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# Group Gender Composition and Tolerance of Immigrants' Rights

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## Abstract

Research has shown that women on average express more positive attitudes towards out-groups than men. We hypothesize that, because of differences in the social climate that this gender gap produces, people who spend more time in female-dominated groups are likely to develop more positive attitudes towards out-groups than people who spend more time in groups that are dominated by men. We corroborate our argument with evidence from two unique Swedish data sets. On the basis of the first data set, we show that students who attend female-dominated school classes are more tolerant of immigrants' rights than students attending male-dominated school classes. On the basis of the second data set, we show that adults who work at female-dominated workplaces are more tolerant of immigrants' rights than adults who work at male-dominated workplaces. Overall, our findings demonstrate that group gender composition is important for understanding the formation of attitudes towards out-groups.

## Introduction

Over the past decades, studies have found that women on average express more positive attitudes than men towards out-groups, such as immigrants and other ethnic groups (e.g. Ekehammar and Sidanius 1982; Johnson and Marini, 1998; Sidanius and Pratto, 1999), at least when it comes to supporting policies aimed at helping the groups in question (Hughes and Tuch, 2003). Women are also on average less prone than men to vote for anti-immigration parties in most countries (Givens, 2004; Gidengil *et al.*, 2005; Norris, 2005). Johnson and Marini (1998) argue that the observed gender gap in attitudes towards out-groups can be explained by the fact that women are relatively other-regarding and interested

in nurturing social relationships, whereas men tend to be more self-regarding and competitive. As a consequence, women are on average more prone than men to attend to the needs of others, including immigrants and members of ethnic minority groups.

In this article, we argue that in addition to the observed gender gap in attitudes towards out-groups, there also may exist a group gender composition gap in attitudes towards out-groups. Starting from a growing literature showing that the gender composition of groups matters for the deliberative climate (e.g. Karpowitz *et al.*, 2012), we argue that there is reason to expect people who spend their time in female-dominated groups to develop more positive attitudes towards

out-groups than people who spend their time in male-dominated groups. More precisely, we argue that, because of the initial gender gap in attitudes towards out-groups, the discussion climate in female-dominated groups is likely to be more tolerant and more inclusive than the discussion climate in male-dominated groups. To the extent that the groups are central to people's lives, these differences in deliberative climate are likely to affect people's attitudes towards out-groups, as it is hard to avoid going unaffected by the different perspectives, norms, and deliberative roles the different climates give rise to. The resulting differences should show up in addition to the initial gender gap in attitudes towards out-groups.

We test our hypothesis in two contexts. In the first study, we test whether the gender composition of school classes affects the levels of tolerance of immigrants' rights of a nationally representative sample of 2,095 Swedish high school students. In the second study, we test whether the gender composition of workplaces affects the levels of tolerance of immigrants' rights of 1,583 adults in a representative sample of small- and medium-sized private companies in Sweden's second largest city, Gothenburg. Sweden is a suitable context for testing the effect of gender composition of groups on tolerance. Past research has found a stable gender gap in attitudes towards immigrants in Sweden (e.g., Akrami, Ekehammar and Arya, 2000), and the fact that gender equality is high in Sweden increases the chances that women will make their opinions heard in discussions.

Our focus on school classes and workplaces is guided by the fact that people spend most of their non-free time in school and at work, and often meet their friends and partners there (e.g. Putnam, 2000; Moody, 2001; Hodson, 2004; Estlund, 2005). School classes and workplaces also tend to be more diverse, and expose people to a greater diversity of opinions and experiences, than other important group settings in which people spend their time, as for example, family and friend circles (e.g. Reskin *et al.*, 1999; Mutz and Mondak, 2006). We can also be fairly certain that people discuss and exchange experiences with each other in school classes and small- and medium-sized workplaces. Together these facts make school classes and workplaces ideal contexts for testing our hypothesis.

The two contexts also differ in important ways. Selection mechanisms may play a more important role in workplaces than in school classes, as workers reasonably have more influence over the gender composition of their workplaces than schoolchildren have over the gender composition of their school classes. School is also earlier in the socialization process than work, and

as a consequence, schoolchildren may be more susceptible to group pressures than adult workers. Because of these differences, a focus on one of the contexts may result in findings of limited scope. The fact that we study both contexts increases the robustness of our findings and allows us to draw broader conclusions than otherwise would have been possible.

## The Gender Gap in Attitudes Towards Out-groups

Traditionally, theories of intergroup attitudes have paid scant attention to gender differences in attitudes towards out-groups. From the perspective of social structural theories, as for example, realistic group threat theory (Blumer, 1958; Bobo, 1983; Quillian, 1995; Manevska and Achterberg, 2013), this lack of attention is warranted. According to this perspective, negative out-group attitudes (such as, prejudice, perceived group threat, and discriminatory attitudes) are a reflection of competition and conflict over resources and status between ethnic groups. What matters from an individual perspective is group position, and as long as women and men share the same group position (i.e. are native born, white, etc.) there is no reason to expect gender differences in attitudes towards out-groups.

However, more personality-oriented theories of the formation of out-group attitudes have in recent years argued that well-known average gender differences in personality (moral reasoning and basic value orientations) are likely to reflect similar differences in attitudes towards out-groups. Women have been shown to be less prone than men to desire and support group-based hierarchies and the domination of inferior groups by superior groups (Sidanius, Pratto and Brief, 1995; Sidanius and Pratto, 1999), at the same time, it has been shown that there is a positive link between support for group-based hierarchies and negative attitudes towards out-groups (Sidanius and Pratto, 1999; McFarland, 2010). Women have also been shown to be more other-regarding and focused on social relationships than men (e.g. Gilligan, 1982; Beutel and Marini, 1995; Cross and Madson, 1997). On basis of such findings, Johnson and Marini argue that women's upbringing

[...] include an emphasis on communal issues – compromise, sacrifice to the general welfare, and responsibility to others – and a focus on close interpersonal relationships. Girls are taught nurturance as well as introspection and self-examination, which may facilitate a greater sense of interdependence and connection to others. Women therefore are more interpersonally

oriented, while men are more individualistic and instrumental (p. 248).

Johnson and Marini argue that this upbringing will make women develop more positive attitudes towards out-groups than men, because it makes them more likely to 'discover things they have in common' with out-group members (Ibid). Their claim is supported by the fact that studies have shown that people who express other-regarding values and are socially focused tend to express more positive attitudes towards out-groups than people who express self-regarding values and are self-focused (McFarland, 2010). Hence, the expectation is that

*H1) women will express more positive attitudes towards out-groups than men.*

In support of Johnson and Marini's claim, several studies have found evidence of a gender gap in out-group attitudes both in the United States and other countries (e.g. Ekehammar and Sidanius, 1982; Altemeyer, 1998; Johnson and Marini, 1998; Sidanius and Pratto, 1999; Akrami, Ekehammar and Arya, 2000; Hughes and Tuch, 2003; Kuran and McCaffrey, 2008). However, many of the cited studies find the gender gap to be small, and other studies find that it is mainly confined to policies aimed at helping minorities (e.g. Hugh and Tuch, 2003).

Recent European cross-country studies on attitudes towards immigrants (such as prejudice and perceived group threat) cast doubt on the existence of a universal and constant gender gap, with some researchers finding such a gap (Quillian, 1995) and others not (Scheepers *et al.*, 2002; McLaren, 2003). Overall, the picture is thus somewhat fragmented. However, Johnson and Marini emphasize that the gender gap is not set in stone and that there is a 'potential for improving [intergroup] relations through the socialization of men' (Ibid. 256). If they are correct, and if socialization is the key to understanding the gender gap, we should expect the gap to vary between different contexts, as the degree to which women and men are socialized into certain roles reasonably varies across time, countries, and social groups.

The focus on a stable gender gap originating in early childhood could even obfuscate important ways in which gendered socialization processes can affect the formation of out-group attitudes later in life. This is especially true for countries where we find gender gaps in values and out-group attitudes that stem from a gendered upbringing of children. For reasons to be developed below existing research does likely not capture all of the effects of gendered socialization processes on out-group attitudes in those circumstances.

## Group Gender Composition and Deliberative Climate

Our argument is rooted in research on gender and small group dynamics, showing that the gender composition of small groups affects group dynamics. Of the identified effects, two are especially important for understanding how gendered socialization processes can affect the formation of out-group attitudes. The first is the finding that women are more prone to participate in, and influence, the discussion in female-dominated groups than in male-dominated groups, because they feel more self-confident in the former groups (Johnson and Schulman, 1989; Fiske, 2010; Karpowitz *et al.*, 2012). To the extent that there exists an initial gender gap in out-group attitudes, we therefore have reason to expect the discussions in female-dominated groups to be more positive towards out-groups than the discussions in male-dominated groups.

The second interesting finding is that group gender composition also affects norms of interaction. Interaction in male-dominated groups tends to follow typical 'male' norms of 'individual assertion, agency, competition, and dominance' (Karpowitz *et al.*, 2012: 534), whereas interaction in female-dominated groups tends to follow more 'female' norms of 'cooperation, intimacy, and the inclusion of all participants' (Karpowitz *et al.*, 2012: 534; also see Aries, 1976; Ellis, 1982; Miller, 1985). In many ways, this description mirrors Johnson and Marini's description of how men and women are socialized to different values. Both descriptions emphasize that women and members of female-dominated groups try to include all and listen more attentively to other people's views. Both descriptions also emphasize that women and female-dominated groups are more interested in cooperating towards common goals, whereas men and members of male-dominated groups are more interested in dominating each other and establishing hierarchies. In short, the norms of interaction in female-dominated groups seem to embody the values that Johnson and Marini see as contributing to a climate where members from different groups 'can discover the many things they have in common and can come to see each other as similar' (Johnson and Marini, 1998: 248). It is apparent from the research that these norms are more than the sum of individual gender differences.

To sum up, the group gender composition is likely to affect both the substance of discussions of out-groups as well as the manner in which these are conducted. We argue that there are two mechanisms that make it likely that these differences will translate into attitude changes over time.

First, the inclusiveness in female-dominated groups, in combination with the relatively tolerant discussion climate in such groups, is expected to contribute to the members learning more (positive information) about out-groups than members in male-dominated groups. Social comparison theory, for example, suggests that people often assess the correctness of their views by comparing them to the views held by people around them (e.g. Festinger, 1950; Visser and Mirabile, 2004). Consequently, people with positive views of out-groups will be strengthened in their views, and people with negative views of out-groups will start to doubt their views, in female-dominated groups. A parallel can be drawn with research that shows that people's attitudes towards immigrants are affected by the information in immigration-related news reports (Schlueter and Davidov, 2013). Although the effect of learning about out-groups on out-group attitudes, such as prejudice, is likely more modest than once was suggested (see Pettigrew, 1998 for a discussion of the evidence), there is evidence that being exposed to (positive) information about out-groups can correct negative stereotypes and reduce prejudice (e.g. Stephan and Stephan, 1984).

A second reason for expecting people in female-dominated groups to develop more positive attitudes towards out-groups is that group dynamics provide information about what attitudes and behaviours are appropriate and desirable (e.g. Deutsch and Gerard, 1955; Visser and Mirabile, 2004). Group conformity tends to generate social rewards (e.g. liking and praise), whereas divergence from the group norms often results in social sanctions (e.g. rejection and derogation). This means that the benefits of expressing tolerant attitudes and behaving other-regarding and the costs of expressing negative out-group attitudes and behaving self-regarding are likely to be higher in female-dominated groups. Research has also shown that 'publicly expressing one's views and otherwise behaviourally committing to them renders attitudes stronger' (see Visser and Mirabile, 2004: 781, and the research cited therein). Hence, we expect that

*H2) individuals in female-dominated groups should express more positive attitudes towards out-groups than individuals in male-dominated groups.*

The literature on learning and norm adaption mechanisms does not indicate that men and women should react differently to group opinions and group norms. Hence, we expect that,

*H3) Men and women should be equally affected by the group gender composition effect.*

However, we remain open for the possibility that the effect might vary between men and women. For example, it could be the case that men are more self-confident than women and therefore more prone to voice and stick to their opinions also when they are in a minority.

## Method and Data

We use two data sets to test our hypothesis. The first is the Swedish subset of the 1999/2000 Civic Education Study (CIVED), administered by the International Association for the Evaluation of Educational Achievement. CIVED is a standardized cross-country survey that measures civic knowledge and democratic attitudes among upper-secondary students. Schools and school classes were selected on the basis of a stratified sample design to be nationally representative.<sup>1</sup> The students are 17–18-year-old individuals in their second year of high school. The response rate of the 3,000 high school students in the Swedish sample was near to 90 per cent (2,656 students answered the survey). After minor attrition for non-responses (247 native-born students) and the exclusion of 314 foreign-born respondents (see below), the full models contain 2,095 respondents nested within 155 school classes.

The data set we use to establish the workplace effect is based on a survey of small- and middle-sized private companies (up to 100 employees) in the second largest city in Sweden, Gothenburg. Out of a representative sample of 634 approached companies, 142 (22 per cent) chose to participate in the survey. The response rate of the employees of the participating companies was relatively high, with 67 per cent (1,882 respondents) answering the survey. After minor attrition for non-responses (66 native-born respondents) and the exclusion of 233 foreign-born respondents (see below), the full models based on the survey contain 1,583 respondents nested within 142 companies (henceforth: workplaces).

In both surveys, our dependent variable, out-group attitudes, is measured by an additive index of five items concerning immigrants' rights. The questions are listed below:

1. *Immigrants should have the opportunity to continue speaking their own language*
2. *Immigrant children should have the same opportunities for education as other children in the country*
3. *Immigrants who live in a country for several years should have the opportunity to vote in elections*
4. *Immigrants should have the opportunity to maintain their own customs and lifestyle*
5. *Immigrants should have all the same rights as everyone else in the country*

Four response categories were provided in the school class sample (strongly disagree, disagree, agree, strongly agree), whereas five responses were offered in the workplace sample (strongly disagree, disagree, uncertain, agree, strongly agree). Responses were recoded so that more tolerant answers received higher values. An Alpha test shows that the resulting index (which ranges from 1 to 4 in the school class sample and 1 to 5 in the workplace sample) is highly reliable in both samples (the coefficient is 0.88 in the CIVED sample and 0.79 in the workplace sample). Factor analyses and reliability tests for the index are available in the official technical report on CIVED (Schulz and Sibberns, 2004). Although, the index measures tolerance of immigrants' rights, which is a distinct form of out-group attitudes, we are confident that it speaks to the previous literature on gender differences in out-group attitudes. Hugh and Tuch (2003) conclude, for example, that the most stable gender gap in out-group attitudes in the United States occurs in attitudes to policies aimed at helping minorities (including rights of various kinds). Hjerm (2005) also shows that the five items used to construct the index captures the same dimension as the item 'if there are too many immigrants it is difficult for a country to stay united and patriotic'. This item is similar to items that are commonly used to measure prejudice and its antecedent perceived group threat (e.g. Christ *et al.*, 2014). Prejudice and perceived group threat are also reasonably important determinates of people's levels of tolerance of immigrants' rights.

To measure the gender composition of school classes, we aggregated the individual-level student data to the school class level. The consequential variable, which varies between 0 and 1, measures the share of female students in the school class. The resulting variable is likely to capture the overall gender composition of school classes well, as the response rate for the gender variable question is 89 per cent of the approached students. To account for the fact that effects might be non-linear, we also estimated all our models with three dummy variables so that we were able to separate between school classes that are very female dominated (75 per cent or more of the students are women), slightly female dominated ( $\geq 50$  per cent, but  $< 75$  per cent, of the students are women), slightly male dominated ( $\geq 50$  per cent, but  $< 75$  per cent, of the students are men), and male dominated (75 per cent or more of the students are men). The results from these models confirm the results from the models using our continuous measurement.<sup>2</sup>

Our measurement of the gender composition of workplaces is in a similar way based on individual-level worker data that we have aggregated at the workplace

level. The response rate for the gender question is lower in the workplace data, with 67 per cent of the approached employees answering the question. We do not believe that this fact biases the results, as we do not see any reason why response rates should differ between men and women in the same workplace. So, in this manner, we derive a valid measure of the gender composition of workplaces. As in the case of school classes, we also estimated all our models with three dummy variables so that we were able to separate between workplaces that are very female dominated, slightly female dominated, slightly male dominated, and very male dominated. The results in large confirm the results from the models using our continuous measurement.<sup>3</sup>

In the school class models, at the individual level, we control for the students' gender, age, expected education, and the educational background of the students' parents. To control for the fact that positive personal contacts with foreigners is likely to increase tolerance of immigrants' rights (e.g. Allport, 1954; Pettigrew, 1998; Pettigrew and Tropp, 2006), we control for the share of immigrants in the school class. This variable is constructed similarly to how the variable measuring the gender composition of school classes is constructed. We also control for the type of education programme the students attend (with 17 programme dummies in total), as the students' future position in society could affect their tolerance levels. Finally, we control for the average educational background of the students' parents to capture socio-economic differences in the make-up of the school classes. This variable is also constructed in a similar way to how the gender group composition of school classes is constructed. Summary statistics of the variables used in the school class models are found in Table 1.

In the workplace models, we control for the respondent's gender, age, education, and position at the workplace (supervisor, white collar foreman, white collar worker, blue collar foreman, and blue collar worker), and how many immigrants the respondent believes there are in his/her residential neighbourhood. At the workplace level, we control for the share of immigrants to account for contact effects, as well as the average educational background of employees in the companies. Both these controls have been constructed in a similar way to how the variable that measures gender group composition was constructed. Finally, we control for the economic sector in which the company is active (with 9 dummy variables in total) to control for the fact that job sector can affect attitudes towards immigrants (e.g. Quillian, 1995). Summary statistics of the variables used in the workplace models are found in Table 2.

**Table 1.** Summation of school class variables

Variable	Students	Student Mean	Student Std. Dev.	Student Min	Student Max	School classes	School class mean	School class Std. Dev.	School class Min	School class Max
Immigrants' rights	2,095	3.28	0.61	1	4	155	3.20	0.40	1.43	3.88
Female	2,095	0.54	0.50	0	1	155	0.51	0.29	0	1
Share of women	2,095	0.54	0.25	0	1	155				
Parents lvl of education	2,095	5.26	2.02	0	7	155	4.99	1.17	1	7
Expected education	2,095	2.51	1.2	0	6	155	2.35	0.78	0.2	3.6
Age	2,095	18.89	0.43	15.7	20.3	155	18.91	0.22	17.9	20.05
Share of foreign born	2,095	0.10	0.10	0	0.67	155	0.13	0.14	0	0.67
Parents average level of education	2,095	5.27	0.88	2.43	6.7	155	5.04	0.94	2.43	6.69

**Table 2.** Summation of workplace variables

Variable	Workers	Workers mean	Workers Std. Dev.	Worker Min	Worker Max	Workplaces	Workplace Mean	Workplace Std. Dev.	Workplace Min	Workplace Max
Immigrants' rights	1,583	4.17	0.69	1	5	142	4.13	0.38	2.78	5
Female	1,583	0.43	0.50	0	1	142	0.46	0.29	0	1
Share of women	1,583	0.43	0.26	0	1	142	0.46	0.29	0	1
Age	1,583	41.49	11.28	18	73	142	41.10	6.34	22.7	55.14
Education	1,583	5.55	1.50	1	8	142	5.35	0.93	3	7.33
Foreign born neighbors	1,583	0.61	0.49	0	1	142	0.60	0.22	0	1
Supervisor	1,583	0.14	0.35	0	1	142	0.15	0.13	0	0.75
White collar foreman	1,583	0.20	0.40	0	1	142	0.21	0.17	0	0.75
White collar worker	1,583	0.41	0.49	0	1	142	0.36	0.23	0	0.87
Blue collar foreman	1,583	0.06	0.24	0	1	142	0.07	0.11	0	0.80
Blue collar worker	1,583	0.18	0.39	0	1	142	0.21	0.22	0	0.89
Share of foreign born	1,583	0.12	0.12	0	0.75	142	0.12	0.14	0	0.75
Mean level of education	1,583	5.55	0.85	3	7.33	142	5.36	0.88	3	7.33
Food production	1,583	0.01	0.06	0	1	142	0.01	0.08	0	1
Manufacturing and construction	1,583	0.07	0.26	0	1	142	0.06	0.24	0	1
Repairs	1,583	0.01	0.11	0	1	142	0.02	0.14	0	1
Trade and transport	1,583	0.21	0.41	0	1	142	0.30	0.46	0	1
Hotel and restaurant	1,583	0.10	0.29	0	1	142	0.15	0.36	0	1
Communication and information	1,583	0.10	0.31	0	1	142	0.08	0.28	0	1
Law, economy, science and technology	1,583	0.30	0.46	0	1	142	0.18	0.39	0	1
Education	1,583	0.13	0.34	0	1	142	0.13	0.33	0	1
Culture, entertainment, and services	1,583	0.07	0.26	0	1	142	0.07	0.26	0	1

We use multilevel linear modelling, with students and workers nested within school classes and companies, to test our hypotheses. The dependent variable in our study is tolerance of immigrants' rights.

We therefore had to exclude the foreign-born population from all models, because otherwise we would have been measuring the tolerance of immigrants towards immigrants.<sup>4</sup>

We started our analyses by estimating two empty models that showed that there is significant and substantial variation in tolerance of immigrants' rights at the school class' and workplace levels. In the school class models, 26 per cent of the residual variance can be ascribed to the school class level, and in the workplace models, 17 per cent of the residual variance can be ascribed to the workplace level.

## Results

The empirical analyses show that there is a gender gap in tolerance of immigrants' rights among students and workers in Sweden. Model 1 in Table 3 shows that women are 0.24 units more tolerant of immigrants' rights than men in school classes, and model 5 in Table 4 shows that women are 0.17 units more tolerant of immigrants' rights than men in workplaces (on a scale ranging from 1 to 4 in the school class sample and from 1 to 5 in the workplace sample). This may not sound like a large difference, but in view of the fact that the standard deviations are .61 and .69, respectively, the gender gaps are actually quite substantial. Gender alone can also explain 21 per cent of the variation between

school classes and 13 per cent of the variation between workplaces.

The gender gap is slightly larger in the school class models. However, the similarity of the sizes of the gaps is more striking, and lends credibility to the argument that women acquire more positive out-group attitudes early in life and that the gap with men does not change much thereafter. So far the traditional gender gap account—and thus also our first hypothesis—is supported.

More importantly, models 2 and 3 in Table 3 and models 6 and 7 in Table 4 also confirm that people who spend time in female-dominated school classes and workplaces are more tolerant of immigrants' rights than people who spend time in male-dominated school classes and workplaces. The explained variance at the school class level increases from 21 to 39 per cent when the variable measuring the gender composition of school classes is introduced in model 2, whereas the explained variance at the workplace level increases from 13 to 24 per cent when the variable measuring the gender composition of workplaces is introduced in model 6.

Model 4 in Table 3 and model 8 in Table 4 show that none of the introduced interaction effects between gender and group gender composition is statistically significant. These findings support our third hypothesis,

**Table 3.** School classes

Variables	Model 1		Model 2		Model 3		Model 4	
Main variables								
Woman	0.24***	(0.03)	0.20***	(0.03)	0.19***	(0.03)	0.24**	(0.08)
Share of women			0.61***	(0.10)	0.44***	(0.09)	0.49***	(0.11)
Woman#share of women							-0.11	(0.13)
Individual level variables								
Parents' level of education					0.01	(0.01)	0.01	(0.01)
Expected education					0.06***	(0.01)	0.06***	(0.01)
Age					-0.02	(0.03)	-0.02	(0.03)
School class-level variables								
Share of foreign born					0.11	(0.15)	0.11	(0.15)
Parents' average level of education					0.07**	(0.03)	0.07*	(0.03)
Constant	3.11***	(0.03)	2.81***	(0.05)	2.80***	(0.53)	2.80***	(0.53)
Random part								
(sd)School class intercept	0.28***	(0.02)	0.25***	(0.02)	0.11***	(0.02)	0.11***	(0.02)
(sd)Residual	0.53***	(0.01)	0.53***	(0.01)	0.52***	(0.01)	0.52***	(0.01)
Explained variance								
School class level	21 per cent		39 per cent		87 per cent		87 per cent	
Student level	3 per cent		3 per cent		4 per cent		4 per cent	
Model information								
School classes	155		155		155		155	
Students	2,095		2,095		2,095		2,095	

Notes: Program dummies are not shown.

Standard errors in parentheses.

+ $P < 0.10$ , \* $P < 0.05$ , \*\* $P < 0.01$ , \*\*\* $P < 0.001$ .



which is that men and women are equally affected by the group gender composition effect.

Model 3 in Table 3 shows that each percentage point of females in a school class increases the tolerance of immigrants' rights by  $>0.004$  units, controlling for other relevant variables. Figure 1 illustrates the effects of gender and the gender composition of the group on the basis of Model 3 in Table 3. Tolerance of immigrants' rights is predicted to be 0.44 units higher (on a scale ranging from 1 to 4) in a classroom that contains only men than in a classroom that contains only women. This is in addition to the observed gender gap in tolerance of immigrants' rights of 0.19 units between women and men. In other words, women in school classes that contain only women are in total 0.63 units more tolerant of immigrants' rights than men in school classes that contain only men. The gender composition effect is, thus, stronger than the observed gender effect. This does, among other things, mean that men who attend female-dominated school classes are up to 0.2 units more tolerant of

immigrants' rights than women who attend male-dominated school classes. Thus, the effect of school class gender composition on tolerance of immigrants' rights is considerable.

The effect of workplace gender composition is not of the same magnitude, but still quite substantial. Model 7 in Table 4 shows that each percentage point of females in a workplace increases the level of tolerance of immigrants' rights by  $>0.002$  units. This is in addition to the original gender gap of 0.15 units. Figure 2, which illustrates the effect, shows that people working in totally female-dominated workplaces are about 0.2 units more tolerant of immigrants' rights than people working in totally male-dominated workplaces (on a scale ranging from 1 to 5). The total effect of the gender gap and the gender composition gap is about 0.35 units, which means that women in workplaces that are entirely dominated by women are  $\sim 18$  per cent more tolerant of immigrants' rights than men in workplaces that are totally dominated by men.

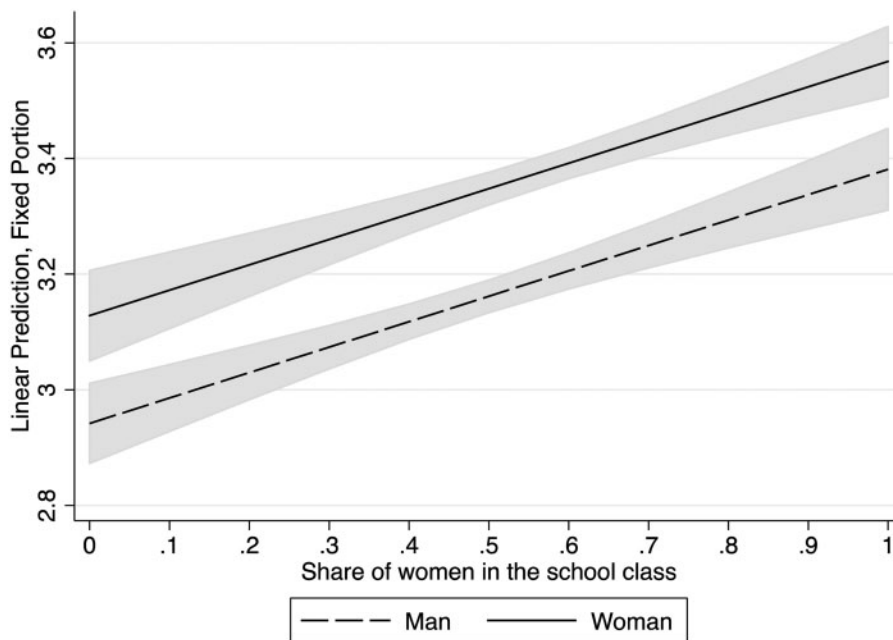
**Table 4.** Workplaces

Variables	Model 5		Model 6		Model 7		Model 8	
Main variables								
Woman	0.17***	(0.04)	0.13***	(0.04)	0.15***	(0.04)	0.18*	(0.08)
Share of women			0.37***	(0.11)	0.24*	(0.11)	0.27*	(0.14)
Woman#share of women							-0.06	(0.16)
Individual-level variables								
Age					-0.01***	(0.00)	-0.01***	(0.00)
Education					0.04**	(0.01)	0.04**	(0.01)
Foreign born neighbours					0.15***	(0.03)	0.15***	(0.03)
Supervisor								
White collar foreman					-0.01	(0.06)	-0.01	(0.06)
White collar worker					-0.07	(0.05)	-0.07	(0.05)
Blue collar foreman					0.10	(0.08)	0.11	(0.08)
Blue collar worker					-0.16**	(0.06)	-0.16*	(0.06)
Firm-level variables								
Share of foreign born					0.33	(0.20)	0.32	(0.20)
Mean level of education					0.08*	(0.04)	0.08*	(0.04)
Constant	4.07***	(0.03)	3.92***	(0.05)	3.97***	(0.37)	3.96***	(0.37)
Random part								
(Sd)Workplace intercept	0.27***	(0.03)	0.25***	(0.03)	0.16***	(0.03)	0.16***	(0.03)
(Sd)Residual	0.63***	(0.01)	0.63***	(0.01)	0.62***	(0.01)	0.62***	(0.01)
Explained variance								
Workplace variation	13 per cent		24 per cent		69 per cent		69 per cent	
Individual variation	1 per cent		1 per cent		4 per cent		4 per cent	
Model information								
Workplaces	142		142		142		142	
Individuals	1,583		1,583		1,583		1,583	

Notes: Sector dummies are not shown.

Standard errors in in parentheses.

\* $P < 0.05$ , \*\* $P < 0.01$ , \*\*\* $P < 0.001$ .



**Figure 1.** School class gender composition and tolerance of immigrants' rights

*Note:* Builds on model 3 in Table 3. The Figure shows the main effect of the share of women in the school class on tolerance of immigrants' rights when all other variables are kept at the sample mean. Overlapping confidence intervals are not significantly separated from each other at the 95 per cent level.

Overall, the results provide strong support for our main hypothesis, that people in female-dominated groups express more positive attitudes towards out-groups (in this case tolerance of immigrants' rights) than people in male-dominated groups.

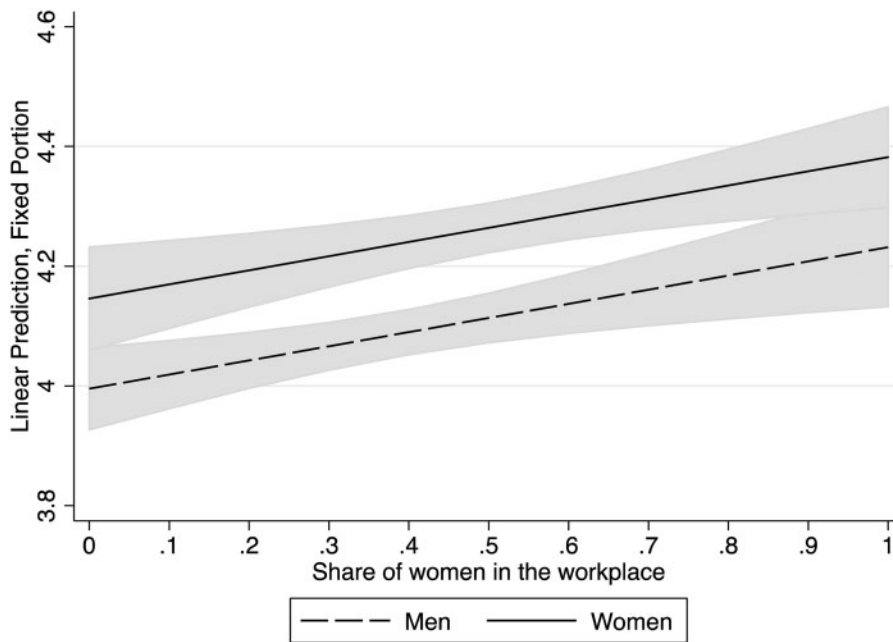
## Concluding Discussion

This article started out with the claim that, in addition to the well-researched gender gap in attitudes towards out-groups, there will also exist a group gender composition gap in attitudes towards out-groups. Starting from a growing literature that shows the gender composition of groups to matter for the deliberative climate, we have argued that there is reason to expect that people who spend much time in female-dominated groups over time will develop more positive attitudes towards out-groups than people who spend much time in male-dominated groups. We have argued that we expect this to be the result of the discussion climate in female-dominated groups, which is on average more tolerant, inclusive, and other-regarding than the discussion climate in male-dominated groups. To the extent that the groups are central to people's lives, these differences in deliberative climate are likely to affect people's attitudes towards

out-groups. The reason is that it is hard to avoid being affected by the different perspectives, norms, and the deliberative roles the different climates give rise to.

The empirical test provided in the article, which focuses on attitudes towards immigrants' rights, clearly supports our expectations. Controlling for other relevant factors, people who work or study in female-dominated groups are more tolerant of immigrants' rights than people who work or study in male-dominated groups. In addition, we find that the gender composition gap affects men and women in a similar way. Moreover, tolerance of immigrants' rights is not only affected by the gender composition of school classes, but also of workplaces. In combination, these findings strongly indicate that the gendered socialization processes that affect attitudes towards out-groups are not restricted to childhood but seem to be active throughout the course of life. Our results thus lend support to Johnson and Marini's (1998) claim that intergroup relations can be improved 'through the socialization of men' (p. 256).

However, one can ask why the effect of socialization processes seemingly is weaker in workplaces than in school classes. To us, the most likely explanation is that schoolchildren, because of their young age, are more susceptible to social pressures than workers. The fact



**Figure 2.** Workplace gender composition and tolerance of immigrants' rights.

*Note:* Builds on model 7 in Table 4. The Figure shows the main effect of the share of women in the workplace on tolerance of immigrants' rights when all other variables are kept at the sample mean. Overlapping confidence intervals are not significantly separated from each other at the 95 per cent level.

that we despite this fact find an effect also among workers does indicate that social pressures continue to play an important role for the formation of attitudes towards out-groups also later in life.

Given how central schools and workplaces are to people's lives, the results of our study help us understand why some groups develop more negative attitudes towards out-groups over time. Not only are men less tolerant of immigrants' rights than women to begin with, they also seem to become less tolerant of immigrants' rights over time if they spend time with other men. Potentially, this fact could help explain why anti-immigrant sentiments and radical right parties find such benign ground among men working in the blue-collar sector. Many scholars have explained the fact that men in this sector express negative attitudes towards immigrants and are attracted to radical right parties by pointing to the fact that their jobs are more vulnerable to labour market competition with immigrants (Betz, 1994; Rippeyoung, 2007—though see Helbling and Kriesi, 2014, for a general criticism of the labour market competition model as an explanation of anti-immigrant sentiments). Although we do not deny that such an explanation could be correct, our findings offer a complementing picture: The more competitive, hierarchical, and excluding the discussion climate, that is likely to

govern this male-dominated sector, might also contribute considerably to the found patterns. If so, increased gender equality in schools and in the labour market might be one way to prevent groups that are hostile to immigrants and their rights from being established. Of course, there is also another side of the coin: Increased gender equality in schools and in the labour market would also reduce the number of very tolerant groups. Although increased group gender balance might reduce the gender gap in tolerance of immigrants' rights, it would not necessarily be followed by a reduction in overall levels of tolerance towards immigrants.

## Notes

- 1 Because of its unusual qualities, CIVED data are frequently used by educational scientists (e.g., Torney-Purta *et al.*, 2001); for political science usage of the data, see, for example, Campbell (2007, 2008) and Kokkonen *et al.* (2010). Along with documentation, the full data set can be downloaded from [http://www.iea.nl/cived\\_datasets.html](http://www.iea.nl/cived_datasets.html).
- 2 Slightly male-dominated school classes are 0.09 units more tolerant than very male-dominated school classes. Slightly, and very, female-dominated

school classes are 0.18 and 0.30 units more tolerant than very male-dominated school classes respectively.

- 3 Slightly male-dominated workplaces are only 0.02 units more tolerant than very male-dominated workplaces. However, slightly, and very, female-dominated school workplaces are 0.12 and 0.23 units more tolerant than very male-dominated workplaces, respectively. Although this seems to imply that the effect is not perfectly linear, the deviation from the linearity assumption is so small that we deem that it is warranted to assume a linear effect in the models.
- 4 Tables 5 and 6 in the Supplementary Appendix show that our main conclusions hold also when including immigrants in our models (models 9 and 11). However, models 10 and 12, which include interactions between the share of women and immigrant status, indicate that the group gender composition effect is weaker among immigrants (though the interaction is only significant in the school class sample).

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## Supplementary Data

Supplementary data are available at ESR online.

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