



**Utrecht University**

**Testing the Association Between Adolescents' Trust and Future Orientations, and the Moderating Role of Socioeconomic status**

**YOUTH STUDIES MASTER THESIS**

**FACULTY OF SOCIAL AND BEHAVIOURAL SCIENCE**

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## **Abstract**

**Purpose:** Adolescent's future orientations are based on their experiences within their social environment and can positively influence their development to adulthood. However, little is known about the role an experience like trusting others can play in the development of future orientations. Therefore, this study examined the association between both interpersonal and institutional trust with three future orientations outcomes and investigate how this association might change across different socioeconomic groups.

**Method:** Cross-sectional data from 1,128 Dutch students ( $M_{age} = 17,3$ ,  $SD = 1,729$ ) who self-reported their future expectations, positive and negative future emotions, interpersonal trust, institutions trust, and their family affluence, was used to answer the research questions.

**Results:** Hierarchical multiple regression analyses indicated that, both institutional and interpersonal trust are significantly associated with better future orientations, although these associations were strongest for interpersonal trust. Against expectations, results showed that the relationship between trust and future orientations was not different across socioeconomic groups, as only three out of twelve possible interactions were significant.

**Conclusions:** The findings suggest that trusting your close environment may be particularly important for more positive future orientations. As such the results indicate the importance of developing interventions that can enhance the engagement of adolescents with their communities.

*Key words:* *adolescents, future orientations, interpersonal trust, institutional trust, Socioeconomic status.*

## **Introduction**

Thinking and planning towards the future motivates everyday behavior (Bandura, 1986). Future orientations are particularly important to adolescents because their decisions about the future crucially influence their identity and adult life (Nurmi, 1991). Adolescents direct their own development towards a particular outcome by selecting goals, determining strategies to achieve them and by evaluating the outcome of their efforts (Armor et al., 2008). Therefore, it is no surprise that many researchers found that adolescents' future orientation influences educational attainment (Marjoribanks, 2003), life satisfaction (Zimbardo & Boyd, 1999), criminal behavior (Anderson et al., 2020) behavioral problems (Brumley et al., 2017) and positive outcomes during their emerging adulthood (Sulimani-Aidan, 2015). Given the importance of future orientations in different aspects of adolescent's development, it is crucial to identify factors that are associated with positive future orientations.

In simple words, future orientations are "the image individuals have about their future, as consciously represented and self-reported" (Seginer, 2008, p.272). There has been an effort of several scholars to explain this complex and multidimensional concept as a product of young people's current realities and relationships (Crivello, 2015). More explicitly, future orientations imply an individual's thoughts, plans, motivations, and feelings about his or her future, based on past and present experiences in their social environment (McCabe & Barnet, 2000). One positive experience that has received limited scientific attention despite its importance is trust. Although there is no universally accepted definition, most researchers agree that trust is a positive expectation toward others' behavior (Robinson, 1996). Hardin (2001) conceptualized trust as an optimistic prospect of the relationship with others, based on good and cooperative past experiences. Then, both future orientations and trust are built over past and present relational experiences. Furthermore, if trust can be perceived as a positive experience that provides a positive expectation on life, it is likely that higher trust is associated with more positive future orientations. Additionally, it is known that higher income groups have higher levels of trust (Alesina & LaFerrara, 2002), therefore it is important to examine if this possible link between trust and future orientations might be different for adolescents from diverse socioeconomic status (SES).

Thus, this article is intended to contribute to the existing literature on adolescents' future orientations and reinforce the importance of trust in this stage of development by:

(i) testing the association between trust and future orientations, (ii) analyzing the possible difference in the association of interpersonal and institutional trust with future orientation, and (iii) examining the moderating role of SES.

## Theoretical and empirical background

### The relationship between trust and future orientations

Nurmi's (1991) theory referred to how life context, such as family relationships or socioeconomic status, can influence adolescents' motivation, planning and evaluation of the future. Positive aspirations towards the future must be supported by an environment that gives the children the belief that they have what it takes to materialize their prospective plans (Seginer & Noyman, 2005). For instance, a child's perception of a supportive family can positively influence their future orientations (Trommsdorff, 1983). However, an adolescent's environment goes further than their family environment. For example, previous studies have shown that future orientations are also linked with adolescent's present engagement in school and with their peers (Carvalho, 2015). Empirically, very little is known about the role of further social or institutional support over youth's future orientations.

To our knowledge, there are no previous studies that have examined the relationship between trust and adolescents' future orientations. However, there is evidence about trust associations with life satisfaction (Helliwell & Wang, 2011) and subjective wellbeing (Helliwell & Putman, 2004). A possible explanation to these associations may arise from the risk society theory, which established that in postmodern societies marked by an awareness of constant risk, uncertainty and insecurity, trust can offer stability while facing an uncertain future (Ekberg, 2007), by creating a sense of social reliability and cooperation (Misztal, 1996). Moreover, some authors have even considered trust as an essential piece in the development of social capital (Putnam, 2000), understood as the social connections that can facilitate the life of the individuals that participate in a social network (Coleman, 1990). In line with these ideas, recent research regarding future orientations in at-risk youth showed that feeling uncertain about the future can be mainly explained by the lack of social capital (Klein & Shoshana, 2020). Thus, it can be argued that higher levels of trust might arise from the individual perception of social support (based on their past and present experiences) and reinforce the feeling of having a social network to lean on to achieve future goals or in times of need.

Consequently, it can be hypothesized that higher levels of trust can enable more positive future orientations.

### **Different types of trust**

Trust literature distinguishes between interpersonal and institutional (e.g., Esaiasson et al., 2020). *Interpersonal trust* is people's trust in individuals, including families, teachers, friends, while *institutional trust* concerns the government, representatives of authorities, such as the police, court, and non-governmental institutions (OECD, 2015). Previous research has found that the relationship between these two types of trust and health outcomes, wellbeing and positive development in youth, is almost the same (Mmari et al., 2016; Winzer et al., 2018; Hawkins et al., 2009). Based on the evidence, we might conclude that both interpersonal and institutional trust will behave similarly in their relationship with future orientations. However, the existing distinction of both concepts raises the question: Are different types of trust differently associated with adolescents' future orientations?

Interpersonal trust is experience-based, built on how others have treated you (Uslaner, 2002). While institutional trust is built over a more abstract expectation that everyone will behave cooperatively (Robbins, 2011) and a distant evaluation of the effectiveness of political institutions (Newton, 2001). This distinction is especially relevant for adolescents, as most of them might not have had any personal contact with governmental and non-governmental institutions. The attachment theory refers to how children develop a mental record of their experiences to achieve comfort with others, and this mental representation will lead their adult behavior and relationships (Bowlby, 1969). Therefore, as adolescents' future orientations are also built over their experiences with others it is expected that interpersonal trust will be more strongly associated with future orientations. The reason is that future orientations might reflect their personal and relational affairs, with friends, teachers or neighbors. All interactions they experienced personally, rather than an evaluation based on the effectiveness of institutions. Hence, adolescents' interpersonal trust might be more strongly associated with future orientations than institutional trust.

Nevertheless, there are reasons to believe that institutional trust might be as important to future orientations as interpersonal trust. During adolescence, both self-efficacy and external efficacy have been described as important developmental tasks

(Bandura, 2001). Self-efficacy is based on the feedback given by the direct social environment, which is more aligned with interpersonal trust, while external or political efficacy is a belief in the responsiveness of the institutions and can enhance the feeling of personal and collective agency (Bandura, 2001). The feeling that you can impact your social environment, and that institutions can protect you from individuals' exploitative behaviors, can enhance interpersonal trust, and give you a sense of security that the social system works (Thielmann et al., 2020). Thus, adolescents who trust institutions are there to support them, may be more likely to develop a sense of agency over their own future and their relationship with the social and political structure. Previous studies with at-risk youth have shown that for the development of future expectations external factors (e.g., information, material opportunities and institutions) are as important as emotional support (Sulimani-Aidan, 2017). Therefore, it can also be argued that institutional trust might be more strongly associated with future orientation than interpersonal trust. Thus, as there is substantial evidence to support both theories, for the purpose of this study it will be hypothesized that interpersonal and institutional will be similarly associated with future orientations.

### **The moderating role of SES**

It is known that socioeconomic status shapes the environment in which adolescents live and grow (Kraus & Stephens, 2012). Future orientations are not the exception. Having low-SES has been associated with less long-term planning (Nurmi, 1991) and more pessimistic future orientations (Voydanoff & Donnelly, 1990). Yet it is still unknown if trust can be differently associated with future orientations for low-SES as opposed to high-SES adolescents. When talking about their future high-SES individuals emphasized values of self-fulfillment and satisfaction that others do not (Weinberger et al., 2017). Adolescents with lower SES might lack some of the resources their higher SES peers use to develop positive future orientations, like a higher sense of self-efficacy (Silva & Course, 2018). In that context, trust can become even more important for low-SES adolescents, as they might be certain they will encounter different obstacles in their future than their high-SES peers. Trusting others and institutions might be more useful to enhance future orientations in a difficult environment than relying on self-efficacy. This can be understood as a strength developed by low-SES adolescents to cope with the difficulties of the environment and use the social resources they have available in their favor (Frankenhuis & Nettle, 2020). Therefore, it can be argued that

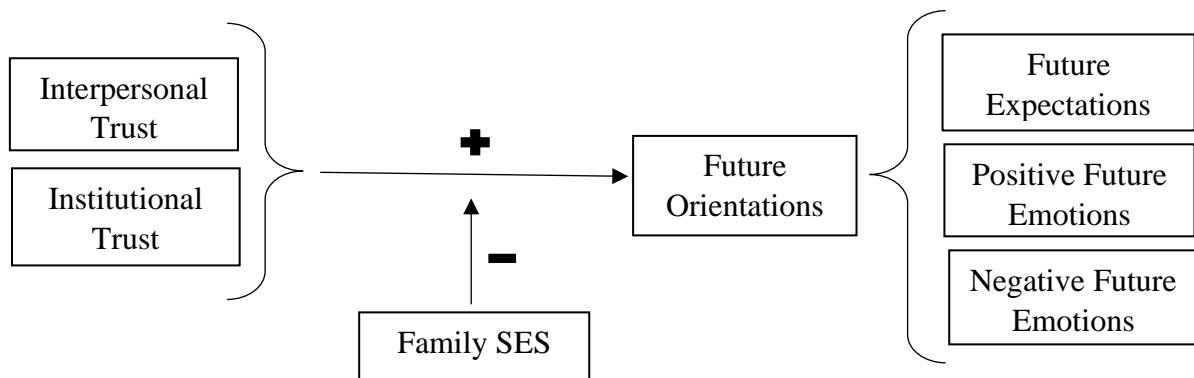
SES will moderate the association between trust and future orientations, and it can be hypothesized that low-SES will enhance this association.

## Current Study

To summarize, the aim of this study is to investigate to what extent interpersonal and institutional trust are associated with adolescents' future orientations, as well as the moderating role of SES in this association. Based on theory and previous research, it is hypothesized that higher trust will be associated with more positive future orientations (H1). Also, it is expected that both interpersonal and institutional trust will have a similar association with future orientations (H2). Lastly, it is expected that SES will moderate the relationship between trust and future orientations (H3), and for adolescents with lower SES, trust will be more strongly associated with future orientations (H4) (see Figure 1).

**Figure 1**

### *Research Model*



## Methods

### Sample

The current study used data from the first wave of the YOUTH Got Talent (YGT) project. Data was collected between September 2019 and February 2020, among first-year students at 3 tertiary vocational schools (MBO) in the Utrecht region of the Netherlands. These schools gave approval for the project, and the students were asked to give their active consent to participate, after being informed that the study was voluntary and anonymous. Parental consent was not needed as adolescents over the age of 16 can make independent health decisions according to Dutch law. Trained researchers visited

each classroom to administer self-report questionnaires. The response rate among students was 82%, 15% of the students were absent and 3% refused to participate.

From the original sample ( $N = 1,231$ ), only participants that completed the scales relevant for this study, were included in the study ( $N = 1,158$ ). Of this adjusted sample, 55.8% of the respondents were female and 44.2% male, the age of participants ranged from 16 to 29 years old ( $M = 17.3$ ,  $SD = 1.729$ ). In the sample, 24.2% of the adolescents had an immigration background (6.1% had a western background and 18.8% non-western); 23.8% of the respondents came from families with low-SES, 44.1% with middle-SES, and 32% with high-SES.

## Measures

**Future Expectations Scale:** Participants filled out a 5-point validated scale, from 1 (very small) to 5 (very large) to answer the question “what do you think the chances are?” on 8 different items: having a well pay job, affording a house, having a happy family life, good health, choose where to live, having good friends and feeling respected. This scale was developed and previously used by Jessor et al. (1990). The reliability of the scale was high ( $\alpha = .808$ ).

**Future Emotion Scale:** Participants were asked to rate on a 5-point scale from 1 (not at all) to 5 (very much), to what extent they felt the following emotions about the future: confident, enthusiastic, powerful, worried, empty, doubtful, and lonely. The first 3 constitute the *Positive Future Emotions Subscale* ( $\alpha = .816$ ), and the last 4 the *Negative Future Emotions Subscale* ( $\alpha = .778$ ). The full scale was previously validated as a bi-dimensional construct, therefore both subscales will be analyzed as separate outcomes (e.g., Sanders et al., 2015).

**Trust Scale:** contained 12 items measuring the level of trust in two different subscales. The *Interpersonal Trust Subscale* consists of the items: most people, people who I know personally, people who live in my neighborhood, classmates, and teachers. The *Institutional Trust Subscale* consists of the items: Netherland’s politicians, the police, social workers and psychologists, people who work for the government, the news, courts and judges, and social media (OECD, 2017). For each of these items a score between 0 (no trust at all) and 10 (complete trust) was given. The subscale scores represent the mean of the items included. The interpersonal trust scale has proven to be reliable across

countries (Carlin, Love & Smith, 2017). Both the Interpersonal Trust scale ( $\alpha = .851$ ) and the Institutional Trust Scale ( $\alpha = .893$ ) had good internal consistency.

**Family Affluence Scale (FAS):** was used as an indicator of the socioeconomic status of the family. This validated scale, is commonly used among young people to report family material assets, because it is an easy to answer instrument, that consists of six items: car ownership, own bedroom, computer ownership, number of bathrooms, ownership of dishwasher and holidays abroad (Currie et al., 2008; Torsheim et al., 2016). The sum of the 6 items led to a score between 0 and 13, higher scores indicate higher material assets. Scores were operationalized in three categories: low-SES (0-7), medium-SES (8-9) and high-SES (10-13).

**Control Variables:** Gender and migration background were added as control variables. Gender was measured by asking the adolescents, whether they were a girl (coded as 0) or a boy (coded as 1). Migration background was measured by asking adolescents about their parents' country of birth. In line with previous research and the Dutch statistical agency, adolescents who have at least one parent who is born in a non-Western or Western country, were considered as having a migration background (Duinhof et al., 2020; Statistics Netherlands (CBS), 2020).

## Data Analysis

All data analyses were conducted in IBM SPSS (24<sup>th</sup> Version). Before running the analyses, initial data checks were done. No extreme or impossible values were found. Outliers were visually inspected using box and whisker plots and Z scores for each item of the scales, but there were no identifiable unreliable patterns, consequently outliers were not excluded from the sample. Due to the large size of the sample, normal distribution testing using Shapiro Wilks test was significant ( $p<0.001$ ), thus the dependent variables were visually inspected using histograms, leading to the conclusion that the distribution was acceptable. Homoscedasticity and linearity were also checked by visually inspecting scatter plots, and these assumptions were also fulfilled. Finally, multicollinearity diagnosis (VIF) was run, and it showed no violation of the assumption.

First, an analysis of variance (Anova) across the three SES categories was conducted, including a Bonferroni's post-hoc test to see if the difference across groups were statistically significant. Second, descriptive analysis was conducted to examine the correlation between all variables included in the study. Third, hierarchical linear regression analyses were conducted, in which future expectations, positive and negative

future emotions were included as 3 separate outcomes. In Model 1, gender and migration background were included to assess the association with future expectations and emotions, as control variables. In Model 2, interpersonal and institutional trust were examined separately, to assess the associations without controlling for the other trust variable. In Model 3, both trust variables were added jointly to examine the association between these main variables and the three future orientations outcomes. In Model 4, the SES dummy variables were included, as well as the interaction between them and the trust variables. Following the recommendations of Aiken and West (1991), trust variables were centered to avoid potentially problematic multicollinearity with the interaction term.

## Results

### Descriptive Statistics

In Table 1, differences in future orientations and trust between adolescents from low, middle, and high SES are presented. Students with lower SES showed the lowest means on every domain, except for negative future emotions for which highest scores were found, while students with higher SES showed the highest mean on every domain, except for negative future emotions for which the lowest means were revealed. For future expectations, the low, middle and high SES groups significantly differed from each other. While for all the other variables, only the high-SES group significantly differed from the middle and low-SES groups.

**Table 1.**

*Comparison of means for future orientations and trust, between adolescents with low, middle, and high SES (N = 1.158)*

Variables	Low SES		Middle SES		High SES		<i>F</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	
Future	3.637 <sup>a</sup>	.522	3.767 <sup>b</sup>	.527	3.871 <sup>c</sup>	.534	15.48**
Expectation							
Positive Future	3.740 <sup>a</sup>	.761	3.751 <sup>a</sup>	.788	3.903 <sup>b</sup>	.670	5.48*
Emotions							
Negative Future	2.554 <sup>a</sup>	.846	2.482 <sup>a</sup>	.840	2.356 <sup>b</sup>	.781	4.91*
Emotions							

Interpersonal	6.025 <sup>a</sup>	1.653	6.213 <sup>a</sup>	1.660	6.568 <sup>b</sup>	1.625	9.41**
Trust							
Institutional	5.073 <sup>a</sup>	2.040	5.272 <sup>a</sup>	1.851	5.705 <sup>b</sup>	1.831	9.92**
Trust							

*Note.* *M* = means; *SD* = standard deviation; *SES* = socioeconomic status. \*  $p < .05$ , \*\*

$p < .001$ . Means within rows with different superscript letters indicate statistically significant differences across groups, according to Bonferroni multiple comparisons test.

In Table 2, an overview of the correlations of all study variables is presented. Results showed that students with higher interpersonal trust reported higher future expectations, more positive future emotions, and less negative future emotions. Similar results were found for students with higher institutional trust, although these correlations were slightly weaker than for interpersonal trust. Having positive future emotions was positively correlated with future expectations, while having negative future emotions was negatively correlated with both positive emotions and future expectations. Boys reported higher interpersonal trust, higher future expectations and more positive emotions towards the future than girls. Adolescents with a migration background, were less likely to trust others at an interpersonal and institutional level, as well as having a high-SES. In line with the results in Table 1, having a high-SES was positively associated with future expectations, positive future emotions and both interpersonal and institutional trust, but negatively associated with negative future emotions. There was a strong correlation between both trust variables ( $r = .647, p < .001$ ), even though there was no indication of multicollinearity (VIF = 1.00).

**Table 2.***Correlation Table.*

Variables	1.	2.	3.	4.	5.	6.	7.	8.	9.
1. Future Expectations									
2. Positive Future Emotions	.646**								
3. Negative Future Emotions	-.458**	-.452**							
4. Interpersonal Trust	.385**	.386**	-.353**						
5. Institutional Trust	.293**	.286**	-.282**	.647**					
6. Middle SES	.011	-.044	.014	-.038	-0.52				
7. High SES	.113**	.089**	-.079**	.121**	.124**	-.610**			
8. Gender <sup>a</sup>	.109**	.071*	-.022	.126**	-.035	-.043	-.071*		
9. Migration Background <sup>b</sup>	.012	.066*	.007	-.135**	-.114**	-.035	-.146**	-.047	

Note. \*  $p < .05$ . \*\*  $p < .001$ . For categorical variables Spearman correlation was used. For numerical variables

Pearson's correlation was used. SES = socioeconomic status.

a. Girls were the reference group; b. Native students were the reference group.

### Association between trusts and future orientations

To test whether trust was associated with future orientations and more specifically whether SES can moderate that relationship, a hierarchical multiple regression analysis was conducted. Table 3 shows the results of models 1-4 for the three future orientations outcomes. Model 1 showed that boys had significantly higher future expectations ( $B = .108$ ,  $\beta = -.100$ ,  $p = .001$ ) and more positive future emotions ( $B = .089$ ,  $\beta = .059$ ,  $p = .045$ ) than girls. Model 2a and 2b, showed that the main effect of both trust variables was statistically significant and positively associated with future expectations and positive future emotion, while negatively associated with negative future emotions. However, the associations of institutional trust with the three outcomes were smaller. Moreover, in Model 3 while including both trust variables together into the model, only the positive associations of interpersonal with future expectations ( $B = .106$ ,  $\beta = .330$ ,  $p < .001$ ) and positive future emotions ( $B = .157$ ,  $\beta = .347$ ,  $p < .001$ ) remained significant. While for the negative association with negative future emotions both interpersonal ( $B = -.161$ ,  $\beta = -.324$ ,  $p < .001$ ) and institutional ( $B = -.032$ ,  $\beta = -.074$ ,  $p = .044$ ) trust were significant. Model 3 explained 14,8% of the variance in adolescent's future expectations, 14,9% of positive future emotions, and 13,6% of negative future emotions.

### **Moderating role of SES**

Model 4 showed that having a high compared to low SES was associated with more positive future expectations and positive future emotions and associated with less negative future emotions. Also, having middle rather than low SES was significantly associated with higher future expectations ( $B = .132$ ,  $\beta = .122$ ,  $p <.001$ ), but this association was smaller than for the high-SES group ( $B = .197$ ,  $\beta = .172$ ,  $p <.001$ ). The model also showed two significant interactions between middle compared to low SES and interpersonal trust, and one between high compared to low SES and institutional trust. As shown in Figure 1, the positive association between interpersonal trust and future expectations is accentuated for adolescents that have middle rather than low SES ( $B = .063$ ,  $\beta = .130$ ,  $p = .033$ ). Figure 2 showed that the negative association between interpersonal trust and negative future emotions also increased for adolescents that have middle rather than low SES ( $B = -.106$ ,  $\beta = -.141$ ,  $p = .021$ ). Lastly, Figure 3 showed that the negative association between institutional trust and negative future emotions, becomes a positive association for adolescents with high-SES ( $B = .081$ ,  $\beta = .102$ ,  $p = .05$ ). The association between trust and negative future emotions was not significant for the low-SES group, although it was for the high-SES group, so these results should be interpreted with caution.

**Table 3.***Regression Models for future orientations.*

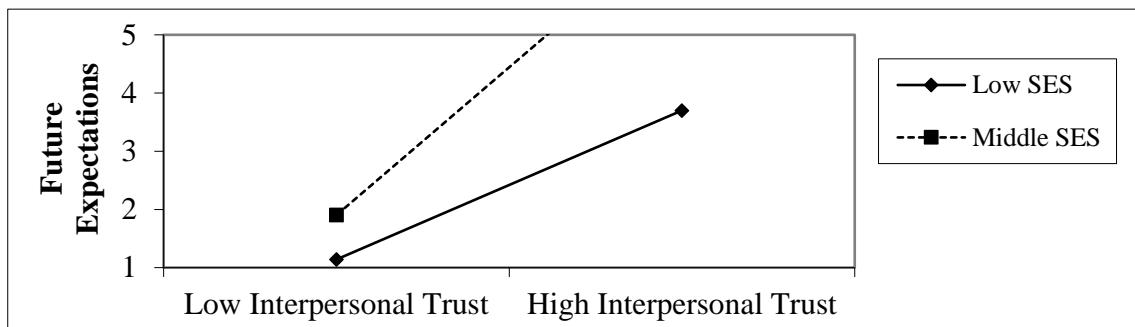
Model	Future Expectations			Positive Future			Negative Future		
				Emotions			Emotions		
	B	SE	$\beta$	B	SE	$\beta$	B	SE	$\beta$
<b>Model 1</b>									
Gender <sup>a</sup>	.108*	.032	.100	.089*	.044	.059	-.041	.049	-.025
Migration	.010	.037	.008	.094	.051	.054	.005	.057	.003
Background <sup>b</sup>									
<b>Model 2a</b>									
Interpersonal Trust	.122**	.009	.377	.174**	.012	.386	-.186**	.014	-.374
<b>Model 2b</b>									
Institutional Trust	.081**	.008	.287	.112**	.011	.286	-.124**	.012	-.287
<b>Model 3</b>									
Interpersonal Trust	.106**	.012	.330	.157**	.017	.347	-.161**	.018	-.324
Institutional Trust	.020	.010	.071	.023	.014	.058	-.032*	.016	-.074
<b>Model 4</b>									
Middle SES <sup>c</sup>	.132**	.037	.122	.024	.052	.016	-.066	.058	-.040
High SES <sup>c</sup>	.197**	.040	.172	.134*	.057	.084	-.148*	.063	-.084
MiddleSES*Interpersonal Trust <sup>d</sup>	.063*	.030	.130	.076	.041	.111	-.106*	.046	-.141
HighSES*Interpersonal Trust	.039	.031	.068	-.016	.044	-.020	-.056	.049	-.063
MiddleSES*Institutional Trust	-.021	.025	-.049	.004	.035	.006	.017	.039	.025
HighSES*Institutional Trust	-.032	.026	-.063	-.002	.037	-.002	.081*	.041	.102

Note. \* $p < .05$ , \*\* $p < .001$ . All continuous variables are mean centered. SES = socioeconomic status.

a Girls were the reference group; b Native students were the reference group; c Low-SES was the reference group.

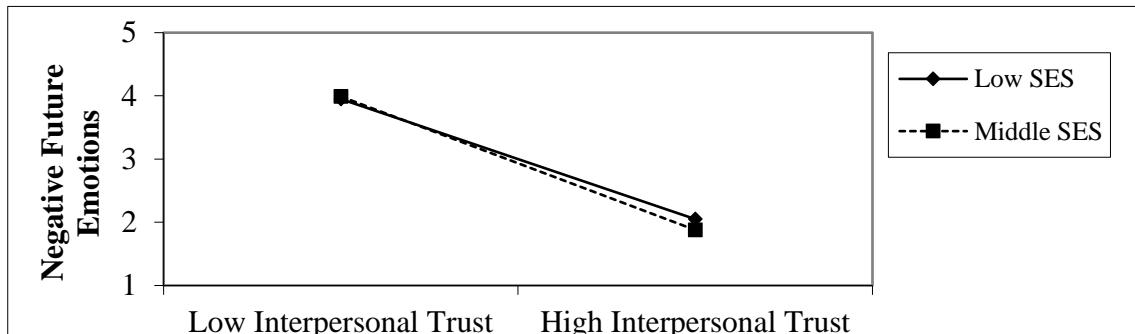
**Figure 2.**

*Simple Slopes of the association between interpersonal trust and future expectations, and the moderating effect of middle SES.*



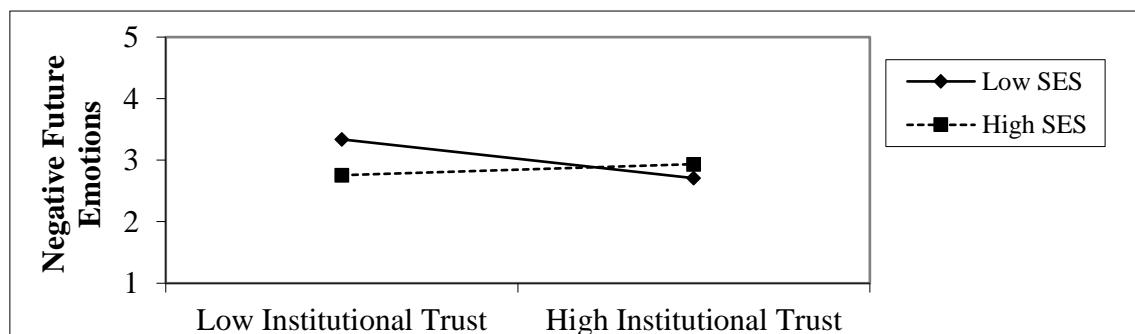
**Figure 3.**

*Simple Slopes of the association between interpersonal trust and negative future emotions, and the moderating effect of middle SES.*



**Figure 4.**

*Simple Slopes of the association between institutional trust and negative future emotions, and the moderating effect of high SES.*



## **Discussion**

The objectives of this study were to investigate to what extent trust is associated with adolescents' future orientations, as well as the moderating role of SES in this association. The findings indicate that there is a positive association between trust and adolescents' future expectations and positive emotions, and a negative association with negative future emotions. Thus, the higher trust levels are the more positive adolescents' future orientations. Moreover, these associations were stronger for interpersonal rather than institutional trust. There were only three relatively weak interactions between trust and SES, thus overall SES does not moderate the association. The positive association between interpersonal trust and future expectations and the negative association with negative future emotion, was stronger for middle-SES compared to low-SES. Also, the negative association between institutional trust and negative future emotions becomes a positive association for the high-SES group.

In line with our expectations, trust was positively associated with future orientations. These results are consistent with Nurmi's (1991) theory, which established how adolescents' thoughts and emotions towards the future are influenced by their experiences within their close and extended social environment. Consequently, one possible explanation of the importance of trust for positive future orientations is how trusting enables social connectedness and cooperation with others to attain shared goals. For example, higher levels of trust have also been associated with the development of reciprocity, obligation, honesty and reliability (Cook, 2001; Hardin, 2002; Fukuyama, 1995). All these features are essential for the peaceful coexistence in every community and society, but apparently, they also seem to be important to think about your own future more positively. Optimistic aspirations towards the future must be endorsed by a supportive environment (Seginer & Noyman, 2005). However, as adolescents are not passive agents in their environments, they also need to trust their environments will act in a reliable and supportive way to develop more positive future orientations.

Both interpersonal and institutional trust were positively associated with future orientations. Contrary to our expectations, the associations between interpersonal trust and the three indicators of future orientations were more pronounced than these associations for institutional trust. Moreover, when including both indicators of trust in the same model, in two out of three outcomes only interpersonal trust was significantly

associated with future orientations. Only for negative future emotions, the association with institutional trust remained significant, however the linkage was still much weaker than for interpersonal trust. The stronger association of interpersonal trust with future orientations can be explained by the attachment theory, which claimed that children's interactions with their close environment will later during adolescence and adulthood, guide their thought, expectations, and behavior toward new experiences (Bowlby, 1969). Thus, if interpersonal trust can be understood as a reflection of an adolescent experience with their close environment -beyond their families-, it becomes clearer that the way adolescents interact, perceive, and trust their classmates, teachers, or neighbors is important for the development of future orientations. Despite our findings, the importance of institutional trust should not be underestimated. Empirically, it has been established that the level of institutional trust among youth can determine the political direction of a nation (Kwak et al., 2020). Although the public debate has focused on the importance of institutional trust on a sociological level, our finding also suggests that lower institutional trust influence something as personal as future orientations. Furthermore, another possible explanation for the weaker association of institutional trust with future orientations might be the mediating role of interpersonal trust in this association. This hypothesis would be consistent with the theory that people learn to trust in their close environment and later transfer this ability to secondary groups (Hearn, 2017), yet further research is needed to confirm this statement.

Also against our expectations, there was no moderating role of SES because only three out of twelve possible interactions were found to be significant. This result might be explained by the fact that in countries like the Netherlands with high standards of living, almost all adolescents have sufficient material goods and access to social services, as previous studies have mentioned (e.g., Duinhof, 2020). Thus, it might be argued that in welfare states like the Netherlands, SES not necessarily plays a role in the association between trust and future orientation, because even adolescents with low-SES might have access to the social resources previously mentioned as essential in the development of future orientations, like school counseling to promote decision-making abilities and vocational guidance (Savickas, 2002). These benefits might downplay the necessity to rely on trust to compensate for the lack of other social resources. Still, there were three significant interactions that should be discussed with caution, because their directions were not consistent. Two of them showed that having middle rather than low SES can

enhance the positive association between interpersonal trust and future orientations. These interactions might be explained by the fact that as low-SES adolescents are more used to cope with difficult environments, it is more important for them to rely on their own abilities rather than the support of others, as previous research has found (e.g., Van Audenhove & Vander, 2015). Therefore, associations between trust and future orientations may be weaker for them, and other factors like resilience might be more strongly associated. The last interaction showed that for high-SES adolescents the association between institutional trust and negative future emotions was positive, while for low-SES adolescents the association was negative. Previous studies have found that during periods of economic recession, adolescents with a higher SES are more concerned about how these problems might jeopardize their future (Tevington, 2018). Therefore, it can be argued that adolescents with higher SES are more sensitive to the social, political or economic instabilities, which might affect the solidity of the institution they trust, and consequently feel more worried or doubtful about their own future. Before concluding, it is important to highlight that these associations need further exploration and the overall result is the absence moderation by SES. Additionally, although there was no moderation effect, results do indicate a direct link between SES and future orientations, which is in line with previous studies (e.g., Sulimani-Aidan, 2017; Klein & Shoshan, 2020) and shows how socioeconomical inequalities might jeopardize the development of future orientations.

### **Strengths, limitations and directions for future studies**

This study has several strengths. To start, to our knowledge is one of the first to examine the association between trust and adolescents' future orientations, as well as the moderating role of SES. Additionally, the sample consists of over a thousand students from vocational schools, a group typically underrepresented in research (Nielsen et al., 2017), who could largely benefit from intervention based on research. Nonetheless, by not including students from different levels of education, these findings cannot be generalized to the overall population of Dutch adolescents. Some other limitations of the present study should be mentioned too. First, the nature of the data was cross-sectional, therefore no causal links can be established. For example, it can be argued that more negative emotions toward the future can cause lower levels of trust -known as reverse causation-, or a third confounding variable, like the lack of perceived support, could cause both. Second, the study is conducted in the Netherlands, a country with a high national

average of generalized trust, according to previous research (Poortinga, 2006). Thus, the country characteristics could affect the association between trust and future orientations, while countries with lower levels of generalized trust might lead to different results. Finally, this study only used one measurement of SES: family affluence. As previous research has found, different operationalizations of adolescent's SES might lead to different results (Reiss, 2013). Thus, it is important to complement this measurement with other estimations of family SES (e.g., parental educational level), which was not done in this research.

Considering these limitations, some directions for future studies are the necessity to conduct longitudinal studies to determine the direction of the relationship between trust and future orientations. Also, internationally comparative research is needed to examine if the association between trust and future orientations, as well as the interaction of SES with trust remains the same across more unequal countries. Moreover, considering the positive association between trust and future orientations, more research is needed to examine possible mediating patterns that could further explain this association, for example the possible mediating role of sense of control and social capital.

### **Conclusions and implications**

The findings of this study gave new insight into the idea that trust, both interpersonal and institutional, are positively associated with adolescent's future orientations. Interpersonal trust was more strongly linked to future orientations than institutional trust, and overall SES did not moderate the relationship between trust and future orientations.

To conclude, these findings contribute to the existing literature that has established how future orientations are linked to the way in which individuals relate to others (Shore & Scott, 2007). To improve youths' future orientations, and by consequence all positive outcomes associated with them, trust and the connectedness between adolescents and their communities - school and neighborhoods-, and to a lesser extent the trustworthiness of the institutions, should be reinforced in youth interventions. Trust should be considered as a crucial factor that can contribute to a positive development and transition to adulthood. Moreover, several authors evidenced that the level of trust, especially amongst young people, is decreasing (Putnam, 2000; Uslaner, 2002). This could become an

important issue in the light of our findings, and previous studies that highlight the social and political importance of trust (Cook, 2001; Hardin, 2002; Fukuyama, 1995). Therefore, one practical suggestion based on the importance of trust for future orientations, could be to enhance conversations about their future with people adolescents already trust in their own neighborhoods and schools, promoting access to the social resources already available, and empowering those adolescent's that might lack of this support in other contexts (e.g., at home). Lastly, research regarding adolescents' future orientations is still scarce despite its association with multiple positive outcomes. More longitudinal studies are needed to utterly understand which factor might lead to positive future orientations.

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