

# Facial appearance and institutional cues in political trust evaluations

Alexander Bor<sup>1</sup>

## Abstract

Research in social psychology has identified several cues that influence trust evaluations in social interactions. It remains a puzzle, however, how these cues influence political trust. Modern politics is peculiar, because citizens' interaction with politicians is indirect and infrequent, and the actions of both parties are constrained by a complex institutional framework. Focusing on the competence component of political trust, this paper investigates how facial appearance and institutional cues interact in forming trust evaluations. Integrating knowledge from political science and evolutionary psychology, it is expected that despite their unnatural form institutional cues may be processed by domain-specific cognitive mechanisms of competence evaluation. This hypothesis is tested in four online framing experiments. Results show some evidence that institutional cues of high competence diminish the effects of facial appearance, but also demonstrate how providing a social context in itself can significantly lower the reliance on facial appearance.

## Keywords

facial appearance, political trust, leadership, political institutions, evolutionary psychology

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<sup>1</sup> Political Science Department, Aarhus University, Bartholins Allé 7, Aarhus C, DK-8000,  
Email: alexander.bor@ps.au.dk

## Introduction

Human societies depend on cooperation and cooperation depends on accurate evaluations of partners' trustworthiness (Cook & Gronke, 2005; Hibbing & Alford 2009). Accordingly, research in social psychology has identified several factors that routinely influence evaluations of trustworthiness in social interactions (for a review see Kramer & Elsbach, 2014). However, we have limited knowledge about how psychological mechanisms apply to more specific forms of cooperation in political environments. Despite increasing attention to evolutionary theories that conceptualize leadership and followership as evolved cooperative mechanisms, designed to solve collective action problems in ancestral societies (King, Johnson, & Van Vugt, 2009; Van Vugt, Hogan, & Kaiser, 2008), we have a limited understanding of how followers decide if their leader has the appropriate intentions and competences to organize collective action and thus to be worthy of trust.

Two important factors raise concerns about the applicability of psychological mechanisms identified by social psychology as devoted to trust evaluations in the political arena. First, contemporary political interactions are markedly different from other social interactions (Boyer & Petersen, 2011, Petersen, 2014). Leaders and followers seldom meet in person, most politicians' actions are concealed from the public, they regularly deal with problems that are hard to grasp or have little personal relevance, and they are subject to rules and fulfill roles people often do not understand. Accordingly, although information on political leaders' personal characteristics, such as physical appearance, is often available it may not provide valid cues of trustworthiness any more. Average facial appearance, height, lower pitched voice and ethnic similarity are usually associated with higher trustworthiness and global evaluations, although there is little reason to believe that these characteristics are relevant indicators of candidate quality in our current political environment (Bahry, Kosolapov, Kozyreva, & Wilson, 2005; Murray, 2014; Stirrat & Perrett, 2010). These seemingly irrational factors may thus potentially bias political trust evaluations.

Second, our current, highly institutionalized political environment may have a silver lining as it contains elements that were not present ancestrally, but may nonetheless provide informational cues that feed into evolved domain-specific cognitive mechanisms (Sperber, 1996). Political institutions are essentially a collection of formal and informal rules that define what an actor is obliged or allowed to do (North, 1991). With less room to maneuver there is less uncertainty about future actions, and thus less need for trust. Moreover, institutions provide salient categories that facilitate the acquisition of stereotypical information about actors. We know that we can trust licensed MDs, or that it is better to be careful with police officers in notoriously corrupt countries even without information specific to the individual we would like to cooperate with.

In conclusion, we live in a confusing environment where the informational cues our psychology evolved to respond to may or may not be present, and may or may not provide relevant information. To the best of my knowledge, previous research efforts have not investigated how various informational cues feeding into political trust assessments interact with the signals

provided by political institutions. This paper takes the first steps to integrate knowledge from evolutionary psychology and political science by analyzing the effects of facial appearance on leader trust evaluations under various institutional settings in four online framing experiments.

### **Facial and institutional cues of competence**

For a political leader to be trusted, she usually needs to have both good intentions and high competence (Levi & Stoker, 2000). Intentions describe the motives of an actor and capture how her goals relate to us; competence refers to an actor's perceived abilities and task-relevant skills (Fiske, Cuddy, & Glick, 2007). This distinction between the two components of trustworthiness mirrors research in social psychology. Fiske et al. (2002) talk about warmth and competence as universal dimensions of social competence, whereas others discuss the roles of morality and competence (Elsbach & Currall, 2012; Wojciszke, 2005).

There are a number of reasons why competence is particularly suitable to investigate how various types of cues influence political trust. First, competence evaluation has a crucial functional role in leadership-followership relations (King et al., 2009). We intuitively want our leaders to be selected among the most competent members of society, probably because leadership in ancestral societies used to be more "fluid, distributed and situational" (Van Vugt et al., 2008, p. 191) than it is now, and selecting the most competent leader for a task yielded higher returns for each member of the group. In fact, people spontaneously categorize potential leaders by their competence and strongly prefer competent candidates (Bor, 2017). Competence remains a crucial predictor in political candidate evaluations to date (Funk, 1999).

A potential leaders' level of competence can be inferred from multiple sources. Most importantly for our discussion, both facial appearance and institutional position can be relied on. It has been demonstrated that naïve evaluations of competence based on politicians' faces predict electoral outcomes (Todorov, Mandisodza, Goren, & Hall, 2005). That is, politicians with more attractive, familiar and mature faces are considered more competent and receive more votes (Olivola & Todorov, 2010). In fact, some evidence suggests that attractiveness plays a crucial role in the facial competence effect, as attractive faces are instantly and unconsciously preferred, and this preference may be subsequently rationalized as competence, being at least partially responsible for the latter's causal effect (Berggren, Jordahl & Poutvaara, 2010; Laustsen, 2014; Spisak, Blaker, Lefevre, Moore, & Krebbers, 2014; Verhulst, Lodge, & Lavine, 2010).

But politicians do not act in a vacuum. In politics, formal political institutions also provide salient information on agents' competence at least in two ways. First, there is reputational information in institutional cues. A person in a more prominent institutional position can be expected to "have more credentials, training, and experience" (Barnett & Finnemore, 2004, p. 25). Second, institutions signal access to resources. A person in a more prominent institutional position can be expected to manage more financial and human resources, which increases their ability to effectively fulfill cooperative obligations. Both status and issue specialization tend to appear in formal titles of political actors, which is rather salient information regularly mentioned in introductions both in person and in the media.

Although modern political institutions are evolutionarily recent phenomena, this does not necessarily imply that our cognitive system has no machinery to process the cues they provide. First, some institutions emerge by formalising very old and general social norms (Greif, 2005). For example, more competent members of society on average receive higher status in foraging societies (Rueden, Gurven, & Kaplan, 2008) and modern institutional hierarchies alike. Moreover, information that matches ancestral environments is usually processed more promptly and accurately (Boyer & Petersen, 2011). Consequently, theory suggests that as institutional cues of competence feed into the same or related cognitive mechanisms as facial appearance cues, they diminish the effects of facial appearance by providing more direct evidence of high reputation. Importantly, however, a lack of or a low institutional position does not necessarily imply incompetence. Throughout this study, the absence of institutional cues is expected to lead to searches for and reliance on other cues, rather than to distrusting behavior (Offe, 1999). Therefore, I hypothesize that the presence of institutional cues of competence diminishes the effects of facial appearance.

Hypothesis: The presence of cues of (high) institutional competence diminishes the effect of facial appearance on political trust evaluations.

The next section, describes the experiments designed to test this hypothesis.

## Analysis

### *Study 1: Relative trust evaluations*

*Participants.* The first study was conducted on Amazon's Mechanical Turk with 150 participants from the United States ( $M_{\text{age}}=37.5$  years, 53% female). Participants were invited to "Participate in a 2 min academic survey on leadership preferences". They were reimbursed with \$0.15. Completing the survey took less than two minutes on average ( $M_{\text{time}}=1.9\text{mins}$ ).

*Procedure and measures.*<sup>2</sup> After reading the instructions and entering their Worker ID, participants were presented with a short text describing a collective action problem: Some people in the neighborhood were falling ill, most likely from an infectious liver disease. It was therefore proposed that some measures, involving questioning of patients to reveal the sources of the virus and promotion of vaccination and hygiene, could help reduce the spread of the disease. Participants were asked to pick one of two candidates whom they would trust to coordinate and organize these preventive efforts.

The disease frame was selected for a number of reasons. First, the issue is considered sufficiently salient to increase the attentiveness of participants even in a hypothetical scenario. Second, it is sufficiently challenging to clearly require above average competences from a leader. Third, it has

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<sup>2</sup>Supplementary materials with a detailed description of the experimental vignettes, data and reproduction codes are available at

[https://osf.io/p7fwg/?view\\_only=177acf971b864d54b2c671bf226c842f](https://osf.io/p7fwg/?view_only=177acf971b864d54b2c671bf226c842f)

been shown that a disease threat increases the salience of physical attractiveness in leaders (White, Kenrick, & Neuberg, 2013). This ensures that facial appearance is not neglected and provides a stronger test of my hypothesis.

Attractiveness has been chosen to manipulate facial competence cues, due to its crucial role in influencing perceived competence (see discussion above). Consequently, a white, male<sup>3</sup> face around age 30 from the Park Aging Mind Laboratory's Face Database (Minear & Park, 2004) was presented both in its original (attractive) version and in a manipulated version displaying considerable facial asymmetries (unattractive version). Facial symmetry is strongly associated with attractiveness (Rhodes, 2006; Wade, 2010). The resulting images and the technical details on manipulations are available in the online appendix. A validation of the facial stimuli provided evidence that the manipulation was successful: in a neutral setting 95% of evaluations considered the original version of the face to be more attractive and 88% found it more competent. Participants are asked to choose which of the two targets they trust more to successfully organize and coordinate efforts against the disease threat. This constitutes the main DV of this study.

*Design.* The experiment had three conditions. In all of them, the two versions of the face were presented as two separate persons, with their names - Jim Smith and William Johnson - randomly assigned. In the control condition both were "active citizens with some experience in volunteering". In the congruent condition, the original version of the face was introduced as "the chairman of the town's Public Health Council, an institution with seven employees". This stimulus signals institutional competence by referring to the person's title and (some of the) institutional resources at his disposal. The asymmetrical face was described as an active citizen just as in the control condition. This condition is labelled congruent because both the institutional and the facial cues suggest competence. For the third group the institutional competence cue was introduced incongruently, *i.e.* accompanying the asymmetrical face. Thus in this condition, the institutional cue pointed at one candidate as more competent, whereas the facial appearance pointed at the other person as more adept for the job.

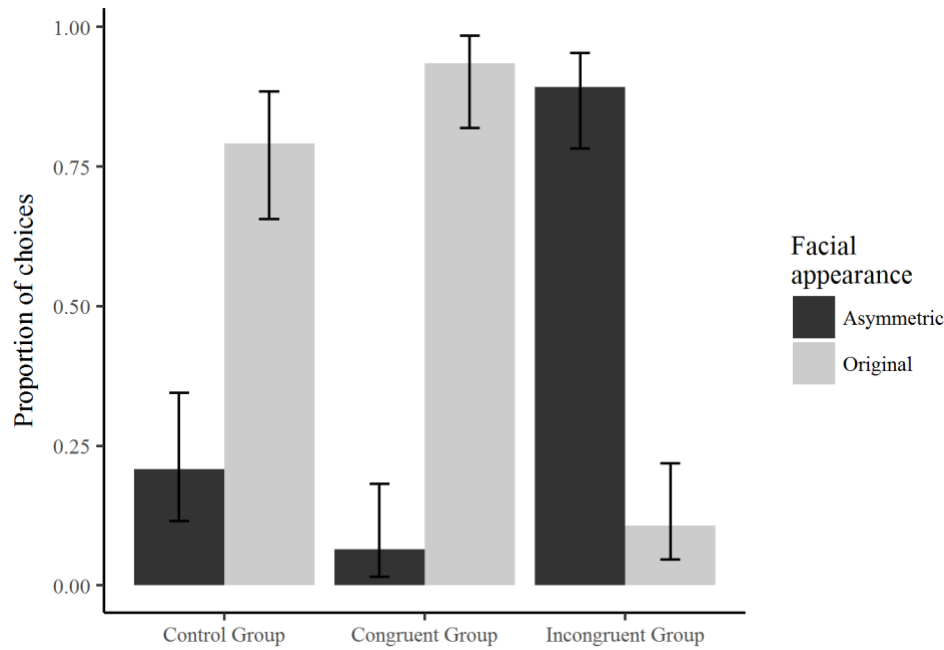
The approach taken here – manipulating the same face rather than choosing multiple faces that vary on attractiveness – is superior as it allows to control for most of the idiosyncratic and systematic differences between real faces. The admitted limitations of simultaneously presenting the two versions are addressed in subsequent studies. Nonetheless, similar designs have been effectively utilized in the literature before (Laustsen & Petersen, 2015; Bøggild & Laustsen, 2016) and thus provides a good initial test for our hypothesis.

*Results.* Figure 1 demonstrates the results of Study 1. In the control group, 79% of respondents prefer the original face. In the congruent treatment group, this proportion increases to 93%, which is a marginally significant change, possibly constrained by ceiling effects ( $\chi^2 = 2.93, p <$

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<sup>3</sup>The analysis is restricted to male faces for reasons of simplicity and in accordance with the literature on facial appearance of political leaders. Further research extend our analysis to female faces is, however, necessary.

0.1). In the incongruent treatment group, however, preference for the original face drops to 11% ( $\chi^2 = 46.9, p < 0.001$ ). In other words, if given the choice, people have a strong preference for an institutionally competent candidate, regardless of his facial appearance. This is corroborated by a lack of statistically significant changes between the congruent and incongruent treatment groups, considering the share of preference for the institutionally competent candidate ( $\chi^2 = 0.15, n.s.$ ). This supports our hypothesis in that the presence of cues of institutional competence in fact diminishes the effect of facial appearance on trust and competence evaluations.



**Figure 1. Proportion of choices in Study 1**

### *Study 2: Independent trust evaluations*

Study 1 provides initial evidence that although facial appearance can have strong effects on trust evaluations, cues of institutional competence crowd out these effects easily. However, Study 1 has a number of limitations. First, its external validity is low, due to the unnatural dilemma of selecting from two nearly identical faces. Second, the forced choice in itself can increase the salience of the experimental manipulations. Third, Study 1 reveals little about the specific domain to which institutional competence cues appeal. Thus, Study 2 modifies and extends the design of Study 1 to address these three issues.

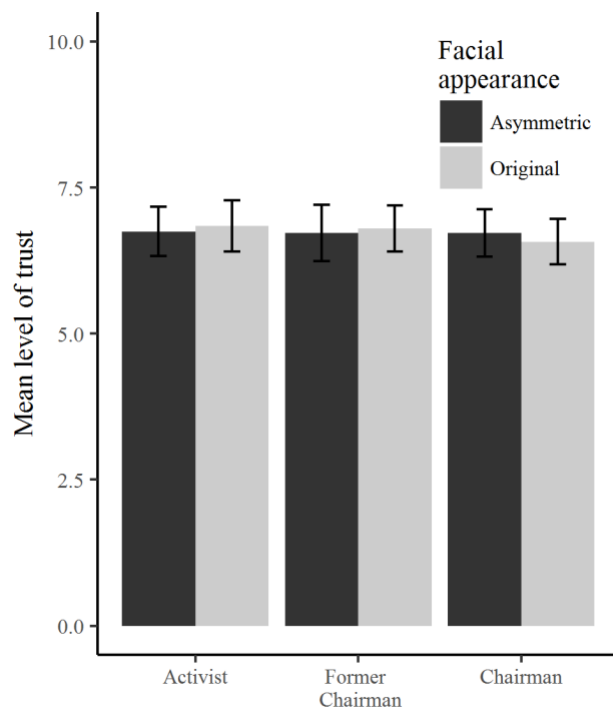
**Participants.** 302 new respondents from the United States recruited on Amazon's MTurk participated in Study 2 ( $M_{\text{age}}=33.8$  years, 37% female). Completing the survey took 2.2 minutes on average. Participants were reimbursed with \$0.3.

**Procedure and measures.** Just as in Study 1, participants first read about the disease threat. Next, one face (Jim Smith) was presented as the person who “stepped up to take the task of organizing

and coordinating the efforts [against the disease]”. Participants were subsequently asked to what extent they trusted this person to successfully handle the crisis. This main dependent variable was measured on a scale from 0 (no trust) to 10 (complete trust).

*Design.* The experiment was implemented in a  $2 \times 3$  full factorial design with facial appearance (original or asymmetric face) and institutional position (citizen volunteer, former chairman of Public Health Committee or chairman of Public Health Committee) as the two manipulations. The former chairman condition was introduced to differentiate between two types of institutional competence cues: reputational benefits and institutional resources. Arguably, a former chairman without access to institutional resources could still benefit from the reputational gains of his former office. In other words, the two last conditions allow us to investigate if the institutional resources give any added benefit over the reputation in political trust evaluations.

*Results.* An analysis of variance does not support the hypothesis that there is a significant interaction between the two treatments ( $F(2,296) < 0.2$ , n.s.). Moreover, the results (plotted in Figure 2) demonstrate that there is very little variation between any of the experimental conditions, all group means are around 6.6. Study 2 thus found no evidence that either facial appearance or institutional competence cues had a significant main effect on trust in a political actor and does not answer the research question about the interaction of these two factors.



**Figure 2** Mean levels of trust in Study 2

### *Study 3: Independent trust evaluations in a different population*

The findings of Study 2 contradict Study 1 and a voluminous literature on the effects of facial appearance both in political decision making (Ahler, Citrin, Dougal, & Lenz, 2016; Laustsen & Petersen, 2015; Stewart, Salter, & Mehu, 2009) and on trust evaluations (Stirrat & Perrett, 2010; Stirrat & Perrett, 2012; Wilson & Eckel, 2006; J. P. Wilson & Rule, 2016). Moreover, although MTurk has been shown to be a valuable and valid platform for conducting behavior and political attitude research (Clifford, Jewell, & Waggoner, 2015; Mason & Suri, 2010), a lack of main effects in Study 2 for both treatments raises concerns about the participants' attentiveness. The experiment was therefore replicated in Study 3 in a slightly changed format adapted to a new sample: students of a large Danish university. The primary goal of Study 3 is to establish if results similar to Study 2 emerge also in a highly different social context with more attentive participants.

*Participants.* 259 first-year BA students at a major Danish university completed the survey online on their own computers as part of an in-class activity in an introductory social science methods course ( $M_{\text{age}}=20.9$  years, 52.9% women,  $M_{\text{time}}=12.7$ mins).

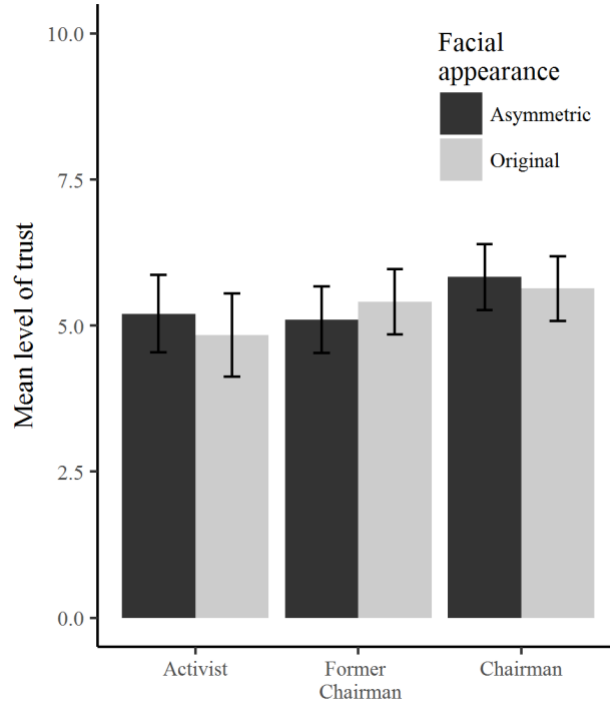
*Procedure and measures.* Participants read a short story (in Danish) about a political actor ("Christian Mortensen") who held a press conference calling for better maintenance of the public spaces in his town. The vignette was formatted to resemble the largest Danish online newspaper (Politiken) and included the manipulated photographs from Study 1 and 2. The institutional position of the actor was experimentally manipulated as a local activist, former chairman of the city planning committee or (current) chairman of the city planning committee. Participants indicated to what extent they trusted the actor to "come up with a solution" to the problem and to "actually solve" the problem. Of the two dependent variables, trust in solving the problem is substantively more important. Trust in finding a solution was included to investigate if participants differentiate between intelligence (being able to come up with solutions to problems) and powerfulness (having the power to act) as two potentially distinct dimensions of political competence. As there is little evidence of such a distinction and the results are essentially similar for both variables, only the results for trust in solving the problem are reported here. Results for trust in finding a solution are reported in the online appendix.

*Design.* As in Study 2, the experiment was implemented in a  $2 \times 3$  full factorial design with facial appearance (original or asymmetric face) and institutional position (local activist, former and current chairman of the city planning committee) as the two main treatments.

*Results.* The mean trust evaluations for the six experimental groups are plotted in Figure 3, which demonstrates two important findings. First, just as in Study 2, there is no support for our hypothesis that institutional cues of competence diminish the effect of facial appearance, as the interaction term between the two treatments in an analysis of variance is not significant ( $F(2, 253) = 0.71$ , n.s.). However, there is some evidence that institutional position was identified as a valid cue for competence. Although the effect of the treatment is only marginally significant



( $F(2, 253) = 2.61, p < 0.1$ ) a linear regression reveals that compared to the activist condition, the chairman condition significantly increases trust ( $\beta_{\text{chairman}} = 0.7, p < 0.05$ ). These results are robust and reach conventional levels of significance in a sample excluding outliers in terms of time spent on reading the vignette (see details in the appendix).



**Figure 3** Mean levels of trust in Study 3

#### *Study 4: Trust evaluations with and without a political context*

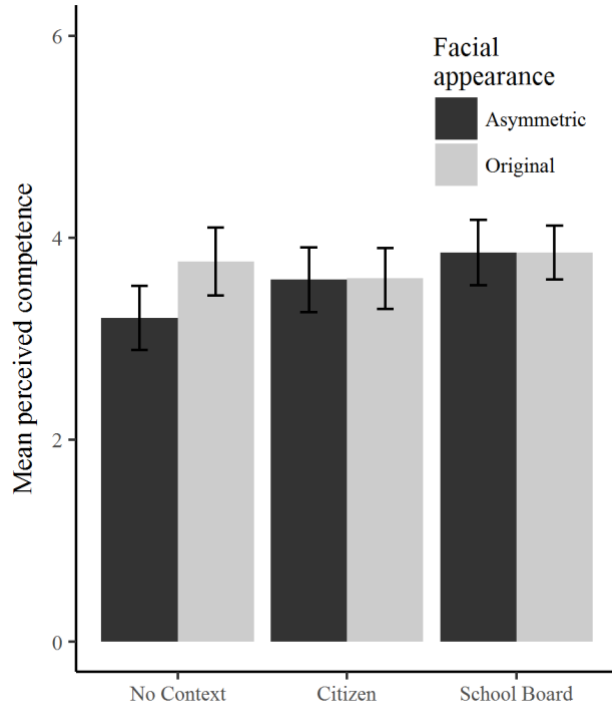
The final study examines why facial appearance consistently had no effects on political trust evaluations in Study 2 and 3. As the more closely monitored student sample did not yield substantially different results than the MTurk sample, concerns regarding the attention of participants and the internal validity of the design are reduced. Instead, it has been hypothesized that embedding the trust evaluation into a modern political context in itself radically decreases the impact of facial appearance. To test the effect of facial appearance *sans* the political context, a placebo control condition was introduced. A few other minor changes were also implemented to increase the validity of the study (for details see the appendix) without changing the fundamental logic of Studies 2 and 3.

**Participants.** 307 respondents living in the United States ( $M_{\text{age}}=38.6$  years, 53% women) participated in the experiment through Amazon's Mechanical Turk. It took on average 3.2 minutes for participants to complete the survey. They were reimbursed with \$0.3. Exclusion of participants who failed an attention check and were outliers in terms of time spent on the vignette leaves 274 observations for the analysis.

*Procedure and measures.* Following a short introduction, participants in the treatment groups were invited to imagine that students at some schools in their local school district fall sick much more often than expected, allegedly due to parents' reluctance to keep sick children off school and inadequate standards of hygiene in some schools. The collective action problem involves a need to investigate these issues and address them in an informational campaign for parents, teachers and students. This scenario moves the disease threat to a very familiar local political issue (public schooling). Participants indicated their trust in a person who was randomly selected among citizens in the school district/members of the school board. Members of the control group were not presented with this scenario, but read a short placebo text about finches and answered a short question about comprehension of the text. Next, all participants were presented with the target face and were asked to evaluate his competence, trustworthiness and attractiveness on a seven-point scale.

*Design.* The design focuses on the trait evaluations as the main dependent variables and is a  $2 \times 3$  full factorial design with facial appearance (original or asymmetrical face) and institutional competence cues (no social context, social context with low institutional competence, social context with high institutional competence) as the two treatments.

*Results.* Manipulation checks demonstrate that both treatments had a significant effect in the expected direction. First, the original facial stimulus was perceived as significantly more attractive than the asymmetric facial stimulus ( $F(1, 270) = 13.7, p < 0.001$ ). Second, in the two treatment groups, which were presented with the collective action problem, there is a significant main effect of the institutional position on trust in solving the problem ( $F(1, 189) = 10.4, p < 0.01$ ).



**Figure 4 Mean perceived competence in Study 4**

More importantly, however, the results support the assumption that the political context in itself is partly responsible for diminishing the effects of facial appearance. Figure 4 displays average values of perceived competence for the six experimental groups in Study 4. It demonstrates that although there is a significant effect of facial appearance without a context, embedding the evaluation into a social context in itself crowds out this effect, regardless of whether low or high institutional competence is signaled.

A formal test of significance leads to similar results. A linear regression with the two treatments and their interaction as independent variables demonstrates that although the original face has a significant positive effect in the reference group - i.e. no social context - ( $\beta_{\text{orig.face}} = 0.56, p < 0.05$ ), this effect is entirely diminished by the two interaction terms ( $\beta_{\text{orig.face:citizen}} = -0.54$ ,  $\beta_{\text{orig.face:school.board}} = -0.56, ps < 0.1$ ). The results for trust as the dependent variable are similar, but do not reach conventional levels of statistical significance.

The main results of Study 4 indicate that the lack of significant effects for the facial appearance treatment can be attributed to the social context in which the experiment was embedded. Given a plausible social problem and minimal background story on the target person, people disregard facial appearance when they evaluate their competences. The following section reconsiders the hypothesis in light of the empirical evidence and considers the theoretical and methodological implications concerning facial appearance research.

## Discussion and Implications

The four studies described above were designed to analyze how seemingly irrelevant factors that are known from social psychology research to influence trust evaluations interact with more conventional signals when they are embedded in a modern political environment. More specifically, they concentrated on the effect of facial symmetry and institutional position on political trust to test the hypothesis that if a target person is associated with institutional cues of competence, their face will not influence their perceived trustworthiness. The studies revealed limited support for this hypothesis. Although Study 1 showed – in line with our intuitive expectations – that if people need to choose between a target with high facial symmetry and a target with high institutional competence, they overwhelmingly select the latter. Institutional competence is a stronger cue than facial appearance. However, the subsequent studies showed that facial appearance is more easily crowded out than expected. When a target is embedded into a political environment, it is the political environment rather than the cues of high institutional competence that diminish the effect of facial appearance.

These results imply that facial appearance may have a more limited impact on trait evaluations outside the laboratory than some other studies suggest. But it would be premature to question the validity of other studies investigating facial appearance in politics. There are two potential explanations for why this study has found weaker and more easily diminished effects. First, political trust is situational, and several factors can make a person an excellent political leader in one situation and a bad one in another. Consequently, a highly static feature like facial appearance can be a weak indicator of dynamic trustworthiness. Second, although facial symmetry is associated with attractiveness and healthiness, from a rational standpoint these traits are relatively unimportant for leader competence in our modern environment. Likewise, there is no inherent benefit in attractiveness that would help beautiful people solve collective action dilemmas. Future research should investigate linked facial attributes more closely – leadership challenge pairs such as facial dominance in times of war and peace (Laustsen & Petersen, 2015).

Note also that the present paper raises concerns about the demand effects of laboratory studies of facial appearance. It is striking that increasing the salience of the experimental manipulations and leaving little ambiguity about the goal of the study by presenting two faces side-by-side in Study 1 yields large treatment effects. Study 2 and 3 found much more subtle effects using a fundamentally similar scenario but more subtle manipulations. Researchers investigating effects of facial appearance should think carefully about the external validity of their studies.

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