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Shallow Cues With Deep Effects: Trait Judgments From Faces and Voting Decisions

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This chapter examines the impact of rapid automatic processes in political decision making. Specifically, using a dual-process framework, the authors argue that individuals assess candidate competence on the basis of facial appearance and that this can predict the outcomes of both U.S. congressional and gubernatorial elections. These judgments occur quickly and are largely independent of controlled processes. These findings illustrate the complexity of electoral decision making in complicated information environments and suggest that even though individuals may not realize it, they often have little control over their initial impressions. The chapter concludes by examining how these findings inform our understanding of electoral politics, political persuasion, and democratic citizenship more generally.

In surveys about the greatness of American presidents, historians consistently rate Warren Harding as the worst American president (Maranell, 1970; Murray & Blessing, 1983), although, in all fairness, this is an open-ended competition. In the Republican primary in 1920, the two main candidates, Leonard Wood and Frank O. Lowden, were deadlocked. Harding was the third compromise candidate, and he won the primary. Although Harding was not particularly smart, Harry Daugherty promoted him because Harding "looked like a President." In 1920, the Democratic Party was suffering from unpopular wartime measures, and Harding won the election with 60 percent of the popular vote. Apparently, he did look presidential. His administration became best known for scandals involving bribery and incompetence.

Every democratic election is a chance for citizens to express their preference for a suitable candidate. In theory, this candidate represents the interests and values of the constituents and leads the nation (or state, province, or town) in a direction that yields beneficial outcomes for the majority of the voters. One would expect that the choice of a candidate would reflect a rational decision based on criteria such as the candidate's demonstrated ability and experience in making sound policy decisions or the compatibility between the candidate's and the voters' values and goals. These criteria

could be evaluated on the basis of several sources, including newspaper editorials, verbal exchanges in televised debates, the written text in candidate advertising brochures, and newspaper articles detailing actions undertaken by the candidates (e.g., pardoning an inmate on death row, voting to reduce taxes, or making a visit to Sudan). Other criteria that may affect the choice of a candidate in more dubiously rational ways include the candidates' facial appearance, their tone of voice, their mannerisms, their gender or ethnicity, or any number of heuristic cues such as style of dress, hair color, and so on, as well as situational factors such as the current state of the economy or perceived threat from other countries.

As the Harding anecdote and research on judgment and decision making make clear, how people make decisions is different from how they *should* make decisions (Quattrone & Tversky, 1988). In this chapter, we focus on the effects of rapid, unreflective, automatic processes on voting decisions. In particular, we describe a series of studies showing that trait judgments of competence based solely on the facial appearance of candidates predict the outcomes of both congressional and gubernatorial elections.

Impressions about individuals are spontaneously formed from minimal information (Todorov & Uleman, 2002, 2003; Uleman, Blader, & Todorov, 2005), and facial appearance is one source of such information. It is well documented within the psychological literature that facial appearance can affect various social outcomes (e.g., Blair, Judd, & Chapleau, 2004; Eberhardt, Davies, Purdie-Vaughns, & Johnson, 2006; Hamermesh & Biddle, 1994; Hassin & Trope, 2000; Langlois et al., 2000; Montepare & Zebrowitz, 1998; Mueller & Mazur, 1996; Zebrowitz, 1999). For example, in the domain of military achievement, facial dominance of West Point graduates predicted their rank at the end of their careers (Mazur, Mazur, & Keating, 1984).

In this chapter, we outline a dual-process framework for understanding the effects of superficial cues on voting decisions, describe a series of findings showing that rapid, unreflective judgments of competence from facial appearance predict the outcome of important political elections, and discuss the implications for political persuasion and democratic citizenship. The research presented here suggests that if a candidate wants to win an election, he or she should focus not only on substantive matters such as passing legislation and making progress in implementing policies but also on superficial features that will affect voters' "gut" reactions. The research also suggests that unless one can change the way voters weight their use of heuristic (quick, simplified decision strategies) versus systematic (more deliberative) processing, policy makers should focus on the

heuristic features that have the strongest impact on voters and change those, either by standardizing the presentation of candidates such that superficial information is unavailable or by being sensitive to social context, perhaps encouraging systematic processing in voters themselves. And of course, more marketing-oriented approaches could focus on the presentation of candidates, making sure to capitalize on features that implicitly "matter" to voters—even if these are not the features that matter on a more explicit and deliberative level.

AUTOMATIC AND DELIBERATIVE PROCESSES IN PERSON PERCEPTION

A broad categorization scheme that has been recently developed distinguishes between automatic, fast, unreflective processes (System I) and conscious, slow, deliberative processes (System II) in the way that people integrate information and subsequently make judgments and choices (Kahneman, 2003; Stanovich & West, 1998). The rapid choice of a candy bar over an apple, based on nothing more than the insatiable drive of a sweet tooth, represents a System I process, whereas the reluctant choice of the apple, based upon consideration of the ingredients of the candy bar and the healthiness of the apple, represents a System II process.

Faces are a rich source of social information and despite the maxim "don't judge a book by its cover," many people believe that they can judge the character of others from their faces (Hassin & Trope, 2000). One source of these beliefs might be the fluency with which trait judgments are made from faces (Bar, Neta, & Linz, 2006; Todorov, Pakrashi, Loehr, & Oosterhof, 2007; Willis & Todorov, 2006). As described by Kahneman (2003), intuitive, System I, processes feel like perceptual processes, that is, veridical and compelling. In fact, trait impressions are formed with a single glance at a face (Bar et al., 2006; Willis & Todorov, 2006). For example, Willis and Todorov (2006) showed that a 100-ms exposure to a face is sufficient for people to form a variety of trait judgments. In their studies, participants judged the attractiveness, likeability, competence, trustworthiness, and aggressiveness of faces after exposure time of 100 ms, 500 ms, and 1,000 ms. For all of these trait judgments, additional exposure time did not increase correlations with judgments made under no time pressure. Even though correlations didn't increase with additional exposure time, the response times for judgments *decreased* and the confidence in trait judgments *increased*. In

other words, although judgments did not change, participants became more confident.

At the same time as the Willis and Todorov findings were reported, Bar et al. (2006) reported that people start discriminating between faces that appear threatening and nonthreatening after a 38-ms exposure to these faces. In subsequent research, we have systematically mapped how trait judgments from faces change as a function of time exposure (Todorov et al., 2007). People start discriminating between different categories of faces (e.g., trustworthy vs. untrustworthy looking) after a 33-ms exposure, an exposure at the subjective threshold between subliminal and supraliminal perception of faces (Pessoa, Japee, & Ungerleider, 2005). Judgments improved substantially—as measured with the increase in correlation with judgments made in the absence of time constraints—with the increase in exposure time from 33 to 100 ms. There was little improvement with increase in exposure time from 100 to 167 ms, and no improvement with exposures longer than 167 ms. These findings are consistent with the idea that trait judgments from faces can be characterized as rapid, unreflective, intuitive, System I judgments.

The major implication of this perspective is that quick initial impressions of individuals may skew more deliberative judgments based on substantive information about these individuals. More importantly, because of the properties of these intuitive impressions, their influence on voting decisions can be unrecognized by voters (Todorov, Mandisodza, Goren, & Hall, 2005). Recognition of bias is a precondition for judgmental correction, and therefore voters may not attempt to avoid or correct for such impression biases (cf., Nisbett & Wilson, 1977; Wilson & Brekke, 1994).

A System I/System II distinction relates qualitatively to dual-process models of persuasion such as the heuristic systematic model (HSM; Chaiken, 1980, 1987; Todorov, Chaiken, & Henderson, 2002) and the elaboration likelihood model (ELM; Petty & Cacioppo, 1986). In these models, people can form their voting preferences either by relying on and processing superficially heuristic cues such as the facial appearance of the candidates or by processing systematically valid cues about the candidates' abilities and agenda such as their voting record on particular policies. Taken together, the System I/System II model and the well-established persuasion models provide a framework within which to examine voting decisions. Normatively speaking, voting is a domain in which individuals should clearly seek out deliberative decisions based on the integration of multiple sources of information. However, as the following research demonstrates, these decisions may often be clouded by quick judgments that occur without conscious processing or intention.

INFERENCES FROM FACES PREDICT ELECTION OUTCOMES

The Harding anecdote aside, do trait judgments based solely on the facial appearance of candidates predict the outcomes of political elections? In a series of studies involving more than 900 participants, participants were presented with the pictures of the winner and the runner-up in congressional races and asked to make a variety of trait judgments (Todorov et al., 2005). We excluded races with famous politicians (e.g., Hillary Clinton) and did not use judgments for races with politicians familiar to the participant. For example, if a participant recognized any of the candidates for, say, 3 out of 32 races, her judgments for only the 29 unrecognized races were used. We never mentioned elections, and participants were asked to make "gut" feeling first impressions. Inferences of competence from the faces of the candidates predicted the outcomes of both the U.S. Senate and House of Representatives elections. That is, participants' simple choice of the winning candidate versus the closest contender as being the more competent, based simply on standardized photos of each, was predictive of the actual winning candidate in the election. For the Senate races from 2000, 2002, and 2004, the competence judgments predicted 71.6 percent of the races. For the House races from 2002 and 2004, the judgments predicted 66.8 percent of the races.

Recently, we extended these findings to gubernatorial elections (Ballew & Todorov, 2007), elections that are presumably more important than Senate elections. State governors are among the most powerful elected officials in the United States. For example, Texas is larger than France, and California has a larger population than Canada (*U.S. Census*, 2006). States are significant economic powers, too. If California was a nation, it would rank fifth on the list of largest economies in the world (Barone & Cohen, 2004). Governors are also likely to ascend to the presidency. Seventeen of 43 presidents have been state governors, including four out of five in the last 30 years (Carter, GA; Reagan, CA; Clinton, AR; and G.W. Bush, TX). Not surprisingly, gubernatorial campaigns are expensive. In 1998, the 36 gubernatorial races averaged \$14.1 million in expenses (Moore, 2003). By comparison, the Senate races in 1996 averaged \$3.3 million (Cantor, 2001).

Nevertheless, judgments of competence from the faces of the winner and the runner-up predicted 68.5 percent of the outcomes of gubernatorial races for the period from 1996 to 2006. These judgments predicted the outcome even when they were made after a 100-ms exposure to the faces of the candidates (Ballew & Todorov, 2007), as described below. Competence judgments predicted the election outcomes not only retrospectively

but also prospectively. In 2004, we collected competence judgments before the actual Senate elections (Todorov et al., 2005). These judgments predicted 68.8 percent of the races. In 2006, we collected judgments before the Senate and gubernatorial elections (Ballew & Todorov, 2007). These judgments predicted 72.4 percent of the Senate races and 68.6 percent of the gubernatorial races.

As shown in Figures 4.1 and 4.2, we also observed a linear relationship between the margin of victory and the difference in competence between the candidates. The more competent the Democratic candidate was perceived to be relative to the Republican candidate, the bigger was the Democratic vote share in the election. For the 120 studied Senate races (from 2000 to 2006), the linear correlation was .40 (Figure 4.1). For the 124 studied gubernatorial races (from 1996 to 2006), the linear correlation was .25 (Figure 4.2). Thus, "gut" feeling first impressions of competence based on facial appearance accounted for 16 percent of the variance in the party vote share in the Senate races and 6 percent of the variance in the party vote share in the gubernatorial races.

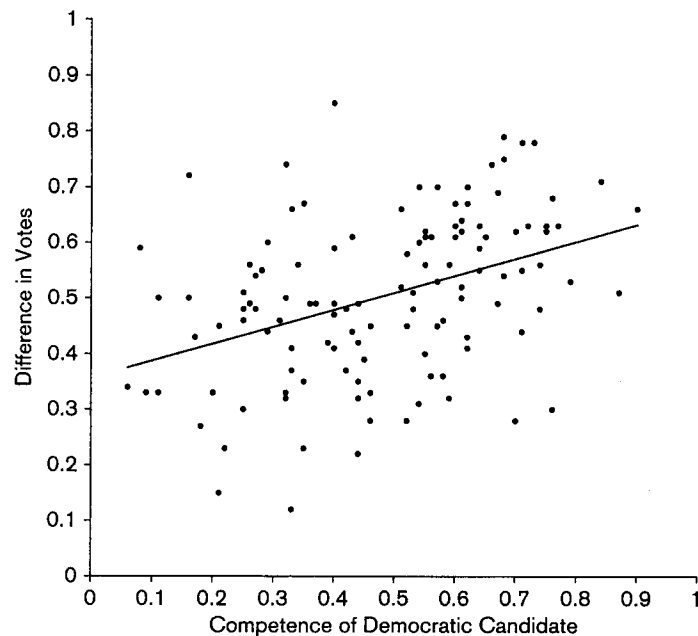


Figure 4.1 Scatter plot of the two-party vote share for the Democratic candidates and their perceived competence relative to the Republican candidates. Each point represents a Senate race ($n = 120$). The line represents the best-fitting line

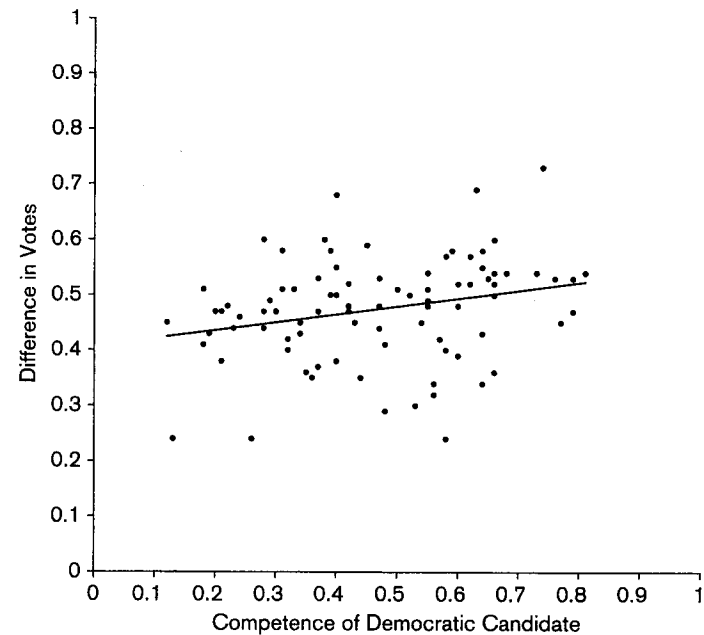


Figure 4.2 Scatter plot of the two-party vote share for the Democratic candidates and their perceived competence relative to the Republican candidates. Each point represents a gubernatorial race ($n = 124$). The line represents the best-fitting line

THE SPECIFICITY OF COMPETENCE JUDGMENTS

People believe that competence is one of the most important attributes for a politician (Abelson, Kinder, Peters, & Fiske, 1982; Todorov et al., 2005) and the findings were specific to competence. Interestingly, Mondak and colleagues (McCurley & Mondak, 1995; Mondak, 1995) showed that measures of competence and integrity predicted a number of important variables for members of the House of Representatives. These measures were derived from content analysis of the members' descriptions in the *Almanac of American Politics*. Although the source of these descriptions could bias their content, competence predicted how long members of the House stayed in office, the likelihood that the members were challenged in upcoming elections, and the number of votes received by the incumbents. In contrast to competence, integrity contributed little to these predictions.

These findings parallel our findings that inferences of competence from facial appearance were the proximal predictor of election outcomes (Todorov et al., 2005). For example, in one of the studies, participants judged the faces

of the winner and the runner-up on seven different dimensions: competence, intelligence, leadership, likeability, charisma, honesty, and trustworthiness. Factor analysis showed that these judgments clustered in three independent factors: competence (competence, intelligence, and leadership), trust (honesty and trustworthiness), and likeability (likeability and charisma). More importantly, only the competence judgments predicted the election outcomes. In subsequent studies, participants judged the faces on attractiveness, age, and familiarity. Regression analysis with these judgments showed that once again competence judgments were the only significant predictor of the election outcomes. In a preview of our work, Zebrowitz and Montepare (2005) suggested that competence judgments reflected "babyfaced" appearance. Specifically, politicians who are presumably more babyfaced are judged as less competent. In fact, this hypothesis was widely popular in media accounts of our findings. However, subsequent findings did not provide any support for this hypothesis (unpublished data). Whereas judgments of babyfaced appearance predicted 54 percent of the Senate races for 2000 and 2002, judgments of competence predicted 73 percent of these races. Although these judgments were correlated, as suggested by Zebrowitz and Montepare (2005), regression analysis showed that only competence was a significant predictor of election outcomes. Thus, neither global face characteristics such as attractiveness and babyfaced appearance nor specific trait inferences such as trustworthiness accounted for the finding that competence judgments predicted election outcomes.

Interestingly, as shown in Figure 4.3, the predictive utility of trait judgments was related to the perceived importance of trait attributes for politicians. Specifically, we asked a large group of participants to rate the

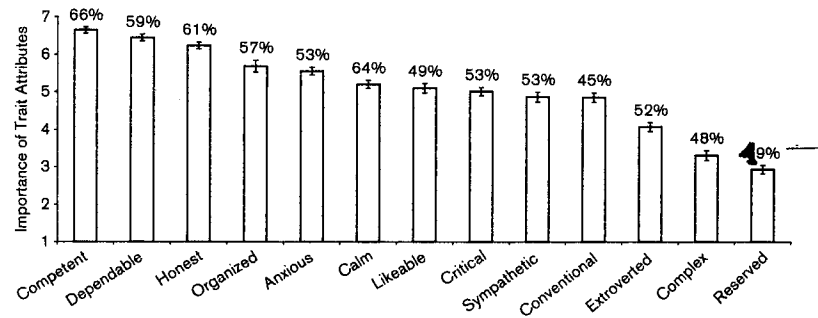


Figure 4.3 Mean importance of trait attributes for a politician and percentage of Senate races correctly predicted by judgments on these trait attributes. The height of each bar represents the importance of the trait. Error bars show standard error of the mean. The percentage of correctly predicted races is presented above each bar. "Anxious" and "conventional" were reverse scored for the analyses

Correct % is 49

importance of 13 trait attributes for a politician. These included the three attributes identified in the factor analysis described above—competence, likeability, and trust—and 10 attributes that mapped onto the big five factors of personality—openness, conscientiousness, extraversion, agreeableness, neuroticism (Gosling, Rentfrow, & Swann, 2003). The more important the trait was, the more races the trait judgment predicted. For example, competence was judged as the most important attribute, and this judgment predicted 66 percent of the races studied in this study. In contrast, "reserved" was judged as the least important trait attribute and this trait judgment predicted 49 percent of the races, clearly a chance prediction. The linear correlation between the importance of trait attributes and the percentage of correctly predicted races by the trait judgments was $.76, p < .002$. The predictive utility of trait judgments from faces covaried with the importance assigned to these traits.

We also showed that judgments of competence were highly correlated with hypothetical votes (Todorov et al., 2005). Specifically, one group of participants was asked to cast hypothetical votes and another to make competence judgments. The correlation between hypothetical votes and competence judgments was 0.83 for the Senate races and 0.79 for the House races. The candidates for the Senate races were also rated on 12 other traits, described in the above paragraph. As shown in Figure 4.4, regression analysis showed that the only significant predictor of simulated voting

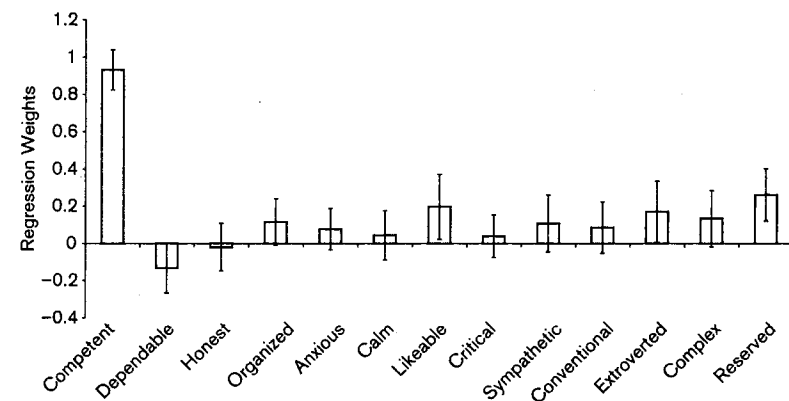


Figure 4.4 Trait judgments from facial appearance of candidates as predictors of simulated voting decisions. The Y-axis plots the unstandardized regression coefficients of trait judgments. Errors show standard errors of regression coefficients

decisions was judgments of competence. These findings are consistent with the idea that rapid trait judgments of competence from facial appearance affect voting decisions.

COMPETENCE JUDGMENTS FROM FACES AND INCUMBENCY

Despite the findings that the effects of judgments of competence are highly specific, it is possible that such judgments do not have causal impact on actual voting decisions. In U.S. elections, it is well known that incumbents have a strong advantage (Cover, 1977; Gelman & King, 1990). For example, in the congressional races we studied (Todorov et al., 2005), incumbents won in 89 percent of the House races and in 74 percent of the Senate races. If incumbents in elections appear to be more competent and participants choose the incumbent more often, this might explain the competence effect. According to this explanation, competence judgments should predict better than chance only races in which incumbents win. Although we showed that the effect of competence judgments was independent of incumbency status for the Senate races, this was not the case for the House races. For the House races, competence judgments predicted the winner only in races in which the incumbents won. However, there are a number of differences between House and Senate races and it is not clear how to interpret the latter finding. There is far less media exposure to House candidates than to Senate candidates, and it is likely that many voters are unfamiliar with the faces of their House candidates. It was also impossible to obtain pictures of both candidates for all House races. For the 2002 and 2004 races, we were able to obtain the pictures of both candidates for 600 out of 870 races. This undersampling may have introduced unknown biases into the sample of these races.

The gubernatorial races are particularly interesting for the test of the incumbency hypothesis because many states have term limits for governors and, correspondingly, there are many races without incumbents. As in the case of the Senate races, incumbency status did not account for the finding that competence judgments predicted election outcomes (Ballew & Todorov, 2007). For the 124 gubernatorial races that we studied, the candidate who was perceived as more competent won in 67.7 percent of the races in which the incumbent won ($n = 62$) and in 62.9 percent of the races in which the incumbent lost or there was no incumbent ($n = 62$), $\chi^2(1) < 1$, $p = .57$, for the test for dependence. Incumbency status and perceived competence were independent predictors of the election outcomes.

To summarize, our research shows that: (a) trait inferences of competence from facial appearance predict important election outcomes; (b) there is a linear relationship between the margin of victory and differences in

competence between the winner and the runner-up; (c) the effect is highly specific (people believe that competence is the most important attribute for a politician, and trait inferences of competence from faces—but not other trait inferences—predict the election outcomes); (d) simulated voting decisions in the absence of any other information but faces are predicted by competence judgments from the faces, but not by a number of other trait judgments; and (e) incumbency status cannot account for the effects of competence, suggesting that these inferences of competence can have a causal impact on voting decisions.

CONVERGING EVIDENCE

There is a growing body of research demonstrating the power of first impressions in the domain of election outcomes (Benjamin & Shapiro, 2006; Lawson & Lenz, 2007; Little, Burriss, Jones, & Roberts, 2007). Lawson and Lenz (2007) replicated our findings in the context of Mexican elections, using judgments of American participants. Judgments of competence from the faces of the candidates predicted the election outcomes and accounted for 18 percent of the variance in vote share. In contrast, as in our findings, judgments of honesty did not predict the election outcomes.

Benjamin and Shapiro (2006) showed that judgments made from silent 10-second clips of debates from gubernatorial elections predicted election results. These judgments accounted for about 20 percent of the variance in vote share and predicted the outcomes better than many important political and economic indicators such as incumbency, historical vote share, and campaign spending. As in our findings, this effect was independent of incumbency status. Furthermore, the effect did not hold when the debate clip was viewed with full sound, corroborating our explanation that these findings result from quick, unreflective impressions. In the full-sound condition, individuals were able to infer information such as the candidate's political party and policy preferences, but this information did not allow them to predict the election outcomes better than chance. Consistent with a large body of evidence in social psychology that "thin slices" of nonverbal behaviors provide sufficient information for accurate social judgments (e.g., Albright, Kenny, & Malloy, 1988; Ambady, Hallahan, & Rosenthal, 1995; Ambady & Rosenthal, 1992; Borkeu & Liebler, 1992; Kenny, Horner, Kashy, & Chu, 1992; Park & Judd, 1989; Watson, 1989), these findings suggest that the most useful information, in terms of predicting the election outcomes, was nonverbal.

Is it possible to predict presidential elections by judgments from the faces of the presidential candidates? Naturally, one of the difficulties in such a

study would be to find participants who are not familiar with the candidates. Little et al. (2007, Study 1) used a clever morphing technique to overcome this difficulty. They created faces based on the shape differences between the candidates for the highest posts in the United States, United Kingdom, Australia, and New Zealand. These novel pairs of faces, although derived from the politicians' faces, were not recognizable by participants (Figure 4.6a). Participants were presented with the faces of the winner and the runner-up and asked to cast a hypothetical vote. Consistent with our findings, participants were more likely to choose the winner than the runner-up. As described above, simulated voting decisions are highly correlated with judgments of competence, suggesting that the same mechanisms are operating when people are asked to make competence judgments and cast hypothetical votes for faces. Most likely, when faced with a voting choice between two faces, participants make a rapid judgment of competence and base their voting decision on this judgment.

Overall, these results suggest that complex social judgments can be influenced by quick inferences made from faces. They provide a challenge to the assumed rationality of policy and voting preferences, as they suggest that these choices may be more superficial than individuals would like to believe (cf., Converse, 1964; Quattrone & Tversky, 1988; Zaller, 1992).

THE AUTOMATICITY OF TRAIT INFERENCES AND VOTING DECISIONS

Although in all of our previous experiments, participants were instructed to rely on their "gut" feelings when forming impressions, we did not manipulate the time of exposure to faces or introduced procedures forcing participants to rely on quick judgments. In our research on congressional elections (Todorov et al., 2005), the minimum exposure time used for the faces was a second. Clearly, much less time should be needed if these judgments are automatic (e.g., Todorov et al., 2007).

Ballew and Todorov (2007, Experiment 1) presented the faces of the winner and the runner-up in gubernatorial races for 100 ms, 250 ms, or unlimited time. Competence judgments made after a 100 ms exposure to the faces predicted the election outcomes. In fact, the predictions did not improve with additional exposure time, although the response times for the judgments substantially increased in the unlimited time condition. Whereas the mean response time in the 100 ms exposure condition was about 1.5 s, the mean response time in the unlimited time condition was close to 3.5 s. In Experiment 2, Ballew and Todorov used a 250-ms exposure condition and a response deadline condition. In the response deadline condition,

participants had to respond within 2 s. This time was selected because it was substantially shorter than the time used by participants in the self-paced unlimited time condition, thus forcing participants to rely on quick, unreflective judgments. Once again, competence judgments predicted the election outcomes.

Finally, this experiment also included a deliberation condition in which participants were asked to deliberate and make a good judgment. The underlying logic behind this condition was that to the extent that trait judgments from faces are unreflective, instructions to deliberate should make these judgments worse. In fact, they did. Deliberation judgments were significantly worse in predicting the election outcomes than unreflective judgments—made after a 250 ms exposure or within a response deadline of 2 s. This finding is consistent with prior research showing that introspecting about reasons for making a decision, either freely or by explicitly rating preferences on various choice attributes, can result in inferior decisions in comparison with decisions made more intuitively (Dijksterhuis, Bos, Nordgren, & van Baaren, 2006; Wilson & Schooler, 1991). For example, in a classic study, Wilson and Schooler (1991) showed that judgments of the quality of jams were worse after people were asked to reflect on the jams. Evaluating the quality of jams and making trait judgments from faces are quite different but both rely on mechanisms that are most likely inaccessible to awareness (Nisbett & Wilson, 1977). In a more apt analogy, verbally describing a face can interfere with face recognition (Dodson, Johnson, & Schooler, 1997; Schooler & Engstler-Schooler, 1990) and thinking about the reasons for liking faces can reduce the consistency of liking judgments (Levine, Halberstadt, & Goldstone, 1996).

Most likely, when individuals are asked to deliberate on judgments from faces that are typically done rapidly and intuitively, they focus on irrelevant facial features and use idiosyncratic personal theories to make the judgments. This can only introduce noise in these judgments (Levine et al., 1996). This possibility is consistent with the Ballew and Todorov data. Both deliberation and unreflective competence judgments correlated with the margin of victory, although the correlation was higher for unreflective judgments. However, these judgments also shared variance consistent with the hypothesis that deliberation judgments were anchored on rapid, unreflective judgments (cf., Kahneman, 2003; Kahneman & Frederick, 2002). In fact, as shown in Figure 4.5, removing the shared variance did not affect the correlation between vote share and unreflective judgments (Figure 4.5a). However, it completely eradicated the positive linear relation between deliberation judgments and vote share (Figure 4.5b).

Our findings show that trait judgments from faces occur remarkably quickly and, possibly, operate with minimal input from controlled, System II

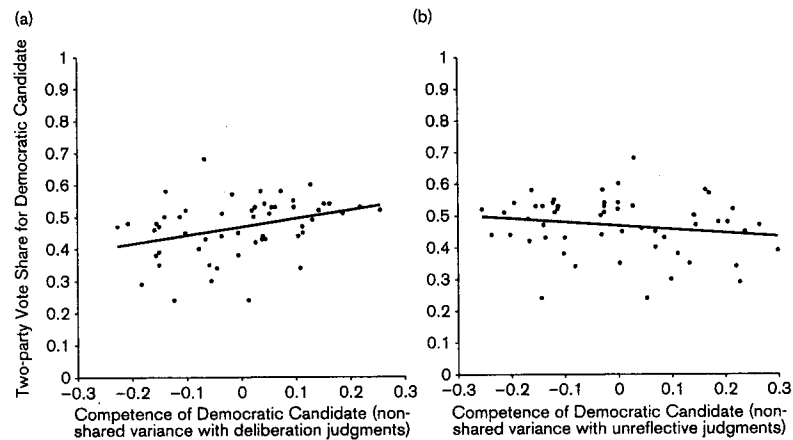


Figure 4.5 Scatter plots of the two-party vote share for the Democratic candidates and (a) non-shared variance of unreflective judgments of competence of Democratic candidates (the X-axis plots the regression residuals of unreflective judgments regressed on deliberation judgments) and (b) non-shared variance of deliberation judgments of competence of Democratic candidates (the X-axis plots the regression residuals of deliberation judgments regressed on unreflective judgments). Each point represents a gubernatorial race. The line represents the best-fitting line

processes. What predicts the outcomes of elections seems to be the automatic component of trait judgments. Deliberation instructions add noise to automatic trait judgments and, consequently, reduce the accuracy of prediction. These findings suggest that the effects of trait judgments from faces on voting decisions can be subtle and not easily recognized by voters.

HOW DO THESE EFFECTS OPERATE IN THE REAL WORLD?

The research reviewed in this chapter seems to paint a simplistic, unidirectional picture of the automatic effects on voting preferences. It is important to bear in mind that automatic inferences from facial appearance are but one example of multiple automatic and controlled influences on election outcomes. One noteworthy influence that we would not want to downplay is party affiliation (Bartels, 2000; Stokes & Miller, 1962). In actual elections, candidates' party affiliation is no doubt very salient to most voters, and staunch partisans are sure to weight this factor heavily in their voting decisions. The affiliation can be thought of as an automatic, heuristic process in its own

right, and for partisans especially, it may overwhelm other influences such as facial appearance.

Partisanship, ideology, and image can each affect evaluations of candidates and voting decisions (Asher, 1983; Lau & Redlawsk, 2001; Niemi & Weisberg, 1984). A study by Riggle (1992) suggests that party affiliation is a heuristic that voters are more likely to use when directly comparing two candidates (as we have in our studies), rather than evaluating each one individually. Riggle suggests that the greater complexity introduced by having people compare two candidates makes them more likely to rely on heuristics than to evaluate more substantive characteristics such as candidates' issue statements (see also Lau & Redlawsk, 2001).

In fact, one can imagine that partisans will consider party affiliation almost exclusively, disregarding all other factors, whereas undecided voters will be the ones who utilize facial appearance most strongly and ignore factors such as the party affiliation of the candidates. However, in many cases, the undecided are precisely the voters who can swing an election. Political knowledge may be another factor that may moderate the effect of appearance on voting decisions. In fact, Lau and Redlawsk (2001) have shown that less knowledgeable voters are more likely to base their voting decisions on appearance of the candidates than more knowledgeable voters. While research has yet to tease these factors apart, the work that has been completed thus far provides compelling evidence that inferences from facial appearance are an independent, significant factor at play when examining large-scale patterns of judgments among voters.

Certainly, having a competent face is not sufficient for electoral success. If a politician does not have the backing of one of the two major parties in the United States, their face will not make much of a difference. In almost all of the races that we have studied, the candidates represented these parties. Having the support of a major party, a politician with competent appearance can have higher chances of electoral success. However, competence as assessed in our studies is always relative. Participants were presented with pairs of faces and asked to make a choice. Thus, in some races a politician may appear more competent relative to the challenger and in others he or she may appear less competent.

Finally, there are multiple routes through which competent appearance can affect electoral outcomes. For example, party leaders can promote competent-appearing candidates for key positions although these candidates may not be that competent after all. Appearance can also affect decisions to vote. For example, competent-looking incumbents may deter undecided voters, who have a mild preference for the challengers, from voting for the challenger. Studies on actual voting-decision processes will be critical to

delineate the causal influences of appearance on electoral success. It is noteworthy that some countries—Ireland, Greece, and Belgium—use pictures of the candidates in their ballots, and empirical studies in these contexts can be particularly informative.

BEYOND COMPETENCE JUDGMENTS: THE ROLE OF CONTEXT

Clearly, competence judgments from faces are highly predictive of election outcomes. Moreover, these effects are specific to competence judgments. But is it only competence? What if the context of elections changes and makes some other trait attribute more important than competence? The findings shown in Figure 4.3 suggest that such changes in context can lead to changes in voters' preferences. As we described above, the predictive utility of various trait judgments was tightly linked to the perceived importance of trait attributes. Thus, it is possible that changes in the relative importance of trait attributes can lead to corresponding changes in the predictive utility of trait judgments.

In a particularly striking demonstration, Little et al. (2007, Study 2) showed that shifting context from wartime to peacetime could change voters' preferences. Using the morphing procedures described above, Little and colleagues created morphs of George W. Bush and John Kerry. As shown in Figure 4.6a, these faces were distinct from one another, but difficult to link to the original faces. Participants were asked to indicate which face they would "vote for to run your country" in three different contexts: a time of peace, a time of war, and no specified context. In this study, a preference reversal was found between the Bush and Kerry morphed faces, such that in a time of peace, approximately 61 percent chose the Kerry-shaped face, whereas in a time of war, 74 percent chose the Bush-shaped face. With no context priming, there was a nonsignificant trend toward the choice of the Bush face.

Little et al. used a within-subjects design in which participants made repeated voting choices as a function of context (no context, war, peace). This design introduces potential demand characteristics that might encourage participants to change their responses. We replicated their findings using a sample of Princeton University students in a between-subjects design. First, very few participants reported that the faces reminded them of the faces of Bush and Kerry. More importantly, as shown in Figure 4.6b, we observed a perfect preference reversal as a function of context, replicating Little et al.'s study. Whereas 64.3 percent of participants preferred the Bush face in a war context, 60.0 percent preferred the Kerry face in a peace context, $\chi^2(1) = 8.98$,

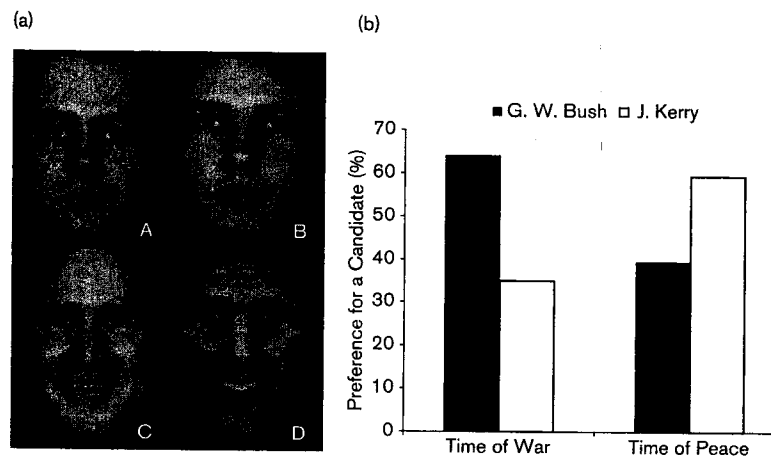


Figure 4.6 Preference reversal in voters' preferences as a function of context. (a) Faces of George W. Bush ("C") and John Kerry ("D") morphed with an average face to create "A" and "B," respectively, for use in the experiment. (b) Proportion of respondents choosing the morphed faces of George W. Bush and John Kerry as a function voting in a time of peace versus in a time of war

$p < .003$. This pattern was the same for both self-identified Republicans and Democrats.

What drives these effects? Little et al. found that the Bush face was judged to be more masculine and dominant, traits deemed to be important in a time of conflict, but less intelligent and forgiving, traits deemed to be important in a time of peace. Little et al. (2007) replicated the preference reversal using morphs of masculine and feminine male faces, consistent with the trait importance hypothesis. Participants chose the masculine face significantly more frequently during a time of war and chose the feminine face during peacetime. The results suggest that individuals place differing values on personality traits inferred from faces, and a shifting social context will prime judges to choose based upon the relevant dimensions. In addition, neither the masculine nor feminine face was favored in a general voting scenario, perhaps indicating that voters may implicitly search for information to assist them in making these choices.

This line of work suggests that quick inferences from faces impact judgments in a systematic manner. Not only do individuals make quick unreflective judgments from faces, but they do so in a manner relevant to the corresponding social context. At a broader level, these results suggest flexibility in judgments that reflect nuanced preferences of political leaders dependent on the political context.

IMPLICATIONS FOR PERSUASION

The review of the recent work in the area of person perception and election outcomes shows that individual judgments of candidates are influenced by rapid, unreflective trait judgments from facial appearance. The dual-process perspective on these judgments has practical implications. First, this perspective is relevant in considering persuasion processes, especially because people are often unaware of the influence of these trait inferences. In addition, these findings have implications for understanding individual policy preferences and corresponding behavior.

In light of the previously discussed research findings, there are powerful implications for the campaign management of candidates at all levels of government. In today's age of highly publicized elections, candidates would be well advised to consider the type of image their physical appearance conveys. For example, if homeland security emerges as a hot issue during an election, a candidate with a stern and decisive visage should publicly stress his or her commitment to that cause. Because the research has shown that individuals are drawn to faces with the traits they deem appropriate for the situation, candidates should be sure to take this into account while campaigning. In the process of attempting to convert undecided voters, candidates with faces that "fit" hot-button issues should make their faces highly visible, not just their names and campaign slogans.

From an alternative perspective, the reviewed research would also suggest that the examination of election results might help candidates understand which issues have been salient for voters. It has been shown that polling location often predicts how people vote. In an Arizona election, voters who had a local school as their polling location were more likely to vote for a sales tax to support education, as opposed to other locations (Berger, Meredith, & Wheeler, 2006). This type of effect could be exacerbated if a voter is primed with an issue when voting and then views a candidate's face that seems to fit that issue. Retrospectively, unsuccessful candidates might consider how these types of situational factors influenced their campaign, allowing for even more nuanced future operations.

It should be noted that these suggestions do not imply that candidates for office can use these techniques to convince voters who, for whatever reason, are more likely to rely on superficial cues when making these judgments. As it has been shown, these processes operate extremely quickly, with minimal deliberative input. These persuasion techniques might simply help a candidate to sway swing voters by playing to the strengths offered by their appearance. Clearly, factors such as incumbency status and party affiliation have a strong influence on the choices made by many voters. We suggest that

attention to the role of facial appearance is another method of predicting the behavior of voters, on an aggregate scale.

A major aspect of dual-process models of persuasion is that various factors can enhance people's likelihood of elaborating on the stimuli to which they're exposed and processing them systematically. According to this vast literature (see Petty & Wegener, 1998, for a review), characteristics of the message itself, the source of the message, the recipient of the message, and other assorted context variables have been shown to have an influence on the persuasive power of a message. The current research does not speak to the benefits of encouraging voters to process information about their candidates more deeply, and it is entirely possible that if one were somehow to convince a large proportion of voters to base their decisions on substantive matters, election results would look little like they do now, and they would correlate minimally with appearance-based trait ratings (assuming that there is no kernel of truth in these ratings, a point that has yet to be empirically explored in enough detail)—or for that matter, incumbency status (e.g., Kam, 2006) and political affiliation as well.

However, given that information about the candidates is often ambiguous and that voters rarely have the opportunity to interact with these candidates, systematic processing of this information may do little to overcome biases originating in trait inferences from facial appearance. As work in person perception has shown, biases that are not subjectively recognized can disambiguate ambiguous information and people may end up believing that their perceptions are a veridical representation of reality (Trope, 1986; Trope & Gaunt, 1999). As the bias hypothesis in the HSM states, an ambiguous persuasion message can be interpreted in line with a preceding heuristic cue even if people are highly motivated to seek accuracy. Thus, the same ambiguous message can be interpreted differently if the candidate is perceived to be competent than if he or she is perceived to be incompetent. For example, Chaiken and Maheswaran (1994) showed that ambiguous descriptions of consumer products were interpreted differently in the context of a reliable source of the information (*Consumer Reports*) than in the context of an unreliable source (a promotional pamphlet from Kmart). This effect was independent of participants' motivation.

What the current research does suggest is to focus more on heuristic cues and how they operate in determining people's decisions. Research on attitudes, persuasion, marketing, and health has demonstrated various heuristic ways to influence everything from the usage of condoms (Stone, Aronson, Crain, Winslow, & Fried, 1994) to the quality of conversations with and behavior toward a person believed to be attractive versus unattractive (Snyder, Tanke, & Berscheid, 1977) to convincing people to help out a

stranger. Participants in a good mood—induced by the discovery of a dime in a phone booth or by receiving cookies—were more likely to engage in helping behavior such as helping out a stranger or mailing a sealed and addressed letter ostensibly left by someone at a phone booth (Isen & Levin, 1972; Levin & Isen, 1975). Simple heuristic cues or manipulations have an effect in these cases, where one would assume that overall motivations and intentions should be uniform and not malleable enough to be influenced by these slight changes in context. The research reviewed within this chapter adds to what has been studied in this regard, in the context of voting decisions (see also, for the influence of nonverbal information, Masters & Sullivan, 1993; Patterson, Churchill, Burger, & Powell, 1992). Inferences drawn from faces can be added to the list of cues that might influence an uncertain voter.

From a theoretical perspective, the research reviewed in this chapter describes a set of cognitive processes that demonstrate possible conflicts between System I and System II processes. People would like to believe that complicated judgments are a result of the careful consideration of relevant information. However, the vast literature on dual-process models suggests that this is often not the case (Chaiken & Trope, 1999). Even though they may often not realize it, people have little, if any, access to or control over their quick first impressions, emotions, and attitudes. It is difficult for individuals to debias themselves from what has been labeled “mental contamination” (Wilson & Brekke, 1994; Wilson, Centerbar & Brekke, 2002). There are distinct difficulties in recognizing sources of contamination, and subsequently knowing the best way to correct for them. The findings discussed within this chapter provide examples of this problem at play in real-world judgments with large stakes. We argue that, in the case of potential contamination resulting from rapid inferences drawn from faces, it is nearly impossible to avoid these influences, but that the societal costs of not addressing these issues are too great. Continued research in this area should provide new suggestions of how to understand the complicated constellation of social and cognitive factors that interact to produce voting decisions.

IMPLICATIONS FOR DEMOCRATIC CITIZENSHIP

There are many parallels between the model of the rational actor in economics and the model of the voter in democratic theory. The rational actor is driven by self-interest and has stable, comprehensive, and coherent preferences. Yet, none of these assumptions seem to hold under close scrutiny (e.g., Henrich et al., 2006; Kahneman & Tversky, 2000; Miller, 1999). The

voter in democratic theory not only has the properties of the rational actor but also is well informed about policy, follows political developments, and actively participates in politics (Lau & Redlawsk, 1997). Yet, the majority of voters have very little political knowledge (e.g., Converse, 1964; Zaller, 1992), misunderstand economic principles (e.g., Bartels, 2005; Caplan, 2007), construe basic ideological distinctions in an idiosyncratic fashion (Conover & Feldman, 1981), have inconsistent preferences (Quattrone & Tversky, 1988), and base their evaluations of candidates and issues on emotions (Lodge & Taber, 2005). The research reviewed here adds to this work that consistently finds violations of the assumptions of democratic theory. As we noted in the introduction, how people behave is different from how they should behave. Similarly, in the realm of politics, the reality of individual choice may be systematically deviating from the ideals put forth by democratic theory.

As we showed, judgments of competence based solely on facial appearance predict election results from the level of congressional to higher-stakes gubernatorial elections. These trait inferences occur quickly, with minimal input from controlled processes and consistent with online models of candidate evaluation (Lodge, McGraw, & Stroh, 1989). At the same time, our findings suggest that the influence processes are not entirely irrational. People have the right ideas about the importance of trait attributes for politicians and, apparently, they look for evidence of such attributes. Where the process goes awry is that they look for this information in the wrong place.

In an age of increasingly competitive elections, both politicians and voters should concern themselves with the influence that appearance has on the perceptions of voters. Due to the influence of an ever-growing media presence, citizens are constantly faced with the images of their potential leaders. It is interesting to consider an example from the 1960 U.S. presidential election campaign, when television ownership and coverage were not as widespread as they are today. At that time, John F. Kennedy faced Richard Nixon in the first-ever televised debates. Kennedy was judged to be the likely winner based on television appearance, yet Nixon was judged more likely based on radio alone (Kraus, 1988).

In the previous example, impressions made from visual appearance clearly had a substantive impact on recipients' judgments. Aspiring politicians would do well to be aware of this and to understand how it may affect their efforts. Voters should be aware of how quickly these judgments occur and how unavoidable this influence might be. A conscientious voter would perhaps choose to avoid media images of candidates to make objective decisions, but it is unclear whether inevitable exposure to the countenance of these high profile individuals can be avoided in the current day and age. On the other hand, voters might increase their deliberation and reliance on

more substantive information when making voting decisions. The knowledge of a potential influence by superficial information might motivate voters to engage in educated political decision making that is the result of the integration of relevant information.

Voters rely on multiple heuristics (Lau & Redlawsk, 2001), and in real-life voting, additional relevant information may decrease the effect of simple first impressions. This suggests that one effective way to facilitate rational deliberation on voting choices might be to encourage (and make accessible) the use of substantive information. A winning face might be easier for a voter to digest than a set of well-thought-out policy plans. However, providing individuals with knowledge of the effects of first impressions could facilitate their willingness to consider the information that truly matters. Voters may not have the capacity to ignore the influence of irrelevant cues, but they do have the power to increase their exposure to other sources of information.

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REFERENCES

- Abelson, R. P., Kinder, D. R., Peters, M. D., & Fiske, S. T. (1982). Affective and semantic components in political person perception. *Journal of Personality and Social Psychology, 42*(4), 619–630.
- Albright, L., Kenny, D. A., & Malloy, T. E. (1988). Consensus in personality judgments at zero acquaintance. *Journal of Personality and Social Psychology, 55*, 387–395.
- Ambady, N., Hallahan, M., & Rosenthal, R. (1995). On judging and being judged accurately in zero-acquaintance situations. *Journal of Personality and Social Psychology, 69*, 518–529.
- Ambady, N., & Rosenthal, R. (1992). Thin slices of expressive behavior as predictors of interpersonal consequences: A meta-analysis. *Psychological Bulletin, 111*, 256–274.
- Asher, H. B. (1983). *Causal modeling*. Beverly Hills, CA: Sage Publications.
- Bar, M., Neta, M., & Linz, H. (2006). Very first impressions. *Emotion, 6*, 269–278.
- Barone, M., & Cohen, R. (Eds.). (2004). *Almanac of American politics*. Washington, DC: National Journal.
- Ballew, C. C., & Todorov, A. (2007). Predicting political elections from rapid and unreflective face judgments. *Proceedings of the National Academy of Sciences of the USA, 104*(46), 17948–17953.

- Bartels, L. M. (2000). Partisanship and voting behavior, 1952–1996. *American Journal of Political Science, 44*, 35–50.
- Bartels, L. M. (2005). Homer gets a tax cut: Inequality and public policy in the American mind. *Perspectives on Politics, 3*, 15–31.
- Benjamin, D. J., & Shapiro, J. M. (2006). *Thin-slice forecasts of gubernatorial elections*. National Bureau of Economic Research Working Paper 12660, November. Available from <http://www.nber.org/papers/w12660>.
- Berger, J., Meredith, M., & Wheeler, S. C. (2006). Can where people vote influence how they vote? The influence of polling location type on voting behavior. Unpublished manuscript.
- Blair, I. V., Judd, C. M., & Chappleau, K. M. (2004). The influence of Afrocentric facial features in criminal sentencing. *Psychological Science, 15*, 674–679.
- Borkenau, P., & Liebler, A. (1992). Trait inferences: Sources of validity at zero acquaintance. *Journal of Personality and Social Psychology, 65*, 645–657.
- Cantor, J. E. (2001). Campaign financing. Report no. IB87020. *Library of Congress, Congressional Research Service, 2*.
- Caplan, B. (2007). *The myth of the rational voter*. Princeton: Princeton University Press.
- Chaiken, S. (1980). Heuristic versus systematic information processing and the use of source versus message cues in persuasion. *Journal of Personality and Social Psychology, 39* (5), 752–766.
- Chaiken, S. (1987). The heuristic model of persuasion. In M. P. Zanna, J. M. Olson, & C. P. Herman (Eds.), *Social influence: The Ontario symposium* (Vol. 5, pp. 3–39). Hillsdale, NJ: Lawrence Erlbaum Associates.
- Chaiken, S., & Maheswaran, D. (1994). Heuristic processing can bias systematic processing: Effects of source credibility, argument ambiguity, and task importance on attitude judgment. *Journal of Personality and Social Psychology, 66*, 460–473.
- Chaiken, S., & Trope, Y. (Eds.). (1999). *Dual process theories in social psychology*. New York, NY: The Guilford Press.
- Conover, P., & Feldman, S. (1981). The origin and meaning of liberal-conservative self-identification. *American Journal of Political Science, 25*, 617–645.
- Converse, P. E. (1964). The nature of belief systems in mass publics. In D. Apter (Ed.), *Ideology and discontent*. New York: Free Press.
- Cover, A. D. (1977). One good term deserves another: The advantage of incumbency in congressional elections. *American Journal of Political Science, 21*, 523–541.
- Dijksterhuis, A., Bos, M. W., Nordgren, L. F., & van Baaren, R. B. (2006). On making the right choice: The deliberation-without-attention effect. *Science, 311*, 1005–1007.
- Dodson, C. S., Johnson, M. K., & Schooler, J. W. (1997). The verbal overshadowing effect: Why descriptions impair face recognition. *Memory and Cognition, 25*, 129–139.

- Eberhardt, J. L., Davies, P. G., Purdie-Vaughns, V. J., & Johnson, S. L. (2006). Looking deathworthy: Perceived stereotypicality of Black defendants predicts capital-sentencing outcomes. *Psychological Science*, *17*, 383–386.
- Gelman, A., & King, G. (1990). Estimating incumbency advantage without bias. *American Journal of Political Science*, *34*, 1142–1164.
- Gosling, S. D., Rentfrow, P. J., & Swann, W. B., Jr. (2003). A very brief measure of the Big-Five personality domains. *Journal of Research in Personality*, *37*, 504–528.
- Hamermesh, D., & Biddle, J. (1994). Beauty and the labor market. *The American Economic Review*, *84*, 1174–1194.
- Hassin, R., & Trope, Y. (2000). Facing faces: Studies on the cognitive aspects of physiognomy. *Journal of Personality and Social Psychology*, *78*, 837–852.
- Henrich, J., McElreath, R., Barr, A., Ensminger, J., Barrett, C., Bolyanatz, A., et al. (2006). Costly punishment across human societies. *Science*, *312*, 1767–1770.
- Isen, A. M., & Levin, P. F. (1972). Effect of feeling good on helping: Cookies and kindness. *Journal of Personality and Social Psychology*, *21*(3), 384–388.
- Kahneman, D. (2003). A perspective on judgment and choice. *American Psychologist*, *58*, 697–720.
- Kahneman, D., & Frederick, S. (2002). Representativeness revisited: Attribute substitution in intuitive judgment. In T. Gilovich, D. Griffin, & D. Kahneman (Eds.), *Heuristics and biases: The psychology of intuitive judgment* (pp. 49–81). New York, NY: Cambridge University Press.
- Kahneman, D., & Tversky, A. (Eds.). (2000). *Choices, values, and frames*. Cambridge, UK: Cambridge University Press.
- Kam, C. D. (2006). Political campaigns and open-minded thinking. *Journal of Politics*, *68*(4), 931–945.
- Kenny, D. A., Horner, C., Kashy, D. A., & Chu, L. C. (1992). Consensus at zero acquaintance: Replication, behavioral cues, and stability. *Journal of Personality and Social Psychology*, *62*, 88–97.
- Kraus, S. (1988). *Televised presidential debates and public policy*. Hillsdale, NJ: Lawrence Erlbaum Associates.
- Langlois, J. H., Kalakanis, L., Rubenstein, A. J., Larson, A., Hallam, M., & Smoot, M. (2000). Maxims or myths of beauty? A meta-analytic and theoretical review. *Psychological Bulletin*, *126*, 390–423.
- Lau, R. R., & Redlawsk, D. P. (1997). Voting correctly. *American Political Science Review*, *91*, 585–598.
- Lau, R. R., & Redlawsk, D. P. (2001). Advantages and disadvantages of cognitive heuristics in political decision making. *American Journal of Political Science*, *45*, 951–971.
- Lawson, C., & Lenz, G. S. (2007). *Inferences from faces predict election outcomes in Mexico*. Working Paper. Department of Political Science, The MIT Press.
- Levin, P. F., & Isen, A. M. (1975). Further studies on the effect of feeling good on helping. *Sociometry*, *38*(1), 141–147.

- Levine, G. M., Halberstadt, J. B., & Goldstone, R. L. (1996). Reasoning and the weighting of attributes in attitude judgments. *Journal of Personality and Social Psychology*, *70*, 230–240.
- 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.
- Lodge, M., McGraw, K., & Stroh, P. (1989). An impression-driven model of candidate evaluation. *American Political Science Review*, *83*, 399–419.
- Lodge, M., & Taber, C. (2005). The automaticity of affect for political candidates, parties, and issues: Experimental tests of the hot cognition hypothesis. *Political Psychology*, *26*, 455–482.
- Maranell, G. M. (1970). The evaluation of presidents: An extension of the Schlesinger polls. *The Journal of American History*, *57*, 104–113.
- Masters, R. D., & Sullivan, D. G. (1993). Nonverbal behavior and leadership: Emotion and cognition in political information processing. In S. Iyengar & W. J. McGuire (Eds.), *Explorations in political psychology* (pp. 150–182). Durham, NC: Duke University Press.
- Mazur, A., Mazur, J., & Keating, C. (1984). Military rank attainment of a West Point class: Effects of cadet's physical features. *American Journal of Sociology*, *90*, 125–150.
- McCurley, C., & Mondak, J. (1995). The influence of incumbents' competence and integrity in U.S. House elections. *American Journal of Political Science*, *39*, 864–885.
- Mondak, J. (1995). Competence, integrity, and the electoral success of Congressional incumbents. *The Journal of Politics*, *57*, 1043–1069.
- Miller, D. T. (1999). The norm of self-interest. *American Psychologist*, *54*, 1–8.
- Montepare, J. M., & Zebrowitz, L. A. (1998). Person perception comes of age: The salience and significance of age in social judgments. *Advances in Experimental Social Psychology*, *30*, 93–161.
- Moore, J. L. (2003). *Governor*. In *Elections a to z*. Washington: CQ Press.
- Mueller, U., & Mazur, A. (1996). Facial dominance of West Point cadets as a predictor of later military rank. *Social Forces*, *74*, 823–850.
- Murray, R. K., & Blessing, T. H. (1983). The presidential performance study: A progress report. *The Journal of American History*, *70*, 535–555.
- Niemi, R. G., & Weisberg, H. F. (1984). What determines turnout? In R. G. Niemi & H. F. Weisberg (Eds.), *Controversies in voting behavior* (pp. 23–33). Washington: Congressional Quarterly, Inc.
- Nisbett, R. E., & Wilson, T. D. (1977). Telling more than we can know: Verbal reports on mental processes. *Psychological Review*, *84*(3), 231–259.
- Park, B., & Judd, C. M. (1989). Agreement on initial impressions: Differences due to perceivers, trait dimensions, and target behaviors. *Journal of Personality and Social Psychology*, *56*, 493–505.
- Patterson, M. L., Churchill, M. E., Burger, G. K., & Powell, J. L. (1992). Verbal and nonverbal modality effects on impressions of political candidates: Analysis from the 1984 presidential debates. *Communication Monographs*, *59*(3), 231–242.

- Pessoa, L., Japee, S., & Ungerleider, L. G. (2005). Visual awareness and the detection of fearful faces. *Emotion*, 5, 243–247.
- Petty, R. E., & Cacioppo, J. (1986). *Communication and persuasion: Central and peripheral routes to attitude change*. New York: Springer-Verlag.
- Petty, R. E., & Wegener, D. T. (1998). Attitude change: Multiple roles for persuasion Variables. In D. T. Gilbert, S. T. Fiske, & G. Lindzey (Eds.), *The handbook of social psychology* (Vol. 1, 4th ed., pp. 323–390) New York: McGraw-Hill.
- Quattrone, G. A., & Tversky, A. (1988). Contrasting rational and psychological analysis of political choice. *American Political Science Review*, 82, 716–736.
- Riggle, E. D. (1992). Cognitive strategies and models of voter judgments. *American Politics Quarterly*, 20, 227–246.
- Schooler, J. W., & Engstler-Schooler, T. Y. (1990). Verbal overshadowing of visual memories: Some things are better left unsaid. *Cognitive Psychology*, 22, 36–71.
- Snyder, M., Tanke, E. D., & Berscheid, E. (1977). Social perception and interpersonal behavior: On the self-fulfilling nature of social stereotypes. *Journal of Personality and Social Psychology*, 35, 656–666.
- Stanovich, K. E., & West, R. F. (1998). Individual differences in rational thought. *Journal of Experimental Psychology: General*, 127(2), 161–188.
- Stokes, D. E., & Miller, W. E. (1962). Party government and the saliency of Congress. *Public Opinion Quarterly*, 26, 531–546.
- Stone, J., Aronson, E., Crain, A. L., Winslow, M. P., & Fried, C. B. (1994). Inducing hypocrisy as a means of encouraging young adults to use condoms. *Personality and Social Psychology Bulletin*, 20, 116–128.
- Todorov, A., Chaiken, S., & Henderson, M. D. (2002). The heuristic-systematic model of social information processing. In J. P. Dillard & M. Pfau (Eds.), *The persuasion handbook: Developments in theory and practice* (pp. 195–211). Thousand Oaks, CA: Sage Publications.
- Todorov, A., Mandisodza, A. N., Goren, A., & Hall, C. C. (2005). Inferences of competence from faces predict election outcomes. *Science*, 308, 1623–1626.
- Todorov, A., Pakrashi, M., Loehr, V. R., & Oosterhof, N. (2007). *Evaluating faces on trustworthiness: Automatic assessment of face valence*. Manuscript under review.
- Todorov, A., & Uleman, J. S. (2002). Spontaneous trait inferences are bound to actor's faces: Evidence from a false recognition paradigm. *Journal of Personality and Social Psychology*, 83, 1051–1065.
- Todorov, A., & Uleman, J. S. (2003). The efficiency of binding spontaneous trait inferences to actor's faces. *Journal of Experimental Social Psychology*, 39, 549–562.
- Trope, Y. (1986). Identification and inferential processes in dispositional attribution. *Psychological Review*, 93, 239–257.
- Trope, Y., & Gaunt, R. (1999). A dual-process model of overconfident attributional inferences. In S. Chaiken & Y. Trope (Eds.), *Dual-process theories in social psychology* (pp. 161–178). New York, NY: The Guilford Press.
- U.S. Census Bureau *Geographic and Population Estimates*. (2006). Retrieved March 16, 2006, from <http://www.census.gov/>

- Uleman, J. S., Blader, S., & Todorov, A. (2005). Implicit impressions. In R. Hassin, J. S. Uleman, & J. A. Bargh (Eds.), *The new unconscious* (pp. 362–392). New York: Oxford University Press.
- Watson, D. (1989). Strangers' ratings of the five robust personality factors: Evidence of a surprising convergence with self-report. *Journal of Personality and Social Psychology*, 57, 120–128.
- Willis, J., & Todorov, A. (2006). First impressions: Making up your mind after 100 ms exposure to a face. *Psychological Science*, 17, 592–598.
- Wilson, T. D., & Brekke, N. (1994). Mental contamination and mental correction: Unwanted influences on judgments and evaluations. *Psychological Bulletin*, 116(1), 117–142.
- Wilson, T. D., Centerbar, D. B., & Brekke, N. (2002). Mental contamination and the debiasing problem. In T. Gilovich, D. Griffin, & D. Kahneman (Eds.), *Heuristics and biases* (pp. 185–200). Cambridge: Cambridge University Press.
- Wilson, T. D., & Schooler, J. W. (1991). Thinking too much: Introspection can reduce the quality of preferences and decisions. *Journal of Personality and Social Psychology*, 60(2), 181–192.
- Zaller, J. R. (1992). *The nature and origins of mass opinion*. New York: Cambridge University Press.
- Zebrowitz, L. A. (1999). *Reading faces: Window to the soul?* Boulder, CO: Westview Press.
- Zebrowitz, L. A., & Montepare, J. M. (2005). Appearance DOES matter. *Science*, 308, 1565–1566.