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Babyfacedness predicts inferred
competence but not electoral
success***

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Abstract

Recent research has documented that competent-looking political candidates do better in U.S. elections and that babyfaced individuals are generally perceived to be less competent than maturefaced individuals. Taken together, this suggests that babyfaced political candidates are perceived as less competent and therefore fare worse in elections. We test this hypothesis, making use of photograph-based judgments by 2,772 respondents of the facial appearance of 1,785 Finnish political candidates. Our results confirm that babyfacedness is negatively related to inferred competence in politics. Despite this, babyfacedness is either unrelated or positively related to electoral success, depending on the sample of candidates.

Faces of Politicians: Babyfacedness Predicts Inferred Competence but Not Electoral Success

In a study of elections to the U.S. Congress, Todorov, Mandisodza, Goren, & Hall (2005) reported that inferences of competence based on candidates' facial appearance predict the winners in both Senate and House races to a high degree.¹ Zebrowitz and Montepare (2005) conjectured that this finding reflects differences in babyfacedness. By babyfacedness they mean neotenous facial features like a round face, large eyes, small nose, high forehead, and small chin. Previous research has suggested that a more babyfaced individual is perceived as less competent (Zebrowitz, 1997). In this paper we provide the first test of the conjecture that babyfacedness is negatively related to electoral success and that this effect works through perceptions of competence. In addition to doing this, we also consider a possible halo effect of beauty and take gender differences into account. For these purposes, we have collected an extensive dataset of photograph-based judgments of 1,785 candidates from the Finnish parliamentary and municipal elections in 2003–2004. Two particular strengths of our approach are that we use raters from other countries than Finland, ruling out familiarity with the politicians, and that about half of our candidates are female, enabling an investigation of whether the results depend on the gender of the candidates. Previous studies have affirmed that people tend to make various trait judgments on the basis of facial appearance and that such judgments influence behavior (Ambady & Rosenthal, 1992; Langlois, Kalakanis, Rubenstein, Larson, Hallamm, & Smoot, 2000; Willis & Todorov, 2006; Rule & Ambady, 2008). More specifically, babyfacedness has been shown to be important for how a person is perceived and treated in non-political settings, and not only with regard to inferred competence (Zebrowitz & McDonald, 1991; Brownlow, 1992; Zebrowitz & Montepare, 1992; Zebrowitz, Olson, & Hoffman, 1993; Zebrowitz, Kikuchi, & Fellous, 2007; Gorn, Jiang, & Johar, 2008; Todorov, 2008). We extend this literature by examining the role of babyfacedness in political elections.

Survey and Dataset

Our dataset is based on a web survey with 2,772 respondents and includes perceptions of several traits, for example babyfacedness, competence, beauty and trustworthiness, as well as a measure of relative electoral success, defined as a candidate's votes divided by the average number of votes for all candidates on the list. Each respondent evaluated four randomly chosen candidate photographs from the election campaign (two of each gender). The respondents were informed that they would evaluate political candidates. To avoid recognition, no Finnish respondents participated. Americans (31%) and Swedes (31%) make up a majority of the respondents. Our photographs depict faces of 868 male and 917 female candidates in the 2003 parliamentary election and the 2004 municipal elections. The photographs are the ones used by the political candidates in the campaigns. The size of the photographs is approximately 3.5 cm (width) x 4.5 cm (height). In connection with each photograph, several questions were asked, for example:

How mature-faced or babyfaced (i.e. childlike or youthful looking) do you find this person relative to other people of the same sex and age?

Very mature-faced

Somewhat mature-faced

Neither mature-faced nor babyfaced

Somewhat babyfaced

Very babyfaced

Don't know / Prefer not to answer

The answers were converted to a five-point scale with “Very mature-faced” coded 1 and “Very babyfaced” coded 5.

Babyfacedness and perceived competence are negatively correlated ($-.10$; $p < .001$), in line with related research (Montepare & Zebrowitz, 1998). The correlation coefficient is higher for male candidates ($-.15$; $p < .001$) than for female candidates ($-.07$; $p < .001$). There is furthermore a relatively high degree of interrater reliability of babyfacedness vs. maturefacedness, irrespective of the age, gender, and nationality of the respondents. The average score intraclass correlation coefficient (ρ) is .78 (Spearman-Brown prediction formula), in line with previous results as reported by Montepare & Zebrowitz (1998). Interrater reliability of babyfacedness vs. maturefacedness is stronger than interrater reliability of competence ($\rho = .55$) and trustworthiness ($\rho = .48$), but weaker than interrater reliability of beauty ($\rho = .83$).

Whereas Todorov et al. (2005) mainly studied male political candidates over 30, our dataset includes younger candidates (14% below 30), and is also balanced in terms of gender (51% female candidates). This could prove important, since age and gender affect a person’s degree of babyfacedness (Zebrowitz & Montepare, 1992) and since they could also affect how babyfacedness influences other trait judgments.

The Variables

Our four trait variables babyfacedness, competence, beauty, and trustworthiness are constructed in two steps. First we compute the mean of all judgments of a particular photograph for each trait. From this measure we subtract, for each trait, the mean judgment for the candidates on the same list. Thus, the trait variables are *relative* measures, capturing how babyfaced, competent, beautiful, and trustworthy a candidate is perceived to be in relation to the competitors on the same list.

The dependent variable, Relative electoral success for candidate i on list j , is defined as (p_i / v_j) , where p_i is candidate i 's number of personal votes and v_j is the average number of votes for all candidates on list j .

The Finnish Political System

Finland has a unicameral parliament with 200 MPs, and a proportional electoral system. Voters have to vote for one particular candidate. In each district, parties present lists of their candidates. The legislature seats of a district are allocated based on party vote shares and personal votes, using the d'Hondt seat-allocation rule. With this rule, the total number of seats allocated to each list depends on the vote totals of all competing lists. Inside the list, the order in which candidates receive seats is determined by the number of personal votes. The same system is used at the municipal level.²

Results and Discussion

The Zebrowitz & Montepare (2005) conjecture that babyfacedness is an underlying predictor of electoral success is not supported by our data. This is evident already when looking at correlation coefficients from the parliamentary election. Although the correlation coefficient between babyfacedness and electoral success is negative, it is small and statistically insignificant ($-.06$; $p = .12$)—see Figure 1 for an illustration—and in fact zero when controlling for age.³ In line with Todorov et al. (2005), electoral success is instead correlated with inferred competence ($.16$; $p < .001$), but also with beauty ($.13$; $p < .001$).

Since Zebrowitz and Montepare (2005) explicitly stated that the hypothesis of a relationship between babyfacedness and electoral success is thought to hold when age and gender are controlled for, and since incumbency is a strong predictor of electoral success (see Lee, 2008), we run linear regressions controlling for incumbency, gender, and age. The estimates, presented in Tables 1 and 2, reveal that the effect of babyfacedness is generally small and

statistically insignificant. This result holds both when controlling, and when not controlling, for competence and other perceived traits (beauty and trustworthiness). In particular, the fact that including competence does not affect the babyfacedness coefficient much suggests that any effect of babyfacedness on relative electoral success is not mediated by competence (Baron & Kenny, 1986). The fact that our respondents are of different nationalities, most notably from Sweden and the U.S., should not affect the results, since they make very similar trait judgments. For example, American respondents rate the candidates' babyfacedness as 2.84 on average, while the corresponding figure for the Swedish respondents is 2.88. A *t*-test clarifies that equal means cannot be rejected at the five percent significance level (and this holds for all trait variables).

For the full set of candidates, beauty evaluations emerge as the strongest predictor of electoral success, possibly reflecting a halo effect (Nisbett & Wilson, 1977). The sample of male candidates in the parliamentary election (Table 1) is notable in two respects. First, the estimated babyfacedness coefficients are *positive*, contrary to the Zebrowitz & Montepare (2005) conjecture. Second, competence evaluations emerge as the strongest predictor of electoral success. The second finding is well in line with the results reported by Todorov et al. (2005) based on a similar sample of predominantly male candidates.

Several point estimates suggest different explanations of electoral success for male and for female candidates, most notably beauty as the strongest predictor for females and competence as the strongest predictor for males. These findings should, however, be interpreted with caution, as the gender differences are not statistically significant. We test for gender differences by interacting the trait variables with a dummy variable for male candidates in specifications based on the full sample of both male and female candidates, in the parliamentary election and in the municipal elections respectively. The importance of analyzing effects of facial appearance by gender has been stressed by Chiao, Bowman, & Gill (2008), but whereas they report that both

men and women find male candidates more competent, we find that both men and women rate candidates of their own gender as more competent.

There are some signs of weaker predictive power of our facial traits in the municipal elections, for example fewer estimated coefficients that attain statistical significance and smaller point estimates overall. This may result from less exposure per candidate to the voters, both since television appearances are rarer for municipal candidates (cf. Lenz & Lawson, 2008) and since the number of photographs in an electoral poster is larger in municipal elections (but otherwise, photographs are displayed in a similar manner). Notably, we find that judgments of babyfacedness are never related to electoral success in a statistically significant way and that electoral success in the municipal elections is not predicted by competence judgments when we control for beauty.

To test the effects of respondents evaluating all photos on the same list, rather than a random selection of four, we have asked six Swedish respondents to assess *all* 504 photos of the municipal candidates in Helsinki. Results are reported in the online supplementary material. The estimated effect of babyfacedness is positive and statistically significant for this sample of candidates, rejecting the Zebrowitz & Montepare (2005) hypothesis.

To conclude, our main finding is robust: babyfaced political candidates are seen as less competent, but they do not fare worse in elections than their maturefaced competitors. Rather, we find that competence and, especially, beauty evaluations are in themselves positively related to electoral success.

References

- Ambady, N., & Rosenthal, R. (1992). Thin slices of expressive behavior as predictors of interpersonal consequences: A meta-analysis. *Psychological Bulletin*, *111*, 256–274.
- Ballew II, C. C., & Todorov, A. (2007). Predicting political elections from rapid and unreflective face judgments. *Proceedings of the National Academy of Sciences of the United States of America*, *104*, 17948–17953.
- Baron, R. M., & Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic and statistical considerations. *Journal of Personality and Social Psychology*, *51*, 1173–1182.
- Brownlow, S. (1992). Seeing is believing: Facial appearance, credibility, and attitude change. *Journal of Nonverbal Behavior*, *16*, 101–115.
- Chiao, J. Y., Bowman, N. E., & Gill, H. (2008). The political gender gap: Gender bias in facial inferences that predict voting behavior. *PLoS ONE*, *3*(10):e3666. doi:10.1371/journal.pone.0003666
- Gorn, G. J., Jiang, Y., & Johar, G. V. (2008). Babyfaces, trait inferences, and company evaluations in a public relations crisis. *Journal of Consumer Research*, *35*, 36–49.
- Langlois, J. H., Kalakanis, L., Rubenstein, A. J., Larson, A., Hallamm, M., & Smoot, M. (2000). Maxims or myths of beauty? A meta-analytic and theoretical review. *Psychological Bulletin*, *126*, 390–423.
- Lee, D. S. (2008). Randomized experiments from non-random selection in U.S. House elections. *Journal of Econometrics*, *142*, 675–697.
- Lenz, G., & Lawson, C. (2008). Looking the part: Television leads less informed citizens to vote based on candidates' appearance. Unpublished manuscript, Massachusetts Institute of Technology.

- Little, A. C., Burriss, R. P., Jones, B. C., & Roberts, S. C. (2007). Facial appearance affects voting decisions. *Evolution and Human Behavior*, *28*, 18–27.
- Nisbett, R. E., & Wilson, T. D. (1977). The halo effect: Evidence for unconscious alteration of judgments. *Journal of Personality and Social Psychology*, *35*, 250–256.
- Montepare, J. M., & Zebrowitz, L. A. (1998). Person perception comes of age: The salience of age in social judgments. In M. P. Zanna (Ed.), *Advances in experimental social psychology* (pp. 93–161). San Diego: Academic Press.
- Raunio, T. (2005). Finland: One hundred years of quietude. In M. Gallagher & P. Mitchell (Eds.), *The politics of electoral systems* (pp. 471–493). Oxford: Oxford University Press.
- Rule, N. O., & Ambady, N. (2008). The face of success: Inferences from chief executive officers' appearance predict company profits. *Psychological Science*, *19*, 109–111.
- Todorov, A. (2008). Evaluating faces on trustworthiness: An extension of systems for recognition of emotions signaling approach/avoidance behaviors. *Annals of the New York Academy of Sciences*, *1124*, 208–224.
- Todorov, A., Mandisodza, A. N., Goren, A., & Hall, C. C. (2005). Inferences of competence from faces predict election outcomes. *Science*, *308*, 1623–1626.
- Willis, J., & Todorov, A. (2006). First impressions: Making up your mind after a 100-ms exposure to a face. *Psychological Science*, *17*, 592–598.
- Zebrowitz, L. A. (1997). *Reading faces: Window to the soul?* Boulder, CO: Westview Press.
- Zebrowitz, L. A., Kikuchi, M., & Fellous, J.-M. (2007). Are effects of emotion expression on trait impressions mediated by babyfacedness? Evidence from connectionist modeling. *Personality and Social Psychology Bulletin*, *33*, 648–662.

Zebrowitz, L. A., & McDonald, S. M. (1991). The impact of litigants' babyfacedness and attractiveness on adjudications in small claims court. *Law and Human Behavior, 15*, 603–623.

Zebrowitz, L. A., & Montepare, J. M. (1992). Impressions of babyfaced males and females across the lifespan. *Developmental Psychology, 28*, 1143–1152.

Zebrowitz, L. A., & Montepare, J. M. (2005). Appearance DOES matter. *Science, 308*, 1565–1566.

Zebrowitz, L. A., Olson, K., & Hoffman, K. (1993). Stability of babyfacedness and attractiveness across the life span. *Journal of Personality and Social Psychology, 64*, 453–466.

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Footnotes

¹ Ballew & Todorov (2007) reached a similar conclusion in the context of U.S. gubernatorial elections. Little, Burriss, Jones, & Roberts (2007) examined the role of face shape as a predictor of voting decisions, concluding that its effects may vary between times of peace and war.

² For more facts about the Finnish political system, see Raunio (2005).

³ The correlation is negative since older candidates are perceived as more mature-faced and receive more votes on average. The partial correlation coefficient between babyfacedness and electoral success is positive but small and indistinguishable from zero ($.01$; $p = .88$) when the age of candidates is controlled for.