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Self-esteem trajectories over three decades predict opposition to social equality in midlife

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Although life trajectories are frequently theorized to explain people's attitudes toward different social groups, few studies have been able to directly assess their importance with suitable data. Addressing this gap and focusing on the development of general and domain-specific self-esteem, we report results from a population-based sample of Norwegians (N = 2,215) followed over 28 years and five time points from adolescence to midlife. Growth curve models demonstrated that irrespective of self-esteem domain, low levels of self-esteem in adolescence as well as a depressed self-esteem development over the next three decades were related to more overall opposition to social equality as well as more opposition to gender equality and immigration in midlife. The results held when controlling for participants' baseline political orientations and other key covariates in adolescence. Our findings indicate that low self-esteem and a lack of positive self-esteem development can be detrimental to harmonious intergroup relations in ever-diversifying societies. We discuss how future psychological interventions aimed at enhancing self-esteem may promote support for a more inclusive society.

gender equality | social equality | life trajectories | prejudice | self-esteem development

Significance

It has long been argued that how we think, feel, and behave concerning various social issues is the result of our life trajectories, but this has rarely been tested. The present study therefore investigated whether people's self-esteem in adolescence and the development of self-esteem over the following three decades are related to their political attitudes in midlife. Indeed, people with low self-esteem in adolescence and those who showed a smaller increase in self-esteem in the following decades opposed social equality more in midlife than people with more positive self-esteem developments. Hence, to contribute to harmonious intergroup relations in the long term, policymakers may focus on improving adolescent self-esteem and positive self-esteem development throughout the life span.

In his influential book The Nature of Prejudice, Gordon Allport (1) argued that prejudice "is always a matter of frustrated affiliative desire and the attendant humiliation to one's self-esteem" (p. 365). Later, theorists proposed that low self-esteem motivates people to engage in discrimination (2). However, empirical research on the role of self-esteem in intergroup attitudes first produced mixed results (for reviews, see refs. 3 and 4) and then became scarce (see refs. 5 and 6). Especially, little is known about how the temporal developments in people's self-esteem over the life course predict intergroup attitudes. Yet, self-concepts and associated cognitive developments, such as self-esteem growth throughout the life course, are seen as integral to intergroup conflict (7). Addressing these gaps, we analyze data from a large population-based sample of Norwegians who were followed up for almost three decades and at five time points from adolescence to midlife. To gather nuanced insights, we differentiate between prospective associations of general self-esteem and two relevant specific types of self-esteem with opposition toward inclusive politics (i.e., general attitudes toward social equality and specific attitudes toward gender equality and immigration, ref. 8). Given the increasing political polarization and growing intergroup tensions concerning topics such as immigration and gender equality in many Western democracies, understanding the developmental drivers of opposition to social equality constitutes a pressing and surprisingly little researched social issue (9).

So far, theoretical perspectives on the link between self-esteem and intergroup attitudes are divergent. On the one hand, there is the belief that depressed self-esteem (i.e., lower-than-expected self-esteem development over time) leads to more prejudice (2). Depressed self-esteem across the life course is not only stressful and unhealthy (6), but also contrasts with the typical development in early adulthood, which is characterized by increasing self-esteem (10, 11). Crucially, people with depressed self-esteem often come to evaluate others as more valuable than themselves (12). This inferiority feeling conflicts with the existential human psychological need to feel positively distinct from others (13). As such, people can be expected to engage in different strategies to restore their self-esteem, and one way to compensate for low self-esteem may be to downplay the value of others (14–18). Because negatively evaluating other people of one's own social group can also indirectly mean devaluing oneself (19), people often instead devalue social groups to which they do not belong (20). Consistent with this theoretical perspective, people with low self-esteem tend to show in-group favoritism (21), racism (22), sexism (23), isolationism and political extremism (24), and less support for democratic values (25). Thus, some evidence suggests that low self-esteem is indeed related to prejudice because negative evaluations of others are a way to compensate; however, a considerable amount of that work is based on correlational research on which no causal conclusions can be drawn.

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On the other hand, some researchers propose instead that it is high self-esteem that fosters prejudice and discrimination (12). Given that high self-esteem is common in bullies and aggressors, researchers have argued that high self-esteem has a "dark side" and may foster feelings of social superiority (12, 26, 27). Hence, high self-esteem may be a source of antisocial tendencies such as markedly negative views of others (18). Again, because devaluing members of one's own group reflects negatively on oneself, outgroups may be the primary targets of such degradations. Indeed, several correlational and experimental studies indicate that high self-esteem is related to negative attitudes toward a range of outgroups (e.g., refs. 28–32).

In summary, there is empirical support for two contradictory theoretical views on the role of self-esteem in people's intergroup attitudes (3, 5, 18). Most critically, however, to the best of our knowledge, no previous study has tested the link between self-esteem and intergroup attitudes using large-scale longitudinal data. Addressing this gap, the present study tests whether self-esteem—spanning from the period when attitudes toward social and political issues emerge (i.e., adolescence) to the time when they are mostly set (i.e., midlife)—is associated with opposition to social equality. We test these associations on a suitable longitudinal dataset spanning over almost three decades. These data give us the unique opportunity to test time precedence patterns and examine how levels of self-esteem early in life as well as its development since adolescence may be reflected in adulthood intergroup attitudes. Importantly, in addition to providing a robust test of the two competing hypotheses presented, the data allow us to test the independent and potentially interactive effects of baseline self-esteem and self-esteem development.

In terms of our outcome variables, we examine how people's self-esteem trajectories are associated with two facets of intergroup attitudes that are highly societally salient and consequential: attitudes toward immigration and attitudes toward gender equality (33, 34). We chose immigration and gender-related outcomes because they are exemplary of a changing world in which previously accepted social hierarchies are increasingly challenged. Particularly in times of rising political polarization, the devaluation of gender equality and cultural diversity brought through immigration may for some people be a way to compensate for their low self-esteem. If so, we would expect these attitudes to be linked to stagnant or declining (i.e., depressed) self-esteem throughout the life course. In addition, we examine how self-esteem is related to general, context-independent opposition to social equality, which is well known to predict a broad spectrum of social attitudes, policy support, and behaviors (8, 35–39).

Our study differentiated between different types of self-esteem relevant to intergroup attitudes. Self-esteem, individuals' subjective evaluation of their worth as a person, can be general or domain specific (40). It has been suggested that domain-specific self-esteem may predict intergroup attitudes better than general self-esteem (12, 31). As intergroup attitudes reflect a sense of social connectedness to others, it is especially social types of self-esteem that might be relevant (15). Potentially, people who throughout their lives have come to perceive themselves as unpopular or as having difficulties making friends might feel the need to compensate for their social frustrations by downplaying the value of others. We thus examine the associations between general self-esteem, social self-esteem (i.e., perceived popularity), and close friendship self-esteem (i.e., perceived ability to make close friends) in relation to intergroup attitudes.

Results

Using data from a population-based sample of 2,215 Norwegians followed up for almost three decades, we estimated latent growth curve models for general self-esteem and self-esteem in the domains of social relationships and close friendships. We tested the associations of the intercept (i.e., baseline self-esteem in adolescence) and slope (i.e., self-esteem development) with opposition to social equality in midlife. In testing the aforementioned competing hypotheses, we also explored potential differences between general and domain-specific self-esteem. We controlled for gender, age, parental education, and political conservatism to test the robustness of our results.

Table 1 presents correlations, means, and SDs for all the study variables. For all types of self-esteem, mean scores increased from time point 1 (T1) to T3 or T4 and showed decreasing scores at T5. Correlations across adjacent time points were similar for the different self-esteem constructs and varied from r = 0.40 to r = 0.65. Midlife opposition to immigration, social equality, and gender equality showed generally small correlations with all types of self-esteem at all time points.

For all the three self-esteem constructs, we estimated individual growth curves modeling linear development (Model 1) and compared these models to growth curves allowing for curvilinear

Table 1. Descriptive statistics and correlations among the study variables (N = 2,215)

			Intercorrelations																	
Parameter	M	SD	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	14.	15.	16.	17.	18.
Self-esteem																				
1. General (T1)	2.87	0.54																		
2. General (T2)	2.95	0.55	0.59																	
3. General (T3)	2.96	0.53	0.37	0.51																
4. General (T4)	3.01	0.52	0.33	0.40	0.56															
5. General (T5)	2.93	0.53	0.28	0.35	0.45	0.57														
6. Social (T1)	3.08	0.50	0.46	0.29	0.22	0.22	0.21													
7. Social (T2)	3.17	0.50	0.31	0.41	0.28	0.25	0.23	0.56												
8. Social (T3)	3.21	0.51	0.21	0.29	0.52	0.38	0.34	0.41	0.48											
9. Social (T4)	3.21	0.52	0.16	0.24	0.34	0.52	0.39	0.37	0.44	0.63										
10. Social (T5)	3.00	0.56	0.18	0.23	0.32	0.39	0.56	0.34	0.42	0.55	0.65									
11. Close friends (T1)	3.17	0.60	0.23	0.12	0.12	0.11	0.11	0.51	0.38	0.27	0.26	0.24								
12. Close friends (T2)	3.29	0.59	0.17	0.21	0.16	0.15	0.13	0.38	0.57	0.32	0.32	0.29	0.53							
13. Close friends (T3)	3.37	0.56	0.11	0.15	0.34	0.24	0.21	0.25	0.34	0.62	0.44	0.39	0.33	0.40						
14. Close friends (T4)	3.34	0.58	0.10	0.15	0.24	0.39	0.30	0.24	0.31	0.44	0.64	0.48	0.28	0.35	0.52					
15. Close friends (T5)	3.11	0.67	0.11	0.13	0.20	0.24	0.39	0.23	0.29	0.36	0.43	0.65	0.29	0.32	0.43	0.54				
Opposition to (T5)																				
16. Immigration	5.55	1.99	−0.06	−0.04	−0.08	−0.10	−0.08	−0.08	−0.07	−0.11	−0.09	−0.13	−0.06	−0.10	−0.15	−0.14	−0.12			
17. Social equality	2.29	1.08	−0.01	0.03	−0.04	−0.06	−0.04	−0.04	−0.03	−0.08	−0.07	−0.08	0.06	0.04	−0.14	−0.12	−0.11	0.45		
18. Gender equality	3.28	1.71	−0.00	0.01	−0.04	−0.07	−0.06	−0.06	−0.04	−0.09	−0.12	−0.12	−0.07	−0.06	−0.14	−0.16	−0.15	0.42	0.47	
Covariates																				
19. Conservatism (T2)	5.42	1.71	0.07	0.10	0.03	−0.01	0.03	0.02	0.03	0.02	0.02	0.01	−0.03	−0.05	−0.07	−0.06	−0.04	0.31	0.26	0.27
20. % women	57.43	0.49	−0.18	−0.27	−0.21	−0.13	−0.11	0.04	0.01	−0.05	−0.01	0.01	0.22	0.22	0.17	0.18	0.19	−0.13	−0.17	−0.10
21. Age (T1)	15.05	1.98	0.02	0.04	0.05	0.04	0.04	0.12	0.12	0.04	0.01	0.03	0.12	0.09	0.01	0.00	0.01	−0.06	−0.06	−0.07
22. Parental education	2.43	1.03	0.07	0.06	0.07	0.08	0.05	0.04	0.06	0.13	0.11	0.10	0.04	0.05	0.12	0.12	0.09	−0.16	−0.20	−0.12

Note. Intercorrelations of r = |0.05| or above are statistically significantly different from zero at P < 0.05.

developmental trajectories by including a quadratic slope (Model 2). Based on scaled χ^2-difference tests (41), the results showed that nonlinear trajectories fitted the data significantly better than linear growth for all the three self-esteem constructs (Table 2). Moreover, all growth curve models showed good model fit. We thus selected nonlinear developmental models estimating the intercept, a linear slope, and a quadratic slope for all self-esteem measures. The intercept was parameterized to provide an estimate of the self-esteem level at T1. Overall, we found increasing levels of self-esteem from adolescence to age 30 with a decrease thereafter. The decline was stronger for social and close friendship self-esteem than for general self-esteem. *SI Appendix*, Fig. S1 provides a graphical display of the mean trajectories of each self-esteem construct.

We then estimated models in which we used the intercept and linear slope of the self-esteem latent growth curves as predictors of opposition to immigration, social equality, and gender equality in midlife while controlling for gender, age, parental education, and political conservatism. As shown in Fig. 1 (see *SI Appendix*, Table S1 for details), for general self-esteem, the intercept and linear slope were negatively and significantly associated with all the three measures of opposition to social equality. Similar findings were obtained for social self-esteem and close friendship self-esteem; except for the slope of social self-esteem that was not significantly related to opposition to immigration but trended in the same direction. The results thus showed—almost irrespective of domain—that lower initial level of self-esteem and a smaller increase of self-esteem across the 28 years of the study were related to stronger opposition to immigration, social equality, and gender equality in midlife. This general pattern of results remained largely the same when estimating the models without the four control variables (*SI Appendix*, Table S2). We also reestimated the models with both growth curves and outcomes based on latent variables instead of manifest indicators (*SI Appendix*, Table S3). In these models, the pattern of associations between growth curve parameters and outcome variables was identical but with somewhat stronger effect sizes.

Table 2. Model fit indices for growth curve models of three types of self-esteem and growth parameters of the nonlinear developmental model (*N* = 2,215)

	General self-esteem	Social self-esteem	Close friendship self-esteem
Model 1			
χ^2	298.173	542.102	522.389
df	10	10	10
CFI	0.886	0.823	0.747
RMSEA	0.114	0.155	0.152
SRMR	0.084	0.086	0.106
Model 2			
χ^2	63.542	36.162	63.987
df	6	6	6
CFI	0.977	0.990	0.971
RMSEA	0.066	0.048	0.066
SRMR	0.026	0.018	0.037
Model comparison			
$\Delta\chi^2$(Δdf)	225.063(4)*	473.587(4)*	425.713(4)*
Model 2 growth parameters			
Intercept, mean	2.89*	3.10*	3.21*
Intercept, SD	0.44*	0.39*	0.45*
Linear slope, mean	0.15*	0.21*	0.26*
Linear slope, SD	0.51*	0.48*	0.57*
Quadratic slope, mean	−0.05*	−0.09*	−0.11*
Quadratic slope, SD	0.14*	0.12*	0.17*

Note. χ^2 = chi-square, *df* = degrees of freedom; CFI = comparative fit index; RMSEA = root mean square error of approximation; SRMR = standardized root mean squared residual; *$P < 0.001$.
Model 1 refers to the linear developmental model with an intercept and a linear slope. Model 2 refers to the nonlinear developmental model with an intercept, a linear, and a quadratic slope.
Fit indices for models controlled for gender, age, parental education, and political conservatism can be found in *SI Appendix*, Table S6.

Moreover, we examined whether associations for social and close friendship self-esteem differed significantly from estimates obtained for general self-esteem. To test this, we examined whether constraining associations in the social and close friendship self-esteem models to be the same as in the general self-esteem model would deteriorate model fit. No significant differences in model fit were observed in both the social self-esteem, $\Delta\chi^2(6) = 4.33$, $P = 0.632$, and the close friendship self-esteem model, $\Delta\chi^2(6) = 8.29$, $P = 0.218$ (for more information on the additional analyses, see *SI Appendix*). Thus, the associations between self-esteem (intercept and slope) and opposition to social equality were comparable across the different types of self-esteem.

We also tested for gender differences in the associations between self-esteem and opposition to social equality in all the three self-esteem domains through multigroup analyses. We found no significant differences between women and men (general self-esteem: $\Delta\chi^2(6) = 5.25$, $P = 0.512$; social self-esteem: $\Delta\chi^2(6) = 12.17$, $P = 0.058$; close friendship self-esteem: $\Delta\chi^2(6) = 3.84$, $P = 0.699$). In other words, women and men did not differ significantly in how self-esteem was related to opposition to social equality.

Finally, we tested for latent interactions between the intercept and the slope for all the three types of self-esteem, but none of these were significant (*SI Appendix*, Table S4). This indicated that self-esteem development was related to opposition to social equality irrespective of individuals' initial levels of self-esteem at T1.

Discussion

Whether people's life trajectories relate to their attitudes toward social equality has been a long-standing question in the social sciences. However, due to the lack of large-scale longitudinal data that capture the development of psychological factors over longer parts of the lifespan, the question has rarely been examined in research. We addressed this issue in a multiwave study that followed a population-based sample over almost three decades. Our results showed that low self-esteem in adolescence as well as a depressed self-esteem development over a person's life course were related to stronger opposition to social equality in midlife. Demonstrating the robustness of the results, the findings replicated across different types of self-esteem and with general as well as specific types of opposition to social equality as outcomes. The findings also held when controlling for a set of covariates, including participants' baseline political orientation and socioeconomic background, and when estimating the models with latent rather than manifest variables. In line with Orth and Robins (6), who found little indication for gender differences in how self-esteem affects life outcomes, baseline and depressed self-esteem development were related to intergroup attitudes in midlife similarly for women and men. Thus, overall, our findings support the hypothesis that depressed

self-esteem is associated with opposition to social equality (5, 7, 42), in contrast to the hypothesis that it is high self-esteem that drives this opposition (28, 29). Our results indicate that low baseline and depressed self-esteem development indeed seem to be associated with people engaging in the compensatory processes of derogating or supporting the oppression of other social groups (2).

There are several possible reasons why our findings contrast with research that shows that high self-esteem is associated with more prejudice (12, 26). One reason might be that we did not assess negative aspects of high self-esteem, such as narcissism, directly (see also ref. 6). Contrary to Baumeister et al. (12), Donnellan et al. (40) proposed that healthy high self-esteem does not entail grandiose views of the self. In this line of thought, high self-esteem may not necessarily foster perceived superiority to people from other social groups but may instead reflect an understanding of one's own limitations while maintaining the idea of oneself as worthy. Such notions are supported by research indicating that, after controlling for nonnarcissistic self-esteem, only narcissistic self-esteem is positively associated with right-wing authoritarianism, social dominance orientation, and prejudice (28). Therefore, we advise future researchers to replicate our findings with designs that include measures of positive and negative types of high self-esteem.

Our findings contrast also with research proposing that measures of specific self-esteem domains are better predictors of intergroup attitudes than general self-esteem (12). Yet, one reason for our consistent findings across different domains of self-esteem may be that, even though self-esteem domains were measured in terms of social aspects of life, they still all referred to individual self-esteem. Therefore, research that measures collective, group-based self-esteem (29) in domains that are particularly relevant to intergroup relations may lead to different results.

The interpretation of our results is qualified by some limitations. First, the effect sizes were small. However, their magnitude is in line with findings from other developmental research, which generally observes smaller longitudinal effect sizes than that in correlational or experimental research (43), especially when investigating associations over several decades (44). Moreover, a recent meta-analysis of longitudinal studies on the consequences of self-esteem found similar effect sizes as in the present study for a variety of outcomes (6). Second, participants were from Norway, and future research is needed to provide information about the generalizability of our findings to other cultural and political contexts. Third, because the opposition to social equality measures were only available at the last time point, it was not possible to control for baseline scores or estimate trajectories of these variables. Even though we controlled for the conceptually related construct of adolescent political conservatism and other relevant covariates, such as parental education, gender, and age, it is important to note that our findings are correlational and cannot rule out all potential confounding variables. Finally, the present study is based on self-reports only, thereby increasing the risk of inflated associations between self-esteem and opposition to social equality measures due to shared method variance and halo biases (45). Future studies may aim to replicate the findings of interest with behavioral outcomes.

In increasingly diverse societies and in times of growing social polarizations (9), our study has implications for how intergroup relations can be improved. Policymakers are encouraged to consider self-esteem as an avenue for improving intergroup relations in multicultural and otherwise diverse societies. In doing so, it is important that attention is directed at self-esteem not only in the formative phases of life but also thereafter. In that way, nurturing healthy levels of self-esteem and self-esteem development may not only benefit individuals but also support efforts to build a more inclusive and harmonious society.

Materials and Methods

Procedure and Participants. We used data from the longitudinal Young in Norway Study, collected at five time points: 1992 (T1), 1994 (T2), 1999 (T3), 2005 (T4), and 2020 (T5). All data and code are available at https://doi.org/10.17605/OSF.IO/RCSHU. At T1, the initial sample was composed of students from 67 junior and senior high schools in Norway. The sample was stratified according to geographic region and school size, and we ensured that the probability of being selected for the study was equal for all students in Norway (see, ref. 46). We collected data at school

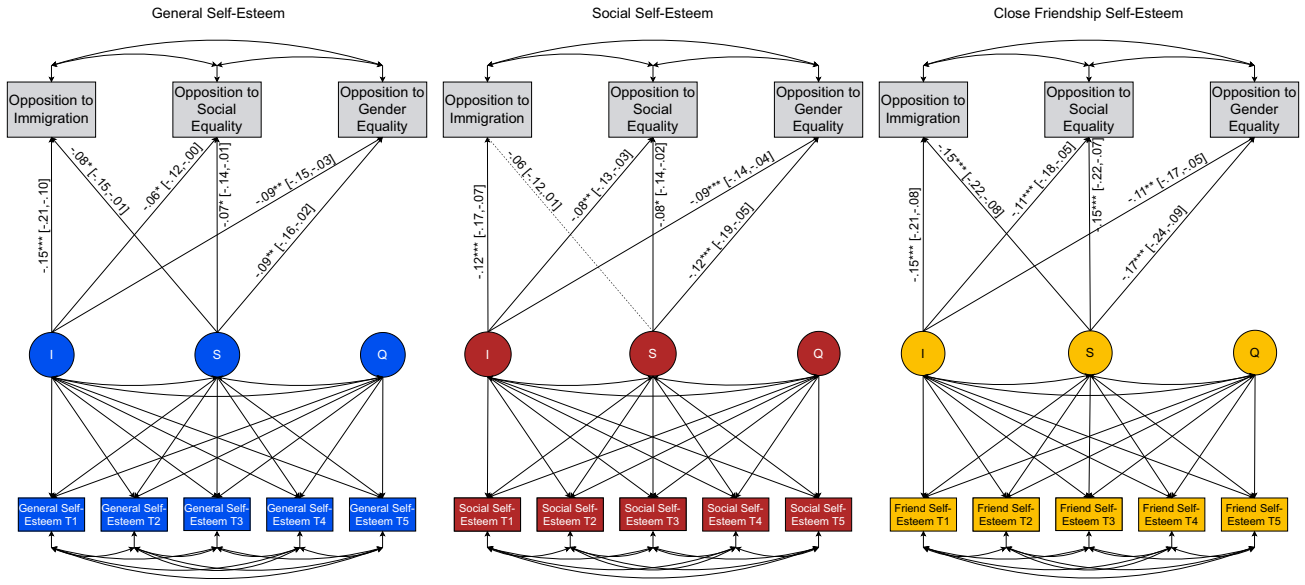

Fig. 1. Standardized results of the associations of general, social, and close friendship self-esteem and opposition to immigration, social equality, and gender equality (N = 2,215). ***P < 0.001, **P < 0.01, *P < 0.05; dashed line is nonsignificant, P = 0.105; 95% CIs are presented in square brackets. Growth curve parameters and associations are controlled for gender, age, parental education, and political conservatism. To streamline presentation, these covariates are not presented in the figure, but their estimates can be found in *SI Appendix*, Table S1.

at T1 and T2, by mail at T3 and T4, and electronically at T5. Participants completed a questionnaire covering a broad range of topics: the first time in adolescence (in 1992; T1, M_{age} = 15.05, SD_{age} = 1.98) and most recently in midlife (in 2020; T5, M_{age} = 43.22, SD_{age} = 2.00). Response rates were 97% and 92% at T1 and T2, respectively. Because the study was originally planned to be a two-wave study, a new informed consent was obtained at T2, and those then consenting (91%) were invited to participate at T3 and T4, with response rates of 84% and 82%, respectively. At T4, 90% of the participants consented to further follow-ups. At T5, 2,215 participants completed the electronic questionnaire, with a response rate of 86%. The overall response rate was 52%. The sample comprised 57.4% of women and 42.6% of men. Most participants were ethnic Norwegians, with 2.7% born abroad and 3.7% having at least one parent who was born abroad. A total of 72.8% of the participants had at least one parent who attended college or university. A multivariate logistic regression with T1 variables predicting nonparticipation at T5 found that girls were at a lower risk of dropping out, OR = 0.68, 95% CI [0.61, 0.75], $P < 0.001$, as well as participants with higher educated parents, OR = 0.86 [0.82, 0.90], $P < 0.001$, and participants with higher initial general self-esteem, OR = 0.88 [0.80, 0.98], $P = 0.019$. Older participants were at a greater risk of dropping out, OR = 1.32 [1.28, 1.35], $P < 0.001$. The study was approved by the Norwegian Data Inspectorate and the Regional Committee for Medical Research Ethics.

Measures

Self-Esteem. Self-esteem was measured at all time points by a revised version of the Self-Perception Profiles for Adolescents (47). The measure is a widely used instrument to assess both general and domain-specific self-esteem and has been shown to have good convergent and internal validity (46, 47). In addition to one scale assessing general self-esteem (e.g., "I like the kind of person I am;" α = 0.78 to 0.84), two scales measured social self-esteem (e.g., "I am popular with others of my age;" α = 0.77 to 0.83) and close friendships' self-esteem (e.g., "I am able to make really close friends;" α = 0.79 to 0.87). Each subscale was measured by five items, and response options ranged from 1 (corresponds very poorly) to 4 (corresponds very well). A higher mean score thus reflected a more positive image of the self.

Opposition to Gender Equality. Opposition to gender equality was assessed by three general items (48) and one item about the #MeToo movement (49). The general items were "Do you think that gender equality is important?," "Do you think that the government should try to influence family life to increase gender equality, e.g., by subsidies or laws?," and "Is it important that the man and the woman share the responsibility for the household?" The #MeToo item was "Do you think the #MeToo movement has been mostly harmful or mostly beneficial to society?" The scale showed acceptable reliability (α = 0.68). Responses were recorded on a scale ranging from 0 (no, not at all; most harmful) to 10 (yes, absolutely; most beneficial). Items were reversed to ensure that higher mean scores indicated more opposition to gender equality.

Opposition to Immigration. Opposition to immigration was measured by a set of four items originally used in the European Social Survey (e.g., "Is Norway made a worse or a better place to live by people coming to live here from other countries?;" α = 0.88) (50). Response options ranged from 0 (e.g., worse place to live) to 10 (e.g., better place to live). The items were recoded so that higher mean scores exhibited more opposition to immigration.

General Opposition to Social Equality. We measured participants' general opposition to social equality with the four-item Short Social Dominance Orientation scale (α = 0.72) (37). An example item is, "Superior groups should dominate inferior groups." The response options ranged from 1 (strongly disagree) to 7 (strongly agree). Mean scores were computed, with higher scores indicating greater opposition to social equality.

Covariates. We included gender, age, parental education, and political conservatism as control variables. Participants' gender was coded as man = 0 and woman = 1. Age referred to the participants' age in years at T5. Parental education indicated the education of the parent with the highest education when the respondent was 16 years of age. The measure ranged from 1 (primary school) to 4 (university or other long-term education). Gender, age, and parental education were derived from Norwegian administrative registries. We assessed participants' degree of political conservatism at T2 by five items on support for conservative policies (51): "make sure this country has strong defense forces," "stop mixing of races," "make Norway available to receive more refugees and immigrants" (reversed), "maintaining a high rate of economic growth," and "contribute to make Norway do well in international sports," which all loaded on the same factor (α = 0.63). The participants ranked each item on a scale from 0 (not that important) to 10 (very important), and mean scores were constructed, with higher scores indicating higher levels of conservatism.

Analysis. Analyses were conducted using structural equation modeling in Mplus Version 8.5 (52). In preliminary analyses, we used confirmatory factor analysis to examine the psychometric properties of the intergroup attitude measures used in the study. According to established standards (53, 54), results showed good model fit (*SI Appendix*, Table S5), thereby confirming the factorial validity of these measures. Moreover, we tested for measurement invariance by means of confirmatory factor analysis (55) to assess the psychometric equivalence of the self-esteem constructs across time. We found good (for general and close friendship self-esteem) and acceptable (for social self-esteem) scalar measurement invariance across time (meaning that the means of latent constructs are comparable between the different timepoints; see *SI Appendix*, Table S5), which is considered a prerequisite for longitudinal analyses (55). Similar to von Soest et al. (46), we constructed latent growth curves to model change in self-esteem over time based on mean scores of the self-esteem items at the respective time points. The parameterization of the growth factors was coded as the number of years that had passed since T1, accounting for the different time intervals between measurements. To help model convergence, we divided the time passed in years by 10, resulting in the following parameterization: T1: 0, T2: 0.2, T3: 0.7, T4: 1.3, and T5: 2.8. In other words, the intercept reflected the estimated mean level of self-esteem at T1, and the slope reflected change across a decade. In all the three models, we did not use the quadratic slopes as predictors of our outcome variables because of the high correlations with the linear slopes (i.e., $rs > -0.9$). All models were estimated using robust maximum likelihood estimations, thereby accounting for potential nonnormality in the data (52). Missing data were accounted for by full information maximum likelihood estimation procedures.

Data, Materials, and Software Availability. All data and code are available at https://doi.org/10.17605/OSF.IO/RCSHU.

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