Beauty and the Pollster:
The Impact of Halo Effects on Perceptions of Political Knowledge and Sophistication

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Abstract

Social interactions are influenced by a number of interpersonal characteristics, including the physical appearance of actors. Scholars in social psychology have shown that attractiveness stereotypes and the 'halo effect' shape the traits we ascribe to others, and in turn those that are ascribed to us (Feeley 2002; Feldman 1986; Lemay Jr. et al. 2010; Thorndike 1920). Despite the inherently social nature of politics, the interest in such 'halo errors' stemming from physical characteristics has not filtered to questions of political behavior. We attempt to fill this void by testing the effect of physical appearance on perceptions of individuals' political sophistication. Our findings suggest that halo errors occur in the political realm, as attractive individuals are subjectively viewed as more knowledgeable even after objectively accounting for their levels of factual knowledge. These results have implications for our understanding of how individuals perceive political expertise and the subconscious biases that may shape those perceptions.

Keywords: halo effect, attractiveness, sophistication

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Are attractive individuals perceived as more politically competent? Most would be hard-pressed to argue that physical appearance has no effect on social interactions. A large literature in social psychology, the hallmark of which is the 'halo effect,' outlines how observed traits shape our perceptions of others. The halo effect is a process of cognitive bias that leads individuals to ascribe particular traits to others based upon some observed characteristic (Thorndike 1920). Work applying the halo effect to appearance asserts that more attractive individuals are automatically attributed other socially desirable traits such as intelligence and competence.

With politics an inherently social endeavor, it stands to reason that we should expect halo errors to affect individuals' political perceptions and orientations, yet few studies have examined their influence. The lion's share of research using attractiveness focuses on the success of political elites (Hart et al. 2011; Waismel-Manor et al. 2011), rather than the political implications of attractiveness for everyday interactions. Here, we consider the role that halo effects play in our political lives, with particular attention to how halo errors may normatively alter our understanding of political interactions. With the prominent role played by perceived political expertise in structuring social interactions, and how citizens choose to become informed about politics (Ahn et al. 2010; Huckfeldt 2001), understanding the potential cognitive biases that may be caused by attractiveness becomes an important question.

As a test of political halo effects, we use the ANES' subjective interviewer evaluations, comparing the interviewer evaluation of sophistication with a survey item artifact – the interviewer's evaluation of the attractiveness of the respondent. Using data from the 1972-74-76

ANES panel study, we show that an interviewer's subjective assessment of a respondent's political knowledge is itself influenced by the physical attractiveness of the respondent.

Stereotyping Beauty

The notion that there is a connection between physical characteristics (such as appearance) and other positive social traits is not novel. In the seminal work on the subject, Dion and colleagues theorize that individuals, when asked to evaluate an attractive other, would more readily assert that more attractive individuals were happier and more successful in their lives than less attractive individuals, applying an 'attractiveness stereotype' (Dion et al. 1972).

The attractiveness stereotype is a specific example of a psychological principle known as the 'halo effect,' in which individuals ascribe characteristics to others based upon the presence of some characteristic (Thorndike 1920). Such errors are stunningly prevalent in data derived from ratings of others (Kozlowski et al. 1986) to such an extent that one scholar described the problem thusly: "halo error, like death and taxes, seems inevitable" (Feldman, 1986, p. 173). These errors emerge naturally when evaluating others, resulting in the misattribution of specific characteristics to a target based upon some particular impression. As a consequence, the intercorrelations among trait ratings are likely to contain bias (for a review of the processes which lead to halo errors, see Feeley (2002)). Attractive people are seen as more intelligent (Lemay Jr. et al. 2010; Lorenzo et al. 2010; Paunano 2006; Sheppard et al. 2011) and socially competent (Feingold 1992; Jackson et al. 1995; Webster Jr. and Driskell Jr. 1983).[1] These effects are consistent across gender of target and perceiver (Eagly et al. 1991; Feingold 1992).

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[1] While much of the research in this domain focuses on how halo errors stemming from perceived attractiveness affects ratings of intelligence, a line of research asserts that these illusory correlations are perhaps more genuine than we would initially believe, due to patterns of self-selection in mating and heritability of both attractiveness and

Whether illusory or genuine, we believe that perceiving another as attractive will affect judgments as to their intellectual capacity. Formally, we expect perceived physical attractiveness to increase ratings of political competence (levels of political information and overall intelligence) even among trained interviewers. While trained to avoid such biases, we believe interviewers will be powerless to avoid them, given the prevalence of halo errors in target evaluations. Moreover, because attractiveness affects ratings implicitly, beyond the level of conscious awareness, resistance should be a difficult task for interviewers (Langlois et al. 2000). Although interviewers could potentially have information to the contrary which could mitigate biases brought on by attractiveness, information to the contrary regarding personal competence has been shown to attenuate attractiveness effects, but does not eliminate them (Jackson et al. 1995).

Why Expertise Matters

The potential for bias in perceptions of political knowledge is a troubling normative concern. Informed citizens are more likely to be engaged and active in politics than the uninformed (Delli Carpini and Keeter 1996), with a greater capacity to reason about all things political (Luskin 1987, 1990). Lamentably, however, more citizens fall into the category of 'uninformed' than 'informed' when examining the levels of political knowledge in American society (Delli Carpini and Keeter 1996). These individuals, when faced with a political judgment, are thought to turn to perceived experts for guidance, transcending their limitations in

intelligence (Kanazawa 2011; Kanazawa et al 2004; but see Denny 2008). Even the most skeptical of research in this domain has shown a modest positive correlation between attractiveness and intelligence (Zebrowitz et al. 2002).

political engagement or information. If expertise is conflated with attractiveness, there is a real concern of citizens being lead astray.

With the perceived irrelevance of politics to citizens' daily lives, it has long been thought to be perfectly rational for uninformed citizens to refrain from becoming informed, and instead rely on political experts when it comes time to cast a ballot (Downs 1957). In social networks, perceptions of others' expertise leads the less well-informed to adopt similar views and make comparable vote choices to the experts (Ahn et al. 2010; McClurg 2006; Richey 2009). The problem becomes the extent to which individuals are correctly able to identify experts within their social networks. Research has shown however, that there are several factors that lead individuals to overvalue the expertise of network members.

For example, individuals tend to attribute expertise to discussants with who they share political preferences, which leads to biased estimates of expertise (Ryan 2011). Moreover, there are also gender effects in the attribution of expertise to communication partners, with female discussants viewed as having lower expertise (Mendez and Osborn 2010). To the extent that a political halo effect is present, it further clouds attributions of expertise.

Research Design

To test the extent to which the physical attractiveness matters for evaluations of their political knowledge, we take advantage of a unique component of the ANES. Much has been written regarding the utility of the subjective interviewer evaluations as a measure of individual political sophistication (see Bartels 1996; Zaller 1986), and for good reason. Given the in-depth nature of the face-to-face ANES interviews, it is unsurprising that well-trained interviewers

would be capable of making informed judgments as to the political capabilities of respondents based upon the sheer volume of information respondents provide during an interview.

While the halo error is thought to be an almost automatic component of human nature, it may be avoided through careful attention and expertise. Theoretically, the politically uninformed should be most likely to fall prey to halo effects, attributing political expertise and knowledge to the attractive. As such, our analysis represents a rigorous test of the proposition because the ANES interviewers should be the most insulated to an attractiveness bias due to their training and time spent with respondents in which the respondent's levels of factual political knowledge is effectively laid bare before them

These are not, however, the only evaluations interviewers are asked to make. They are also regularly asked to evaluate respondents' cooperation with and interest in the interview, and even their overall level of intelligence. While each of these factors are assessed regularly in the ANES, the key measure taken from these interviewer evaluations and used as a predictor of individual behavior is the assessment of political information levels. Given our interest in potential biases on the part of interviewers in assessing individuals' intelligence and political informedness, we are pleased to be able to take advantage of an assessment made only once over the course of the ANES waves. In the pre-election wave of the 1972 ANES, interviewers were, in addition to the other assessments, asked to evaluate respondents' appearance. Much like the other assessments, these were made on a five-point scale, from 1 (homely) to 5 (strikingly handsome or beautiful).[2]

Because the 1972 wave was the start of a panel, we are able to examine not only whether a relationship exists between interviewers' perceptions of respondents' physical attractiveness

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[2] Specifically, the battery asked respondents to evaluate the respondents' physical appearance. The attractiveness-rating item came at the end of the interviewer evaluation battery.

and knowledge, but also the extent to which that relationship persists over time, and more importantly, across interviewers. The 1972 ANES consisted of pre and post-election waves, with 2,191 completing both waves. Follow-ups were conducted following the election in 1974, and finally, a pre and post-election survey was fielded in 1976. We focus our analyses on those respondents who completed the pre-election wave in 1972 (when key interviewer assessments were completed), with subsequent analyses utilizing the 1,624 respondents completing the 1974 re-interview and the 1,320 respondents who completed all three waves.

Dependent Variables

The outcomes of interest are interviewer's subjective evaluations of level of political information and general intelligence made following the conclusion of the interviews.[3] Interviewers evaluated each characteristic on a five-point scale, here recoded to run from 1 (very low) to 5 (very high). To illustrate the relationships among these characteristics, we plot mean values by interview in Figure 1.

A consistent pattern emerges – across all items, across the years, intelligence is rated the highest, followed by attractiveness, and then political information. Respondents are rated, on average, to be slightly above average for each of these traits. The items are also statistically distinguishable from one another (although the differences are slight). Interestingly though, correlations are much more modest between attractiveness and the other factors. Over time the largest correlation is between attractiveness and the initial assessment of intelligence (0.39); generally the correlations are closer to 0.2 across years. Conversely, the relationship between political information and intelligence is much higher over time, in each instance measuring larger

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[3] These evaluations were made in the pre-election portion of the survey, with the exception of 1974 (which consisted of only one wave).

than 0.7. On its face, this suggests only a modest relationship between attractiveness and interviewer assessments of knowledge or intelligence.

As a more systematic test of halo effects, we regress interviewer assessments of political information and intelligence on the measure for attractiveness, controlling for objective measures that should also influence perceived levels of political information. Key amongst these is a measure of political knowledge, which we measure by creating an additive scale based upon correct responses to a series of political items (Delli Carpini and Keeter 1996; Zaller 1992).[4] In addition to controlling for knowledge, we include measures for education, income, age, race, and gender which may also predict knowledge (and thus influence the interviewers' evaluations of respondents), mirroring the analytic strategy used by Leal and Hess in their study of interviewer biases (1999).[5]

The results from Table 1 support the presence of political halo errors. Across the models, interviewers' subjective rating of respondent attractiveness is a consistent, positive, and significant predictor of perceived knowledge. As perceptions of attractiveness increase, so do views that the respondent is well-informed. The expected factors (objective knowledge and education) are also positive and significant, as is age, while women are perceived as less knowledgeable.

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[4] We were faced with data limitations in capturing measures of objective knowledge. The 1972 ANES survey consisted of several forms, which varied in their composition. Unfortunately for our purposes, the bulk of the knowledge items were on one form (which party is more conservative, number of times someone may be elected president, term length for Senators and members of Congress, and the composition of Congress prior to and after the election), eliminating nearly half the sample. To minimize data losses, we estimate separate models using the aforementioned knowledge items and a smaller subset of factual items (which party favors stronger government, form of government for Mainland China, and whether Mainland China is a member of the United Nations) as measures of objective political knowledge for the other respondents. Additionally, no knowledge items were assessed in 1974; as a result, we use the items from 1972 again in the analyses of the 1974 sample.
[5] We are unable to account for characteristics of the interviewer (age, sex, or race), as they are not part of the available data. However, we make the assumption that this omission does not introduce bias into our results as previous work has shown that the effects of attractiveness are unaffected by the sex of either the target or the evaluator (Webster Jr. and Driskell Jr. 1983).

A similar pattern of result is observed for interviewers' assessments of respondents' level of intelligence in Table 2. Objective knowledge and levels of education play a role, as one would expect, as does age (but here, not gender). After controlling for objective factors that should predict the interviewers' evaluations of individuals' intelligence, physical attractiveness remains a significant predictor.

The substantive impact of these findings is surprisingly large. In the first wave of the panel, the probability of being evaluated as either having a fairly high or very high level of political information is only 10 percent in models controlling for political knowledge, and 20 percent in models using factual knowledge items, holding all else constant. The likelihood increases dramatically as respondent attractiveness does, a shift of 40-50 points (depending on the model estimated). In later waves of the survey, the effects are less dramatic, but attractiveness still produces a greater likelihood of being evaluated as well-informed (a change of 30 points in interviewers assessments in 1974, and 20 points in 1976).

The substantive impact of attractiveness on intelligence ratings is quite similar. In the first wave of the panel, those rated as unattractive have only a 10 percent chance of being rated as intelligent, odds which increase to over 80 percent for the most attractive. The impact diminishes in later waves, but the effect attractiveness has on ratings of intelligence is palpable.

We offer two potential explanations for the diminishing impact of attractiveness over time. First, it is possible that we are observing a mitigation of the halo effect due to the over-time nature of the study. One of the principle recommendations to diminish halo effects is to increase familiarity with the target being evaluated (Feldman 1986). While we cannot determine whether the same individual interviewed respondents over time, we can speak to the fact that there is potential history between interviewers and respondent who have completed as many as

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five separate interviews by the completion of the panel. It may be that these repeated interactions do allow for the diminishing (but not elimination) of the halo's shine on judgments of intellectual competence.

However, there may be a simpler explanation. Due to limitations in the data, we are forced to rely on a single rating of attractiveness from the first wave of the panel; we cannot speak to whether the respondent has undergone physical changes, or if interviewers perceive respondent attractiveness differently in subsequent interviews, which could introduce noise into the estimates. This challenge is mitigated to some degree because attractiveness has been said to be fairly universal, determined by social consensus (Berscheid and Walster 1974; Hatfield and Sprecher 1986), as well as stable over time (Zebrowitz et al. 1993).

Regardless, we see that, even after controlling for respondents' levels of objective political knowledge, perceived attractiveness gives a large significant boost to those ratings. Rather than being a pure, unbiased measure, it would appear that apolitical physical characteristics play an influential role in evaluations of political characteristics. Moreover, the analysis illustrates the potential for how attractiveness can influence political interaction generally; attractive individuals are perceived as more political sophisticated than unattractive individuals.

Robustness Checks

While lending positive evidence to our hypotheses, we must acknowledge possible limitations to the above findings. Unlike a randomized experiment, the regression framework is limited in its ability to make causal inferences. To add confidence to our claim that attractiveness influences views of political information and intelligence, we turn to a statistical

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technique long used to estimate treatment effects in the medial and the biostatistics literature, and more recently in the social sciences— matching. The matching technique produces matched pairs of observations that differ only on a specified variable by conditioning on observable data of theoretical interest to the researcher. This allows researchers to estimate causal effects in line with the specifications of the Rubin causal model (Rubin 1973, 1974).

There are a number of techniques to implement matching, such as exact matching on covariates, propensity score matching (which involves specifying a model estimating the likelihood of receiving the treatment and matching on predicted values from the model), and, more recently implemented, genetic matching (Sekhon 2011), which uses an evolutionary search algorithm to produce matched datasets which optimize balance between 'treated' and 'untreated' observations. Each technique has strengths and weaknesses; we opt to use genetic matching given that it produces optimized balance given the data, an important means to assess the validity of the matching procedure (see Kam and Palmer 2010 for a discussion). Prior to matching, we collapse the 5-point the attractiveness measure into three dichotomous treatment[6] variables (low, moderate, and high attractiveness), as existing matching techniques do not allow the use of continuous treatments.[7] We then match on these three treatment variables separately, examining balance on a set of theoretically important covariates we believe are likely to be related to levels of political information.[8,9]

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[6] While this is not a true experimental design, as the characteristic of interest (physical attractiveness) cannot be randomly assigned, we use the terms 'treatment' and 'control' to conform with the language used in the literature using the matching technique to approximate experimental benchmarks.

[7] To deal with potential limitations in the data, we replace missing values with modal values for each variable, as Kam and Palmer did in their analyses of the Youth-Parent Political Socialization study (2008). Not accounting for missingness produces substantively similar results, but poorer matches, arguably due to the worsened ratio of treated to control observations.

[8] In addition to the covariates included in the regression models above, we also match on stated interest in the campaign and intentions to vote (1972 and 1976), as well as covariates tapping attention to politics in news media and participation in campaign activities (1974).

The differences in estimates of information and attractiveness obtained from the matching analyses, while smaller, are similar to those obtained in the naïve regression framework. These results are presented in Table 3. Again, we see that those viewed as less attractive are significantly less likely to be seen as politically informed, while those who are higher in attractiveness are significantly more likely to be seen as knowledgeable. The negative effect of lower levels of attractiveness persists even into later waves of the study.

A more consistent pattern is obtained from relationship between attractiveness and perceptions of intelligence, presented in Table 4. Those who are viewed as more attractive are significantly more likely to be rated as intelligent, while those who are seen as less attractive are rated as significantly less intelligent. Together, the naïve regression estimates and the matched analyses provide compelling evidence for the presence of political halo effects in evaluations of knowledge and intelligence.

Conclusions

Does attractiveness matter in political life? Certainly, the halo effect that is present in everyday life likely permeates the political world as well. Building upon prior research, we show that halo effects affect subjective perceptions of individual knowledge, even in light of objective criteria, among individuals who should be better disposed to avoid such biases. Despite receiving extensive training to conduct interviews in as objective and unobtrusive manner as possible, human nature appears to take over, as well-trained interviewers appear to fall victim to halo errors influenced by interviewee's physical appearance. Physical attractiveness appears to affect not only social interactions, but political ones as well.

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[9] In all models we obtain perfect balance on covariates of interest across treated and control groups.

Perceived attractiveness plays a prominent role in shaping social interactions, priming positive emotions on the part of persons interacting with attractive others, as well as leading to the ascription of several socially desirable traits. Attractive individuals are seen as being more personable, agreeable, hard-working, and competent in the social world. The findings of this study add another dimension to the influence of attractiveness – competence in the political domain. The uninformed are thought to turn to their better informed friends and acquaintances to help overcome their informational shortcomings, shaping their perceptions of the political world and influencing their voting decisions. If expertise is influenced by an individuals' physical appearance, many poorly informed individuals may be lead astray.

We must acknowledge some caveats to the results. Like previous work examining the potential for interviewer biases in evaluations of respondents, we lack key characteristics of the interviewer that could be used to further enhance the analyses. At the very least, we would like to control for correspondence of characteristics between interviewers and respondents, such as age and gender, which could be factors that influence their subjective evaluations of the respondents' appearance.

We also must face the possibility of endogeneity. While we posit, as evidenced by previous research, that the causal arrow runs from perceptions of attractiveness to perceptions of intelligence and knowledge. However, it is possible that the causal arrow runs the other direction; political sophisticates may be considered more attractive than the uninformed. Hence, at the culmination of a long interview, the views of a respondents' competence (or lack thereof) may affect how their physical characteristics are assessed. Appealing as it may be for us as political scientists to believe that political knowledge might drive perceptions of attractiveness, we feel this view is unlikely, given the extensive theoretical literature positing the arrow runs in

the other direction. Additionally, since we see persisting (albeit somewhat diminished) effects for respondent attractiveness on their perceived knowledge even among interviewers who were not asked to rate their attractiveness, we have at least modest evidence to discount the endogeneity concern.

As it stands, our analysis provides a test of halo effects in political behavior. Given the normative importance of knowledge for citizens to comprehend and participate in democratic politics, the presence of halo effects contributes to understanding how attractiveness alters political interactions. With the influence of perceived expertise in the communication of political knowledge, these findings speak to practical and normative challenges in relying on political experts as a cognitive shortcut in collective deliberation, especially when expertise may be biased by physical attractiveness.   Though most students of political behavior would acknowledge that attractiveness matters in politics, future research should work to uncover further tests of how attractive shapes our political interactions and perceptions of others.
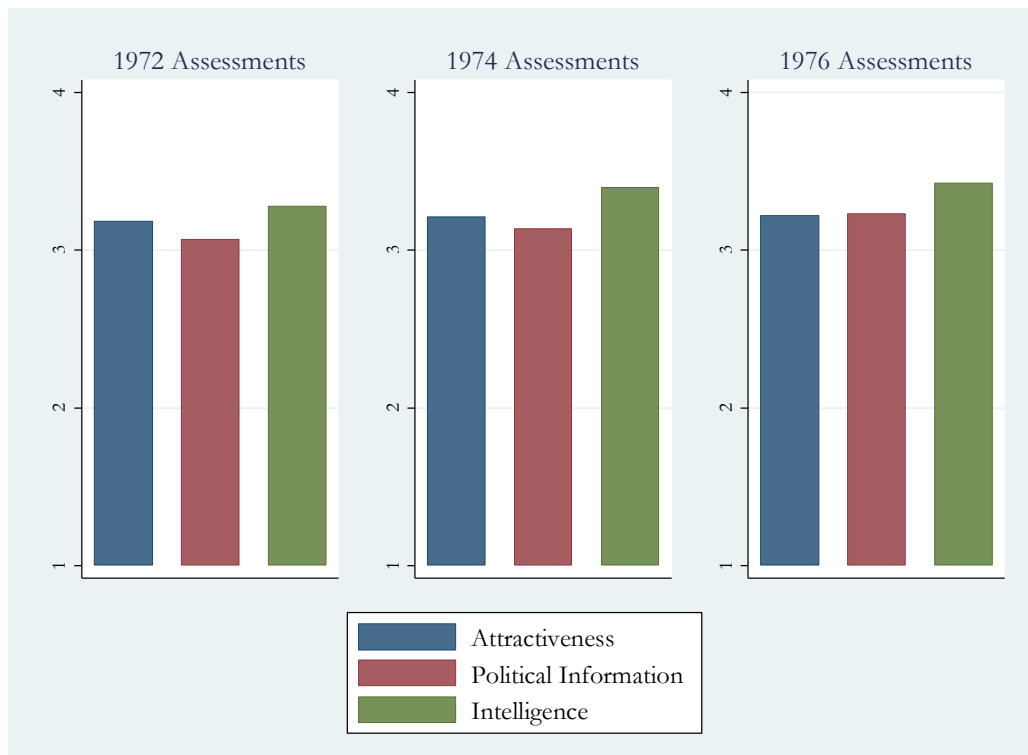
Figure 1. Mean Interviewer Evaluations

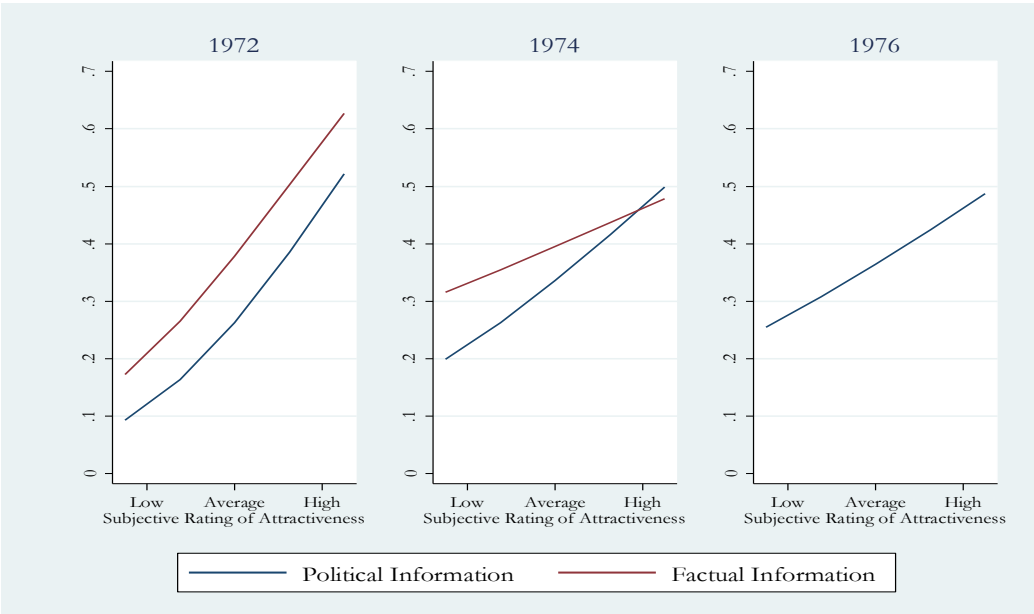**Figure 2. Attractiveness and Evaluations of Political Information**
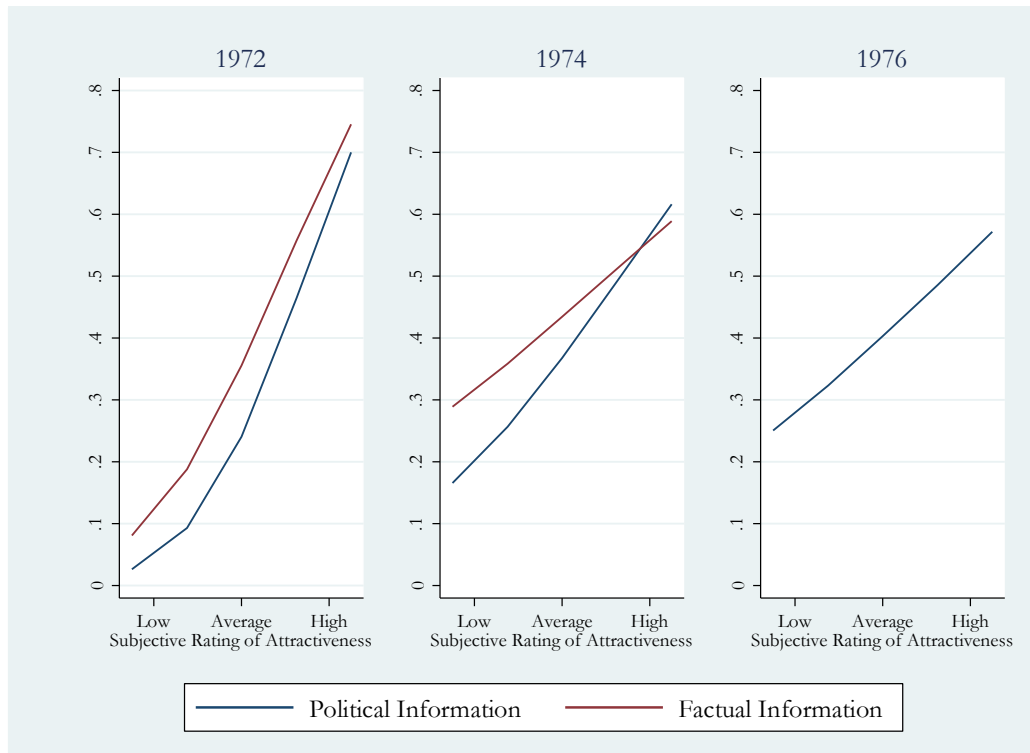
Figure 3. Attractiveness and Evaluations of Intelligence

Table 1. Interviewer Bias – Evaluations of Political Information

	1972A	1972B	1974A	1974B	1976
Attractiveness	1.37**	1.26**	0.84**	0.43	0.63**
	(0.22)	(0.24)	(0.23)	(0.31)	(0.20)
Political Information	1.98**		1.74**		1.34**
	(0.16)		(0.20)		(0.14)
Factual Information		0.36**		0.40**	
		(0.05)		(0.06)	
Education	1.34**	1.42**	1.56**	1.58**	1.65**
	(0.15)	(0.16)	(0.17)	(0.20)	(0.13)
Income	0.59**	0.37*	0.76**	0.94**	0.61**
	(0.16)	(0.16)	(0.19)	(0.25)	(0.14)
Age	0.65**	0.53**	1.16**	0.92**	0.68**
	(0.17)	(0.19)	(0.21)	(0.26)	(0.17)
Race	0.19+	-0.15	0.01	0.02	0.13
	(0.12)	(0.11)	(0.14)	(0.14)	(0.11)
Gender	-0.22**	-0.16*	-0.03	-0.06	-0.23**
	(0.07)	(0.08)	(0.08)	(0.10)	(0.07)
Cut 1	0.77	-0.21	0.84	0.27	0.34
	(0.19)	(0.20)	(0.20)	(0.27)	(0.19)
Cut 2	2.01	0.85	2.02	1.25	1.42
	(0.19	(0.19)	(0.21)	(0.26)	(0.20)
Cut 3	3.35	2.26	3.26	2.53	2.75
	(0.20)	(0.20)	(0.22)	(0.27)	(0.21)
Cut 4	4.54	3.53	4.37	3.68	3.93
	(0.22)	(0.22)	(0.24)	(0.29)	(0.23)
Wald χ^2	483.13	258.32	347.43	185.74	421.61
N	1030	848	758	528	1094

Cell values are point estimates from an ordered probit regression. DV: subjective ratings of respondents' levels of political information: 1 (very low) to 5 (very high). $+ p<0.10$; $* p<0.05$; $** p<0.01$.

Table 2. Interviewer Bias – Evaluations of Intelligence

	1972A	1972B	1974A	1974B	1976
Attractiveness	2.46**	2.06**	1.27**	0.78*	0.85**
	(0.26)	(0.28)	(0.26)	(0.31)	(0.22)
Political Information	1.36**		1.30**		1.07**
	(0.18)		(0.21)		(0.15)
Factual Information		0.21**		0.32**	
		(0.05)		(0.06)	
Education	2.37**	2.35**	2.12**	2.32**	2.36**
	(0.16)	(0.18)	(0.18)	(0.20)	(0.14)
Income	0.33+	0.41*	0.74**	0.88**	0.84**
	(0.17)	(0.18)	(0.20)	(0.27)	(0.15)
Age	0.58**	0.41**	0.91**	0.79**	0.98**
	(0.18)	(0.18)	(0.22)	(0.25)	(0.19)
Race	-0.20	-0.21	-0.18	-0.13	-0.03
	(0.12)	(0.13)	(0.15)	(0.15)	(0.13)
Gender	0.11	0.04	0.15	0.10	0.13+
	(0.08)	(0.08)	(0.09)	(0.10)	(0.07)
Cut 1	0.03	-0.25	-0.05	-0.46	-0.05
	(0.23)	(0.23)	(0.24)	(0.30)	(0.21)
Cut 2	1.45	0.87	1.17	0.61	1.03
	(0.20)	(0.21)	(0.22)	(0.27)	(0.20)
Cut 3	3.89	3.05	3.27	2.72	3.22
	(0.24)	(0.23)	(0.25)	(0.28)	(0.22)
Cut 4	5.40	4.73	4.73	4.20	4.86
	(0.26)	(0.26)	(0.28)	(0.30)	(0.25)
Wald χ^2	446.41	345.25	339.04	282.26	521.98
N	1030	851	755	525	1097

Cell values are point estimates from an ordered probit regression. DV: subjective ratings of respondents' levels of intelligence: 1 (very low) to 5 (very high). + p<0.10; * p<0.05; ** p<0.01.

Table 3. Matched Estimates of Interviewer Biases in Evaluations of Information

	1972	1974	1976
Low Attractiveness	**-0.08***	**-0.13***	-0.15+
	(0.04)	**(0.06)**	(0.08)
Matched Observations	250	176	137
Medium Attractiveness	0.06+	0.01	-0.003
	(0.04)	(0.04)	(0.04)
Matched Observations	1353	944	771
High Attractiveness	**0.04***	-0.03	0.04
	(0.02)	(0.04)	(0.04)
Matched Observations	682	504	412

Point estimates are mean differences between treated and control following matching.

Table 4. Matched Estimates of Interviewer Biases in Evaluations of Intelligence

	1972	**1974**	**1976**
Low Attractiveness	**-0.18****	**-0.13****	-0.11+
	(0.03)	**(0.05)**	(0.06)
Matched Observations	250	176	137
Medium Attractiveness	**0.07***	0.05	0.07+
	(0.03)	(0.04)	(0.04)
Matched Observations	1353	944	771
High Attractiveness	**0.15****	**0.10****	0.01
	(0.02)	**(0.03)**	(0.03)
Matched Observations	682	504	412

Point estimates are mean differences between treated and control following matching.

References

Ahn, T. K., Robert Huckfeldt, and John B. Ryan. 2010. "Communication, Influence, and Informational Asymmetries among Voters." *Political Psychology* 31 (5):763-87.

Berscheid, Ellen, and Elaine Walster. 1974. "Physical Attractiveness." In *Advances in Experimental Social Psychology*, ed. L. Berkowitz. San Diego, CA: Academic Press.

Delli Carpini, Michael X. , and Scott Keeter. 1996. *What Americans Know About Politics and Why it Matters*. New Haven: Yale University Press.

Denny, Kevin. 2008. "Beauty and Intelligence May – or May Not – Be Related." *Intelligence* 36 (6):616-18.

Dion, Karen, Ellen Berscheid, and Elaine Walster. 1972. "What is Beautiful is Good." *Journal of Personality and Social Psychology* 24 (3):285-90.

Downs, Anthony. 1957. *An Economic Theory of Democracy*. New York: Harper and Row Publishers.

Eagly, Alice H., Richard D. Ashmore, Mona G. Makhijani, and Laura C. Longo. 1991. "What is Beautiful is Good, But...: A Meta-Analytic Review of Research on the Physical Attractiveness Stereotype." *Psychological Bulletin* 110 (1):109-28.

Feeley, Thomas Hugh. 2002. "Comment on Halo Effects in Rating and Evaluation Research." *Human Communication Research* 28 (4):578-86.

Feingold, Alan. 1992. "Good-Looking People Are Not What We Think." *Psychological Bulletin* 111 (2):304-41.

Feldman, Jack M. 1986. "A Note on The Statistical Correction of Halo Error." *Journal of Applied Psychology* 71 (1):173-6.

Hatfield, Elaine, and Susan Sprecher. 1986. *Mirror, Mirror: The Importance of Looks in Everyday Life*. Albany, NY: State University of New York Press.

Huckfeldt, Robert. 2001. "The Social Communication of Political Expertise." *American Journal of Political Science* 45 (2):425-38.

Jackson, Linda A., John E. Hunter, and Carole N. Hodge. 1995. "Physical Attractiveness and Intellectual Competence: A Meta-Analytic Review." *Social Psychology Quarterly* 58 (2):108-22.

Kam, Cindy D., and Carl L. Palmer. 2008. "Reconsidering the Effects of Education on Political Participation." *Journal of Politics* 70 (3):612-31.

———. 2010. "Rejoinder: Reinvestigating the Causal Relationship between Higher Education and Political Participation." *The Journal of Politics* 73 (3):659-63.

Kanazawa, Satoshi. 2011. "Intelligence and Physical Attractiveness." *Intelligence* 39 (1):7-14.

Kanazawa, Satoshi, and Jody L. Kovar. 2004. "Why Beautiful People are More Intelligent." *Intelligence* 32 (3):227-43.

Kozlowski, Steve W., Michael P. Kirsch, and Georgia T. Chao. 1986. "Job Knowledge, Ratee Familiarity, Conceptual Similarity and Halo Error: An Exploration." *Journal of Applied Psychology* 71 (1):45-9.

Langlois, Judith H., Lisa Kalakanis, Adam J. Rubenstein, Andrea Larson, Monica Hallam, and Monica Smoot. 2000. "Maxims or Myths of Beauty? A Meta-Analytic and Theoretical Review." *Psychological Bulletin* 126 (3):390-423.

Leal, David L., and Frederick M. Hess. 1999. "Survey Bias on the Front Porch: Are All Subjects Interviewed Equally?" *American Politics Research* 27 (4):468-87.

Lemay Jr., Edward P., Margaret S. Clark, and Aaron Greenberg. 2010. "What Is Beautiful Is Good Because What Is Beautiful Is Desired: Physical Attractiveness Stereotyping as Projection of Interpersonal Goals." *Personality and Social Psychology Bulletin* 36 (3):339-53.

Lorenzo, Genevieve L., Jeremy C. Biesanz, and Lauren J. Human. 2010. "What Is Beautiful Is Good and More Accurately Understood: Physical Attractiveness and Accuracy in First Impressions of Personality." *Psychological Science* 21 (12):1777-82.

Luskin, Robert C. 1987. "Measuring Political Sophistication." *The American Journal of Political Science* 31 (4):856-99.

———. 1990. "Explaining Political Sophistication." *Political Behavior* 12 (4):331-61.

McClurg, Scott D. 2006. "The Electoral Relevance of Political Talk: Examining Disagreement and Expertise Effects in Social Networks on Political Participation." *American Journal of Political Science* 50 (3):737-54.

Mendez, Jeanette Morehouse, and Tracy Osborn. 2010. "Gender and the Perception of Knowledge in Political Discussion." *Political Research Quarterly* 63 (2):269-79.

Paunano, Sampo V. 2006. "You are Honest, Therefore I Like You and Find You Attractive." *Journal of Research in Personality* 40 (3):237-49.

Richey, Sean. 2009. "Hierarchy in Political Discussion." *Political Communication* 26 (2):137-52.

Rubin, Donald B. 1973. "Matching to Remove Bias in Observational Studies." *Biometrics* 29 (Mar):159-83.

———. 1974. "Estimating Causal Effects of Treatments in Randomized and Nonrandomized Studies." *Journal of Educational Psychology* 66 (5):688-701.

Sekhon, Jasjeet S. 2011. "Multivariate and Propensity Score Matching Software with Automated Balance Optimization: The Matching package for R." *Journal of Statistical Software* 42 (1):1-52.

Sheppard, Leah D., Richard D. Goffin, Rhys J. Lewis, and James Olson. 2011. "The Effect of Target Attractiveness and Rating Method on the Accuracy of Trait Ratings." *Journal of Personnel Psychology* 10 (1).

Thorndike, Edward L. 1920. "A Constant Error in Psychological Ratings." *Journal of Applied Psychology* 4 (1):25-9.

Webster Jr., Murray, and James E. Driskell Jr. 1983. "Beauty as Status." *American Journal of Sociology* 89 (1):140-65.

Zaller, John. 1986. "Analysis of Information Items in the 1985 Pilot Study." In *Report to the NES Board of Overseers*. Center for Political Studies: University of Michigan.

———. 1992. *The Nature and Origins of Mass Opinion*. Cambridge: Cambridge University Press.

Zebrowitz, Leslie A., Judith A. Hall, Nora A. Murphy, and Gillian Rhodes. 2002. "Looking Smart and Looking Good: Facial Cues to Intelligence and Their Origins." *Personality and Social Psychology Bulletin* 28 (2):238-49.

Zebrowitz, Leslie A., Karen Olson, and Karen Hoffman. 1993. "Stability of Babyfaceness and Attractiveness Across the Life Span." *Journal of Personality and Social Psychology* 64 (3):453-66.