I

Unconscious Thinking on Political Judgment, Reasoning, and Behavior

We are told by the astrophysicist Michio Kaku that 6.4 percent of the universe is visible, with another 23 percent unseen but measurable, leaving much of the universe in the dark. It is much the same in our inner world, where most thinking occurs outside of awareness, available to neither introspection nor direct observation. Humans are designed to process rapidly and implicitly enormous quantities of environmental and internal data. But our ability to focus explicit thought is severely limited. By and large, the social sciences are not well prepared to understand this duality of cognition, and political science is no exception. Grounded in an Enlightenment view of Rational Man, political science has been dominated by models of conscious control and deliberative democracy. Rational and intentional reasoning, in this conventional view, causes political behavior.

This is a book about unconscious thinking and its influence on political attitudes and behavior. It is a book about powerful affective and cognitive forces that motivate and direct deliberation and political action outside of conscious awareness and control. It is a book about rationalizing, rather than rational, citizens.

What people think, feel, say, and do is a direct function of the information that is momentarily accessible from memory – be it the recall of facts and feelings, the recollection of experiences, or the turning of goals into action. Political behavior and attitudes are very much a function of the unconscious mechanisms that govern memory accessibility. But we political scientists know very little about the processes that underwrite individual variation in beliefs and behavior. We know about variation in public opinion as indicated by verbal self reports. We routinely ask respondents for their party and candidate preferences, their approval of policy proposals, and how warmly they feel toward one or another group, and we are often able to relate these explicit measures through sophisticated multivariate analyses that we interpret as revealing
underlying causal processes. There has also been considerable growth in the use of controlled experiments to determine causality, but most of these also rely on overt verbal responses that may not reveal an underlying implicit process. This reliance on direct, explicit measures of political beliefs and attitudes is intensely problematic, assuming as it does that people have accessible beliefs and attitudes, that they are willing and able to voice them, and that these self-reports are causally related to their political behaviors.

Though it has gone largely unnoticed in political science, we are witnessing a revolution in thinking about thinking. Three decades of research in the cognitive sciences, backed by hundreds of well-crafted behavioral studies in social psychology and now evidence from the neurosciences, posit *affect-driven, dual-process modes* of thinking and reasoning that directly challenge the way we political scientists think about, measure, and interpret political beliefs and attitudes. Central to such dual-process models is the distinction between the unconscious (“System 1,” “implicit”) and conscious (“System 2,” “explicit”) processing of judgments, preferences, and decisions. System 1 processes are spontaneous, fast, effortless, and operate below conscious awareness, whereas System 2 processes are slow, deliberative, effortful, and self-aware.

Given the serious real-time limitations of conscious processing, we humans have evolved compensatory heuristics, including a System 1 *likeability heuristic* that automatically links positive and/or negative affect to familiar social objects in long-term memory. Once associated, this felt positivity or negativity strongly influences downstream thinking and reasoning. What especially attracts our interest as political scientists to such dual-process models is the finding that unconscious processes are continually at work, with effects that appear to be most influential when the most knowledgeable among us think hard about an issue and carefully weigh the pros and cons when forming opinions and making choices.

The Ubiquity of Unconscious Thinking

Cognitive scientists estimate that the human capacity for processing sensory experience is about 11 million bits per second (Norretranders, 1998). The visual system takes up about 90 percent of this total capacity, processing roughly 10 million bits of visual information per second. No more than 40 bits per second of this visual information enters conscious working memory, so we become aware of only 1/250,000 of what we see! Similarly, a healthy human brain processes 1 million bits of tactile information and 100,000 bits of auditory information, while we at best become aware of just 5 bits of tactile and 30 bits of auditory information per second. When we read (with or without moving our lips) we process a maximum of 45 bits per second. More limited still is our capacity to consciously think and reason, where we are able to keep in the focus of attention only about 7±2 chunks of information (Miller, 1956).
Unconscious Thinking

About 98 percent of what we experience, our very connection to the outside world, are whispers that come and go unnoticed.

What are the consequences of this colossal difference between conscious and unconscious experiences for thought and action? What types of information activate unconsciously when citizens watch a candidate debate, see a campaign ad, argue politics with friends, ruminate about a political issue, answer a pollster’s question, or enter the voting booth? Where, when, and why will conscious and unconscious processes reinforce one another? What happens when unconscious influences are at odds with conscious control? When and how can unconscious influences be overridden (Bodenhausen and Todd, 2010)?

Research across the cognitive and neurosciences demonstrates the profound impact of unconscious processing on the content of our thoughts, how we reason, and consequently the choices we make (Ferguson and Porter, 2010; Hassin, Uleman, and Bargh, 2005; Perugini, Richetin, and Zogmaister, 2010).

To place this empirical literature in perspective, and reassure readers that the "unconscious" explored here and in the contemporary psychological literature is not the subterranean id, ego, or superego of Freud, or the psychoanalytic analyses popular in the mid-twentieth century (Erikson, 1950; George and George, 1956; Lasswell, 1930), let us operationalize the unconscious in terms of objective and subjective thresholds of perception.

An objective threshold, as can be measured by brain-wave patterns, must be passed for an external stimulus event to enter one of the sensory systems. A subjective threshold is passed if the stimulus event enters conscious awareness. There are three possibilities:

- If the objective threshold is not passed, perception does not occur and there is no registration of the event on the senses. Essentially, a nonevent with no impact on information processing.
- If the objective threshold is passed but the subjective is not, we have unconscious perception — a sensory experience passes objective thresholds without ever entering conscious awareness. Such Consciously Unnoticed Events (Type 1 CUEs or interchangeably called Type 1 primes) escape notice; seen, registered, but consciously unnoticed. An objectively perceived stimulus may not reach conscious awareness for many reasons: because it occurred too rapidly or too peripherally to be noticed, or one is momentarily distracted.
- If the subjective threshold is passed, we have explicit conscious perception, the stuff of everyday experience. But — this very common — we may "see" the stimulus without realizing its influence on our thoughts, feelings, preferences, and choices. For such Consciously Unappreciated Events (Type 2 CUEs or interchangeably Type 2 Primes), the individual is consciously aware of the stimulus, say the American flag in the background of a candidate’s speech, but its impact on thought, reasoning, and choice is not seen as being influential.
Unconscious primes are ubiquitous in the real world (Bargh, 1997), the playthings of advertisers selling detergents and presidential candidates, where the men and women in beer and car commercials are unusually attractive and fun loving; the smokers in cigarette ads look preternaturally healthy; the men touting erectile dysfunction medications appear uncommonly virile. Laugh tracks in situational TV comedies, although widely bemoaned, nonetheless enhance audience enjoyment. Worse yet, all types of humor, whether real or feigned, are commonly used to mask deceptive advertising (Shabbir and Thwaites, 2007). And as we will show in multiple experimental demonstrations, such “incidental,” more-often-than-not diagnostically irrelevant Type 1 and Type 2 primes prove to be powerful influences on how people think about and evaluate political leaders, groups, and issues.

Unconscious events and processes can drive political behavior in two ways: they may directly trigger a snap judgment or response entirely out of awareness, or they may indirectly drive behavior through their influence on conscious thought processes. A great deal of psychological research has demonstrated the direct causal process, but there has been comparatively little research on the mediated impact of implicit processes.

Implicit Cues in the Real World and in the Laboratory

Because citizens are confronted with more information than they can consciously handle, it should come as no surprise that they take mental shortcuts to arrive at their vote decisions, including endorsements, opinion polls, physical attractiveness, elite opinion, and feelings toward social groups (Mondak, 1994) – and of course party identification (Bartels, 2000; Goren et al. 2009; Jackman and Sniderman, 2002; Lau and Redlawsk, 2006; Riggle et al., 1992; Sniderman, 2000; Sniderman, Brody, and Tetlock, 1991). Reliance on one or another heuristic seems a reasonable strategy to the extent that it helps align a candidate’s issue positions and attributes with the voter’s interests and values (Lau and Redlawsk, 2006) or more generally improves the quality of decisions (Kahneman, Slovic, and Tversky, 1982).

But we believe and hope to demonstrate another, even faster, more readily available and general heuristic exists that may provide quicker and “better” candidate evaluations: a System 1 likeability heuristic stored as an implicit attitude unconsciously guides preferences in accord with the citizen’s history of information processing. Implicit attitudes or feelings about individuals, social groups, and ideas can exist outside of subjective awareness, affective tallies capture the evaluative implications of prior conscious and unconscious thinking about these objects, and these feelings come spontaneously to mind when their associated objects become targets of thought.

A great deal of psychological research shows the impact of implicit attitudes on a variety of social behaviors (Gawronski and Payne, 2010; Petty, Fazio, and Briñol, 2009), though the relationships among implicit and explicit attitudes
remain controversial (De Houwer, 2009). For example, implicit racial attitudes have been repeatedly shown to influence social behaviors, though they often diverge from explicit self-report measures of racial attitudes (Dovidio et al., 2009; Greenwald and Nosek, 2009; Nosek and Smyth, 2007). We believe that it would be a serious error to make a too-sharp distinction between implicit and explicit attitudes and we resist doing so (Sherman, 2009). Our view is that implicit and explicit attitudes are different responses from a single underlying memory system. Explicit attitudes are consciously considered responses for which one has the time and motivation to form a response. They will be influenced by myriad unnoticed factors, but somewhere in the decision stream will be an opportunity for control and consciously reasoned thought. Implicit attitudes are affective responses to stimuli that one cannot control or consciously reason about. It is more likely that an implicit response reflects affect stored directly with a memory object (what has been called an online tag in the research literature), but these too will be influenced by extraneous factors. It is a mistake to think of one as more “true” than another, and both are subject to bias, though of a different kind.

Is it possible to like someone or something without any conscious awareness of how or why this preference came to be? In his presidential address to the American Psychological Association, Robert Zajonc (1980) provides a simple experimental example for how “Preferences Need No Inferences.” A sample of non-Chinese Americans were briefly shown a number of Chinese ideographs and later asked to evaluate how aesthetically pleasing they were. The ideographs were shown zero, one, two, or three times, though participants were not aware of the multiple exposures and could not later identify which characters in a test set had been presented to them. Nevertheless, the more often they were shown a symbol the more they found it pleasing, a finding labeled the “mere exposure effect.” Preferences were altered without the objects even being recognized. In a final definitive demonstration that the mere exposure effect operates unconsciously, Murphy and Zajonc (1993) replicated the study using subliminal exposures to the ideographs (i.e., presentations too rapid for conscious perception).

Mere exposure can also influence other types of social judgments. Jacoby, Kelley, Brown, and Jasechko (1988) found that judgments of whether a name is that of a famous person (i.e., Is Sebastian Weisdorf famous?) are influenced by previous exposure to the name, even when it was presented on a list explicitly labeled Nonfamous People. Names were accurately judged to be nonfamous immediately after exposure to the list, but twenty-four hours later as recall of the source of information faded from memory, the residue memory trace was sufficient for many of those on the list to become famous overnight. Mere exposure, bolstered by this sleeper effect, changed the accessibility of names, making them appear more familiar and hence mistakenly identified as famous. This effect mimics what is routinely found in studies of persuasion where familiar arguments are judged more believable (Eagly and Chaiken, 1993),
where in advertising repetition builds brand name identification (Warshaw and Davis, 1985), and where candidate name recognition is, after money, the most critical step in winning an election (Kleinnijenhuis, van Hoof, and Oegema, 2006). Here again, conscious and unconscious processing may go their separate ways.

Unconsciously processed cues operating in the political realm can impact the evaluations of known candidates and their electoral success. The 1960 Nixon-Kennedy preelection debate is a well-known political example of noticed-but-unappreciated effects: seventy million people watched the first televised presidential debates in American history between Richard Nixon and John Kennedy. Nixon, recently out of the hospital, refused make-up; Kennedy had been campaigning in California and had the tan to show for it. Television viewers, apparently distracted by Nixon’s pallid look and five-o’clock shadow, thought Nixon shifty and untrustworthy, while radio listeners, who had little to go on but the substance of the debates, thought Nixon the clear winner. The familiar version of this story is used to illustrate how image can dominate substance in politics; in our terms, how System 1 implicit processing can lead voters astray from the solid moorings of conscious deliberation. But as Malcolm Gladwell (2005) points out, the familiar version of the story has it backwards: Nixon did indeed turn out to be shifty and untrustworthy. Viewers’ implicit, affective responses to the candidates’ appearances proved to be more accurate than judgments based presumably on a less-biased, more careful consideration of issue positions and policies.

Similarly, facial expressions of news broadcasters influence the political judgments of viewers. In coverage of the 1976 presidential election campaign, Friedman, DiMatteo, and Mertz (1980) found discernable differences in the perceived positivity of broadcasters’ facial expressions when they uttered different candidates’ names. Mullen and colleagues (1986) replicated this result with the 1984 presidential election and demonstrated further that a broadcaster’s facial expressions influenced voters’ political preferences. Specifically, voters came to favor the candidate for whom the broadcaster exhibited more positive facial expressions. The same effect in a different modality: Gregory and Gallagher (2002), analyzing the voice frequencies of candidates in nineteen nationally televised American presidential debates, found that this auditory cue signaled a candidate’s relative social dominance within a debate and predicted his vote share in the election. Media effects without message – more accurately, media effects through implicit rather than explicit channels of communication.

Babad (1999, 2005) obtained similar noticed-but-unappreciated results in the domain of political interviews. She found, not only that TV newscast interviewers exhibited differential levels of positive and negative nonverbal behaviors toward the politicians they were interviewing, but that an interviewer’s nonverbal behavior impacted the viewers’ perceptions of the politician. In particular, a politician’s image suffered when the interviewer appeared hostile rather than friendly.
Here is an even more subtle effect of an unappreciated cue on choice: Berger, Meridith, and Wheeler (2008) showed that budgetary support for education varied as a function of where people voted – whether in schools, churches, or firehouses – with voters more likely to favor raising state taxes to support education when voting in schools, even controlling for their political views. Clearly, the voters knew what building they were in but were not consciously aware of its influence on their vote choice. Ballot order effects provide another political case in point, where being listed first increased the vote count for 80 percent of candidates (Schneider, Krosnick, Ofir, Milligan, and Tahk, 2008).

Some cues seem so obvious it is hard to imagine an implicit effect, but the inference is nevertheless made unconsciously. Race messages in campaign advertising, for example, are more effective when they remain covert. Tali Mendelberg demonstrates this effect in *The Race Card* (2001) via an experimental analysis of the infamous Willie Horton campaign ads, in which presidential candidate Michael Dukakis used pictures and sounds to implicitly associate African Americans with crime with. When the race cues are made fully explicit in Mendelberg’s study (that is, when subjects are alerted to their presence) they lose their power to influence political judgments. Another case in point was a 2004 MoveOn.org TV ad that showed images of Hitler before a photo of Bush raising his hand to take the oath of office, accompanied by the voice over, “A nation warped by lies. Lies fuel fear. Fear fuels aggression. Invasion. Occupation. What were war crimes in 1945 is foreign policy in 2003.” Republican groups and Jewish organizations expressed outrage over the ad, which was quickly removed from the MoveOn.org website. Research suggests, however, that subtle propaganda would be more effective; an implicit message more powerful still.

In the mid-1990s, Mayor Rudolph Giuliani of New York City adopted a “quality of life” campaign fashioned on James Q. Wilson and George Kelling’s (1996) “broken windows theory.” In this theory, signs of disorderly and petty criminal behavior signal neighborhood decay and deterioration, which trigger more disorderly and petty criminal behavior. Giuliani’s change in policy had more cops walking beats, city work crews painting over graffiti, sweeping streets and cleaning subways, towing abandoned cars, ticketing jaywalkers, punishing vandals, and rousting the homeless from city streets and parks. After the introduction of the campaign, petty crime rates in New York City dropped dramatically and polls showed an uptick in perceived quality of city life (which became a major talking point for Giuliani’s later political campaigns). A change in policy that was essentially cosmetic eventually had real effects on the compliance behavior of citizens, in our interpretation because of the replacement of implicit cues of neighborhood decay with cues of orderliness and civic control.

Political judgments can be directly affected by irrelevant, nonpolitical cues as well. While theories of retrospective voting suggest voters should reward or punish incumbents for the things they can control (in particular, wars and the
The Rationalizing Voter

It is hard to imagine why voters should hold politicians accountable for such “acts of God” as earthquakes or floods. And yet in their analysis of retrospective voting in Woodrow Wilson’s 1916 reelection, Achen and Bartels (2006) find that a string of shark attacks in the summer months before the 1916 election cost Wilson about ten percentage points in New Jersey beach communities, with no effect inland. Closer to home is the Healy, Malhotra, and Mo (2010) finding that local college basketball and football wins impacted the vote for Obama. Such findings are hard to square with conventional normative models of conscious deliberation, but are compatible with the implicit effects of affective cues on candidate preference.

A major area of research pointing to robust effects of unconscious influences on snap judgments is the effect of facial attractiveness on evaluations, attitudes, and behavior. Here, as in the stereotypic inferencing of traits from gender, age, and race, the face is rapidly registered and spontaneously triggers stereotypic assumptions about the individual’s character, attitudes, and behavior. Three large meta-analyses covering more than 1,000 peer-reviewed psychological studies of physical attractiveness confirm significant experimental and correlational effects on a broad range of social attitudes and behaviors (Eagly, Ashmore, Makhijini, and Longo, 1991; Feingold, 1992; Langlois, Kalakanis, Rubenstein, Larson, Hallam, and Smoot, 2000). Whether a person is seen as attractive or unattractive, assumptions are brought into play. Across cultures, what is beautiful is assumed to be good, and all manner of negative traits may be attributed to those less physically blessed. As Langlois and colleagues point out, this research shows that implicit responses debunk the descriptive if not the normative validity of three popular folk maxims:

Whereas it is said that beauty is in the eye of the beholder, the empirical evidence shows widespread consensus as to who is or is not attractive, with correlations suggesting near unanimity: within culture, $r = .90$; across ethnic groups, $r = .88$; and across cultures, $r = .94$. Such levels of agreement support the probability of rather uniform implicit responses to the appearances of political candidates or opinion leaders.

While we are admonished to never judge a book by its cover, hundreds of studies report stereotypical attributions advantaging attractive children in school and adults in their everyday lives and careers. It is routinely found that physical appearance exerts a strong influence on character perception, with scores of studies reporting a “beautiful-is-good” halo effect. The meta-analyses document that physically attractive people are perceived to be more sociable, dominant, extraverted, popular, and warm. Even among strangers a one-second glance is enough to trigger an inference that an attractive man is more interesting, successful, intelligent, and virtuous. Strong correlations between attractiveness and particular attitudinal and behavioral characteristics have been found across cultures for both adults and young children, implying that a large part of this beauty-is-good projection effect is inborn and supplemented by nurture (Rhodes, 2006).
In general, a mere glance at an attractive face promotes a one-half standard deviation enhancement on positive personality traits, with about 64 percent of attractive people but only 36 percent of less attractive people perceived as having a better-than-average personality, the attractive seen as being more socially competent (70 percent vs. 30 percent), more worthy of attention (74 percent vs. 26 percent), more successful (68 percent vs. 32 percent), and if in need more likely to receive help (59 percent vs. 41 percent). Even in death the attractive are “advantaged,” their demise judged more tragic (Callan, Powell, and Ellard, 2007).

Finally, if it were true that beauty is only skin deep, there would not be a robust influence of self-rated attractiveness on measures of popularity, sociability, or objective measures of mental health. Physically attractive individuals have more sexual partners, find better-looking mates, become more professionally successful, and are happier than those of us below the median of physical good looks (Dion, Walster, and Berscheid, 1972). This “beauty premium” has been shown by Biddle and Hamermesh (1998) to positively impact attorneys’ wages, and – this unimaginable for elected office to political science associations – good-looking scholars are more likely to be voted into leadership positions of the American Economics Association.

The impact of physical appearance extends beyond attractiveness. A study by Mueller and Mazur (1996) found that ratings of facial dominance of West Point cadets (rectangular face, strong brow, square jaw) predicted later military rank. A follow up study (Little, Burris, Jones, and Roberts, 2007) graphically manipulated facial dominance of alleged politicians and found that facial dominance affects voting decisions. Moreover, changing the context from peacetime to wartime promoted an even larger advantage for the dominant candidate.

What is important here is that physical appearance is registered but its inferential impact on character perceptions, evaluations, and behavior remains covert for those making the judgments. When this influence is pointed out, it is routinely denied. Given that facial appearance is one of the very first things we see in another person and that there are specific brain structures designed to detect and characterize faces, it is not surprising that attractive people prompt positive attributions which, entering the evaluation early, anchor and bias subsequent evaluations. Routinely, humans make positive attributions to attractive people without consciously realizing it, yet the magnitude of these effects is roughly the same as other variables in the social sciences (Eagly, 1996).

“Beautiful-is-good” stereotyping is alive in the political domain as well, where many of the same effects of attractiveness on snap judgments found in nonpolitical domains are matched in impressions of politicians, with attractive candidates seen as possessing more integrity, competence, likeability, and being better suited for public office (Rosenberg et al., 1986). For example, a
large-scale study of the 2003 parliamentary and 2004 municipal elections in Finland collected ratings by more than 10,000 web-survey respondents on a host of dispositional traits for a total of 1,900 facial photos of real political candidates. The finding: a one standard deviation increase in attractiveness was associated with a 20 percent increase in the number of votes over the average nonincumbent (Berggren, Jordahl, and Poutvaara, 2010). Similarly, in a study of the 2004 Australian election, where voting is compulsory and voters are handed a “How to Vote” card with pictures of the candidates, the more attractive of the two was associated with a 1.5 percent to 2 percent change in vote share, with this effect even larger in electorates with a higher share of apathetic voters (King and Leigh, 2010). Rosar, Klein, and Beckers (2008) found the same result for the state-wide elections in the largest German Bundesland, North Rhine-Westphalia, where campaign posters feature pictures of the candidates: attractive candidates – especially when their opponents are unattractive – garnered not only a larger vote share but also an increase in turnout.

While most of these studies have experimental participants view photos at their leisure in a contextually relevant frame, a great deal of information in addition to facial attractiveness can be gleaned in the blink of an eye (Gladwell, 2005). Here’s an “experiment” to try. On the next page are side-by-side photos of a pair of adult males, both candidates for the U.S. Senate (Figure 1.1). Turn the page, take no more than one second to scan the photos and return here.

Now which of the two candidates would you say is more competent? In an important series of experiments reported in Science, Alex Todorov and his colleagues (2005; see also Olivola and Todorov, 2010) demonstrated that competence ratings based on a one-second exposure to paired photos of competing candidates predicted the 2004 House and Senate election outcomes at significantly better than chance levels (67.7 percent and 68.8 percent, respectively). Competence in the Todorov studies is modeled as a direct predictor of vote choice, and ratings were made of unfamiliar candidates by naive experimental participants before the 2004 congressional elections and the predictions are to the actual electoral outcomes, not vote intention. In other analyses, in addition to making competence judgments, participants evaluated the paired candidates on attractiveness, likeability, trustworthiness, and other dispositional judgments, all well-known to be important in the evaluation of political candidates (Kinder, Peters, Abelson, and Fiske, 1980; Funk, 1999). Now postdicting the 2000 and 2002 Senate races, Todorov and colleagues found what is also true in the National Election Studies: competence trumps the other trait assessments in accurately discriminating winners from losers. The inescapable implication of this research is that people can make substantively important attributions on a mere one second exposure to the facial photos of unfamiliar political candidates, and what is more, these snap judgments (typically taking little more than one second) discriminate winners from losers without any information or contextual cue other than being told the photos were of politicians. All this predictive power without party identification, ideological