect of gender and PSC on the relation between values and aggression.

Method

Participants

The study included 642 adolescents from two ethnic groups in Israel: Jewish adolescents (N = 359; *M* age = 13.88, *SD* = .51; 51 percent females) and Arabic citizens of Israel (N = 283, *M* age = 13.7, *SD* = .5, 60.7 percent females). The participants were in the 8th grade in five public schools (two Arabic schools and three Jewish schools) in the northern area of Israel. Participants reported their parents' highest degree of education. Elementary education was completed by 4.6 percent of the mothers and 5.9 percent of the fathers; 39.5 percent of the mothers and 44.9 percent of the fathers completed high-school; and 43.6 percent of the mothers and 35.4 percent of the fathers graduated from university. There were missing values for 12.3 percent of the mother's degree of education and 13.8 percent of the fathers' degree of education.

Procedure

Consent forms were sent home to all 8th grade parents. Students whose parents consented to their participation (over 95 percent) completed surveys in school under the supervision of a research team member during one group-administered data collection session that lasted 45 minutes. Participation was voluntary and students were assured that their responses would remain anonymous. For their participation, students received small, attractive incentives (novelty pens or pencils).

Measures

Values. Students' values were assessed with the short version of the Portrait Values Questionnaire (PVQ; Schwartz et al., 2001). The PVQ has been shown to be suitable for use with children and adolescents (Bubeck & Bilsky, 2004; Knafo et al., 2008; Schwartz et al., 2001). The PVQ includes short verbal portraits of 40 people (matched to the respondent's gender) which describe the person's goals, aspirations, or wishes, implicitly indicating the importance of a single broad value. For each portrait, participants are asked to rate, on 6-point Likert scale (1 = not like me at all to 6 = very much like me), how much they are similar to the person described. Thus, respondents' own values are inferred from their self-reported similarity to people who are described in terms of the importance of particular values. The items were aggregated into four values groups based on Schwartz (1994). Self-enhancement values highlight the goal of individualistic dominance and self-success (e.g., 'It is important to her to be in charge and tell others what to do. She wants people to do what she says'; $\alpha = .73$). Self-transcendence values emphasize the concern for other people's welfare and rights (e.g., 'It's very important to her to help the people around her. She wants to care for their well-being'; $\alpha = .81$). Openness to change values focus on individual independence in mind and action and openness to new experiences (e.g., 'Thinking up new ideas and being creative is important to her. She likes to do things in her own original way'; $\alpha = .79$). Conservation values stress preserving the status quo, traditions, and protecting stability (e.g., 'She believes that people should do what they're told. She thinks people should follow rules at all times, even when no-one is watching'; $\alpha = .84$).

Private Self-consciousness. Private self-consciousness was measured by 11 items from the Self-Consciousness Scale (Scheier & Carver, 1985). Factor analysis revealed that nine items fell on one factor whereas only two items that were phrased negatively fell on the second factor. Therefore, these two items were removed, yielding a 9-item scale ($\alpha = .85$). Students were asked to rate how much each item described them (e.g., 'I'm generally attentive to my inner feelings') on a scale from 0 (not at all true of me) to 4 (always true of me).

Aggression. Peer nominations (Asher & McDonald, 2009) were used to assess aggression. Children were given a roster listing the names of their classmates and were asked to circle the names of classmates who fit each criterion. Six items assessed aggression (i.e., 'starts fights', 'says mean things', 'hits and pushes', 'talks about kids behind their back', 'gossips or spreads rumors', and 'tries to keep certain kids from being in their group'). Only the names of classmates who had permission to participate in the study were listed on this measure. A child's score for each behavior item was computed as the proportion of nominations for that item that the child received divided by the total

Table 1. Descriptive Statistics and Correlations for Values, Private Self-Consciousness, and Aggression

	Mean	SD	SEV	STV	OPV	COV	PSC
Self-enhancement values	4.04	.93					
Self-transcendence values	4.49	.85	−.52**				
Openness to change values	4.64	.80	.10**	−.29**			
Conservation values	4.19	.82	−.47**	−.11**	−.64**		
Private self-consciousness	2.16	.92	−.06	−.07	−.00	−.05	
Aggression	.34	1.04	.25**	−.22**	.14**	−.13**	−.06

Note: SEV = self-enhancement values; STV = self-transcendence values; OPV = open to change values; COV = conservation values; PSC = private self-consciousness.
** $p < .01$.

number of classmates who could have nominated that child for that item. The final scores for each item were standardized within each class and then averaged together to create one score for aggression ($\alpha = .86$).

Results

We examined the relationship between values and aggression and the moderating role of PSC and gender on the relations between values and aggression. Descriptive statistics and zero order correlations of the main variables are presented in Table 1.

The Associations between Values and Aggression

To examine the first hypothesis, namely that self-enhancement values and openness to change values are positively related to aggression and that self-transcendence values and conservation values are negatively related to aggression, we examined the Pearson correlation coefficients among the variables. As shown in Table 1, aggression was positively correlated with self-enhancement values and with openness to change values, and negatively correlated with self-transcendence values and with conservation values.

PSC and Gender as Moderators of the Relationship between Values and Aggression

Our second hypothesis expected that PSC and gender would moderate the relationship between values and aggression. Our preliminary analyses also explored whether ethnicity moderated these associations as well, but only 4 ethnicity interactions out of a possible 22 were significant. As we had no *a priori* hypotheses about ethnicity, ethnicity interactions were not included in the final models. However, we left ethnicity in as a control variable.

We conducted hierarchical regression analyses, using one regression for each of the four value dimensions (i.e., self-enhancement values, self-transcendence values, openness to change values, and conservation values) predicting aggression, resulting in four hierarchal regressions. The four values were tested separately in order to avoid

multicollinearity due to the strong negative relations between opposing values (Schwartz, 1992, 2010). In step one, our predictors were ethnicity, gender, value, and PSC. In step two, we tested two-way interactions (gender × PSC, gender × values, PSC × values). In step three, we tested the three-way interaction (values × gender × PSC). Bonferroni corrections were also applied to significance testing; that is, only results that were ≤.013 (.05/4) were considered significant.

As shown in Table 2, we found five interactions with PSC and gender to be significant. In order to examine the moderating role of PSC and gender, we probed the interactions, testing the significance of the slopes reflecting the relationship between different values aggression for three levels of PSC (−1 *SD*, the mean, and +1 *SD*), and for gender (boys = 0, girls = 1) (Aiken & West, 1991; Preacher, Curran, & Bauer, 2006).

Firstly, gender was found to moderate the associations between self-enhancement values and openness to change values with aggression. For girls, there was no positive relationship between self-enhancement values and aggression ($\beta = .03$, $p = .55$), but for boys it was significant ($\beta = .26$, $p < .001$). We obtained similar results for the moderating role of gender on the relationship between openness to change values and aggression. There was no significant relationship between openness to change values and aggression for girls ($\beta = .05$, $p = .39$), but for boys openness to change values were positively related to aggression ($\beta = .25$, $p < .001$). Secondly, we found one instance that suggested that PSC may moderate the value–behavior association. As shown in Table 2, a two-way interaction of PSC and conservation values was significant as well, but probing the interaction showed no significance of the simple slopes for low PSC ($\beta = .04$, $p = .50$) and high PSC ($\beta = -.12$, $p = .10$).

Thirdly, for self-transcendence and conservation values, there were three-way interactions between values, gender, and PSC. As shown in Figure 2, for boys there was no relationship between self-transcendence values and aggression at low levels of PSC ($\beta = .03$, $p = .74$). In contrast, for boys high in PSC, there was a negative relation between self-transcendence values and aggression ($\beta = -.29$, $p = .002$). For girls low in PSC, there was a negative relation between self-transcendence values and aggression ($\beta = -.15$, $p = .02$), but there was no significant association for girls high in PSC ($\beta = -.001$, $p = .98$).

There was a similar pattern for the three-way interaction of conservation values, gender, and PSC predicting aggression. As shown in Figure 3, for boys there was no association at low levels of PSC ($\beta = .11$, $p = .19$). However, for boys high in PSC, conservation values were negatively related to aggression ($\beta = -.32$, $p < .001$). For girls, no effect was found for low ($\beta = -.05$, $p = .22$) or high PSC ($\beta = -.00$, $p = .93$ (see Figure 3).

Discussion

The findings of this study emphasize the importance of values to aggression. As we hypothesized, we found self-enhancement and openness to change values to be positively related to peer-reported aggression. We found the opposite relation for self-transcendence and conservation values, thus corroborating previous studies (e.g., Knafo et al., 2008). From a theoretical point of view, these results strengthen the value theory that assumes that the values endorsing opposite motivations will be related to contradicting behaviors (Schwartz, 2010). We found that the motivation of youth to control others, to invest in the self, and excel over others was related to aggression, but the opposite motivation of taking care of and investing in others was not.

Table 2. Hierarchical Regression Predicating Aggression on Values, PSC, and Gender

	Self- enhancement values				Self- transcendence values				Openness to change values				Conservation values			
Step 1	B	SE B	β	ΔR^2	B	SE B	β	ΔR^2	B	SE B	β	ΔR^2	B	SE B	β	ΔR^2
Values	.14	.03	**.16****	**.11****	−.09	.04	**−.09***	**.10****	.15	.04	**.14****	**.11****	−.06	.04	**−.07†**	**.09****
Ethnicity	−.10	.06	−.09		−.07	.06	−.06		−.13	.06	**−.11***		−.06	.07	−.05	
Gender	−.41	.06	**−.39****		−.45	.06	**−.42****		−.46	.06	**−.42****		−.46	.06	**−.43****	
Private self-consciousness	−.05	.04	−.06		.01	.04	.01		−.06	.04	−.06		.00	.04	.00	
Step 2																
PSC × Gender	−.06	.07	−.05	**.02****	−.12	.08	−.09	.00	−.06	.07	−.05	**.01***	−.12	.07	−.09	**.02***
PSC × Value	.05	.04	.06		−.04	.04	−.04		−.03	.04	−.03		−.09	.04	**−.10***	
Value × Gender	−.22	.07	**−.18****		.05	.08	.03		−.20	.08	**−.14***		.04	.07	−.04	
Step 3																
Value × PSC × Gender	.08	.07	.06	.00	.24	.08	**.17****	**.01****	.10	.08	.07	.00	.26	.08	**.19****	**.02****

Note: Gender 0 = boys, 1 = girls; ethnicity 0 = Jewish, Arabs = 1. PSC = private self-consciousness. Significant correlations are marked in bold.
† $p < .05$ one tailed, * $p < .05$; ** $p < .01$.

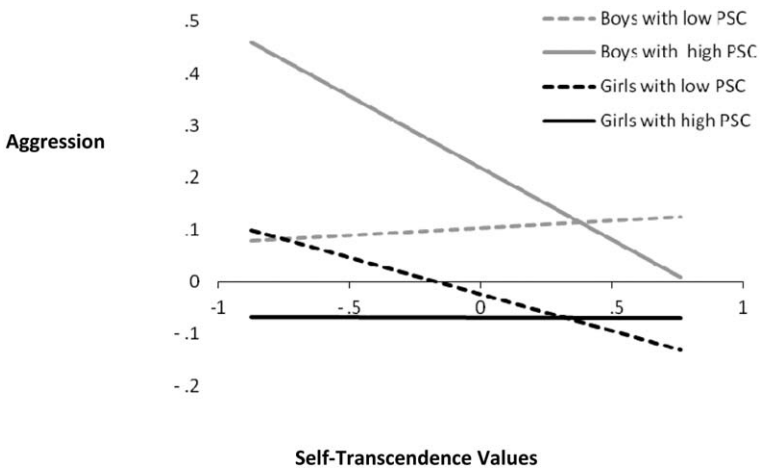

Figure 2. The Moderating Role of PSC and Gender on the Relations between Self-Transcendence Values and Aggression. PSC = private self- consciousness.

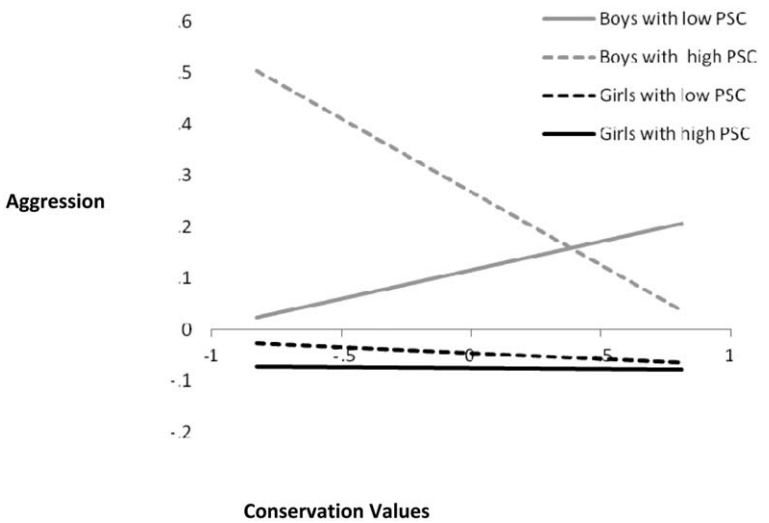

Figure 3. The Moderating Role of PSC and Gender on the Relations between Conservation Values and Aggression. PSC = private self- consciousness.

Two mechanisms, one direct and the other indirect, may explain the way values affect behavior (Roccas & Sagiv, 2010). In the direct mechanism, values stress the relevance of one behavior over another, inducing adolescents to act in a certain way. Acting according to values is rewarding because, in this way, adolescents get what they want (Bardi & Schwartz, 2003). Moreover, this mechanism tends to conserve itself, as behaving according to one's own values contributes to self-consistency (Bardi & Goodwin, 2011; Rokeach, 1973). For example, adolescents who endorse self-transcendence will act in helpful, prosocial, and non-aggressive ways to help preserve their helpful and caring self-image.

In the indirect mechanism, the association may be explained by values influencing how people see the world (Rohan, 2000). Values may divert attention to specific information cues (Crick & Dodge, 1994) and affect the way adolescents interpret reality (Verplanken & Holland, 2002). As a result, certain behaviors may become more dominant. For example, adolescents who value power (a self-enhancement value) may perceive and interpret social relationships in terms of social dominance; such adolescents may pay attention to cues that suggest that others are also seeking dominance. These attentional biases may lead to aggressive behavior as adolescents try to assert their dominance over others who they believe are jockeying for status. Future research should trace these indirect mechanisms. For example, how exactly do values direct attention? Are there specific situations in which values make specific informational cues more salient and lead to aggression?

It is important to note that according to the value model, values should be activated to affect behavior (Schwartz, 2010). Research has found that value *salience* may affect the relationship between values and behavior. For example, a set of experiments showed that making values salient by priming strengthened value–behavior relations (e.g., Maio, Olson, Allen, & Bernard, 2001, Maio, Pakizeh, Cheung, & Rees, 2009). In addition, *contemplating reasoning* regarding values, which is thinking about why someone should endorse specific values, was found to increase value–behavior relations (Arieli et al., 2014; Maio et al., 2001). Future studies should trace how priming specific values affects aggression and whether contemplating reasoning (e.g., during intervention programs) about socially oriented values (self-transcendence and conservation values) helps to reduce aggression levels.

Previous studies noted differences in the strength of the relationship between values and behavior. For example, security and conformity values (conservation values) were found to be only marginally related to behavior (Bardi & Schwartz, 2003). Some suggested that the relationship between these values and aggression changes by context (Knafo et al., 2008). In our study, factors such as PSC and gender moderated these relationships.

We found that gender moderated the relationship between self-enhancement values and aggression, and between openness to change values and aggression. As we hypothesized, for girls there was no relationship between values and aggression, but for boys we found a positive relationship. These results support the idea that gender norms about aggression may weaken how values are related to behavior for girls. Girls who are high in self-enhancement values may be less likely to express their values due to social pressure. Indeed, a comparison of aggression levels between boys and girls revealed aggression to be less normative (less frequent) for girls ($M = -.21$) than for boys ($M = .24$; $t\,(726) = 8.07$, $p < .001$). Possibly girls find other ways, like prosocial behavior, to express their ambitions and dominance (Hawley, Little, & Card, 2008). Future studies should examine the relationship between values and behaviors that have weaker gender norms. It is likely that values will be similarly predictive of behaviors with weaker gender norms for both boys and girls. It may also be possible to examine how values and aggression are related in cultural contexts where there are fewer gender norms about aggression. In these cultural contexts, the gender differences in the associations between values and aggression should be smaller or non-existent.

Most importantly, we found PSC to have some importance in moderating the relationship between values and behavior for male adolescents. Awareness of one's own values (high levels of PSC) highlights value–behavior discrepancies which might cause emotional distress. In order to avoid internal stress and achieve feelings of

self-consistency, adolescents may choose to act according to their own values (Gibbons, 1990; Silvia & Duval, 2001; Wicklund, 1979). During adolescence, when identity is developing (Erikson, 1968), a sense of internal consistency might be especially important to well-being. Recent studies highlight that the consciousness of inner feelings and thoughts might allow adolescents to control and regulate their behavior (Alberts et al., 2011; Friese, Messner, & Schaffner, 2012). Adolescents test their values against inner standards, changing their behavior to reduce discrepancies, then retest their values in a repeating cycle until the standard is reached (Carver & Scheier, 1981).

We found no moderating effect of PSC alone. Rather, the interaction of gender and PSC had a moderating effect on the relationship between social values and aggression. As shown in Figures 2 and 3, for girls, either high PSC or high levels of self-transcendence and to some extent conservation values were related to lower levels of aggression. However, for boys a combination of higher levels of PSC and higher levels of social values was associated with reduced aggression. Given the relatively low levels of aggression that girls express, it seems that one mechanism, either an increase in social values or increase in PSC, is enough to reduce aggression. Boys, on the other hand, need high levels of PSC and the endorsement of social values to demonstrate lower levels of aggression.

It is important to note that there is a dark side to PSC for boys. Among the group that was low in self-transcendence or conservation values, those boys with high levels of PSC were more aggressive than those with low levels of PSC (see left part of Figures 2 and 3). The nature of behavior when self-awareness is high depends on the reference value (Carver, 2008). That is, high levels of PSC with no appropriate guiding principles in life could lead to higher levels of aggression. It could be that these boys are aware of their antisocial values and are indifferent about them; possibly, knowing more about themselves could even be a tool to control and hurt others.

Strengths, Limitations, and Implications

The study examined the relationship between values and aggression, and the moderating role of gender and PSC on this relationship. As far as we know, this is the first study to examine the role of gender and PSC on the relationship between values and aggression. Detecting and understanding the factors that moderate these relationships allow us to accurately predict the ways values relate to aggression. The robustness of the study is shown by the replication of the findings across different values.

Another advantage of the study is its methodology. Previous studies examining the relationship between values and aggression have used self-report questionnaires, but this assessment may be prone to common measurement bias, artificially inflating correlations among variables (Kristof, 1996; Pozzebon & Ashton, 2009). Furthermore, the tendency of youth to answer questionnaires in a manner that they assume is acceptable to others (social desirability) may lead them to downplay their aggressive behavior (Haj-Yahia, 2000). This study overcame this weaknesses by measuring aggression with peer nominations.

Some methodological issues are noteworthy. The value theory assumes that values affect aggression; nevertheless, our design limits our causal interpretation. It could be that aggressive adolescents change their values to fit their behavior (Bardi & Goodwin, 2011). In order to better understand the developmental trajectories of the relationship between values and aggression, future research should examine the relationship longitudinally. We chose to consider the moderating effects of two personal

characteristics: gender and level of PSC. However, other personal variables could also be important. For example, we might expect more consistency between values and behavior in adulthood compared with adolescence. Future studies should trace whether the relationship between values and behavior changes from adolescence to adulthood.

The study has some notable implications. Firstly, it highlights the importance of values in preventing or enhancing aggression. There is initial evidence that enhancing benevolence values can increase prosocial behavior (Arieli et al., 2014). Future educational programs should encourage development of the socially focused values: self-transcendence and conservation. Secondly, the study suggests that one possible way to reduce aggression in girls is for educational programs to either try to increase other-focused values or private self-consciousness. However, for boys, who may be more aggressive than girls, enhancing both other-focused values *and* private self-consciousness may be necessary to reduce aggression.

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