

Mechanisms of Momentum: Does Thinking Make It So?

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The purpose of this study is to evaluate several potential theoretical frameworks for understanding the social psychological processes underlying the effects of momentum. Using an experimental design embedded within a national survey conducted during the 1992 Democratic presidential primary season, I examined several potential explanations for changes in candidate preference that result from changing perceptions of public support. Findings were most supportive of an explanation based on the cognitive responses elicited by hearing about others' views. Consensus cues stimulated additional information processing and a reassessment of the individual's own position; information about mass support for candidates triggered respondents who were only moderately involved in this decision-making process to mentally rehearse potential reasons for supporting or opposing the candidates. By priming these thoughts, people's own opinions were moved in the direction of the arguments that would not otherwise have come to mind.

Pundits and political scientists make frequent reference to momentum as an explanation for surges and declines in mass public support for candidates (e.g., Bartels 1988; Brady and Johnston 1987). Nonetheless, researchers understand very little about the psychological origins of advantages that accrue to candidates who are perceived as leading or gaining ground. Moreover, studies of the dynamics of public opinion in U.S. presidential primaries have provided mixed support for the idea that candidacies in decline tend toward further decline while candidacies with increasing support tend toward even greater support (cf., Bartels 1988; Marshall 1983; Sigelman 1989). Furthermore, momentum's effects appear important in some contexts while irrelevant in others and influential for some people yet not for others. The inconsistency with which expectations have been found to influence vote choice points to a lack of theoretical understanding of exactly how perceptions of public support translate to changes in public opinion.

While evidence of strategic voting is incontrovertible (see Bartels 1985, 1988; Brady and Johnston 1987), it accounts for a very small proportion of the shifts in candidate preference that result from momentum. For example, Abramson and

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colleagues (1992) suggest that strategic voting occurs only around 10% of the time. Other psychological mechanisms are needed to account for effects on candidate preference that do not result from strategic calculations. Unfortunately, the explanations that have been offered to date do not have much grounding in psychological evidence. For example, the oft-cited “bandwagon” explanation rests on the assumption that people have an inherent desire to be on the winning team. Although this idea has achieved the status of a cultural truism, there is scant psychological evidence to back it up (cf. Bartels 1988; Cialdini et al. 1976). The mechanisms proposed thus far are particularly weak when it comes to explaining trends in candidate preference that are mediated by changes in attitudes toward the candidates. Moreover, evidence documenting systematic movement in the direction of minority as well as majority opinion suggests the need for more complex models to explain these phenomena (Ceci and Kain 1982; Fleitas 1971; LaPonce 1966; Norrander 1991; West 1991). Although the absence of evidence surrounding conventional explanations is not necessarily evidence of their absence, it does suggest a need for explanations based on better-documented social psychological processes.

In this study I specifically examine mechanisms of momentum that can account for the effects that changes in mass public support have on individuals’ *attitudes* toward candidates. In other words, I focus on mechanisms beyond the already well-documented influence of strategic considerations on vote choice. Momentum sometimes occurs because voters strategically vote for candidates other than their most well-liked choice; however, more often it occurs because perceptions of popular support for a candidate alter voter attitudes toward that candidate, and this, in turn, influences vote choice. Next, I present a theoretical framework for understanding why and when perceptions of public support translate to more positive attitudes toward candidates. Using an experimental design embedded in a national survey conducted during the 1992 Democratic presidential primaries, I empirically evaluate this explanation and several possible alternatives.

THE COGNITIVE RESPONSE MODEL

One important reason people may respond to information about the opinions of distant, impersonal mass publics is because of the thoughts people generate in response to learning what others think. Two closely related ideas—persuasive argumentation and cognitive response theory—both suggest that attitudes may shift when people learn of others’ views because knowing the opinions of others induces people to think of arguments that might explain those others’ positions. By rehearsing these arguments, people engage in a process of self-persuasion whereby their own attitudes move in the direction of the arguments that have been primed by others’ views, arguments that would not otherwise have come to mind (Burnstein and Sentis 1981; Burnstein and Vinokur 1975; Burnstein, Vinokur, and Trope 1973; see also McPhee 1963).

In the case of a presidential primary, when voters hear that more and more people are rushing to support Candidate X, they may mentally rehearse the possible reasons that would explain these behaviors. If a person is not strongly committed to a particular view, the thoughts that then come to mind are most likely to be supportive of Candidate X. By means of the pro-Candidate X thoughts generated by information about candidate support, information about mass opinion influences the development of the individual's own viewpoint; arguments in favor of Candidate X are now more salient and well rehearsed in the person's mind than those in opposition.

Although this idea has never been tested specifically in the context of hearing about the political views of mass publics, in laboratory settings Burnstein, Vinokur and Trope (1973) found that giving people information about collective others' views triggered more thinking about the issue at hand; furthermore, attitude change was induced by exposure to information about the positions of others *only* when respondents both were told and reflected upon others' positions (see also Burnstein and Sentis 1981; Burnstein and Vinokur 1975). In addition, the more arguments that came to a person's mind explaining why others might have taken the positions they did, the more likely the individual was to revise his or her own attitude accordingly (see also Perloff and Brock 1980; Tesser 1978; Tesser and Conlee 1975). These findings support a cognitive response interpretation of choice shifts over one emphasizing interpersonal comparison processes and traditional conformity influences (see also Harkins and Petty 1981).

The cognitive response process of influence also is quite consistent with the means by which interpersonally obtained social information is said to influence political attitudes. As Huckfeldt and Sprague (1995) argue, when a citizen learns that someone holds a view contrary to his or her own, the natural response is to reevaluate one's own viewpoint:

The citizen is presented with the compelling possibility that he or she has made a wrong calculation with respect to politics—a possibility rendered salient by the source of the new knowledge and the context in which it is learned. Contingent upon a variety of other factors, some sort of reassessment of one's own position clearly appears in order. (Huckfeldt and Sprague 1995, 49)

Just as learning that a friend has views that differ from one's own may stimulate a reconsideration of one's opinion and/or a search for additional information (McPhee 1963), so, too, information about the opinions of mass others may prompt the citizen to think about the reasons behind those others' views, and to reevaluate his or her position.

Although public opinion shifts in the direction of majority opinion have tended to receive the most popular attention, no account of the psychological underpinnings of momentum would be complete without some means of explaining the many studies documenting shifts toward minority issue positions or candidates

(see Mutz 1994 for a review). Fortunately, the attitude shifts suggested by the cognitive response model are not unidirectional; the model predicts movement either toward or away from others' opinions, based on the extent to which consensus cues induce people to generate thoughts consistent or inconsistent with others' views. When exposed to the contradictory opinions of others, a person strongly committed to his or her viewpoint would be most likely to generate counter-arguments defending his or her initial position. As these arguments are rehearsed by the individual, his or her own opinion polarizes, intensifying in the direction of the original viewpoint and away from the opinions of others (Petty and Cacioppo 1979b, 1981). In other words, in the process of resisting message influence, those most heavily involved may be influenced in the opposite direction. These predictions jibe well with evidence from the many studies of political attitudes in which boomerang or underdog effects occur when people are strongly committed to their views (Geer 1989; Kaplowitz et al. 1983; Patterson 1980).

This interpretation also provides a potential explanation for the consistently inconsistent findings in research on momentum. Information regarding majority views could result in movement in the direction of majority or minority opinion, depending upon the intensity of people's views on a given issue or candidate, and on the availability, direction and persuasiveness of the pool of arguments speaking to each alternative (Burnstein and Sentis 1981). If no convincing arguments or counter-arguments can be brought to mind in response to a consensus cue, its impact should be minimal. In short, this model does not suggest that attitude change should result from exposure to contradictory consensus views in all situations. The amount of change that results from cognitive elaboration depends upon characteristics of both individuals and the political environment. In the aggregate, these effects may sometimes cancel one another out so as to create the impression of no influence at all (Henshel and Johnston 1987; Marsh 1984).

Laboratory evidence notwithstanding, to what extent does this process seem plausible as an explanation for momentum in real-world presidential primaries? Media emphasis on the campaign horse race gives people constant information about which candidate is leading or gaining ground (Robinson and Clancey 1985; Robinson and Sheehan 1983; Patterson 1980). There is also ample time during the long primary season for people to reflect on this information while forming their views. Moreover, primary voters seem an especially appropriate population for this process since they are simultaneously likely to pay attention to and be aware of arguments for and against various primary candidates, yet many are not so firmly committed to their choices as to preclude anything short of a backlash or boomerang effect.

A cognitive response explanation for momentum also jibes well with existing findings as to who is most susceptible to momentum's influence. To date, findings suggest that movement in the direction of mass opinion is most likely to occur among primary voters when levels of information and involvement are low (e.g.,

Bartels 1988). At the same time, primary voters as a group definitely would not be characterized as low in political involvement; relative to the population as a whole, or even to other regular voters, they are likely to be more politically interested and involved. In essence, susceptibility to momentum characterizes the less-involved segment of a highly involved group. And it is just such a group of the middle range that would seem well-suited to a persuasion process that requires some degree of political thought and reflection on the part of citizens, yet also an openness to reassessment of their political preferences. The cognitive response model suggests that in order to be influenced by consensus cues, people must be politically involved enough to be exposed to rationales for and against various candidates, yet not so involved as to be precommitted to a specific candidate and unpersuaded by the information that has been brought to mind.

The distribution of political involvement is truncated in the case of likely primary voters, eliminating all but the upper end of the spectrum. Given primary voters' high levels of political interest, they are likely to fall exclusively into the high or moderate involvement categories. Assuming that both moderate- and high-awareness groups are aware of horse race information and capable of generating arguments as to why others might favor one candidate over another, one would expect greater counterarguing and resistance to persuasion from those highest in political awareness, and greater acceptance among the moderately involved.

To summarize, horse race coverage emphasizing the amount of public support for a presidential candidate is hypothesized to increase the candidate's popularity by prompting moderately involved people to think about reasons for supporting the candidate that would not otherwise have come to mind. For purposes of empirical testing, this theory was broken down into two independent propositions: first, that information regarding the amount of public support a candidate has garnered will prompt a greater amount of cognitive elaboration; and second, that respondents will be influenced by information about candidate support to the extent that they are prompted to generate cognitive responses consistent with the information they are given. Previous research suggests that these effects seldom occur in an across-the-board fashion, but they should be particularly evident among potential primary voters who deem the choice of a nominee a relatively unimportant decision.

After testing the hypotheses specific to this explanation for momentum, I also examine plausible alternative explanations, including group identification and the notion of a consensus heuristic. These efforts ultimately strengthen the case for a cognitive response interpretation.

METHOD

Solid conclusions about the importance of momentum have been limited by two major methodological problems. Ambiguity as to causal direction is exacerbated by the tendency for people to project support for their own viewpoints

to others (Berelson, Lazarsfeld and McPhee 1954; Granberg and Brent 1983; Lazarsfeld, Berelson and Gaudet 1944). Beyond temporal precedence, cause and effect relationships are often difficult to establish because of potential spuriousness. For example, if a candidate is linked to a scandal and this leads to less perceived support for the candidate and, independently, to a decrease in actual public support, this relationship may be wrongly attributed to declining momentum. To avoid these difficulties, I utilized a field-experimental design that capitalized on the control afforded by random assignment and the generalizability offered by a random national sample of potential voters.

Public opinion cues simulating news about a candidate's standing were inserted into a rolling cross-sectional national telephone survey to manipulate perceived support for several of the candidates in the 1992 U.S. Democratic presidential nomination campaign (see appendix).¹ To enhance the credibility of these cues, claims about current candidate status were made on the basis of what were said to be findings from multiple recent polls.² The design of the study was a 3 by 3 full-factorial between-subjects experiment in which one three-level factor manipulated the direction of the cue indicating the amount of support for the candidate.³ In the positive support condition, cues suggested that "some recent polls show that a large number of Democrats support [candidate name] for the presidential nominee of the Democratic party." Immediately following this statement, another question asked which of the candidates the respondent liked best.⁴ In the negative support condition, polls were said to show that "very few" Democrats supported the candidate. In a third, control condition, no cues were given and respondents proceeded directly to the question about their own

¹Data collection began in December 1991 and continued through June 1992. The end date for data collection varied slightly across conditions depending upon when the candidate dropped out of the race.

²The exact wording of cues was as follows: "As you may have heard, some recent polls show that (large number of/very few) Democrats support (candidate name) for the presidential nominee of the Democratic party." Ethical considerations dictated that the information used to cue respondents be information that was actually available in the political environment at the time of the study. This was substantiated through a Nexus on-line computer search of newspapers and other periodicals. In the context of state primaries and caucuses conducted in multiple stages, each by different rules, determining which candidate is truly ahead at any given point in time is fraught with theoretical and methodological difficulties.

³Although these data were collected beginning very early in the primary season, one would expect some support cues to be more naturally credible than others. In order to assess the plausibility of the cues, respondents in the no-cue conditions were asked later in the survey who they thought was leading the Democratic primary race. All three of the candidates featured in this study received mentions in the double-digit percentages, thus indicating that no clear consensus existed that would have robbed some cues of all plausibility.

⁴"How about you? Which of the candidates now in the running for the Democratic presidential nomination do you like best? Doug Wilder, Paul Tsongas, Bill Clinton, Bob Kerrey, Tom Harkin, or Kerry Brown? The order of candidate names was randomized, and the number of candidates in the list had to be altered as candidates dropped out of the race.

preference for the presidential nominee. A second experimental factor manipulated the candidate to which cues about mass opinion referred, either Clinton, Brown, or Harkin.⁵ Using computer-assisted telephone interviewing, Democrats were randomly assigned to one of the nine conditions.⁶

In order to gain insight into the psychological processing underlying momentum, I incorporated a "thought-listing" question, similar to items used in traditional psychology experiments (Brock 1967; Greenwald 1968). Placed directly after the candidate-choice question, this question asked respondents to tell the interviewer the kinds of thoughts that occurred to them as they pondered their choice of candidate.⁷ If candidate-support cues truly prime respondents to think about reasons for supporting or opposing candidates, respondents in control conditions should have fewer such thoughts in mind at the time they are asked.

The answers to these open-ended questions were recorded verbatim and later "unitized" (see Meichenbaum, Henshaw, and Himel 1980) into individual units of cognitive response by two independent judges who divided the verbatim comments into individual thoughts or ideas. These units were then further coded into (1) ideas or arguments supportive of the candidate corresponding to the subject's experimental condition, or opposed to his opponents, and (2) ideas or arguments opposed to the candidate corresponding to the subject's experimental condition, or clearly supportive of one of his opponents. Thoughts and arguments completely irrelevant to the choice of a primary candidate were disregarded.⁸

⁵The three control conditions in this 3 by 3 matrix were virtually identical in that respondents received only the candidate preference question; however, three separate control conditions were included so that the order of candidate names could be consistent with respect to each experimental condition. For example, in the positive support, negative support, and control Clinton conditions, the candidate preference question always listed Clinton second. A similar control condition corresponded to each of the other two candidate conditions so that all respondents received a candidate preference question in which the candidate of interest was listed second. This procedure ensured that the potential for influence was equal across the chosen candidates, and that the control condition questions exactly replicated the questions asked with experimental cues.

⁶In addition to the usual problems inherent in self-reports on the likelihood of voting, screening for probable primary voters in a national sample is made extremely difficult by the fact that not all states have direct primaries, and that each operates using slightly different rules for eligibility (see Nelson, ed. 1993). For purposes of this study, these complications were resolved by including all Democratic party identifiers as potential primary voters.

⁷"As you were thinking about your choice of candidate, what kinds of thoughts occurred to you? Anything else?" Thought-listing questions that are issue-specific (as is this one) produce an experimental demand for respondents to give more responses relevant to the issue; on the other hand, when asked to list thoughts more generally, more thoughts are produced, but a large proportion of the thoughts will tend to be unrelated to the issue (Cacioppo and Petty 1981). The choice of approach typically depends on the aim of the research; in this case, it was important to obtain as many candidate-relevant thoughts as possible in order to ascertain the effects of cue-consistent or inconsistent cognitive responses on candidate preference.

⁸Intercoder agreement was .95.

For example, for a person in the positive, negative, or control Clinton conditions, any rehearsal of thoughts that were either pro-Clinton or against one of his opponents would be considered candidate-supportive (e.g., "He [Clinton] has his finger on the pulse of the middle and working classes"; "I think I could trust him more than, like, Jerry Brown"; "If he [Clinton] was a regular person [i.e., not famous] these scandals would have never come up"). Likewise, for these same groups, any anti-Clinton comments or thoughts clearly favoring another candidate would be considered anti-Clinton (e.g., "He's [Clinton] not progressive enough"; "Brown would be more of a forward moving president"; "Haven't seen anyone throw any dirt on the man [Kerrey]"). The number of candidate-relevant cognitive responses per respondent ranged from zero to eight. One summary measure was calculated for the total number of candidate-relevant thoughts generated by each respondent, and a second that represented the number of candidate-supportive thoughts minus the number of candidate-opposed thoughts.

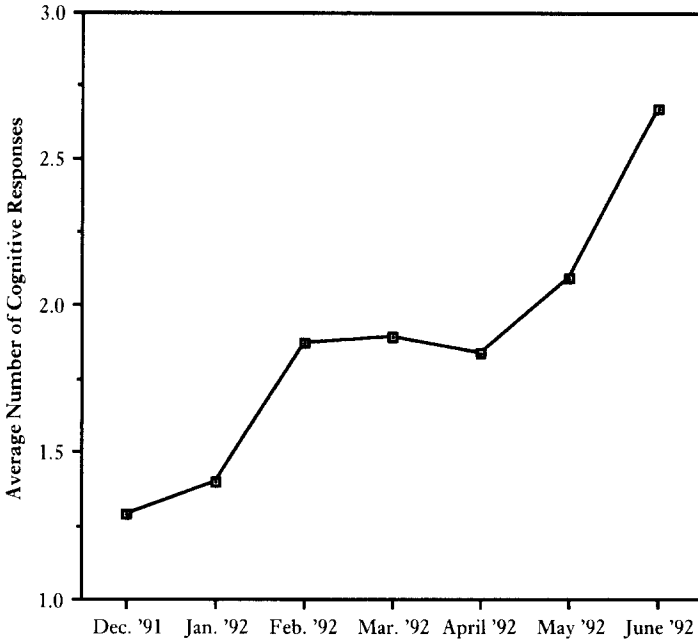
Not surprisingly, more people had candidate preferences as the primary season progressed, but more importantly, among those expressing preferences, the mean number of candidate-relevant thoughts per person increased steadily throughout the period of the study as voters became more familiar with candidates and the arguments pertaining to their strengths and weaknesses. As illustrated in Figure 1, with the exception of a slight dip in April 1992, there was a steady over-time increase in the number of thoughts generated.

Since the distribution of the number of cognitive responses per person was highly skewed, for purposes of testing the hypothesis that candidate-support cues will prompt greater cognitive elaboration, measures were dichotomized into respondents who did or did not generate cognitive responses relevant to the choice of a presidential nominee. For purposes of examining the effects of elaboration on candidate preferences, the direction of elaboration also was taken into account. Measures of the number of candidate-supportive minus candidate-opposed thoughts were trichotomized so that those with negative scores were assigned a -1 , those with positive scores $+1$, and those who did not elaborate at all received 0 . This strategy allowed categorization on the basis of the extent to which a person predominantly rehearsed arguments supporting the candidate, opposing the candidate, or failed to elaborate at all.

Finally, since levels of political involvement have important implications for persuasibility, an additional question tapped attitude centrality.⁹ As expected given the nature of the sample, the distribution of responses to this question was heavily skewed toward respondents who considered the choice of a primary candidate a "very important" decision to them, with 43% of respondents choosing this option. In contrast, only 3% considered it "not at all" important, a number

⁹"Would you say your decision about which candidate to support is very important, important, not very important, or not at all important to you?"

FIGURE 1
 AVERAGE NUMBER OF CANDIDATE-RELEVANT COGNITIVE
 RESPONSES BY MONTH



that could effectively be zero taking into account measurement error. Fully 83% of the sample was concentrated in the “important” or “very important” categories. This pattern confirmed the idea that even the relatively less-involved members of this population are at least moderately politically involved.

For purposes of making a meaningful distinction in levels of involvement, yet maintaining an adequate number of people in each cell in analyses involving interactions with other variables, the measure of attitude centrality was dichotomized into two groups: those who thought the decision very important (the highly involved), and those who did not find it very important, that is, the remaining respondents, the overwhelming majority of whom still saw it as an important decision (the moderately involved).

A common dependent variable was constructed across the three candidate conditions by assigning each respondent a score based on the extent to which their candidate preference corresponded to the candidate for their experimental condition. For example, respondents in any of the three “Clinton” conditions received a 1 if they chose Clinton as their preferred candidate and a 0 if they chose some other candidate.

RESULTS

To examine the first proposition in this model—that information about candidate support should stimulate greater cognitive elaboration—I examined the number of people who generated cognitive responses by experimental condition, taking into account the impact that attitude centrality should have on the amount of thought that goes into forming a candidate preference, since the extent to which a person deems this decision important should, *a priori*, have a large impact on the amount of thought that goes into it.

The extent of cognitive elaboration was in the hypothesized direction with respect to the experimental conditions. For example, only 73% of those assigned to a control condition produced candidate-relevant thoughts, while 84% and 99%, respectively, of those in the positive and negative cue conditions did so. Candidate-support cues appear to have prompted people to respond cognitively by thinking about the reasons others might have for supporting or opposing a given candidate.

Logistic regression was used to confirm the significance of these findings. No differences in cognitive processing were hypothesized to result from positive as opposed to negative candidate-support cues, so these two conditions were collapsed for purposes of comparison with the control condition. Since I expected this type of effect to be driven primarily by those only moderately involved in the decision-making process, an interaction between attitude centrality and candidate-support cue also was included in the equation.

Table 1 confirms that attitude centrality had significant independent effects in the direction one would anticipate: those who deemed this decision more important generated a greater number of cognitive responses overall. However, the relationship between support cues and amount of elaboration was driven primarily by respondents for whom this decision was not as central. The main effect of the support cue was not significant, but the interaction indicated that those who considered this decision relatively unimportant were induced toward greater elaboration by the cues.¹⁰ The χ^2 corresponding to the improvement of the model further confirms that support cues were effective among Democrats who felt that the choice of a presidential nominee was a less important decision to them.

Figure 2 illustrates the extent of cognitive elaboration by experimental conditions and levels of attitude centrality. For high centrality respondents, there were negligible differences among positive cue, negative cue, and control conditions. However, for those who viewed this decision as less important, the extent of elaboration was significantly greater among those who received candidate-support cues. In other words, among those unlikely to expend a great deal of

¹⁰Candidate support cues also made a statistically significant impact on the extent of cognitive elaboration in the sample as a whole, but the inclusion of the centrality variable and its interaction makes it clear that this effect is driven by those lower in attitude centrality.

TABLE 1
EFFECTS OF SUPPORT CUES ON COGNITIVE ELABORATION

	Coefficient	(s.e.)	Significance Level
Support Cue	-.28	(.63)	.656
Attitude Centrality	-1.86	(.59)	.001
Support Cue by Attitude Centrality	1.51	(.73)	.039
Candidate (Clinton)	.55	(.47)	.238
Candidate (Harkin)	.70	(.48)	.143
Constant (Brown)	1.77	(.62)	.005
χ^2 Full model = 22.43 ($p < .001$).			
χ^2 Improvement from interaction = 4.59 ($p < .05$)			
Percent predicted correctly = 82%			
-2 Log likelihood = 268.84			

Note: Coefficients are the result of a logistic regression in which candidate was entered as a categorical variable. Standard errors are in parentheses. Models with and without the interaction were compared to calculate the χ^2 Improvement. The proportional reduction of error was 5% with 81% of responses in the modal category. Attitude centrality is coded so that highly involved respondents received a 0, and moderately involved respondents received a 1. Candidate support is coded 0 for the control conditions and 1 if the respondent received a cue of some kind, thus the interaction term represents the additional effects of cues among the moderately involved. Only respondents with an expressed candidate preference who also ranked the importance of this decision were included in this analysis ($n = 306$).

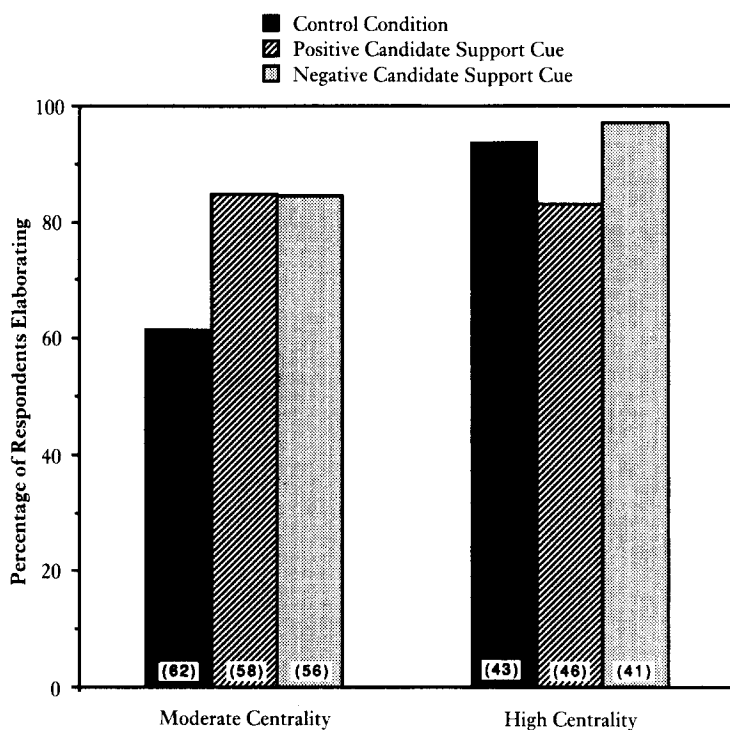
thought on this decision to begin with, information on candidate support triggered greater cognitive elaboration.

The second hypothesis—that support cues will trigger attitude change when they stimulate reflection on either positive or negative thoughts—was tested using an analysis of variance incorporating the two experimental factors and the three-level thought-listing variable representing the balance of candidate-supportive/candidate-opposed thought and attitude centrality. A cognitive-response explanation for momentum predicts an interaction between the support cue and the presence of candidate-supportive or candidate-opposing thoughts; candidate-support cues should shift preferences in the direction of the cues only if they are successful in eliciting the rehearsal of persuasive arguments. This process should be particularly likely among those for whom the choice of a candidate is less important. If the cues elicit strong counterarguments, they may induce shifts in a direction opposite that of the cue.

As indicated at the top of Table 2, support cues had no direct effects on candidate preference, nor did attitude centrality. The main effect of candidate condition simply confirms that there were differential levels of support for the three candidates included in the study. It is also not surprising, nor is it particularly important, that cognitive elaboration is significantly related to choice of candidate; after all, respondents generated these thoughts directly after being asked

FIGURE 2

EXTENT OF COGNITIVE ELABORATION BY EXPERIMENTAL CONDITIONS AND ATTITUDE CENTRALITY



about their choice of candidate, and it is only natural that they should generate thoughts consistent with their preferences.

Most importantly, as predicted, even after one takes into account the direct effects of cognitive elaboration and the other experimental factors, the interaction between support cues and cognitive elaboration is a significant predictor of candidate preferences. The significant three-way interaction between support cues, cognitive elaboration, and attitude centrality suggests that this same two-way interaction was particularly pronounced among those with only moderate attitude centrality. Together, these two findings lend greater credence to a cognitive-response interpretation.

Figure 3 illustrates the means from each experimental condition expressed as deviations from corresponding control group means.¹¹ On the right side of the figure, candidate preferences are in the direction of the cues received: positive

¹¹ Mean candidate preference scores for the three control groups were Clinton (.01), Brown (.44) and Harkin (.30).

TABLE 2
EFFECTS OF CANDIDATE-SUPPORT CUES AND
COGNITIVE ELABORATION ON CANDIDATE PREFERENCE

	Sum of Squares	(df)	F-value
Support cue	.01	2	.04
Candidate	.77	2	5.98**
Cognitive elaboration	45.77	2	355.20***
Centrality	.00	1	.00
Support cue by candidate	.18	4	2.01
Support cue by cognitive elaboration	.57	4	2.21*
Support cue by centrality	.34	2	2.61
Candidate by cognitive elaboration	1.32	4	5.12**
Candidate by centrality	.06	2	.49
Cognitive elaboration by centrality	.13	2	.99
Support cue by candidate by cognitive elaboration	.44	8	.86
Support cue by candidate by centrality	.01	4	.05
Support cue by cognitive elaboration by centrality	.65	4	2.53*
Candidate by cognitive elaboration by centrality	.48	4	1.85
Support cue by candidate by cognitive elaboration by centrality	.45	5	1.38
Residual	16.43	255	

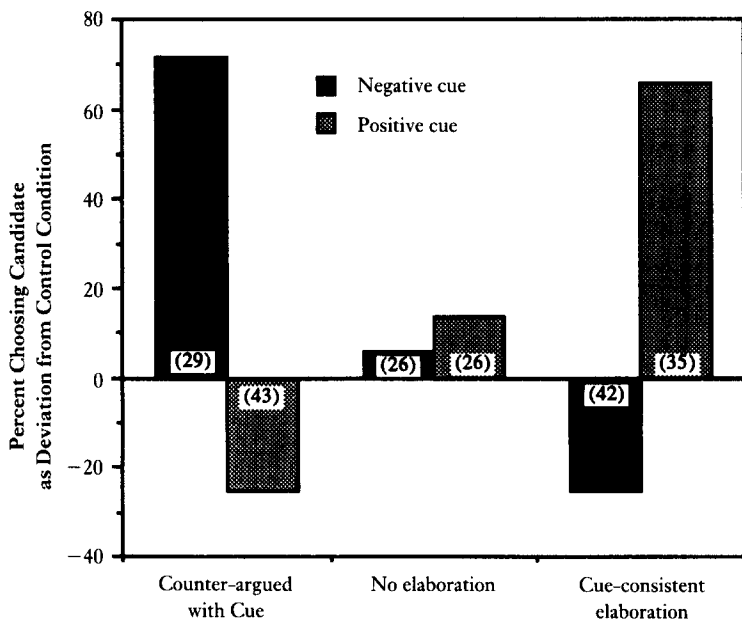
Note: For ease of presentation, findings are shown in the form of analysis of variance; results were confirmed using logit regression with multiple dummy variables representing the experimental groups ($n = 306$).

support cues make it more likely that respondents will express a preference for the candidate in the cue, while negative support cues produce less support for the candidate named. But this pattern holds only among those who generated thoughts consistent with the support cues they received. Among those who counter-argued and rehearsed thoughts contrary to the sentiment described in the cue, candidate preferences were in the direction of the counter-arguments and opposite that of the cue received. Even more important for purposes of confirming the cognitive response model, when no elaboration occurred, respondents' views were not significantly different from those of control group respondents.

The pattern of findings in Figure 3 would not be surprising in and of itself were it not for the fact that this pattern remains even after controlling for the inevitable rationalization that occurs after people express candidate preferences. And, as with the effects of support cues on the extent of cognitive elaboration,

FIGURE 3

EFFECTS OF COGNITIVE ELABORATION ON REACTIONS TO CANDIDATE-SUPPORT CUES



the significant three-way interaction indicates that this overall pattern is driven primarily by those moderate in attitude centrality.¹²

EVALUATING ALTERNATIVE MODELS

Although the cognitive response explanation fits these data extremely well, there are two potential alternatives. The heuristic model of persuasion suggests that when information is low, consensus views may simply trigger a socialized tendency for people to associate the popular with the good or intelligent choice (Axson, Yates, and Chaiken 1987; Chaiken 1987). People with little information may simply reason that surely all of those supporters cannot be wrong. As

¹²A two-way interaction between candidate and cognitive elaboration was also significant. This reflects the fact that the availability of positive and negative arguments differed by candidate. For example, Clinton's debacles involving marital infidelity and the Vietnam War made anti-Clinton arguments more readily available when primed by the experimental cues. Thus some candidates benefited by greater cognitive elaboration, while others suffered by it, depending upon the general prevalence of positive and negative arguments pertaining to a candidate at a given point in time.

indicated in Table 2, although the interaction between support cues and attitude centrality approaches statistical significance ($p = .09$), the direction of findings is precisely the opposite of what a consensus heuristic suggests. Beyond this finding, the most convincing evidence contradicting a heuristic explanation is illustrated in Figure 3. The lack of deviation from the control mean in the "No Elaboration" groups suggests that low information people—those most in need of a heuristic—did not fall back on consensus information.

Group identification provides yet another potential explanation (Hall, Varca, and Fisher 1986; Kerr et al. 1987). To the extent that Democrats respond to news of other Democrats' opinions simply because they positively identify with the group label, momentum needs no further explanation. However, an insignificant interaction between strength of Democratic party identification and the experimental cues suggested that those who strongly identified were no more likely than those who only leaned toward the Democratic party to rely on the experimental cues.¹³

Yet another possibility is that the findings are an artifact of the experimental situation. If people are simply parroting back information about viability or electability based on the experimental manipulations, they may incidentally also be registering a greater number of cognitive responses. An analysis of the thought-listing items revealed few references to strategic concerns, and these arguments did not occur with any greater frequency in the support-cue conditions than in the control conditions. Moreover, the differences between cue and control conditions remain significant even when strategic responses are excluded.

DISCUSSION

The cognitive response model provides by far the best single explanation for these results. Nonetheless, the total effects of momentum in presidential primaries probably involve several simultaneous mechanisms of influence, including both strategic mechanisms and changes in candidate evaluations that are mediated by cognitive responses to consensus cues. This model provides a promising framework for both explaining and predicting shifts in attitudes toward candidates that result in subsequent changes in candidate preference. Moreover, it fits nicely both with extant laboratory findings and with current election data. Information suggesting that others' views may differ from one's own triggers a reassessment of one's own position that is carried out by sampling political information in the immediate environment.

Having established the plausibility of this explanation for momentum-induced attitude change, several methodological concerns need to be addressed in evaluating the strength of these particular findings. For example, how confident can

¹³This three-point scale ranged from those who claimed to "very strongly" identify with the Democratic party to those who "strongly" identified to those who only leaned toward the Democratic party.

It may be that the thought-listing measures truly tap respondents' internal dialogue that occurs before expressing a choice of candidate? Candidate preferences were purposely assessed before eliciting cognitive responses in order to prevent possible activity (see Cacioppo and Petty 1981). It is still possible that the thoughts represent post hoc rationalizations of candidate preference. Path analytic studies of cognitive response measures generally have concluded that cognitive responses mediate affective responses rather than the other way around (Cacioppo and Petty 1981; Insko et al. 1974; Osterhouse and Brock 1970). But more importantly, findings specific to this study also suggest a mediating role for cognitive responses; the interaction between cognitive elaboration and the direction of the experimental cues indicated that the cues were effective only when accompanied by the rehearsal of cue-consistent thoughts. If rationalization were at work, it would be equally likely across all experimental conditions, thus producing strictly main effects.^{14,15}

One final methodological concern involves the generalizability of this research setting. The subject pool and setting of this study lend its findings more external validity than most experimental research, but the manipulations occur directly before candidate preference is assessed. The immediacy of the cues may have created significant short-term changes that evaporated shortly thereafter. On the other hand, the brief amount of time that respondents had to think about and assess their views may well have undermined the full extent of their potential effectiveness (see Huckfeldt and Sprague 1995; McPhee 1963).

In a primary season replete with horse race news, these quick, one-shot cues also had to compete with an ongoing stream of information about the candidates' standings. Data collection was purposely started long in advance of the primary season so that during much of the study there was little primary campaign news to compete with the experimental cues. In addition, the race in 1992 was particularly confusing from a horse race perspective, perhaps making the experimental

¹⁴Indirect evidence supporting this interpretation comes from relationships between measures of cognitive elaboration and attitudes toward candidates. Correlations between cognitive and affective responses are generally stronger for high-involvement issues than for low-involvement issues (Petty and Cacioppo 1979a, 1979b). In this study, on the other hand, the relationship between cognitive response and candidate preference is stronger for those who deem the choice of a presidential nominee a less important decision (see Table 2). This pattern lends further credence to the idea that these thoughts are mediating affective responses to candidates and are not merely post hoc rationalizations for them.

¹⁵It is also possible that the support cues induced greater cognitive elaboration by giving respondents more time to think during the interview. This is unlikely, however, because cues were delivered before the candidate preference questions so respondents had no way of anticipating what the following question would be. Moreover, the mention of a candidate's name did not occur until the very end of the support cue statement, so those in cue conditions did not have more time to think about candidate preferences. Since only thoughts relevant to the choice of a primary candidate were coded, cognitive elaboration among support-cue groups could not be artificially inflated by cognitive elaboration related to thinking about other things.

cues more influential than in a more clear-cut race.¹⁶ Nonetheless, this experiment in a field setting demonstrates that information about candidate support may have an important impact on the dynamics of candidate preferences and, furthermore, that this process occurs partly by means of arguments that voters themselves provide.

IMPLICATIONS

The quality of political decision making has been a persistent concern in debate over the structure of the sequential presidential primary system (Grassmuck 1985; Nelson 1993). Most political observers have concurred that momentum occurs to some extent and that it represents either the rational calculations of strategic voters, or that it is an unhealthy sign of vacuous citizens making political choices on a highly irrational basis (e.g., Brady and Johnston 1987). The American public basically agrees with the latter judgment, citing polls and other mass feedback mechanisms as detrimental to the political process (Lavrakas, Holley, and Miller 1991).

In contrast, this study suggests that beyond the small proportion of momentum that can be accounted for by strategic voting, information about others' views may actually stimulate greater political thought and reflection. In other words, people respond to mediated information about the views of mass others in much the same way that they respond to information about the views of those in their immediate social environment. People do not automatically conform to the beliefs of a friend or acquaintance; instead, they reassess their own views in light of this new information. From this perspective, momentum appears far less pernicious than typical references to bandwagon phenomena would suggest.

A complete normative assessment of attitude change brought about by cognitive elaboration depends in part on the quality of the arguments and counter-arguments that people generate. In this study they clearly ran the gamut from the heavily issue-centered (e.g., "He wants to drop the tax rate; he's concerned about the environment; I agree with his view on government corruption." "He wants a socialized medicine policy and corporate funding of the presidential race eliminated.") to the highly image-oriented ("I like him better because he has a fight in him. Nobody will be able to push him around. I think Brown is a wimp. He reminds me of a little girl.") to the somewhat absurd ("Actually, this Clinton, I tell you, I tie him in with the guy who was trying to run from the KKK."). The instability and uncertainty surrounding primary candidates' positions on issues makes it impractical to assess the accuracy of cognitive responses, but Table 3 provides a general breakdown of the types of thoughts that were gener-

¹⁶For example, even after Clinton emerged as a front-runner, there were strong doubts voiced about whether his campaign could weather a variety of scandals, or whether Democrats should instead choose a more "electable" candidate at the national convention.

TABLE 3

TYPE OF COGNITIVE RESPONSES TO CANDIDATE-PREFERENCE QUESTION

	As Percentage of Cognitive Responses	As Percentage of Respondents
Image/Personal traits or qualities	41	44
Issue positions/Policies emphasized	31	39
Campaign characteristics	9	13
Ability/electability	7	10
Lack of information/Familiarity	5	8
Ideological factors	3	6
Party characteristics	1	1
<i>n</i>	496	309

ted. References to candidates' personal traits and qualities predominated, with references to issue positions or issue priorities a close second.¹⁷

This study also sheds light on when and under what conditions momentum is most likely to occur. Past research consistently points to the level of involvement as a primary indicator of when influence is most likely to occur, both in studies of momentum, and more generally in studies of political persuasion. These findings are consistent with that pattern in that persuasive arguments—whether generated by one's self or by others—are likely to influence those with moderate levels of involvement. A cognitive response interpretation of momentum suggests that the optimal conditions for facilitating momentum combine moderate levels of involvement in the decision-making process (that is, relatively low levels for primary voters) with widespread availability of persuasive arguments pertaining to candidate choice. Consistent with the curvilinear pattern of attitude change documented by Converse (1962), McGuire (1968), and Zaller (1992), it is those people who are interested enough to pay attention, yet not so involved so as to have strong prior commitments, who are most likely to be persuaded by exposure to news of this kind.

Primary voters and the early primary season fit this bill particularly well in that there is a surfeit of media attention on the horse race, yet few people have made up their minds or consider it a pressing issue. Interestingly, attitude centrality significantly increased over time in this study, thus indicating that it is not entirely a stable personal trait but also varies over time as the campaign progresses.

At its best, democratic decision making involves careful consideration of one's own and others' views—mentally mulling over the information one has accu-

¹⁷Interestingly, there were no significant differences by support conditions in the types of responses generated, although some types of considerations were brought up more for some candidates than others. The additional cognitive responses generated in the support cue conditions appear to come roughly equally from all of the various types of possible considerations.

mulated, constructing and reconstructing various lines of argument, and weighing and rehashing arguments pro and con. The effects of momentum, on the other hand, have been characterized as representing the polar opposite—"contentless," empty-headed responses to sensationalized campaign news that need to be restricted or outlawed (Johnston et al. 1990).

To the extent that cognitive response mechanisms account for the effects of momentum, fears of massive impact may be unfounded since momentum's effects are constrained by the availability and persuasiveness of existing arguments for and against candidates. Moreover, if this same process constrains the public's reactions to publicized poll results and other political messages about collective opinion, its implications may extend well beyond the quality of opinions formed under the current primary system. Voters' age-old fascination with learning about others' views may even serve a valuable purpose by stimulating greater political thought.

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APPENDIX

SURVEY SAMPLING PROCEDURES

The Letters and Science Survey Center (LSSC) at the University of Wisconsin-Madison runs a continuous national telephone survey that begins with a sample of telephone numbers representative of currently working residential telephone numbers in the continental United States (including both listed and unlisted numbers) purchased from Nielsen Media Research.

One person is selected at random from among the adult (age 18 or older) members of the sample household. The interview is conducted using a Computer-Assisted Telephone Interview System. Each sample number is called up to ten times, using a "day of the week" calling strategy. Each day's interviews constitute a random sample of the population on that day. This requirement means that it is necessary to deal with the problem of nonresponse in a special way, using a procedure first suggested by Kish and Hess (1959) and elaborated upon by Madow, Hyman and Jessen (1961). The procedure depends on replacing current not-at-homes with not-at-homes saved from previous sample draws. Because the kinds of people not home on one day of the week may be different from those not at home on another, the replacement scheme is day-of-the-week specific. Some measure is added to the variability of the resultant estimates. Nonetheless, each day's interviews can be aggregated with those for other days to produce a probability sample for arbitrary contiguous blocks of time.

To assess the quality of the survey, the distributions of social and demographic characteristics of the Survey Center's respondents were compared with those of the CPS and the National Survey of Families and Households. The Letters and

sciences Survey Center's response rate is approximately 52% if one includes both refusals and unresolved numbers in the denominator. This is considerably lower than the CPS and the NSFH; however, comparisons suggest that distributions of respondents are quite similar with respect to major demographic variables including household size, region, age, sex, household income, marital status, religious preference, unemployment, and church attendance. Differences result from the fact that LSSC is a telephone survey which consequently underrepresents minorities. Educational comparisons are difficult because the LSSC uses educational classifications based on the 1990 census concept; however, it appears to underrepresent those with less than 12 years of education, again due to the prevalence of telephones.

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