

## Gender Differences in Political Knowledge: Bringing Situation Back In

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#### Abstract

One of the best-known empirical findings in the political sciences is the gender difference in political knowledge: women show less political knowledge than men. Conventional research argues that this difference is mainly a product of socialization, structural factors, and biology. Our paper brings a new perspective to the explanation of the gender gap in political knowledge. Based on an online survey and an experiment<sup>1</sup>, we emphasize the relevance of gender stereotypes as a situational pressure that reduces the performance of women in a political knowledge test. Two conclusions emerge from the analysis: First, our results indicate the existence of a negative stereotype related to the political knowledge test. Consistent with previous research on stereotype threat, our results indicate that the performance of men on a political knowledge test is affected by gender stereotypes.

Keywords: Political knowledge, gender gap, stereotype threat

## INTRODUCTION

Political knowledge is a powerful tool for understanding the world. Only based on political knowledge citizens can form an independent opinion and participate competently in political decision-making processes (e.g. Dalton, 2000; Delli Carpini and Keeter, 1996). However, empirical studies repeatedly find rather low levels of political knowledge among citizens (e.g. Dalton, 2000; Grönlund and Milner, 2006). Furthermore, the unequal distribution of political knowledge among citizens is also a well-established fact (Fraile, 2013). One of the best-known empirical findings is the gender difference in political knowledge: Women show less political knowledge

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<sup>1</sup>The data used in the studies can be found on Dataverse: "Replication Data for: Gender Differences in Political Knowledge: Bringing Situation Back In," doi:10.7910/DVN/OZRQIQ, Harvard Dataverse

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than men (e.g. Dow, 2009). The gender gap exists in all countries (Fortin-Rittberger, 2016; Fraile, 2014a; Grönlund and Milner, 2006) and begins as early as adolescence (Abendschön and Tausendpfund, 2017; Simon, 2017; van Deth et al., 2011).

The research literature offers three explanations for the gender gap in political knowledge: Socialization, structural factors, and biology. In this paper, we examine the effects of stereotype activation on political knowledge and indicate the relevance of situation to explain the gender gap in political knowledge.

The article is structured as follows: In the next section, we briefly discuss the classical explanations of the gender gap in political knowledge. Then, we present the theory of stereotype threat as a new approach as an explanation of the gender gap in political knowledge. In an online survey and an experiment, we tested the impact of stereotype activation on women and men's performance on a political knowledge test. Finally, we conclude with a discussion of the empirical results and its implications for the research on the gender gap in political knowledge.

#### THEORETICAL FRAMEWORK

The conventional wisdom is that the unequal distribution of political knowledge between women and men is mainly a product of socialization, structural factors, and biology. First, according to socialization theory, boys and girls face different socialization processes (Burns et al., 2001; Orum et al., 1974), and this has negative consequences on the acquirement of political knowledge of girls (e.g. Pereira et al., 2015; van Deth et al., 2011). Second, the gender gap in political knowledge has also been interpreted as a product of traditional socioeconomic disadvantages of women (Delli Carpini and Keeter, 1996). According to this argument, if women had the same conditions – education, income, occupation, free time – as men, the gender gap would be smaller (Delli Carpini and Keeter, 2005). Third, a further approach to explain gender differences is adopted by biology (Arceneaux et al., 2012; Hatemi et al., 2009). Hannagan et al. (2014) examined sex differences in political knowledge based on a twin study. The empirical results suggest that "the environment is not the sole source" (p. 106) to explain the gender gap in political knowledge. In conclusion, despite all their differences, these approaches have one thing in common: Gender differences in political knowledge are seen as relatively stable, changes can primarily be expected in the long term.

However, this position has been challenged by research suggesting that political knowledge is partially a function of context and therefore subject to situational changes. For example, there is no gender gap once respondents are asked about the levels of women's representation in the national government (Dolan, 2011). Other examples include effects of deliberation (Fraile, 2014b), current political campaigns (Ondercin et al., 2011), or stereotype threat (McGlone et al., 2006).

In this paper, we research the last-mentioned factor: Stereotype threat. The term "stereotype threat" refers to a situational threat that diminishes performance,

originating from a negative stereotype about one's own social group (Steele, 1997; Steele and Aronson, 1995). When members of a group find themselves in a situation that is associated with a negative stereotype of that group, they may become anxious about confirming the stereotype or being judged by it. Stereotype threat has been the subject of considerable study (e.g. Huguet and Régner, 2007; Ihme and Mauch, 2007; Rydell et al., 2010; Woodcock et al., 2012). Its detrimental effects have been shown for multiple groups and domains. Previous research has identified several possible pathways of this impairment (Schmader et al., 2008). For example, Schmader and Johns (2003) found that priming self-relevant negative stereotypes reduced the working memory of threatened groups. Other research found that stereotype activation can influence the strategies of task solution by inducing regulatory foci: Individuals under stereotype threat adopt a goal of avoiding failure (Brodish and Devine, 2009; Seibt and Förster, 2004).

The research on stereotype threat can be summarized in four statements. First, every social group is potentially vulnerable to stereotype threat; all it needs is the existence of a negative stereotype. Second, the negative stereotype must be made salient in order to act as a threat. The activation of the stereotype can be as subtle as merely activating the social category in question (for example, gender) or very direct (for example, explicitly being named as less knowledgeable in politics than men). Third, stereotype threat is more likely to affect difficult tasks. Easy tasks that require little conscious effort are usually not affected: Even threatened by the gender stereotype female students are hardly bound to forget the basic multiplication tables. Fourth, the effect of stereotype threat is independent of individual experiences. A personal history of success in a given domain does not render the individual immune to stereotype threat. In fact, the more successful an individual is in a certain domain, the more likely the activation of a negative stereotype poses a threat. This leads to the ironic outcome that especially highly capable and motivated individuals are prone to stereotype threat effects.

A concept closely related to stereotype threat which needs to be mentioned here is that of stereotype lift. Walton and Cohen (2003, p. 456) define stereotype lift as "a performance boost caused by the awareness that an outgroup is negatively stereotyped." A person may experience a beneficial effect on motivation and performance when the ability of an outgroup is called into question via an existing stereotype. While a female student may experience a threat when the mathematical abilities of her group are called into question by the stereotype, a male student may experience an encouraging downward social comparison with the denigrated outgroup (females). This comparison, according to Walton and Cohen (2003), enhances their self-efficacy or sense of personal worth, which may improve performance. Like stereotype threat, stereotype lift is more likely to affect difficult tasks where one must persist in the face of frustration. Unlike stereotype threat, stereotype lift has not generated much research as of yet. In their meta-analysis of N = 43 studies on stereotype threat, Walton and Cohen (2003) found result patterns fitting to stereotype lift in 30 of these studies.

There is very little research on the impact of stereotype activation on the gender gap in political knowledge and the empirical findings are inconsistent. In a telephone survey about political knowledge, McGlone et al. (2006) manipulated the alleged diagnostics of the question set and the gender of the interviewer. Their results matched the stereotype threat theory: scores of female participants were not reliably different from those of male participants when the survey was portrayed as non-diagnostic, and when women were interviewed by female interviewers. Female participants to whom the survey had been portraved as being sensitive to potential gender differences, and who were interviewed by male interviewers, showed significantly lower scores. However, Pruysers and Blais (2014) found no evidence for a stereotype threat effect on political knowledge. Contrary to what has been hypothesized, male participants scored significantly higher on the political knowledge test than female participants in both conditions. However, the authors primed the gender stereotype by clearly stating the purpose of the study and asking the participants about their gender before the experimental manipulation and the political knowledge test took place. In other words, the non-threat condition might have been no longer a "non-threat."

### **RESEARCH STRATEGY**

Our studies are intended to show whether women are viewed as less politically knowledgeable than men and whether results from a political knowledge test are influenced by the activation of gender stereotypes. Our first step was to conduct an exploratory study with a convenience sample to determine the existence of the stereotype as a necessary prerequisite of stereotype threat in a realistic setting (Study 1). While there is evidence that politics is perceived as a male domain in general (Sanbonmatsu, 2003; Schneider and Bos, 2014), we examined whether the stereotype of women having less political knowledge than men is, in fact, the case. Of central importance is our quasi-experimental study (Study 2), in which female psychology and politics students were confronted with this stereotype when taking a political knowledge test.

#### Study 1: Is there a Gender Stereotype Regarding Political Knowledge?

#### Sample

The analysis included data on N = 603 individuals (convenience sampling). Due to the inherent diversity of the students at the FernUniversität (Stoessel et al., 2015) they varied widely in terms of age and education. The average age of the respondents was M = 34 years (SD = 11.29); 74.7 percent of them were female. The majority were psychology students (n = 434). The remaining participants were either students of politics (n = 145), students of other fields of study (n = 14) or no students at all (n = 10). In keeping with Reips (2002) recommendations for online

research, we included only those respondents in the analysis who had completed the survey without interruption.

#### Procedure

To test the assumption that there is a stereotype, describing women as less politically knowledgeable than men, we asked participants to rate men and women in four areas (politics, mathematics, technology, and language). We included the other three areas to control for the social desirability bias. Since the gender stereotypes about mathematics, technology, and language are well-established (i.e. Hausmann, 2014) any major deviation from the known pattern (men are rated as more competent in mathematics and technology, women are rated as more competent in language) would have indicated a biased response from the participants. If we had found an unbiased pattern and no gender differences in attributive political knowledge, this would have indicated very clearly that there was indeed no gender stereotype, describing women as less politically knowledgeable than men.

Respondents had to answer two questionnaires (men/women). Each questionnaire included 16 items. Four items each were meant to measure the genderrelated ability-assessment of political knowledge (i.e. Men/Women are well versed in politics.), mathematical ability (i.e. Men/Women have mathematical abilities.), technological ability (i.e. Men/Women know how to handle technology.), and language ability (i.e. Men/Women are eloquent.). Respondents indicated the degree to which each statement applied to the respective group, using a seven-point Likert scale (from 1 = not at all to 7 = extremely). The sequence of the questionnaires as well as of the items was randomized.

#### Analysis

We confirmed the questionnaires' four dimensions – politics, mathematics, technology, and language – by applying an explorative factor analysis on one random half of our sample and then confirming the factor structure via a confirmative factor analysis on the other half. The resulting scales offered very good internal consistencies (all  $\alpha$ s > 0.90). We subsequently conducted a series ANOVAs with repeated measures to test for within-subject effects, comparing scale values for all four areas of competence between women and men.

#### Results

First, we checked whether the participants had shown any signs of a social desirability bias. In accordance with the stereotype, participants rated men as being more competent in math and technology than women; all  $Fs(1,602) \ge 183.57$ ; all ps < .001,  $\eta^2 s \ge 0.23$ . Also in accordance with the stereotype, women were rated as more competent than men with regards to language; F(1,602) = 500.95; p < 0.001,

 $\eta^2 = 0.45$ . Thus, we can assume that the participants showed little to no social desirability bias.

The results show that ratings of political knowledge differ between women and men, F(1,602) = 81.62; p < 0.001,  $\eta^2 = 0.12$ , with women (M = 3.76, SD = 0.88) being rated as less political knowledgeable than men (M = 4.08, SD = 0.83). The students who participated in Study 1 believed women to be less politically knowledgeable than men.

## Study 2: Is there an Effect of Stereotype Activation on Performance in a Political Knowledge Test?

Study 2 tested the hypothesis that the activation of the gender stereotype affects performance on a political knowledge test. More precisely, we had assumed to find a stereotype threat effect for female participants. Female participants who are subjected to the stereotype perform worse on a test of political knowledge than female participants who are not subjected to the stereotype, as well as are male participants. Obviously, female participants do not simply forget their knowledge when threatened with the stereotype. However, the induction of an avoidance focus (i.e. Brodish and Devine, 2009) might impair their information recall. To investigate this possibility, we tested the number of "don't know"– answers, and items participants attempted to solve. Furthermore, we controlled for political interest and tested whether the participants' field of study would influence the effects of stereotype activation.

#### Sample

Test subjects included N = 377 students of psychology (n = 236) and politics (n = 141) at the FernUniversität in Hagen (M = 31 years, SD = 12.04; 58.9% female).

#### Independent variables

The independent variables were the participants' gender (IV1: male vs. female), the participants' field of study (IV2: psychology vs. politics), and stereotype activation (IV3: stereotype not activated vs. stereotype activated by gender-question vs. stereotype activated by gender difference statement). Subjects were randomly assigned to the respective IV3 conditions.

#### Stereotype activation

In the first condition (stereotype not activated) no question was asked nor was there any mention of gender before the test; this served as our control condition. We chose to include two different ways of stereotype activation, because the effect of stereotype threat on different groups may vary depending on the subtlety of the stereotype activation (Nguyen and Ryan, 2008). In the second condition (a stereotype activated by a gender-question), stereotype activation was conveyed, by asking the participants to indicate their gender before the knowledge test. This rather subtle approach, to activate gender with no explicit mention of any performance expectation, has been successfully used in former studies (e.g. Steele and Aronson, 1995). In the third condition (a stereotype activated by a gender difference statement), the test instruction mentioned that the political knowledge test the participants were about to answer had shown gender differences in the past; the direction of these differences was not mentioned. This manipulation is more explicit than in the second condition yet still moderately explicit in comparison to other manipulations which name the stereotype directly (Nguyen and Ryan, 2008).

#### Dependent variable

The test of political knowledge included twenty items (see appendix). To ensure an adequate difficulty, our test included items about politicians who – although holding important positions – are less well-known (e.g. Heiko Maas) than politicians who receive more media coverage (e.g. Angela Merkel). Furthermore, we included questions on the positions of political parties to specific problems, such as taxation or speed limits on the autobahn. The participants were asked to select from four different answers to a political question. A fifth option allowed them to indicate that they did not know the answer (don't know). Some researchers (e.g. Lizotte and Sidman, 2009; Mondak and Anderson, 2004) argue that part of the gender gap in political knowledge is a result of women's risk aversion: they are less likely to guess on questions for which they are uncertain. However, this position has been challenged by other researchers (e.g. Luskin and Bullock, 2011; Westle et al., 2014). In a pre-test the absence of a "don't know"– option led to more guessing in general. Therefore, we decided to include a "don't know" – option.<sup>2</sup>

To increase the difficulty and decrease the possibility to cheat, every item had a time-limit of 20 seconds, after which the item was skipped and the next one was shown. The participants could score a maximum of 20 points, one for each correctly answered question. The internal consistency of the test was acceptable ( $\alpha = 0.83$ ).

#### Procedure

After reading an introduction and giving their consent the participants answered the Short Scale Political Interest (SSPI) developed by Otto and Bacherle (2011)

<sup>&</sup>lt;sup>2</sup>The pre-test varied whether on the "don't know" – option was available or not while confronting the participants with a knowledge-test that included fake-items. These fake-items had no correct answer whatsoever and so the only correct response was to either ignore them (when no don't know – option was available) or to mark "don't know." Any other response to these items indicated guessing. Confronted with unsolvable questions participants without a "don't know" – option guessed more often (M = 4.29, SD = 1.32) than participants with such an option (M = 1.69, SD = 1.36). There was no significant effect on gender.

to assess their political interest. Then, the participants read the instructions for the test. Depending on the experimental condition they read gender-wise neutral instructions (stereotype not activated), read gender-wise neutral instructions but were prompted to indicate their gender (a stereotype activated by a genderquestion), or read instructions indicating gender differences in the test (a stereotype activated by a gender difference statement). The instructions informed the participants that there was a time limit on the test. It concluded by telling the participants to mark the "don't know" – option and go on to the next item, if they did not know the answer.

Then, the participants answered the test. The items were presented in a random order. After the test the participants were asked whether they had answered the items without any help or cheating. A few demographic items, like age, gender, education, field of study, and nationality, followed.

#### Analysis

To ensure the quality of our data we excluded participants from our sample, who indicated that they had cheated (n = 9). Also, we included only participants who were not registered as having interrupted their experimental session. To test our hypotheses we conducted a  $2 \times 2 \times 3$  ANCOVA for the dependent variable (political knowledge test score) using political interest as the covariate.

#### Results

#### **Political Interest**

First, we tested whether there were any differences between the quasi-experimental conditions with regard to covariate political interest. As could be expected, the main effect of stereotype activation was not significant (F(2,365) = 0.25, p =0.78,  $\eta^2 < 0.01$ ). However, we found significant main effects of gender (F(1,365)) = 4.69, p = 0.03,  $\eta^2 = 0.01$ ) and field of study (F(1,365) = 104.60, p < 0.001,  $\eta^2$ = 0.22), as well as a marginally significant interaction between gender and field of study (F(1,356) = 3.82, p = 0.05,  $\eta^2 = 0.01$ ). A difference in political interest between men and women was found for students of psychology ( $M_{\text{female}} = 3.97$ ,  $SD = 1.41; M_{male} = 4.62, SD = 1.45; t(234) = 3.28, p < 0.001)$  but not for students of politics ( $M_{\text{female}} = 5.89, SD = 1.43; M_{\text{male}} = 5.92, SD = 1.46; t(139) =$ 0.13, p = 0.45). The differences in political interest between the two fields of study remained significant for both genders (all ps < 0.001). In other words: While students of politics consistently showed a higher political interest than students of psychology, the gender difference in political interest materialized only for students of psychology. All other interactions were not significant (all  $F_{\rm s} < 1.16$ ,  $p_{\rm s} > 0.31$ ,  $\eta^2 s < 0.01$ ). The correlation between political interest and political knowledge was significant; r = 0.61, p < 0.001.

		Stereotype r activated	Stereotype not activated		Stereotype activated by gender question		Stereotype activated by gender difference statement	
		Mean (SD)	N	Mean (SD)	N	Mean (SD)	N	
Male	Psychology	8.05 (3.32)	22	9.95 (3.33)	22	9.98 (3.31)	33	
	Politics	11.25 (3.41)	31	11.23 (3.36)	18	12.63 (3.38)	29	
Female	Psychology	8.49 (3.40)	52	8.49 (3.38)	55	7.04 (3.45)	52	
	Politics	11.04 (3.38)	21	8.51 (3.39)	24	9.77 (3.34)	18	

 Table 1

 Estimated Means (Standard Deviations) of the Political Knowledge Test and Subsample Sizes for All Conditions

#### **Political Knowledge**

The main effect of stereotype activation was not significant (F(2,365) = 0.15, p = 0.86,  $\eta^2 < 0.01$ ). We found significant main effects of gender (F(1,365) = 24.20, p < 0.001,  $\eta^2 = 0.06$ ) and field of study (F(1,365) = 95.25, p < 0.001,  $\eta^2 = 0.21$ ), as well as a significant interaction of stereotype activation and gender (F(2,365) = 5.80, p = 0.003,  $\eta^2 = 0.03$ ). When we controlled for political interest, the effects of gender (F(1,364) = 19.23, p < 0.001,  $\eta^2 = 0.05$ ), field of study (F(1,364) = 24.57, p < 0.001,  $\eta^2 = 0.06$ ), and the interaction of stereotype activation and gender (F(2,364) = 6.17, p = 0.002,  $\eta^2 = 0.03$ ) remained significant. Additionally, we found a significant interaction of stereotype activation and field of study (F(2,364) = 3.60, p = 0.03,  $\eta^2 = 0.02$ ). Table 1 presents the estimated means and standard deviations of the political knowledge test for all conditions.

Figure 1 shows that the mean test scores did not differ between male and female participants in the stereotype not activated condition (t = 1.07, df = 124, p = 0.29, d = 0.19). The gender gap emerged in the second (a stereotype activated by a gender question; t = 3.07, df = 117, p = 0.003, d = 0.57) and the third (a stereotype activated by a gender difference statement; t = 5.54, df = 130, p < 0.001, d = 0.97) condition.

Female participants in the first and second condition did not differ in their mean test scores (t = 1.29, df = 150, p = 0.10,  $d = 0.21^3$ ). However, female participants in the first did significantly better than those in the third condition (t = 2.46, df = 141, p = 0.01, d = 0.41).

Male participants in the first and second condition did not differ in their mean test scores; t = 0.80, df = 91, p = 0.21, d = 0.38. However, male participants in the first did significantly worse than those in the third condition (t = 1.90, df = 113, p = 0.03, d = 0.36).

<sup>&</sup>lt;sup>3</sup>One-tailed *t*-tests were conducted.



Figure 1

Estimated Means of Political Knowledge Test Performance in Study 2 for Each Gender and Test Condition (Stereotype; a Stereotype Activated by a Gender Question; a Stereotype Activated by a Gender Difference Statement).

As for the interaction of stereotype activation and field of study, mean test scores differed widely between students of psychology and politics, except for in the second experimental condition. A closer inspection of the means (see Table 1) reveals that this effect can be attributed to the male students of psychology and the female students of politics.

#### Analysis of "don't know" – answers and attempted items

Stereotype threat might cause female participants to apply avoidance-oriented strategies in order to avoid mistakes. Therefore, we tested two possible effects of stereotype activation on answering behavior: The use of the "don't know" – option and the number of items, the participants attempted to solve. The latter refers to items that were neither ignored nor answered with "don't know." To analyze these variables we conducted  $2 \times 3$  ANCOVAs using political interest as the covariate.

The main effect of stereotype activation (F(2,370) = 2.59, p = 0.08,  $\eta^2 = 0.01$ ) and the interaction of stereotype activation and gender (F(2,370) = 2.46, p = 0.09,  $\eta^2 = 0.01$ ) on the use of the "don't know" – option were marginally significant. The main effect of gender was not significant (F(1,370) = 1.34, p = 0.25,  $\eta^2 < 0.01$ ). Table 2 presents the estimated means and standard deviations of the number of "don't know" – answers for all conditions. The means display a rise in the number of "don't know" – answers of female participants. However, the only statistically significant differences were those between the third and the first (t = 2.75, df = 141,

	Stereotype not activated		Stereotype activ gender quest	ated by ion	Stereotype activated by gender difference statement	
	Mean (SD)	N	Mean (SD)	N	Mean (SD)	Ν
Male Female	3.75 (3.27) 3.15 (3.25)	53 73	2.81 (3.24) 3.44 (3.24)	40 79	3.47 (2.68) 4.65 (3.27)	62 70

Table 2
Estimated Means (Standard Deviations) of the Number of "Don't Know" - Answers and
Subsample Sizes for All Conditions

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Estimated Means (Standard Deviations) of the Number of Attempted Items and Subsample Sizes for All Conditions

	Stereotype not activated		Stereotype activ gender quest	ated by tion	Stereotype activated by gender difference statement	
	Mean (SD)	N	Mean (SD)	N	Mean (SD)	N
Male	15.17 (3.41)	53	16.02 (3.37)	40	15.77 (3.39)	62
Female	15.64 (3.38)	73	15.62 (3.38)	79	14.09 (3.41)	70

p = 0.003), as well as between the third and the second (t = 2.27, df = 147, p = 0.01) condition.

The main effects of stereotype activation (F(2,370) = 2.09, p = 0.13,  $\eta^2 = 0.01$ ) and gender (F(1,370) = 2.17, p = 0.14,  $\eta^2 < 0.01$ ) on the number of attempted items were not significant. The interaction of stereotype activation and gender was significant (F(2,370) = 3.26, p = 0.04,  $\eta^2 = 0.02$ ). Table 3 presents the estimated means and standard deviations of the number of attempted items for all conditions. Female participants in the third condition attempted fewer items than female participants in the first (t = 2.73, df = 141, p = 0.004) or second (t = 2.75, df =147, p = 0.003) condition.

In summary, our findings confirmed that activating gender opened a gap in the performance in a political knowledge test between male and female participants. Interestingly, this did not completely reflect in the test scores of female students of psychology. One explanation for this result is that for female students of politics, as experts, a test of political knowledge presented a higher stakes situation than for female students of psychology. This is completely in line with research on stereotype threat, which suggests that especially highly capable and motivated persons fall victim to stereotype threat. Thus, female students of psychology who require a more explicit stereotype activation to actually threaten them.

The investigation of "don't know" – answers and items attempted to solve fit into this pattern: Female participants in the stereotype activated by a gender difference statement condition used the "don't know" – option more often, and attempted fewer items than female participants in the other conditions.

The test scores of male participants partially resembled the pattern associated with a stereotype lift effect; a performance boost caused by the awareness that an out-group is negatively stereotyped (Walton and Cohen, 2003).

#### GENERAL DISCUSSION

The gender gap in political knowledge is well established in the literature (e.g. Dow, 2009): Females consistently score lower than males on standardized tests of political knowledge. Why does this discrepancy exist? The previous literature tried to explain the differences between men and women as a product of socialization, structural factors, and biology. Despite all their differences, these approaches have one thing in common: Gender differences in political knowledge are seen as relatively stable, changes can be expected only in the long term. In this paper, we argued that the gender gap might partially be the result of the situational activation of gender stereotypes. Based on psychological research we investigated the effect of stereotype threat on political knowledge.

Two central conclusions emerge from the analysis: First, there is a gender stereotype concerning political knowledge. Women are perceived as less political knowledgeable than men. This study has demonstrated that a gender stereotype concerning political knowledge exists. Second, the activation of this stereotype influences the participants' results on a political knowledge test depending on their gender. Thus, the reproduction of political knowledge is subject to situational factors, such as the activation of a gender stereotype. Therefore, the often-found gender gap in political knowledge might, to some extent, be the result of stereotyping.

To more closely investigate the mechanism of the observed effect we investigated the number of "don't know" – answers and items the participants attempted to solve. We found a significantly higher number of "don't know" – answers and a lower number of items attempted to solve for female participants in the third condition (a stereotype activated by a gender difference statement). These results support research according to which stereotype threat induces an avoidance focus (e.g. Brodish and Devine, 2009; Seibt and Förster, 2004). However, we can offer no concluding answer as to the exact mechanism of the observed effect, because a reduction of working memory (e.g. Schmader and Johns, 2003) or situational anxiety (e.g. Bosson et al., 2004; Laurin, 2013) might also impair information recall. Therefore, additional research remains imperative.

Our study has a number of limitations. First, the sample size limited the power of the statistical test, not providing sufficient statistical power to completely verify the effect of stereotype threat on the answering behavior of female participants. Second, we have no information on the effects of potential moderators such as the identification with one's gender. Stereotype threat theory implies that a higher identification with the negatively stereotyped social group (or the threatened domain) goes along with a higher effect of stereotype threat. Further investigation and experimentation of activation of a gender stereotype is strongly recommended. It would be interesting to assess the effects of stereotype activation on political behavior and political orientations. For example, women's reactions to stereotype threat can range from preventative strategies (e.g. domain avoidance) to permanent strategies (e.g. domain unidentification).

#### **CONFLICT OF INTEREST**

None.

## **DETAILS OF ETHICAL APPROVAL**

APA ethical standards were followed in the conduct of the study. All participants were fully debriefed after participation and consented with the scientific use of their data (informed consent).

# APPENDIX: STUDY 2 – ITEMS OF THE POLITICAL KNOWLEDGE TEST

The following questions asked for the party-allegiances of several politicians or for the names of certain Federal ministers:

- 1. Heiko Maas is member of the following party:
- 2. Andrea Nahles is member of the following party:
- 3. Gerd Müller is member of the following party:
- 4. Anton Hofreiter is member of the following party:
- 5. Katrin Göring-Eckhardt is member of the following party:
- 6. Who is the current Federal minister for family, senior citizens, women and the young?
- 7. Who is the current Federal minister for health?

The following questions asked for details of the political system in Germany:

- 8. Who elects the Federal Chancellor of Germany?
- 9. Who commands the so-called 'Richtlinienkompetenz'?
- 10. Who elects the Federal President of Germany?

11. During Bundestag elections you have two votes, a first and a second vote. Which of these votes is crucial for the allocation of seats in the Bundestag?

The following questions asked for details of the current state of affairs in Germany:

- 12. How high was the percentage of foreign nationals in Germany at the end of 2013?
- 13. What is the current (1. quarter 2015) unemployment rate in Germany?
- 14. Which political department has the highest budget?

The following questions asked for the political positions of different parties in the 2013 Bundestag election:

- 15. Which one of the following parties argued for the collection and storage of contact data (e.g. telephone, internet) even without concrete cause?
- 16. Which one of the following parties argued against raising the top income tax rate?
- 17. Which one of the following parties argued for a general speed limit on the autobahn?
- 18. Which one of the following parties argued against BAföG-payments regardless of parents' income?
- 19. Which one of the following parties argued for a stricter public control of electricity tariffs?
- 20. Which one of the following parties argued against a decrease the statutory retirement age?

### SUPPLEMENTARY MATERIAL

To view supplementary material for this article, please visit https://doi.org/10. 1017/XPS.2017.21

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