

## RESEARCH ARTICLE

# Values and adolescents' self-esteem: The role of value content and congruence with classmates

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## Abstract

The study examined the relations between adolescents' self-esteem and two aspects of values: content and congruence with classmates. Using a large sample of Israeli adolescents ( $N = 1,683$ ;  $M_{\text{age}} = 14.36$ ,  $SD = 2.24$ , range = 11–18, 54.31% females), we found that self-esteem related negatively to self-enhancement values and positively to conservation values using zero order correlations. Multilevel polynomial regressions, controlling for demographic differences, found significant quadratic associations of self-esteem with self-enhancement, self-transcendence, openness-to-change, and conservation values. Furthermore, using Response Surface Analyses, it was found that adolescents who were congruent with their classmates' self-enhancement and self-transcendence values showed the highest levels of self-esteem. The findings point to the importance of social context for the relations between values and self-esteem among adolescents.

## KEYWORDS

adolescence, polynomial- regression, response surface analysis, self-esteem, values, values-congruence, values-fit

## 1 | INTRODUCTION

Values reflect what is most important in people's lives. They are abstract goals that direct and influence perceptions of the social world. As such, they may be related to people's perceptions of themselves, notably their self-esteem. Self-esteem, the subjective overall emotional evaluation of one's own worth, has often been associated with positive psychological adjustment, especially among adolescents (Birkeland, Melkevik, Holsen, & Wold, 2012; Orth, Robins, & Widaman, 2012). Adolescents' self-esteem is likely related to their evaluation of the self and perceived evaluations by those in their close environment, including their peer group (Harter, 1993). In this article, we examine how values are related to adolescents' self-esteem, focusing on two prevailing perspectives: the content of their values and the congruence of their values with their classroom peers (for a review see Sagiv, Roccas, & Oppenheim-Weller, 2015; Sorthaix & Schwartz, 2012).

## 2 | WHAT ARE VALUES?

Values are abstract guiding principles in life, or overarching goals. As such, values guide behaviors (Benish-Weisman, 2015), but also the evaluation of people and events, including the self. Values vary among people in their relative importance (Schwartz, 1992). In a model replicated in over 70 countries (e.g., Schwartz & Rubel, 2006), Schwartz (1992) hypothesized that there were ten values, classified into four higher order groups that were organized along two orthogonal bipolar dimensions, with the poles reflecting opposing motivations (Figure 1; Schwartz & Boehnke, 2004). The first dimension focuses on the conflict between self-enhancement and self-transcendence values. *Self-enhancement values* (achievement, power) stress the pursuit of personal goals by excelling and by controlling others. The opposing *self-transcendence values* (universalism, benevolence) stress concern and care for the well-being and interests of others. The second dimension focuses on the conflict between openness-to-change and conservation values. *Openness-to-change*



**FIGURE 1** Theoretical model of the structure of relations among ten values (adapted from Schwartz 2010). Copyright © by the American Psychological Association)

values (self-direction, stimulation, hedonism) emphasize change through new ideas, experiences, and actions. *Conservation values* (conformity, tradition, security) emphasize the maintenance of the status quo to preserve the self and society.

### 3 | VALUE CONTENT AND SELF-ESTEEM

Values are guided in many ways by an emotional connection to their underlying goal (Miles, 2015). Individuals experience their values as aligned with the self (Sagiv et al., 2015); when thinking about their values, people feel a sense of self-integrity. The general context provided by values puts life stressors in perspective, thus immunizing people from their effects (Sherman et al., 2011). Therefore, values are generally hypothesized to relate positively to self-esteem. However, two theories suggest that the relations between value importance and self-esteem are more complex than that and may vary by value content.

One of these theories, value theory, divides values into healthy and unhealthy types (Sagiv & Schwartz, 2000). It suggests that values are healthy if they are not motivated by the need to control personal anxiety. Such values center on the importance of close relations with others, finding excitement and meaning in life, as well as personal development and growth. It is theorized that these values would relate positively to self-esteem. On the other hand, values are unhealthy if they are motivated by the need to avoid or control anxiety and the need to protect the self from uncertainty in the physical or the social world. Such values center on the control of social and material resources and the maintenance of order, safety, continuity, and the status quo (Schwartz, 2010). It is thought that these goals would relate negatively to self-esteem.

Similar to value theory, self-determination theory argues that intrinsic motivation-driven values reflect basic needs for autonomy, relatedness, and competence. The pursuit of these basic needs is

crucial to well-being, leading to positive associations between these values and self-esteem. In contrast, extrinsic motivation-driven values reflect an imposed motivation to receive approval or appreciation from others (Ryan & Deci, 2000) and the pursuit of these values relates negatively to self-esteem.

Using these two theories, we hypothesized that healthy or intrinsically motivated values would relate positively to self-esteem. These values include openness-to-change values, which reflect autonomous needs, and self-transcendence values, which reflect the need for relatedness. We also hypothesized that unhealthy or extrinsically motivated values would relate negatively to self-esteem. These values include self-enhancement values, which reflect a need for control to avoid anxiety, and conservation values, which reflect the need to obey and follow society's rules (Bilsky & Schwartz, 1994; Sagiv & Schwartz, 2000).

However, large scale studies examining the relations between values and different aspects of well-being have yielded inconsistent results. For example, affect balance and satisfaction with life were found to be positively correlated with stimulation and self-direction values (part of openness-to-change values) and negatively correlated with tradition and conformity values (part of conservation values) in a study including Spanish samples and 22 countries from the European Social Survey (ESS; Bobowik, Basabe, Páez, Jiménez, & Bilbao, 2011). Similar results were obtained in another analysis (using a different statistical strategy and based on 32 countries) of the ESS sample correlating values with life satisfaction (Sortheix & Lönnqvist, 2015). This analysis showed additional positive relations with benevolence values (part of self-transcendence values) and negative relations with power values (part of self-enhancement values). However, in a 14-sample study from Finland, Russia, Switzerland, Italy, and Estonia, and in contradiction to theory, power values were found to be positively related to self-esteem whereas benevolence values were found to be negatively related to self-esteem (Lönnqvist et al., 2009).

We suggest a possible explanation for these inconsistent findings. First, the aforementioned studies only examined linear relations between values and well-being. Instead of linear associations, it may be that there are optimal levels of value endorsement that are not at the extreme low or high end of the measurement scale. More specifically, it may be that there is a quadratic association between the endorsement of certain values and individual well-being. Applying polynomial regressions in this study allowed us to examine the quadratic relations between values and self-esteem. Second, some suggest that as values do not function in isolation from the social world; the social context might have an important role in how values are related to well-being (Sagiv et al., 2015; Sortheix & Lönnqvist, 2015; Sortheix & Schwartz, 2012).

### 4 | VALUE CONGRUENCE AND SELF-ESTEEM

The person-culture match hypothesis (Fulmer et al., 2010) and the cultural fit hypothesis (Ward, Leong, & Low, 2004) suggest that

individuals who resemble their social or cultural environment are more likely to be satisfied with themselves and to experience well-being. Congruence to societal norms is beneficial in that it helps individuals to better pursue their goals (Sagiv & Schwartz, 2000), validates their personality, and strengthens their sense of competence (Fulmer et al., 2010). Congruence allows individuals to participate in activities that make them feel good about themselves and their lives (Higgins, 2005; Khaptsova & Schwartz, 2014). For instance, studies have found positive associations between the similarity of individuals to their co-workers and their adjustment and well-being (see Kristof-Brown, Zimmerman, & Johnson, 2005, for review). Similarly, studies conducted in schooling contexts have found congruence between adolescents and their school peers on personality or demographic characteristics predicts better student adjustment and well-being (Benner & Graham, 2009; Eccles & Roeser, 2011; Peña, 2009; Roeser, Midgley, & Urdan, 1996).

Various studies have considered the role of value congruence (Lönnqvist et al., 2009; Sagiv & Schwartz, 2000). For example, Sorthaix and Lönnqvist (2017) examined congruence between the personal values of psychology, education, and business administration students from three countries and the values of others in their academic environment, while controlling for personal values. Students whose personal values fit well with those of their discipline-specific peers enjoyed higher levels of well-being. Similarly, Sorthaix and Schwartz (2012) found that the association of values to well-being varied by the cultural egalitarianism of the country in which they lived. For instance, universalism values (part of self-transcendence values which stress social equality) were less positively related to life satisfaction for people from low egalitarian countries than for people from high egalitarian countries.

Three mechanisms proposed by Sagiv and Schwartz (2000) explain these findings. The first, *environmental affordances*, suggests that congruent environments afford opportunities to reach goals and fulfill values; when people feel able to fulfill their values, they adjust better psychologically (Oppenheim-Weller, Roccas, & Kurman, 2018). The second mechanism, *internal conflict*, highlights the psychological dynamics of individuals who experience a mismatch between their inner values and those of their environment. The resulting sense of psychological conflict and incongruence lowers their sense of well-being. The third mechanism, *social sanction*, emphasizes the role of norms prevalent in specific social groups. Individuals who conform to the norms of the group enjoy its social support, which might bolster self-esteem, whereas those who deviate from the group norms may be ignored or punished.

Many studies have established the relations between social environment value congruence and well-being among adults. However, adolescents' social-educational environment has specific characteristics that make value congruence especially likely to be associated with well-being. Adolescents spend an extensive amount of time each day with peers (Parker et al., 2015) and peers have significant influence on adolescents' well-being (Brown & Lohr, 1987). To the best of our knowledge, only two studies have looked into the

association between value congruence and self-esteem in adolescence. One study did not find an association between adolescents' value congruence and well-being among high school adolescents aged 15–17 in five European countries (Lönnqvist et al., 2009). The second study confirmed that value congruence with the entire sample's mean-level values related positively to satisfaction with life for both young (ages 9–13) and older (ages 14–18) German adolescents (Musiol & Boehnke, 2013). These conflicting results call for further examination.

#### 4.1 | Value congruence in a cultural context

It is also possible that value congruence might be more important for well-being in some contexts over others. We suggest that contexts or cultures that emphasize assimilation and the need to follow the rules will enforce more social sanctions on adolescents who deviate from norms, which might reduce their self-esteem (Sagiv & Schwartz, 2000). On the other hand, adolescents who are congruent with social norms will be rewarded by the group with social support, enhancing their self-esteem (Gelfand et al., 2011). The current study includes two cultural groups in Israel: Jewish and Arab adolescents. The Jewish population is the largest cultural group in Israel, including 74.8% of the Israeli population (Israel Central Bureau of Statistics, 2016). Arab citizens of Israel are Palestinians whose families lived in what is now the State of Israel before its foundation. They encompass 20.8% of the Israeli population and most of them are Muslim, with a minority of Christian and Druze individuals (Horenczyk & Ben-Shalom, 2006; Israel Central Bureau of Statistics, 2016). The Jewish population is characterized by more individualistic values and norms, which emphasize independence and mastery (Schwartz, 2008), leaving more room for diversion from normative values. Nevertheless, this society also places importance on family and communal values (Mayseless & Salomon, 2003; Mayseless & Scharf, 2003; Schwartz, 1992), which might push adolescents to obey existing norms. The Arab population has more conservative and collectivistic values, which highlight family and society needs (Abu-Saad, 1999; Ben-Ari & Azaiza, 1998; Lapidot-Lefler & Hosri, 2016). This society is more consensual and has strong norms and might respond by punishing deviant behavior (Khoury-Kassabri, 2010). Nevertheless, the exposure to Western values and norms in recent decades has influenced Arab society, which is considered a society in transition (Azaiza & Brodsky, 2003).

## 5 | THE CURRENT STUDY

We examined the relation between values and self-esteem in a large sample of Israeli adolescents. The association was investigated from two perspectives. First, we postulated that the relations between self-transcendence and openness-to-change values (i.e., "healthy" values) and self-esteem would be positive. In contrast, it was hypothesized that self-enhancement and conservation values would be related negatively to self-esteem. Second, we hypothesized

that the congruence of adolescents' values to those of their classmates would be positively related to self-esteem. We also explored whether the effect of congruence would be stronger in more collectivistic contexts or cultures (such as with the Arabs Israelis vs. the Jewish Israelis).

Our study adds to the previous literature in various ways. First, we suggest adolescents' values should be compared to those of adolescents within a meaningful and significant peer group, such as a school class, with whom they have day-to-day contact, and not to an overall school mean or to the entire adolescent population. Unlike countries such as the United States, where adolescents study different subjects in different class groups, Israeli students belong to one "homeroom class". Group activities often involve the whole class (e.g., field trips) with a few shifts to other classes for specific subjects. The class structure may increase the importance of homeroom class peers for well-being because adolescents spend most, if not all, of the school day with the same peers. Second, previous studies have not considered the nested nature of school data, possibly leading to overestimations of statistical significance (Raudenbush & Bryk, 2002). Therefore, in our study, we examined the relations between value congruence using multilevel models. Finally, previous studies on value congruence measured congruence through correlations between personal and group mean values, a method which cannot be applied in nested data, or used difference scores between personal and group values, a method which has several major limitations (for review and demonstration please see Edwards, 2001; Shanock, Baran, Gentry, Pattison, & Heggstad, 2013). To overcome these setbacks, we conducted polynomial regressions and examined the relations between values and self-esteem using Response Surface Analysis (Barranti, Carlson, & Côté, 2017), which can provide a more precise and nuanced picture of the relations of congruence and self-esteem than that which difference scores can offer.

## 6 | METHOD

### 6.1 | Participants

The sample included 1,683 adolescents (54.31% females) from two ethnic groups (74.9% Jewish; 25.1% Arab citizens of Israel) and two age groups: younger adolescents (5th and 6th graders,  $N = 680$ ) and older adolescents (10th and 11th graders,  $N = 1,003$ ). A majority of adolescents reported that their mothers had finished high school (54.2%) or had a university degree (40.1%), with mothers of Jewish youth more likely to have a university degree (43.9%) than mothers of Arab adolescents (28.9%;  $\chi^2 = 123.39, p < 0.001$ ).

### 6.2 | Measures

#### 6.2.1 | Demographics

Participants reported their age, gender, ethnicity, and their mother's level of education.

#### 6.2.2 | Values

Values were measured using the 25-item Portrait Values Questionnaire (PVQ25; Musiol & Boehnke, 2013; Schiefer, Möllering, Daniel, Benish-Weisman, & Boehnke, 2010). The questionnaire includes verbal descriptions of people (matched to the respondent's gender) with information about their goals, aspirations, or wishes. These descriptions are designed to implicitly indicate the importance of a single broad value. For example, the item, "It's very important to him to help the people around him. He wants to care for their well-being" describes a person for whom benevolence values are important. For each description, participants are asked to rate how similar they are to the person described on a 6-point Likert scale, ranging from 1 "not like me at all" to 6 "very much like me". Thus, respondents' own values are inferred from their self-reported resemblance to people described in terms of particular values. As a standard procedure when using the PVQ, we controlled for response tendency by centering each individual's responses around his or her average response to all questions on the scale (e.g. Bardi, Buchanan, Goodwin, Slabu, & Robinson, 2014; Schwartz, 2005).

We aggregated items into four broad value dimensions: self-enhancement values (5 items; Cronbach's  $\alpha = 0.67$ ), self-transcendence values (6 items; Cronbach's  $\alpha = 0.70$ ), openness-to-change values (7 items; Cronbach's  $\alpha = 0.72$ ), and conservation values (7 items; Cronbach's  $\alpha = 0.76$ ). The reliabilities were comparable to those generally found with the measure. The moderate alphas for the subscales are typically attributed to the nature of the scales, assembled with the purpose of covering broad value dimensions, not narrow, specific concepts (Schwartz et al., 2001).

#### 6.2.3 | Class values

To index the value endorsement of an adolescent's classmates, we averaged value scores across a participant's classmates, creating a class score for each of the four values.

#### 6.2.4 | Self-esteem

Self-esteem was assessed using the Rosenberg Self-Esteem Scale (Rosenberg, 1965). The mean score for the five positively phrased items (out of the original ten items) was used. We chose the five positive items because they have equivalent meaning across cultures, making them more useful in cultures outside North America (Schmitt & Allik, 2005). Participants rated their agreement with statements such as "I feel that I have a number of good qualities" on a 7-point Likert scale ranging from 1 "strongly disagree" to 7 "strongly agree" ( $\alpha = 0.81$ ).

### 6.3 | Procedure

Schools were randomly sampled from the Israeli Educational Ministry school list and approached by telephone. A total of 16 elementary schools (4 Arab) and 6 high schools (2 Arab)

participated. Consent forms were sent to parents of all adolescents in grades 5, 6 (elementary school), 10, and 11 (high school). Only adolescents whose parents gave consent for them to participate (over 95%) completed the questionnaires. Questionnaires were distributed by trained research assistants during a class period lasting approximately 45 min. The experimenters explained the questionnaires' instructions and answered students' questions while the students answered the questionnaires silently. The questionnaires were anonymous, and participation was voluntary. The study was approved by the ethical review board. The data of our study have been archived on a secure server by the corresponding author. Access to this repository is granted upon request.

## 7 | RESULTS

### 7.1 | Descriptive statistics and preliminary analyses

Means, standard deviations, and correlations for self-esteem, values, and classmates' values are presented in Table 1. Self-esteem was negatively associated with self-enhancement values but was positively related to conservation values. Both associations were relatively small in magnitude. Values were related to each other in expected ways; self-enhancement values were negatively related to self-transcendence and conservation values and were modestly but positively associated with openness-to-change values. Self-transcendence values were negatively related to openness-to-change values but were unrelated to conservation values. Openness-to-change values and conservation values were negatively associated with each other.

Focusing on peers' values, self-esteem was positively associated with class conservation values but was negatively related to class self-enhancement and openness-to-change values. Classmate values also related to each other in expected ways; class self-enhancement was negatively related to class self-transcendence and class conservation values, but was positively linked with class openness-to-change values. Further, class self-transcendence was positively linked to class conservation but negatively associated with class openness-to-change values. Class openness-to-change was negatively related to class conservation values.

### 7.2 | Overview of data analyses

As the study involved a nested design, with adolescents nested in 92 classrooms, we examined whether a school class should be considered a meaningful comparison group in terms of values. To do this we computed intraclass correlations (ICCs) for self-esteem and each of the four broad values. The ICC of self-esteem was 0.057, indicating that close to 6% of the variance in self-esteem was predicted by class and 94% of the variance was within classes. The ICC for self-enhancement values was 0.147, for self-transcendence values 0.044, for openness-to-change values 0.057, and for conservation values 0.142. Thus, the class accounted for between 4% and 15%

of the variance in personal values. We therefore concluded that the appropriate reference group was the class unit.

In order to examine how adolescent value endorsement in conjunction with classroom peers' endorsement would predict self-esteem, we utilized polynomial regression analyses (Edwards, 2002; Ohannessian, Laird, & De Los Reyes, 2016) within a multi-level framework (Raudenbush & Bryk, 2002). With these models, we could examine the association of adolescents' values with their self-esteem; the role average class values on average self-esteem in the class; and most importantly for the current investigation, the role of the interaction between the two (i.e. how the individual level values, within the context of specific classmates' values) was associated with the individual's self-esteem. With polynomial regression, we could also consider the quadratic effects of personal and classmate values as predictors of self-esteem. This design allowed us to consider whether adolescents' values and their classmates' values may be related to self-esteem in non-linear ways by examining the quadratic effects of these variables on self-esteem. We conducted multi-level analyses using the Mixed command in SPSS version 23 (IBM, 2015) to estimate the models, with participants nested within their classes. We conducted analyses in a stepwise manner to permit the introduction of control variables and test specific components of the model. We first estimated the variation of self-esteem across classes, in a fully unconditional model to understand the fit of the model without predictors ( $-2\text{Log Likelihood} = 5,144.009$ ). As prior research has found that values may differ by gender (Schwartz & Rubel, 2006), age (Daniel & Benish-Weisman, 2019), cultural group (Knafo, Daniel, & Houry-Kassabri, 2008), and SES (Schwartz, 2007), we entered these variables as controls into the analyses in step 1. In step 2, we added the individual's value (Level 1 variable) and their respective classmates' average value endorsement (Level 2 variable). In step 3, we entered the quadratic effects of individual (Level 1) and class values (Level 2) and the interaction of individual and class values (Level 1). We compared the  $-2\text{Log Likelihood}$  values for the model at each step and used the chi-square distribution to test whether the models with the additional terms were a significantly better fit to the data. Values and classmates' values were centered around the midpoint of the scale, meaning that the scale midpoint was subtracted from individuals' values and classmates' value endorsement scores. These centered values were entered in the analysis and used to compute quadratic and interaction effects for analyses (Edwards, 2002).

When analyses indicated that the addition of step 3 terms (i.e., the interaction between and class values and the quadratic effects personal and class values) fit the data significantly better than the model without these terms, we used Response Surface Analysis with bootstrapping to estimate slopes and curvature for the lines of congruence and incongruence (Barranti et al., 2017; Edwards, 2002; Shanock et al., 2013). The line of congruence reflects levels of self-esteem when adolescents' value endorsement is identical to endorsement of their classmates, across the range of value importance. The line of incongruence reflects self-esteem when adolescents' values are inversely related to the endorsement of their classmates. The Response Surface Analysis examines four coefficients, two testing

**TABLE 1** Descriptive statistics and correlation of self-esteem, values, and classmates' values

	1	2	3	4	5	6	7	8	9	10	11	12	13
1. Age													
2. Gender	0.01												
3. Ethnicity	-0.03	0.08**											
4. Mother's education	-0.08**	-0.07**	-0.26**										
5. Self-esteem	-0.16**	0.01	0.01	0.01									
6. Self-enhancement values	0.14**	-0.22**	-0.19**	0.12**	-0.09**								
7. Self-transcendence values	-0.00	0.17**	0.09**	0.06*	-0.03	-0.54**							
8. Openness-to-change values	0.08**	0.05*	-0.12**	0.11**	-0.01	0.04	-0.35**						
9. Conservation values	-0.18**	-0.01	0.19**	-0.16**	0.07**	-0.45**	-0.02	-0.63**					
10. Class self-esteem	-0.48**	-0.05*	0.01	0.01	0.33**	-0.16**	0.05*	-0.11**	0.12**				
11. Class self-enhancement values	0.33**	-0.13**	-0.47**	0.14**	-0.13***	0.42**	-0.18**	0.11**	-0.31**	-0.38**			
12. Class self-transcendence values	-0.01	0.11**	0.31**	-0.03	0.050	-0.25**	0.30**	-0.12**	0.06**	0.18**	-0.59**		
13. Class openness-to-change values	0.26**	0.04	-0.38**	0.12**	-0.11**	0.14**	-0.11**	0.32**	-0.21***	-0.33**	0.34**	-0.36**	
14. Class conservation values	-0.41**	0.03	0.45**	-0.19**	0.140**	-0.29**	0.05*	-0.23**	0.43**	0.41**	-0.72**	0.15**	-0.71**
M (SD)	14.36 (2.24)			6.168 (0.972)	3.675 (0.749)	4.135 (0.520)	4.224 (0.527)	3.817 (0.575)	3.676 (0.321)	4.141 (0.161)	4.217 (0.173)	3.821 (0.252)	

\* $p < 0.05$ ; \*\* $p < 0.01$ ; gender (male = 0, female = 1); ethnicity (Jewish = 0, Arab = 1).



the nature of congruence and two testing the nature of incongruence. Specifically, the *slope of the line of congruence* tests for linear relations between the two predictors (personal values and classmates' values) and the dependent variable (self-esteem). The *curvature of the line of congruence* examines whether there is a significant quadratic effect in the line of congruence. The *slope of the line of incongruence* tests whether one direction of incongruence is more influential than the other. Finally, the *curvature of the line of incongruence* asks if the general amount of incongruence, regardless of the direction, is relevant to the outcome (Human, Dirks, DeLongis, & Chen, 2016).

It was hypothesized that higher self-esteem would be found near the midpoint on the line of incongruence and that this would be reflected in a significant curvature of the line of incongruence. That is, we expected that the line of incongruence would be curved downward and concave in shape.

Table 2 presents the coefficients for each step in the model and the change in model fit at each step. As recommended by Shanock et al. (2013) coefficients generated in step 3 were used to compute, graph, and formally test the shape of the response surface. We used bootstrapping to generate confidence intervals around the estimates for slope and curvature as recommended by Edwards (2018). Table 3 presents estimates for slope and curvature for the lines of congruence and incongruence.

In a final step, we addressed whether these processes worked similarly or differently for Arab Israeli and Jewish Israeli youth by testing the model separately for each culture.

### 7.3 | Self-enhancement values and self-esteem

Results for the polynomial regression examining how self-enhancement values were related to self-esteem appear in the first column of Table 2. As seen in Step 1, younger adolescents reported higher self-esteem than older adolescents. Step 2 indicated that class self-enhancement values were negatively related to class self-esteem, although personal self-enhancement values were not related to individual self-esteem. As seen in Step 3, there was a significant interaction between individual and class values. As seen in Figure 2a, the response surface was concave with a slight saddle shape. The highest levels of self-esteem fell on the line of congruence, where adolescents and their classmates were similar in their values. As seen in Table 3, there was a significant negative slope for the line of congruence. When adolescent values were congruent with classmates' self-enhancement values, there was a negative relation between self-enhancement values and self-esteem. There was also a significant negative curvature for the line of incongruence. For individuals who were disparate from their class, the highest levels of self-esteem were observed in youth who were near the midpoint on self-enhancement values. Being near the midpoint on the line of incongruence also reflects disparities in individual-class values that were small; as you move away from 0, in either direction, the disparities between personal and classmates' values get bigger and self-esteem gets

lower. Finally, there were significant quadratic effects for personal values. Figure 3a shows the quadratic effects of personal self-enhancement values on self-esteem. Youth reported the highest levels of self-esteem when their self-enhancement values were near the midpoint on the scale.

### 7.4 | Self-transcendence values and self-esteem

Next, analyses examined individual and class self-transcendence values and their relation to self-esteem. As shown in Table 2, after controlling for demographic variables, individual-level values were negatively related to individual-level self-esteem, but class-level values were not related to class-level self-esteem. In Step 3, there was a significant interaction between individual and class self-transcendence values in predicting self-esteem. As seen in Figure 2b, the response surface for self-transcendence values was concave in shape. As Table 3 shows, the slope and curvature for the line of incongruence were significant. For individuals who were different from their class, the highest levels of self-esteem were observed in youth who were near the midpoint on self-transcendence values. The more adolescents were incongruent from their classmates on self-transcendence values (moving away from 0 in either direction) the lower their self-esteem. Finally, there were significant quadratic effects for personal and class values. Figure 3b shows the quadratic effects of personal self-transcendence values on self-esteem. Youth reported the highest levels of self-esteem when their self-transcendence values were near and slightly below the midpoint on the scale.

### 7.5 | Openness-to-change values and self-esteem

Next, analyses examined individual and class openness-to-change values and their relation to self-esteem. Polynomial regression analyses, as seen in Table 2, indicated that there was a significant negative effect for classmates' openness-to-change values on class-level self-esteem. As seen in Figure 2c, the response surface depicting how openness-to-change values predict self-esteem was concave in shape, like the findings for self-transcendence values. As indicated in Table 3, however, the slope and curvature for the line of incongruence did not reach significance. Step 3 of the analysis did indicate a significant quadratic effect for personal openness-to-change values. Figure 3c depicts this quadratic effect at the midpoint of classmates' openness-to-change values. Youth reported higher self-esteem when their openness-to-change values were near the midpoint on the scale.

### 7.6 | Conservation values and self-esteem

The final set of analyses examined how adolescents and their peers' conservation values were related to self-esteem. As seen in Table 2, there was a positive association between classmates' conservation values and the class average self-esteem. As seen in Table 3, there was a significant positive slope for the line of congruence. When adolescents' conservation values were similar to their classmates' conservation

**TABLE 2** Unstandardized parameter estimates from multilevel polynomial regression analyses predicting self-esteem from values and class peers' values

	Self-enhancement values	Δ-2Log likelihood	Self-transcendence values	Δ-2Log likelihood	Openness-to-change values	Δ-2Log likelihood	Conservation values	Δ-2Log likelihood
<b>Step one</b>								
<b>Level 1</b>								
Older adolescents	-0.307 <sup>***</sup>	509.580 <sup>***</sup>	-0.307 <sup>***</sup>	509.580 <sup>***</sup>	-0.307 <sup>***</sup>	509.580 <sup>***</sup>	-0.307 <sup>***</sup>	509.580 <sup>***</sup>
Females	0.023		0.023		0.023		0.023	
Arab Israeli	0.026		0.026		0.026		0.026	
Mother education	0.025		0.025		0.025		0.025	
<b>Step two</b>								
<b>Level 1</b>								
Personal value	-0.050	15.949 <sup>***</sup>	-0.094 <sup>†</sup>	12.886 <sup>**</sup>	0.039	14.512 <sup>***</sup>	0.017	20.189 <sup>***</sup>
<b>Level 2</b>								
Class value	-0.227 <sup>†</sup>		0.273		-0.506 <sup>*</sup>		0.451 <sup>**</sup>	
<b>Step three</b>								
<b>Level 1</b>								
Personal value × Class value	0.373 <sup>**</sup>	10.835 <sup>†</sup>	0.901 <sup>**</sup>	24.499 <sup>***</sup>	0.418	8.195 <sup>*</sup>	0.318	9.086 <sup>*</sup>
<b>Level 2</b>								
Personal value <sup>2</sup>	-0.074 <sup>†</sup>		-0.261 <sup>***</sup>		-0.166 <sup>**</sup>		-0.151 <sup>**</sup>	
Class value <sup>2</sup>	-0.262		-1.641 <sup>†</sup>		-0.779		0.148	
Random effect: residual variance		0.879 <sup>**</sup>		0.875 <sup>**</sup>		0.886 <sup>**</sup>		0.888 <sup>**</sup>

Note: Personal and Class Values were centered on the scale midpoint prior to analysis and computation of quadratic terms and interaction terms.

<sup>†</sup> $p < 0.10$ ;  $*$   $p < 0.05$ ;  $**$   $p < 0.01$ ;  $***$   $p < 0.001$ .



**TABLE 3** Slopes and curvatures for the lines of congruence and incongruence: whole sample

Response surface parameters	Self-enhancement values	Self-transcendence values	Openness-to-change values	Conservation values
Slope of line of congruence	-0.292**	1.338	0.319	0.304*
Curvature of line of congruence	0.037	-1.002	-0.527	0.315
Slope of line of incongruence	0.116	-2.042*	-0.349	-0.344
Curvature of line of incongruence	-0.709*	-2.804**	-1.363	-0.321

Note: Bias-Corrected Bootstrapping \*95% CI; \*\*99% CI.

values, conservation values were positively related to self-esteem. As seen in Figure 2d, the response surface for conservation values was saddle-shaped, with one-dimension curving slightly up and the other curving slightly down. Finally, there was also a significant quadratic effect for personal conservation values. This is depicted in Figure 3d; adolescents with conservation values near the scale midpoint had the highest self-esteem.

## 7.7 | Cultural group interactions

In a final exploratory step, we examined whether the results varied by culture. We performed the analyses separately for each culture. Table 4 shows results for Arab Israeli youth. For Arab Israeli youth, Step 3 (quadratic and interaction effects) was only significant for conservation values. However, Response Surface Analyses and Bootstrapping of the parameters did not indicate significant slopes or curvatures for the lines of congruence and incongruence (see Table 6).

Table 5 shows the results for Jewish adolescents. Analyses at Step 3 indicated that Response Surface Analyses should be conducted for self-enhancement and self-transcendence values. Figure 4a–b depicts the response surfaces for self-enhancement and self-transcendence values, respectively. As seen in Table 6, bootstrapping analyses indicated that the curvatures for the lines of incongruence were significant for both values. The slope for the line of incongruence was also significantly negative for self-transcendence values.

## 8 | DISCUSSION

This study tested two perspectives on the relations between values and self-esteem. Combining the value content perspective and the value congruence perspective in the same model helped us to consider and compare the effects of values on adolescents' self-esteem.

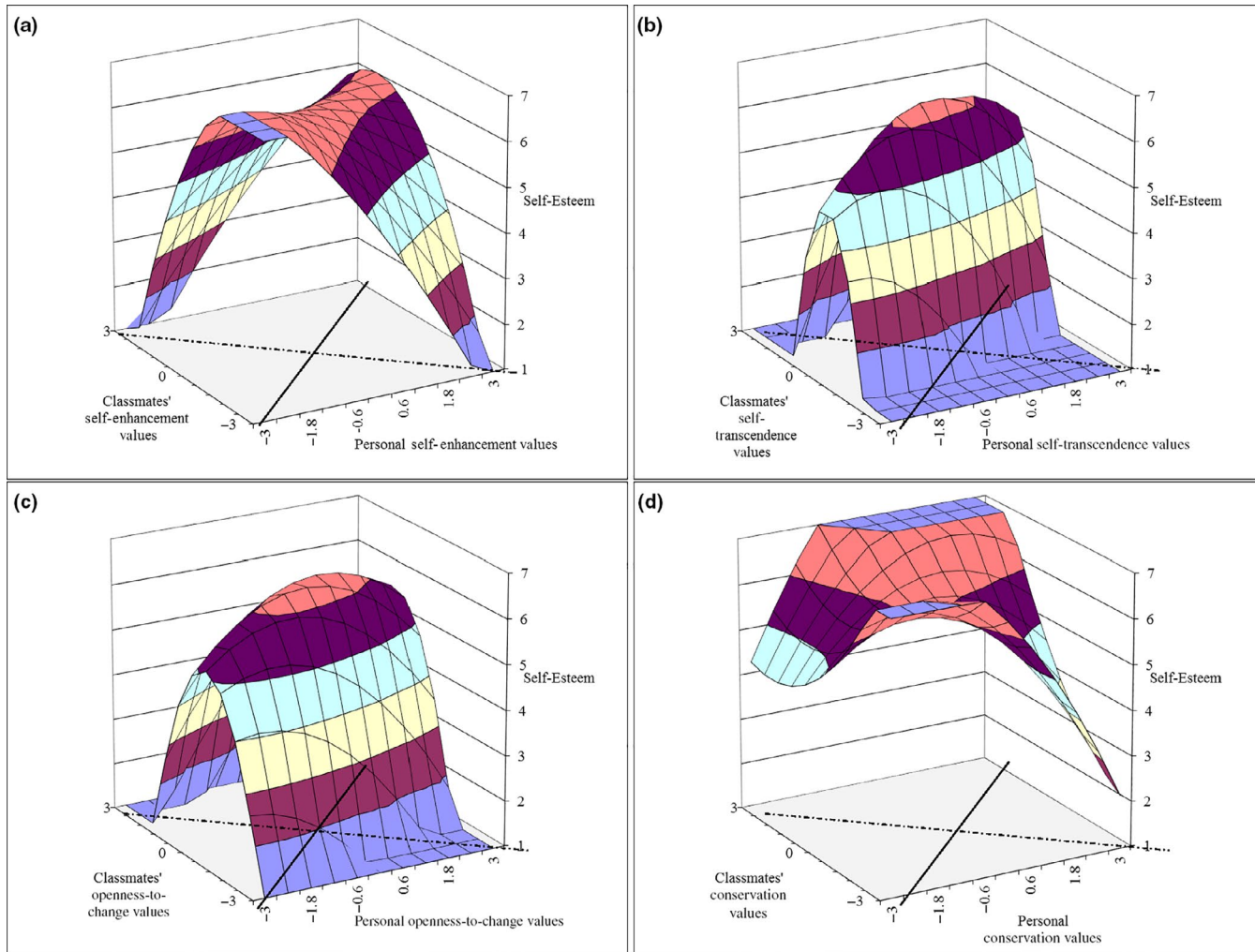
### 8.1 | Value content and self-esteem

Our findings only partially supported our hypotheses. Zero order correlations and, as hypothesized, self-enhancement values, generally considered unhealthy (Schwartz, 2010) or extrinsically driven (Ryan & Deci, 2000), were negatively related to self-esteem. It seems that for adolescents, self-promotion relates to the need to avoid or

control anxiety (Schwartz, 2010) and is therefore related to low self-esteem. At the same time, conservation values, hypothesized to be unhealthy values, related positively to self-esteem. Although contradicting our hypothesis, these results are in line with some of those of Lönnqvist et al. (2009). In three out of 14 samples, they found adolescents' and emerging adults' conservation values (specifically conformity and security values) were positively related to self-esteem, and they found no significant relations for adults. Arguably, for young people, to follow the existing norms could contribute to a sense of security, therefore increasing self-esteem. Importantly, the results did not hold in the polynomial regression when controlling for demographic variables and class values. Thus, the linear associations between personal values and self-esteem appear to be weak at best.

Polynomial regression allowed us also to examine the quadratic relations between personal values and self-esteem. Interestingly, the quadratic relations for all the values in the whole sample when controlling for ethnicity were significant and tell a similar story. Looking at Figure 3a–d it seems that adolescents have higher self-esteem when they endorse average levels of these values (as reflected by being near the midpoint of the scale). These results may offer an explanation of the lack of consistency in past studies, which examined only the linear relations between values and self-esteem.

Two explanations can be given for the advantage of not endorsing values at the extreme. First, in his seminal article Schwartz (1992) argues that values are universal as their underlying motivations serve to meet one or more requirements of human existence: needs of people as biological organisms, needs to coordinate social interaction, and needs for survival and well-being of groups. Different values serve each need to a varying level. Thus, in order to satisfy all needs, a balance between contradictory values should be achieved. The endorsement of one value at the expense of a contradictory value may cause conflict. For that reason, increases in the importance of one value may relate to decreases in the importance of the opposite value (Bardi, Lee, Hofmann-Towfigh, & Soutar, 2009; Daniel & Benish-Weisman, 2019). We suggest that extreme levels of value endorsement may be negatively related to self-esteem, as the need represented by other values may not be met. For example, if adolescents endorse self-transcendence values highly, the need for coordinating social interaction will be met. At the same time, these adolescents are likely to avoid internal conflicts by valuing self-enhancement values very little. Therefore, their needs as a



**FIGURE 2** Response surfaces depicting self-esteem as a function of personal values and classmates' values. Note: The solid line on the graph floor indicates the line of congruence and the dotted line indicates the line of incongruence. [Colour figure can be viewed at [wileyonlinelibrary.com](http://wileyonlinelibrary.com)]

biological organism might be negatively affected; they will take less care of themselves and might feel worse about themselves. When adolescents endorse a relatively moderate level of values a balance between the needs is created and they can enjoy higher levels of self-esteem.

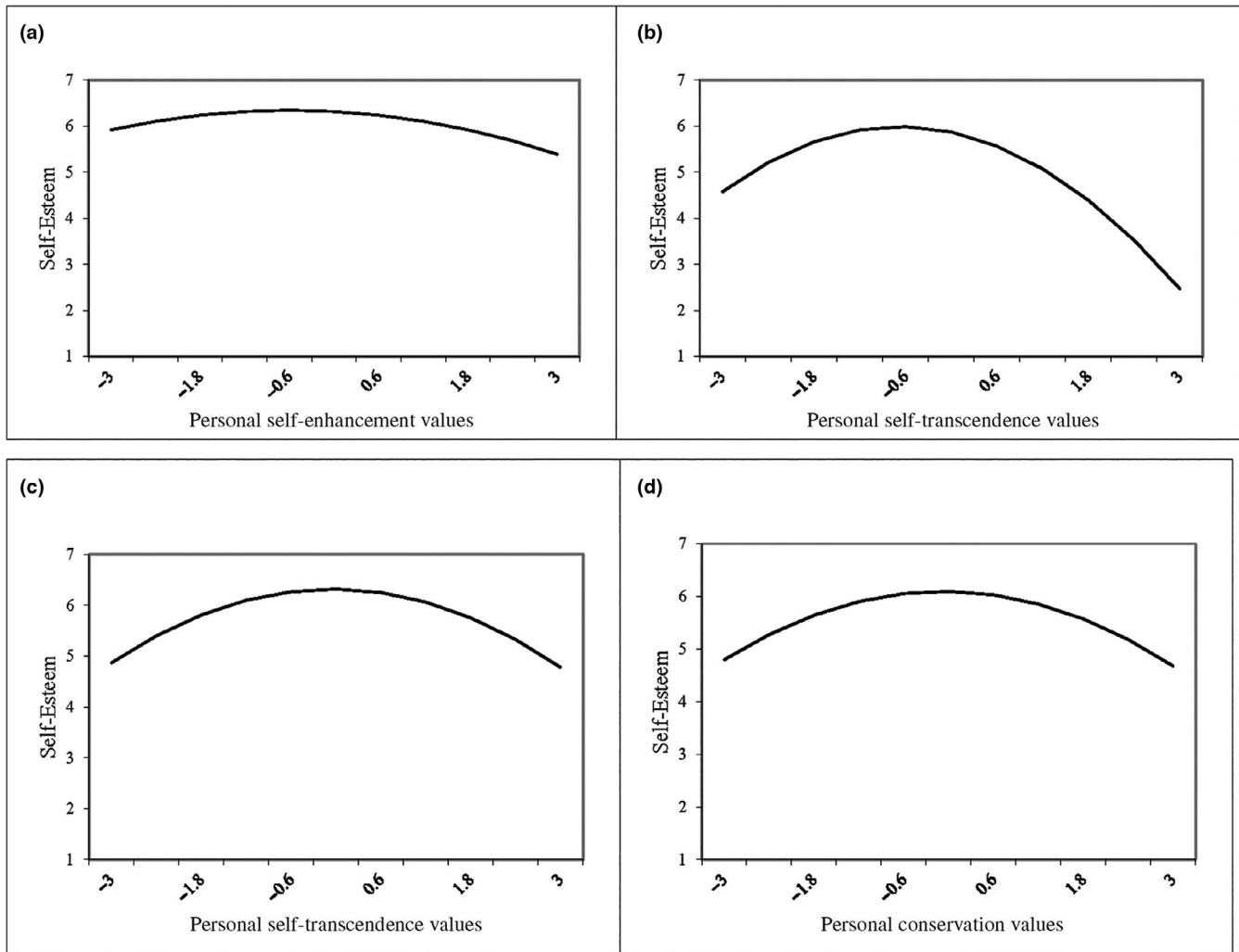
The second explanation taps into the finding that value fulfillment is positively related to well-being (Oppenheim-Weller et al., 2018). We suggest that when adolescents endorse values at average levels the criteria for value fulfillment might be lower; therefore, it will be easier to enjoy high levels of self-esteem. For example, adolescents who attribute a lot of importance to openness-to-change values may not experience value fulfillment only by participating in a new after-class activity, but will look for exciting activities such as skydiving and surfing which may be less available.

## 8.2 | Value congruence and self-esteem

Most importantly, we found that for the whole sample, when controlling for ethnic group, adolescents had higher self-esteem when their incongruence with classroom peers on

self-enhancement and self-transcendence values was low. These two values demonstrate the conflict between self-promotion and caring for others. In this development stage in which adolescents are forming their identity (Crocetti, 2017), there is the need to balance autonomy and relatedness (Daniel & Benish-Weisman, 2019; Smetana, 2014). Our results suggest that alignment with peers' values in these domains might be particularly relevant to adolescents' self-worth.

Additionally, our findings suggest that value importance alone is not always enough to explain adolescents' self-esteem. The social context plays an important role (Bardi et al., 2014). Acquiring self-worth and self-confidence may be related to adopting specific values, especially to the extent to which these values are congruent with what peers value. Previous studies have supported the importance of the similarity between individuals' values and those of significant others to their development, in contexts such as parent-child relationships (Knafo & Schwartz, 2004, 2012), or in the workplace (Kristof-Brown et al., 2005). This study has extended previous results by examining the protective factor of the congruence of adolescents' values with their classmates' values.



**FIGURE 3** The quadratic effects of personal values on self-esteem

In addition to similarities, some added complexity was found in the association between value congruence and self-esteem. Congruence in *self-enhancement values* was overall related to self-esteem, yet as can be shown by the negative slope of the line of congruence, when adolescents were congruent with their class values, self-enhancement values were negatively related to self-esteem. The competitive self-promoting class climate may not support adolescents' positive feeling about themselves, especially for adolescents who strive to succeed. Being in an environment that stresses achievement in comparison to others might leave few opportunities to feel successful and competent among those who care about it, especially as most students cannot excel all the time (Kaplan & Maehr, 1999). Indeed, students who enroll in competitive classes suffer from low self-esteem and high levels of depression (Hoge, Smit, & Hanson, 1990; Roeser & Eccles, 1998; Wang, 2004).

For *self-transcendence values*, we found that it was beneficial to adolescents' self-esteem to be congruent with class values. This indicates that there may be a special importance in being similar to others in one's concern for the well-being and interests of others. This caring environment might be related to more prosocial behaviors (Eisenberg,

Spinrad, & Knafo-Noam, 2015). Caring adolescents will be reciprocated in such environments, further supporting their well-being. The negative slope of the line of incongruence reveals that one direction of incongruence is more dominant than the other, or specifically, that adolescents who place little importance on self-transcendence values and are enrolled in high self-transcendence classes will enjoy better self-esteem than adolescents who endorse self-transcendence and are enrolled in low self-transcendence classes. Although they lack value congruence with their classmates, the adolescents who are low in self-transcendence values will take advantage of the classes in which most of the children are highly self-transcendent, as their peers are likely to be kind and helpful. The relatively low self-transcendent adolescents may enjoy the other-focused atmosphere, as it may be more forgiving of those who are self-centered. It may increase their focus on themselves and power (Van Kleef, Homan, Finkenauer, Blaker, & Heerdink, 2009) and enhance their self-esteem.

Further, the significant positive slope for the line of congruence for *conservation values* indicates that when adolescents are congruent with their class values, conservation values are positively related to self-esteem. This result is in line with finding about the advantage

**TABLE 4** Unstandardized parameter estimates from multilevel polynomial regression analyses predicting self-esteem from values and class peers' values for Arab Israeli adolescents

Step one	Self-enhancement values	$\Delta$ -2Log likelihood	Self-transcendence values	$\Delta$ -2Log likelihood	Openness-to-change values	$\Delta$ -2Log likelihood	Conservation values	$\Delta$ -2Log likelihood
Level 1								
Older adolescents	-0.271*	127.204***	-0.271*	127.204***	-0.271*	127.204***	-0.271*	127.204***
Females	-0.004		-0.004		-0.004		-0.004	
Mother education	0.009		0.009		0.009		0.009	
Step two								
Level 1		4.287		0.263		0.638		5.889†
Personal value	-0.134†		0.012		-0.012		0.004	
Level 2								
Class value	-0.153		-0.264		-0.335		1.084*	
Step three								
Level 1		4.418		0.755		7.789†		8.179*
Personal value × Class value	-0.229		0.645		1.677*		1.662*	
Level 2								
Personal value <sup>2</sup>	0.081		-0.022		-0.331**		-0.295*	
Level 2								
Class value <sup>2</sup>	1.593†		-2.241		-1.113		-0.524	
Random effect: residual variance		0.921**		0.928**		0.913**		0.926**

Note: Personal and Class Values were centered on the scale midpoint prior to analysis and computation of quadratic terms and interaction terms.

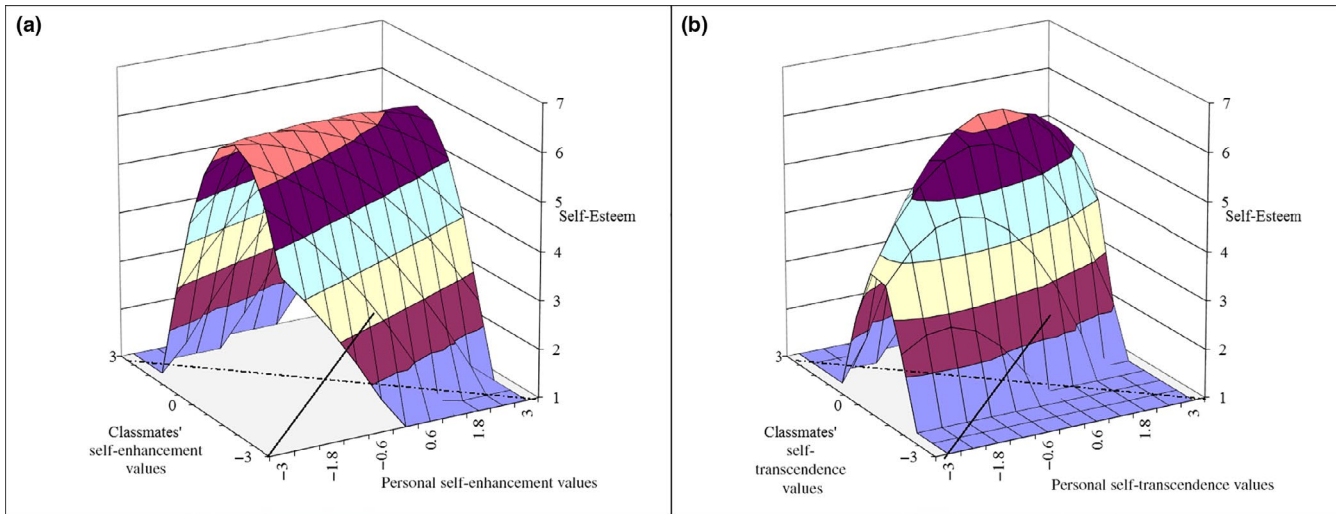
† $p < 0.10$ ; \* $p < 0.05$ ; \*\* $p < 0.01$ ; \*\*\* $p < 0.001$ .

**TABLE 5** Unstandardized parameter estimates from multilevel polynomial regression analyses predicting self-esteem from values and class peers' values for Jewish Israeli adolescents

	Self-enhancement values	$\Delta$ -2Log likelihood	Self-transcendence values	$\Delta$ -2Log likelihood	Openness-to-change values	$\Delta$ -2Log likelihood	Conservation values	$\Delta$ -2Log likelihood
Step one								
Level 1								
Older adolescents	-0.320 <sup>***</sup>	383.606 <sup>***</sup>	-0.320 <sup>***</sup>	383.606 <sup>***</sup>	-0.320 <sup>***</sup>	383.606 <sup>***</sup>	-0.320 <sup>***</sup>	383.606 <sup>***</sup>
Females	0.030		0.030		0.030		0.030	
Mother education	0.041		0.041		0.041		0.041	
Step two								
Level 1								
Personal value	-0.030	13.962 <sup>***</sup>	-0.123 <sup>*</sup>	15.086 <sup>***</sup>	0.053	14.769 <sup>***</sup>	0.023	17.183 <sup>***</sup>
Level 2								
Class value	-0.286 <sup>*</sup>		0.386 <sup>†</sup>		-0.569 <sup>*</sup>		0.399 <sup>*</sup>	
Step three								
Level 1								
Personal value $\times$ Class value	0.491 <sup>**</sup>	15.580 <sup>**</sup>	0.843 <sup>*</sup>	29.999 <sup>***</sup>	0.103	3.645	0.175	3.530
Level 2								
Personal value <sup>2</sup>	-0.104 <sup>**</sup>		-0.328 <sup>***</sup>		-0.121 <sup>†</sup>		-0.112 <sup>†</sup>	
Class value <sup>2</sup>	-0.646 <sup>*</sup>		1.595 <sup>*</sup>		-0.669		-0.102	
Random effect: residual variance								
		0.861 <sup>**</sup>		0.849 <sup>**</sup>		0.874 <sup>**</sup>		0.877 <sup>**</sup>

Note: Personal and Class Values were centered on the scale midpoint prior to analysis and computation of quadratic terms and interaction terms.

† $p < 0.10$ ; \* $p < 0.05$ ; \*\* $p < 0.01$ ; \*\*\* $p < 0.001$ .



**FIGURE 4** Response surfaces depicting self-esteem as a function of personal values and classmates' values for Jewish adolescents. Note: The solid line on the graph floor indicates the line of congruence and the dotted line indicates the line of incongruence. [Colour figure can be viewed at [wileyonlinelibrary.com](http://wileyonlinelibrary.com)]

Response surface parameters	Arab Israeli: conservation values	Jewish Israeli: self-enhancement values	Jewish Israeli: self-transcendence values
Slope of line of congruence	0.000	-0.198	1.395
Curvature of line of congruence	0.843	-0.259	-1.080
Slope of line of incongruence	-1.150	-0.002	-1.935*
Curvature of line of incongruence	-2.481	-1.241**	-2.766**

**TABLE 6** Slopes and curvatures for the lines of congruence and incongruence: separate for Arab and Jewish Israeli adolescents

Note: Bias-Corrected Bootstrapping \*95% CI; \*\*99% CI.

of following the norms in consensual environments (Gelfand et al., 2011; Sagiv & Schwartz, 2000). Peers in conservative classes will reward each other with social support for obeying the rules, but might impose sanctions on adolescents that deviate from the norm.

We also examined cultural differences in the relations between value similarity and self-esteem. We examined the polynomial regression analyses separately for the two groups and we found that the congruence findings for self-enhancement and self-transcendence values held for the Jewish group when they were examined separately from the Arab Israeli adolescents. Results were not significant for the Arab group. However, it may be that our sample size was too small to find significant effects for the Response Surface Analysis analyses in the Arab Israeli group. It may also be that the effects of value congruence work differently for this collectivistic group compared to the Jewish group. Future research should examine whether value congruence works similarly in multiple cultural groups or whether there are cultural differences in this process.

### 8.3 | Strengths, limitations, and future directions

This study relied on a large sample, recruited from 92 classes in randomly selected schools. This sampling method and the diverse

sample strengthened the study's validity and reliability. Moreover, the study included two cultures, which provided an important replication and validation of the results. The study represents one of the first attempts to consider value content and classmates' value congruence among adolescents in the school context. Previous studies examining the relations between peer value congruence and well-being among adolescents have found conflicting results (Lönnqvist et al., 2009; Musiol & Boehnke, 2013). While these studies used general measures of peer group values, such as the values of the entire sample, our study was advantageous in comparing an adolescent's values with the values prevalent within a meaningful social group, the classroom. In this educational group, peers regularly interact and are more likely to have a direct influence on each other's self-esteem. However, students in a class may be similar in their self-esteem due to unmeasured characteristics of the class, such as socio-economic status or the type of neighborhood they come from (Sellström & Bremberg, 2010). Notably, our study used multilevel modeling, an advanced statistical technique that allowed us to account for dependencies in the data. Moreover, our use of polynomial regression allowed us to examine quadratic relations between values and self-esteem and offered a more detailed and exact picture of the relations between value congruence and self-esteem.



Certain limitations should be acknowledged. First, data were collected at one time point and are correlational. Although ample studies have suggested that congruence with the social environment enhances well-being (e.g. Fulmer et al., 2010), the direction of the effects may be reversed. Adolescents who feel good about themselves may be more likely to endorse values typical of their class. Future studies should examine these relations longitudinally. Second, our study did not examine the mechanisms underlying the association between adolescent-peer value congruence and self-esteem. As Sagiv and Schwartz (2000) highlighted, individuals who are incongruent in their values may lose out on opportunities to participate in activities congruent with their values, face internal conflicts, or be excluded by peers. Each of these possibilities may explain why poor congruence is related to lower self-esteem. Future research would do well to examine these mechanisms in more detail, and consider how the mechanisms explaining the congruence–adjustment association change with development. Finally, our study was conducted in the educational context of a school class. It is not clear whether the results could be replicated in other educational contexts, such as youth movements, or non-educational social contexts, such as youth clubs. Future studies should examine additional social contexts important in youth development.

Although we suggest resemblance to peers in the educational context may be related to well-being, other studies have highlighted the benefits of peer diversity (Allport, 1954). Studies focusing on cross-ethnic peer relations have found cross-ethnicity friendships might be related to tolerance and positive intergroup attitudes (Davies, Tropp, Aron, Pettigrew, & Wright, 2011). Further, diversity within schools may increase perceptions of safety for minority group adolescents (Juvonen, Nishina, & Graham, 2006). Understanding the costs and benefits of diversity in demographic characteristics and in values is necessary to fully illuminate the complex effect of value congruence on well-being.

In summary, this study examined the relations between values and self-esteem from two perspectives: the content of values and the congruence of values with those of classmates. It seems that the content of one's values is related to self-esteem to a minor extent, but endorsing values at a moderate level may be more indicative of higher self-esteem. The similarity of adolescents' self-enhancement and self-transcendence values to those of their classmates also predicts self-esteem. Thus, the social context is an important factor to consider in understanding the relations between values and self-esteem.

## CONFLICT OF INTEREST

The authors confirm they have no conflict of interest to declare. Authors also confirm that this article adheres to ethical guidelines specified in the APA Code of Conduct as well as the authors' national ethics guidelines.

## TRANSPARENCY STATEMENT

Due to ethical concerns about confidentiality, the data used in the current research are not available in a public repository, since this

information was not included in the consent form signed by the participants and their parents.

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