DOCUMENT RESUME

ED 204 816 CS 503 388

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TITLE Communication of Political Information during Early Presidential Primaries: Cognition, Affect, and Uncertainty.
PUB DATE May 81
NOTE 39p.; Paper presented at the Annual Meeting of the International Communication Association (31st, Minneapolis, MN, May 21-25, 1981).

EDRS PRICE MF01/PC02 Plus Postage.
DESCRIPTORS Adolescents; Adults; Attitude Change; Change Agents; Communication Research; *Decision Making; Information Sources; *Knowledge Level; Mass Media; *Media Research; *News Media; *Political Attitudes; *Political Influences
IDENTIFIERS *Presidential Campaigns

ABSTRACT

As part of a larger study of political socialization in adolescence, 782 adolescents and 718 parents were surveyed to test hypotheses about political information as a function of the early phase of a presidential campaign and the news exposure level of the respondent. Despite shortcomings in the sample design and in the precision of interview timing, it was established that there was considerable variation in the flow and acquisition of political information during the early weeks of the presidential campaign. Audience members who were heavily exposed to campaign-related news events were quick to translate these news events into more highly structured affective reactions and preferences regarding candidates. Such activity probably tends to hasten the process of sorting out a few leading candidates from their straggling opponents ("winnowing"). Simple conceptions of "information" that were limited to individual-level cognitions failed to tap some of the most important aspects of these winnowing processes. The structuring of political affect and the arousal and resolution of uncertainty at the aggregate level were seen as important indicators of the dependence of the media's audience on campaign news during the critical early phases of the campaign year. (RL)

COMMUNICATION OF POLITICAL INFORMATION DURING EARLY PRESIDENTIAL PRIMARIES: COGNITION, AFFECT, AND UNCERTAINTY

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Presented to Political Communication Division, at the 31st annual conference of the International Communication Assn., May 1981
(Top Three Paper)

ABSTRACT

Five types of political information were analyzed as a function of the phase of the early presidential campaign year, and the news exposure level of the respondent. The number of cognitions, the accuracy of cognitions, and the degree of affective structuring of cognitions were all higher among the high-exposure groups, and were higher during the early primaries phase than they had been in the pre-primary period. Uncertainty in the distribution of cognitions was higher in the high-exposure groups, but their distance from the low-exposure groups was reduced in the early primaries phase. Uncertainty in the distribution of candidate preferences was higher in the high-exposure groups during the pre-primary phase, but higher among the low-exposure groups during the early primaries. The latter interactions were predicted as a function of uncertainty-reducing news flow as the early primaries begin to eliminate some candidates.

COMMUNICATION OF POLITICAL INFORMATION DURING EARLY PRESIDENTIAL PRIMARIES: COGNITION, AFFECT, AND UNCERTAINTY

Generalizations about the role of mass media in presidential elections tend to imply that the campaign year is a seamless whole, in which the relationship between media and audience is the same from the earliest primaries until election day. Candidates and their campaign strategists, however, recognize that this is not the case (Barber, 1978; Kessel, 1980). The campaign progresses in a series of phases, and the role of the media is quite different, in kind as well as in magnitude, in these successive periods. The character of the audience that is being addressed changes, as does the structure of political information held by that audience.

The clearest differentiation over time is between the campaign for nomination and the subsequent campaign for election. Most research and, consequently, most syntheses of the research literature, are based on the conditions that obtain during the post-nomination fall election campaign, which is contested between standard-bearers of the two major parties plus a few independent candidates. In general the fall campaign is one in which political information about (and claims on behalf of) the candidates flows heavily to a "mass" or general audience; information processing is largely structured by prior, partisan affiliations; the focus is on voters' final choices between the two major candidates, based on their personal characteristics and issue positions.

Primary Campaigns

The campaign for nomination is qualitatively different, especially in its early phases. Rather than a time of final decision, it has been characterized as a period of "winnowing" (Matthews, 1978). Competition for nomination is within each party, rather than between parties. There are typically many

candidates vying for nomination, or at least being "mentioned" as possible nominees. Campaigning early in a presidential primary season is a process of mobilization of support of many kinds -- contributions, volunteers, endorsements -- more than it is one of winning only the votes of otherwise uninvolved citizens (Chaffee, 1981).

Little research has been directed toward communication processes specifically during primary campaigns. Many more candidates are eliminated from contention in this period than during the final election campaign, though, and the process by which the field of viable contenders is narrowed to two or three would seem to deserve more attention.

The Media. Just as financial and worker support is tentative and dispersed during the primaries, so are the reportorial resources of the press. With many candidates, none can receive concentrated coverage. Much of the news focuses on who seems to be forging ahead in the horse-race for nomination rather than on the relative merits of the several candidates in terms of political issues. A candidate's personality and style, and indications of his financial support, are newsworthy as clues to his chances of success. Even the crudest of poll results is seized upon as an indicator of the "winnowing" process; results of the first few primary elections are greatly magnified as representing national trends.

Political information in the early-primary campaign context is not so much a matter, then, of knowledge of issue positions and candidate capabilities, as it is of the resolution of uncertainty about who the nominees are to be. Potential backers and volunteer participants; those who want their votes to "count"; reporters who want to be covering the "leading" candidates; and even the rival candidates, are primarily interested in the probable fortunes of the many candidates -- of whom only a few can survive for more than a few months. And, again unlike the communication-saturated general election phase,

acquisition of these kinds of information during the early primaries requires a relatively high degree of attention to the dispersed and conflicting reports emanating from the news media.

The key perception that a candidate for nomination seeks to convey is viability, that he has a chance of winning. Patterson (1980) has found that this perception tends to foster more favorable opinions of the candidate. Kessel (1980: p. 41) notes that during the early primaries "so few delegates are at stake . . . that impressions of probable success are more important" than actually winning votes. The press's heavy concentration on the first primary in New Hampshire (Matthews, 1978) gives national significance to the result even though very few voters contribute to it. A bit later in the campaign comes what Kessel (1980) calls the "mist clearing" stage, in which the remaining candidates begin to build coalitions by arguing to the disappointed supporters of defeated candidates that they are reasonably close to the preferred position and have "a real chance of winning" (p. 9). Few primary campaigns are smooth, well-financed, national media extravaganzas; indeed, one of the major goals of a nascent campaign in this early phase is to attract contributions and volunteer workers. Impressions of potential success are essential in this effort, and a necessary precondition for surviving to campaign for votes later on.

During the uncertain first months of a presidential year, the press devotes much of its energies to gathering evidence that bears on the mist-clearing and winnowing processes. This includes reports of polls of all descriptions; statements by candidates about primaries where they expect to do well or poorly; results of party caucuses or the choices of prominent party leaders; interpretations of news events as they might bear on the fortunes of one or two candidates; and of course primary election outcomes. Even as these early indicators begin to clarify the picture, the last few candidates are announcing

their intentions to run for nomination, thus increasing uncertainty in one way while it is being resolved in others.

The Audience. The main audience for a primary campaign consists of that highly attentive minority whose support might be mobilized on behalf of any of the several candidates seeking a party's nomination. Most citizens watch the primary contests -- if indeed they pay much attention at all -- from the sidelines; only a small portion of potential voters participate in primary elections, even in those states where they are held. For the attentive follower of the campaign, seemingly informational news reports can have decidedly persuasive meaning. As a rule, there is much more openness to information in such a time of high uncertainty than there would be later in the year when the question has been reduced to a choice between two party tickets.

Patterson (1980) has found some special audience characteristics that are peculiar to the primary season. For example, in this phase partisan voters develop more favorable images of the opposition party's candidates than during the general election. Close scrutiny and criticism is aimed mainly at opposing candidates within one's own party while the primaries are being contested. Patterson concludes that "apparently, partisanship is not as strong a psychological defense in the primaries . . . and voters' partisan biases are not fully mobilized" (p. 147). Partisan selectivity in attention to campaign communication would, if anything, heighten exposure to the competing candidates (within one's own party) rather than limiting exposure as seems to happen during the general election campaign.

Patterson (1980) summarizes the contrast in communication processes this way:

> When a voter is firmly committed to a particular candidate or viewpoint, this attitude provides a defense against change. The commitment leads voters to see events and personalities selectively, in a way they want to see them, thus resulting in the reinforcement of existing attitudes. When voters' attitudes are weak, their perceptual defenses also are

> weak. When this occurs..., voters are likely to accept incoming information in a rather direct way, thus developing a conception of the situation consistent with this information. Their perspective becomes that of the communicator, a change that directs their attention toward certain ways of acting and away from other modes of behavior. Their perception of the situation may even point to a single option, one that they find entirely satisfactory because they had no strong initial preference. They then act upon this choice and, in doing so, form attitudes consistent with their choice. Voters, in short, have been persuaded through perceptual change rather than attitude change. Their perceptions were altered first, and then appropriate attitudes were developed (pp. 125-126).

The persuasive import of informative mass communication is, according to this analysis, likely to be greater during a primary campaign -- relative either to a general election campaign or to direct attempts at media persuasion. The nature of this informative role deserves more thorough examination than it has received in prior research.

Conceptions of Political "Information"

Political Cognitions. Most empirical definitions of "information" in a political campaign context are cognitive and relatively objective in nature. There is certainly a considerable flow of political cognition even amidst the confusion of an early primary season, and we would join other scholars in deeming its cumulative acquisition to be quite important. At least some voters should come to understand the substantive differences among the candidates and to make their individual decisions accordingly. A very small subpopulation in a few early-primary states usually determines which few candidates will emerge with a chance for nomination. Many processes of political communication precede (by some months) these few but powerful votes, and a number of different indicators are needed to help us chart the course of information-processing events that lead to these choices.

Uncertainty. Uncertainty and its resolution are critical to these processes, and in our view should take a position parallel to that of cognitive items in defining political information during the early primaries phase. Uncertainty, and the reduction of uncertainty, has been an accepted conceptual

definition of "information" since the theoretical work of Shannon and Weaver (1949). Uncertainty increases with a greater number of possible alternatives (e.g. candidates) and the more equally probable these alternatives are. At least one study (Chaffee and Wilson, 1977) suggests that uncertainty and structure in a community's collective political perceptions vary as a function of community media characteristics. But despite early interest stimulated by Schramm (1955), mass communication effects researchers have tended to overlook collective uncertainty and to concentrate on individual-level phenomena.

Discarding Conventional Assumptions. These considerations require us to rethink some of the compartmentalizations that are conventionally assumed when researchers study mental operations in communication. We cannot forcibly separate "information" from "persuasion" in a setting, such as the primaries, where information may lead directly to consequential decisions. Further, if the structure of perceptions is closely followed by analogous opinion formation, we should include in any conception of information the interplay among cognition, affect, and the inter-dependent organization of the two. And not all consequences of the communication of political information are observable at the level of the individual. Collective uncertainty is a property of a social system, such as a group, a community, or a media audience.

In this paper we will examine the following criterion variables, which do not comprise a comprehensive list, but which do suggest some of the varieties of political information that might be studied during a presidential primary season:

1. The number of different cognitions the person holds regarding a political decision. This is a popular measure among researchers; in such forms as the number of candidates one can name, the issues or problems the person considers important, the agencies and solutions associated with these problems, etc. This concept would include the many items of information the person believes, regardless of their actual validity.

2. The proportion of cognitions held that is "correct" according to some objective criterion. A common criterion for separating correct from incorrect political beliefs is the published record, such as the speeches of the candidates or press accounts regarding their partisan, ideological, or issue positions. One clear-cut test of a cognition's "truth" value during a primary campaign is party affiliation of major candidates, since each is running for a specific party's nomination.

3. The degree of affective structuring associated with support for a candidate. Cognitive theories of the "balance" variety stress that affective and cognitive structures tend to become consistent with one another, and this process can be considered part of the person's total handling of his or her personal political information. For example, to prefer one candidate might imply downgrading his opponents; to support a candidate of one party might imply rejecting those of a competing party; or to favor the candidate of a given party might imply accepting his positions on various issues, or attributing to him virtues such as honesty, intelligence, or leadership. All of these outcomes have been observed in various studies, and they can be viewed as affective utilization of "information" in the more usual senses defined above. The structuring process is part of a general pattern of cognitive activity occasioned by the primary election and stimulated by the intensive media campaign leading up to it.

4. The degree of structure in the distribution of cognitions among the members of a group that is sharing information. This criterion, unlike the preceding three, is a characteristic of a social system that is linked by common sources of information, rather than a characteristic of an individual. It is based upon the degree of uncertainty, which as noted above is a product of both the number of alternatives and the equality of probability among them (Shannon and Weaver, 1949; Schramm, 1955). In a nomination campaign, these two elements

translate into the number of candidates and one's subjective estimate of the "chance" that each has. Aggregated, this represents the range and variety of information held, viewing the community as a whole. As more candidates enter the race, uncertainty increases to the extent that there is no "objective" information as to who might win, thus increasing the range of speculation within "informed opinion." But as the fortunes of some candidates decline in polls, primaries, and other "winnowing" mechanisms, this uncertainty is decreased. The primary campaign, overall, affects information in this fourth sense in both directions, increasing uncertainty for a time as candidates add themselves to the list, and then reducing uncertainty by winnowing out the few winners from the larger roster of losers.

5. The degree of structure in decision-making, across the members of a political system. As the initial cognitive uncertainty declines, the political selection process focuses more and more on the few remaining viable candidates. It is from among these few that active members of the system select their favored candidate as the time for choice (e.g. a primary in one's own state) approaches. Across the population, decisions are made from the range of what is thought to be possible. In this case it is the range of candidates a person considers viable. Thus, decision-making becomes less uncertain as a consequence of the reduced cognitive uncertainty that results from "winnowing" information.

The foregoing list of informational outcomes is cumulative and progressive in nature. First comes (1) knowledge of candidates, followed by (2) knowledge about candidates, such as their party affiliations, personalities, issue positions, etc. The next question involves (3) the affective structuring of these related cognitions. These individual processes in turn affect (4) the degree of uncertainty in the system, increasing cognitive uncertainty as the number of relevant alternatives increases, and decreasing it as some become less probable

than others. Finally, there is (5) resolution of decisional uncertainty within the system as people's choices regarding which one to support focus in on two or three surviving candidates.

Mass Communication in the Primary Period

Each of these processes, in addition to being loosely dependent upon the process prior to it in our list, is directly dependent upon the mass media for much of the information on which it is based. Communication of political information involves two general classes of actions: what is sent via the news media, and the degree of exposure of the audience to that content.

Types of Media Information. In the terms of our distinctions outlined above, we can consider three types of content provided by news media during an early primary campaign period: cognitions about each candidate and his political positions; uncertainty-increasing information about the range of choices; and uncertainty-decreasing information about a candidate's viability.

Candidate- and issue-related information probably tends to be generated at either a constant or a gradually increasing rate throughout an election year; no precise estimates are available. But coverage of any given candidate is almost necessarily slighter early in the year when "objective" reporting demands that a share of reportage be allocated to each of the many potential candidates. Early media concentration seems to be more on who the candidates are than on what any one of them might do if elected.

Uncertainty-related information, on the other hand, is most in evidence in the early phases. Names of the candidates, their supporters and the issues on which they intend to campaign, begin to be reported at least a year before the first primary and increase in frequency of occurrence into the first month or two of the election year. This expansion of the number of candidates to be considered can generally be classed as uncertainty-increasing.

The resolution of this uncertainty begins, necessarily, a bit later, and does not crest until around the time of the first primary elections. Uncertainty-decreasing information consists of indications of which candidates are leading in polls, who is winning the key early caucuses and primaries -- and correspondingly; which other candidates can be dropped from consideration. It is this dropping of the trailing candidates that reduces uncertainty by narrowing the number of viable possibilities.

Figure 1 shows schematically what we conceive to be the approximate curves over time for each of these three types of political information during the early primary period: uncertainty-increasing information peaking earliest, then dropping rapidly once the candidates have "thrown their hats in the ring" of the primary elections; uncertainty-decreasing information peaking during the period of early primaries and polls that sort out the winners from the also-rans; and candidate-issue cognitions flowing at a modestly upward gradient on into the later election phase.

(Figure 1 about here)

Exposure to Media Information. Interest in a political campaign, particularly in the early stages when for most people the media and the candidates are concentrating on distant states and issues, is highly variable across citizens. Patterson (1980) found that more than 50% reported "no interest" in the 1976 campaign in February. This figure was 20% lower in June, but still about one-third were uninterested; at the same time, a substantial minority (25-30%) reported "strong" interest, and these people were much more likely to follow the campaign in the media.

High exposure and attention to the vast variety of information flowing from the media should theoretically affect mainly the rate of absorption of this information. As Patterson (1980) writes, "Close attention to the news

sharpened people's reactions and judgments. First, those with heavier news exposure reacted more quickly to the changing situation . . . Also, the reactions of close followers of the news were stronger" (p. 123). This principle leads to two distinguishable predictions regarding high-exposure audience members: they should acquire information from the news media at both a faster rate and at a cumulatively higher level that do those who are less exposed to the campaign in the media.

It should be stressed that these predictions refer to the media audience, not just to voters. In a primary campaign only a minority of even the adult audience consists of people who will vote in the upcoming primary. Beyond them are the many others in that state who will not vote; the large numbers of potential voters in other states who are exposed to distant primary campaigns via national media; and other audience members, such as young people of pre-voting age plus some other adults, who are not even eligible to vote. Election studies, which usually focus specifically on voters, tend to overlook the extension of political mass communication processes to these additional components of the larger audience. There is no reason to expect the processing of information during a campaign to be limited only to those few who will vote in one of the early primaries. And in the longer run, interpersonal processes of public opinion are likely to involve participation by interested and informed audience members; their political import in this role does not depend upon their voting. The "climate of opinion" that people perceive in the community at large can be a potent factor in a fluid political situation (Noelle-Neumann, 1977).

Research Hypotheses

As explained below, this study is set in the pre-primary ("early days") and early primary ("mist clearing") phases of the 1980 presidential election

campaign. Time, then, is one important independent variable because we expect the news media to be providing different kinds of information in these two periods: predominantly uncertainty-increasing information in the pre-primary phase, and primarily uncertainty-decreasing information during the early primaries. Candidate and issue cognitions we expect to remain stable or to increase slightly during this span of time.

The other independent variable is exposure to the campaign via the news media. We expect high-exposure audience members to hold more cognitions in each time period than will low-exposure persons; both groups should increase as they absorb more information over time, but we should expect high-exposure persons to increase their store of cognitions at a faster rate. These predictions should hold for all three of our individual-level criterion variables: number of cognitions held, the proportion of those cognitions that is objectively "correct", and the degree of affective structure that is associated with the person's candidate preferences. In all, we have two sets of main effects hypotheses, predicting higher levels of information (1) at the later time and (2) for the higher news-exposure group; and one set of interaction hypotheses, predicting (3) a greater difference between the news-exposure groups at the later time than at the earlier time. (We should point out that the interaction hypotheses are overriding, in that if they are supported empirically the predicted main effects could be interpreted as artifacts of the interactions.)

Hypotheses about system-level uncertainty and its resolution are more complex to derive, because we expect the differential emphases in media coverage of the campaign to interact with differential rates of absorption of that information by the high vs. low news-exposure groups. Specifically, we predict that the high-exposure group should respond relatively quickly to structural changes in the campaign fortunes of the various candidates, so

that uncertainty within this group should be high during the pre-primary phase when uncertainty-increasing information has accumulated to its peak. Later, as candidates begin to be eliminated or at least become unlikely survivors during the early primaries, we predict that the high-exposure group should absorb this simplified structure and exhibit less uncertainty than in the pre-primary phase.

Low-exposure audience members, on the other hand, should be slower to absorb uncertainty-related information. Accordingly, they should exhibit less uncertainty during the pre-primary phase than would the high-exposure group, and in the later phase of early primaries they should be less likely to exhibit reduced uncertainty than the high-exposure group. Because uncertainty here is a property of systemic aggregates of persons, these hypotheses in effect treat the high- and low-exposure groups as two audiences -- or to put it in the extreme, one audience and one non-audience. Given our dichotomous treatment of the variable of news exposure, however, we should expect the low-exposure group to behave more like a "slow" audience than literally a non-audience.

Design and Measures

Interviews on which this study is based were conducted by telephone throughout the state of Wisconsin over a seven-week period from late January through the middle of March, 1980. The professional staff of the Wisconsin Survey Research Laboratory administered all data collection and coding, under a grant from the National Science Foundation to the second author and two co-principal investigators.[1] The larger project from which this analysis is taken is a study of political socialization in adolescence. The population represented by the sample is composed, accordingly, of adolescents (age 10-17) and one parent of each; respondents were selected by random-digit dialing techniques. In this study, the "socialization" feature of the main study is of secondary importance to the theoretical questions outlined above.

We will treat the adolescents and their parents as separate samples in the present data analysis; while one can expect in general that adolescents would have lower levels of political information than their parents, we have no reason to expect them to react differently as a group to the presentation of campaign information in the media. On that assumption, we will treat the adolescent and parent samples as equivalent for purposes of testing our research hypotheses.

Samples. Neither the adolescent sample nor their parents is representative of a general population, such as voters or the total media audience. On the other hand, both groups are part of the potential audience for campaign news via national media during the period of the study. The Wisconsin primary election was approximately a month in the future when our interviewing period was completed, so both groups are simply part of the broad national media audience that is being brought distant political events, which for most of them have little immediate relevance. We will divide each group into high- and low-exposure, and pre-primary and early-primary interview subgroups in addressing our hypotheses. To the extent that the results are similar for the adolescents and their parents, we will consider the findings to have been replicated with an independent sample.

In all, N=782 adolescents were interviewed, approximately 100 at each age from 10 through 17. Since parents were not interviewed for the socialization project unless their children were also interviewed, but some children were interviewed even though their parents could not be, the parent sample is smaller, N=718. The parent sample ranged in age from 27 to 69, with a median of 41 years. Education level was somewhat above the national average; 53% had completed high school, and another 32% had attended college. Of the adolescents, 48% were female; because more children of broken families live with the mother, 57% of the parents were female. Parents in two-parent homes were

sampled randomly, and geographical distribution was spread proportionately across the state by the random-digit telephone dialing selection procedure.

Interview Phase. Because random-digit selection was used throughout the study, the date on which a respondent was interviewed was mostly randomized (except for the fact that households requiring more call-backs tended to be interviewed a bit later). Respondents were grouped separately into either of two time periods: January 29 through February 18 ("pre-primary") and February 19 through March 19 ("early primaries"). Following are some of the politically newsworthy events occurring during each of these periods, and in the earlier part of January prior to our study:

Prior to study: President Carter announces ban on grain sales to Russia and possible boycott of Olympics (Jan. 4); signs Chrysler aid bill (Jan. 7); announces $2 billion youth training program (Jan. 10). Six Republican candidates debate in Des Moines (Jan. 5), all attack Carter foreign policy. Polls show Carter ahead of Kennedy 51-37% in national Gallup poll (Jan. 8), and 57-25% in Iowa (Jan. 11). Approval of Carter's handling of Iran crisis is down to 62% approve vs. 30% disapprove (Jan. 10), compared with 77-19% approval in December.

Pre-primary: Carter and Bush win Iowa caucuses (Jan. 21), Carter wins Maine caucuses 44-40% over Kennedy (Feb. 10); Bush wins Puerto Rican primary (Feb. 17). Carter proposes moving or canceling Moscow Olympics (Jan. 20); gives bellicose State of Union address (Jan. 23); announces plan to renew draft registration (Jan. 23); 1981 budget featuring mild recession, rising unemployment, double-digit inflation (Jan. 28); reports "positive signs" re Iran (Feb. 13). Abscam investigation launched (Feb. 2); U.S. promises to help Pakistan if Soviets invade (Feb. 3); U.S. announces arms aid to Afghan insurgents (Feb. 15); prime lending rate reaches 15.75% (Feb. 19).

Early primaries: New Hampshire primaries (Feb. 26) won by Carter 49% to Kennedy 38% and Brown 10%; and by Reagan 50% to Bush 23%, Baker 13%, Anderson 10%. Massachusetts primaries (March 4) won by Kennedy 65% to Carter 29% and Brown 4%; Bush and Anderson both 31%, Reagan 29% and Baker 5%. Vermont primaries (March 4) by Carter 74% to Kennedy 26%; by Reagan 31% to Anderson 30%, Bush 23%, Baker 13%. Florida, Georgia and Alabama primaries (March 11) all won by Carter and Reagan. Connally drops out of Republican race (March 9). N.Y. Times poll (Feb. 20) shows Carter ahead of Kennedy 58% to 23%, an increase over his 44-34% lead in January; Brown is at 7%. Among Republicans, Bush has closed from a 45-6% deficit in January, but still trails Reagan 33-24%. Consumer price index soars to 16.8% annual rate

(Feb. 22) then 18% (March 7). Prime lending rate continues rise to 19% (March 18). U.S. Hostages held in Bogota (Feb. 27); no progress on hostages in Iran after international commission disbands (March 14).

These capsulized pictures of the news in each period generally support our assumptions outlined in Figure 1. During the pre-primary phase there is considerable question whether the Republican candidate might be Reagan or Bush, or perhaps someone else; Anderson, Baker, Crane and Connally continue to campaign, and Ford is frequently mentioned despite not campaigning. On the Democratic side, Kennedy continues to appear viable despite the polls, as events seem to worsen Carter's chances; Brown is still in the campaign to stay (until the Wisconsin primary). All of these events could have served to increase uncertainty as to which candidates had "a real chance" of nomination, although highly attentive voters might have read foreshadows in Carter's tenacious lead in the polls despite great political adversity regarding foreign policy and the economy.

Later, in the early primaries phase, much of the news was by contrast of the uncertainty-resolving variety. The Brown, Baker, Crane and Connally campaigns were fast becoming lost causes. Reagan and Carter each won five of the first six primaries, and were piling up delegates while Anderson, Kennedy and Bush fought to stay in the running.

Splitting date of interview into these two phases, then, produces two roughly equivalent random samples of adolescents, and two of parents. (Respondents were assigned to time groups depending upon the dates of their own interviews, without regard to the interview with the other member of the same family.) Changes over time in our results are not changes within the same people, as would be the case with a panel design; they represent differences between groups of people sampled by identical procedures at different times. This avoids the problem of respondent "contamination" inherent in asking informational questions of the same person in repeated waves of a panel study.

Exposure to Media News. A single overall index of media public affairs and news exposure was created by summing the responses to four questions: the number of days in the past week the respondent had read a newspaper, or had watched "national news on television"; frequency of watching local late evening TV news or watching "news programs like 60 Minutes and news specials." Respondents were divided into high- and low-exposure groups by splitting the summed scores at the median for parents, and at the median for adolescents. This, coupled with the dichotomization by phase of interview (above) provided the four groups for each generation that are used throughout our analyses: pre-primary/low-exposure (N=208 parents, 224 adolescents); pre-primary/high-exposure (N=169 parents, 183 adolescents); early-primaries/low-exposure (N=188 parents, 188 adolescents); and early-primaries/high-exposure (N=147 parents, 161 adolescents).

This breakdown, summed across different media and different types of news vehicles and then dichotomized for simplicity in data analysis, is only a rough-grained indicator of the person's level of exposure to news events bearing on the campaign. The phase-of-interview groupings are equally crude. Our design falls far short of the cleancut exposure vs. control conditions of a laboratory experiment. To the extent that we find results in line with our hypotheses, one might consider that a more tightly designed study would produce much stronger findings.

Dependent Variables: Political Cognitions and Affect. Respondents were asked to name as many candidates "running for President" as they could, and then were read a list of candidates and asked how much they liked or disliked each one (five-point scale). They were then asked which one of those named they would "want elected President in November", and for each one they were also asked whether they thought of him "as a Republican or as a Democrat."

From these items the following indices were constructed:

1. Candidates Mentioned. The sum of the number of different candidates running for President the respondent named in answer to the first, open-ended question. (The conceptual variable represented in this measure is the number of different cognitions held.)

2. Knowledge of Party Identification. The sum of the number of correct answers to closed-end questions about the party affiliations of eight candidates: Republicans Baker, Bush, Connally, Ford and Reagan; Democrats Brown, Carter and Kennedy. (The conceptual variable here is the proportion of cognitions held that are "correct" according to an objective criterion.)

3. Affective Structuring of Candidate Support. The difference of the respondent's rating of his/her preferred candidate minus the mean rating of the other candidates who were rated on the five-point like-dislike scales. (If a respondent didn't know one of the seven other candidates well enough to express an opinion, that candidate was not included in calculation of the mean score for the "other" candidates.)

These three indices correspond to the first three types of information we defined earlier here. For each of these criterion variables, we predicted (a) that high-exposure respondents would be higher than low-exposure respondents, (b) levels would be higher during the early primaries phase than they had been in the pre-primary phase, and (c) the increase from pre-primary to early-primaries would be greater for the high-exposure groups.

Dependent Variables: Uncertainty Measures. Within each of the eight groups -- parent vs. child, high- vs. low-exposure, and pre-primary vs. early-primary -- the aggregate distributions of answers to the two open-ended questions about candidates were calculated. The standard measure of uncertainty $H = -\Sigma p_i \log_2 p_i$ (also called "entropy") was calculated (Shannon and Weaver, 1949). This produced the following indices:

4. Uncertainty About Candidates Running. The percentage of respondents in each group who mentioned a given candidate was assigned the value p_i for the ith candidate, p_j for the jth candidate, etc. Each p-value was multiplied by its own $\log_2$ and these products were summed according to the Shannon formula. (The conceptual variable here is the degree of structure of cognitions, across the members of the group.)

5. Uncertainty About Candidate Preference. The percentage of respondents in each group who said they preferred a given candidate was assigned the value p_i for the ith candidate, etc., and uncertainty calculated as explained above. (The conceptual variable represented here is the degree of structure in decision-making, across the members of the group.)

For these measures of the degree of uncertainty, the main effect of media exposure is predicted during the pre-primary period only, as we expect the

high-exposure group to exhibit greater uncertainty due to higher awareness of a larger number of candidates. Later on in the early-primaries period, as candidates begin to be seen as less probable survivors in the light of current news events, we expect the high-exposure groups to become less uncertain while uncertainty in the low-exposure groups could continue to grow.

Summary of Hypotheses. Figure 2 illustrates schematically our overall theoretical basis for the various hypotheses. Given that news flow from the media does correspond roughly to our expectations outlined in Figure 1 (see description of news events, above), all of our predictions of group differences are based on the assumption that those more heavily exposed to the news will absorb both its content and its affective implications more rapidly than will those who do not follow the news as closely.

(Figure 2 about here)

In Figure 2, we expect increases over time in the amount of cognitive and affective information in both groups, with a greater rate of increase among the high-exposure respondents. This applies to the first three dependent variables, each of which is a measure of information held within an individual. As Figure 2 indicates, however, we also expect the high-exposure groups to react more readily to news events that affect uncertainty about the candidates. Consequently, for the two measures of group uncertainty, we predict a decrease over time for the high-exposure group because they should become aware of news that indicates candidates are dropping behind and out of the race. By contrast, the low-exposure groups should not be as aware of these events and so their uncertainty levels would continue to increase even though the preponderance of current news is beginning to flow in the other direction, toward uncertainty-resolution.

Results

Our findings are presented in Figures 3 through 7 in the form of graphs that indicate the group mean or H score, as appropriate, for each of the eight groups on each of the dependent variables. To aid comparison across these graphs, the lines representing high-exposure groups are solid and those representing low-exposure groups are broken. Parent and adolescent group data are shown on the same graph for each dependent variable; no tests of parent-adolescent group differences are reported, since in this paper we have offered no hypotheses about them. The separate parent and adolescent data analyses provide an indication of the replicability of findings.

(Figure 3 about here)

The first criterion measure, the number of "candidates who are running for President" recalled by the respondent, is analyzed in Figure 3. As is apparent, the predicted increase over time is found for all four groups, and is significant ($p<.001$) for both the parents and the adolescents. We also find the predicted difference between high and low news-exposure groups, and this too is highly significant ($p<.001$) for both samples. The predicted interaction (i.e. the widening over time of the gap between exposure groups) is, however, found only among the adolescents ($p<.05$).

(Figure 4 about here)

Neither sample exhibits this interaction in Figure 4, where the group means for correct identification of candidates by party (criterion variable 2) are plotted. Here the predicted news-exposure differences are large and significant ($p<.001$) for both the parent and the adolescent groups. The predicted increases over time are not statistically significant, but it is notable that the means for all four groups are at least slightly higher during the

early-primary phase than they had been during the pre-primary phase. This replicated main effect is significant by sign test ($p<.05$, one-tailed).

Considering Figures 3 and 4 together, then, we find support for our main effects hypotheses regarding the most conventional cognitive types of dependent variables, but only one instance of support for our interaction hypotheses. There are informational differences between high- and low-exposure respondents, and to a lesser extent we also find increases over time in the holding of these kinds of knowledge.

(Figure 5 about here)

When we turn to the measure of affective structuring (criterion variable 3) in Figure 5, however, the results are more in line with our full set of expectations. The tendency to evaluate one's preferred candidate above all others increases over time rather markedly for the high-exposure groups, both parents and adolescents, but there is no such increase for either of the low-exposure groups. The main effect of media exposure is significant only for the adolescents ($p<.01$), and the interaction is significant only for the parents ($p<.05$), but in both cases the pattern of results conforms rather well to our predictions.

(Figure 6 about here)

Uncertainty regarding what candidates are "running" (criterion variable 4) is plotted in Figure 6. The H values here are based on the same interview question as are the group means in Figure 3, and the results are not much different quantitatively. There are two clear main effects, of media exposure and of interview phase, and no significant interaction between those two independent variables. Qualitatively, though, it is worth noting that among the adolescents there is a slight tendency in Figure 6 for the distance between the high- and low-exposure groups to be greater in the pre-primary phase

than in the early-primaries phase. Note that in Figure 3 the opposite pattern (to a significant degree) was found when the same raw recall measures were used to estimate cognitions rather than uncertainty. This lends some degree of credence to our theoretical predictions that changes would occur in opposite directions for the two types of criterion variables, the high-low exposure "gap" widening for individual cognitions but narrowing for group-level uncertainty. This occurs only for the adolescent sample, however; there is no interaction between time and news exposure for the parents, on either criterion measure based on open-ended knowledge of candidate names.

When we turn in Figure 7 to the collective uncertainty of each group in terms of preferences for candidates, the predicted pattern of interaction between media exposure and phase of interview is apparent. As predicted, both of the high-exposure groups exhibited more uncertainty in preferences (criterion variable 5) than either low-exposure group during the pre-primary phase, when uncertainty-increasing information was still predominating over uncertainty-reducing information in the media. But the high-exposure groups that were not interviewed until the early-primaries phase, when uncertainty-reducing information flow increased, exhibited lesser levels of uncertainty regarding their candidate preferences. As the races for nomination became more clearly structured around a reduced roster of "possible" candidates, the range of preferences became more constrained. But, as predicted, the low-exposure groups were collectively more uncertain in the early-primary phase than they had been in the pre-primary phase, even though news events had by that later time begun to resolve the picture. It is as if the low-exposure groups, unaware of the flow of current political events, cling to unlikely or "fringe" candidates while the more informed high-exposure groups are abandoning those candidates in favor of the few others who still have a reasonable chance of achieving nomination.

(Figure 7 about here)

Summary. Looking across our results, both sets of main effects hypotheses seem to have held up rather well for the full variety of criterion variables. The high-exposure group is above the low-exposure group in all 16 of the comparisons where this was predicted. The pre-primary interview group is below the corresponding early-primary group in 14 of the 16 comparisons where this was predicted, with one tie. Most of these differences were statistically significant, as well as being in the predicted direction.

Our interaction hypotheses did not fare so consistently well. They were more complex in nature, predicting a widening gap over time between the high- and low-exposure groups for the three individual-cognition criterion variables, and a closing gap or reversal over time for the two group-uncertainty criterion variables. The first of these kinds of predictions held up in 4 of 6 comparisons (Figures 3-5); two of the associated interaction terms were statistically significant. The second kind of interaction prediction held up in all four comparisons (Figures 6-7), but was statistically strong only in regard to uncertainty of candidate preferences, where a clear transverse interaction pattern was found (Figure 7).

In general, it appears that the kinds of interactions we have hypothesized are more likely to occur with regard to affective dependent variables than with those that are based solely on cognitions held. The findings that are most clearly in accord with the expectations we outlined (in Figure 2) occur in Figure 5 where the criterion measure is the structuring of affect around one's preferred candidate, and in Figure 7 where uncertainty regarding candidate preference is the dependent variable. Our broad assumption that the high-exposure audience would react more fully and rapidly to current political news events seems, then, to be more valid with regard to the structuring of candidate preferences and affect than it does to the simple

store of knowledge about who the candidates are and what parties they seek to represent.

Discussion

We began this study with the general assumption that political communication processes during the early phases of a presidential campaign year are qualitatively different from the pre-election phase in the fall. The news media would be providing information about which candidates were running, and how likely they were to survive in the race. Their audience would not be the full "mass" audience, but rather would be limited to those who were sufficiently exposed to current news reports to keep up with the candidacies and their campaign fortunes. We hypothesized that the heavily exposed subaudience would hold more information; would build it at a faster rate; and would exhibit high uncertainty about candidates early on, but that this uncertainty would diminish once the early primaries began to clarify the picture. These expectations were generally supported, particularly for criterion variables that involve affective rather than purely cognitive responses to the news from the campaign trail.

Perhaps more important than these exact findings is the fact that most of our hypotheses would be fairly trivial, and we would not expect to find differences of nearly the same magnitude, during similar time spans in the much-studied September-October election campaign period. By that time the candidates for President, and their parties, should be rather universally known, and affect regarding them should be well established. There should be little variation over time, or between news exposure groups, in the degree of aggregate uncertainty regarding who is running or which candidate is preferred. In the typical fall campaign, the two major-party candidates maintain fairly stable and even percentages, so that uncertainty in the way we have measured it here would remain fairly steady at about $H = \log_2 2 = 1$ bit. (In

fall 1980, due to the independent Anderson candidacy, uncertainty remained a bit higher than this, and many voter decisions were not made until just before the election; see Goldman and Whitney, 1981).

Media Effects. Many writers have suggested that the potential for media "effects" on the audience is greater in the early stages of a campaign year, but have not made clear why this should be so or what kinds of effects one should expect. What appears clear in this paper is that the very early phase is characterized by widespread lack of information among those who are not following the campaign closely, and uncertainty even among those who are. Because of people's dependence upon the news media to bring them information from distant locations, the resolution of uncertainty about which candidates are surviving becomes a direct consequence of exposure to media reports. The immediate and cumulative effects are cognitive in nature; affective and decisional reactions are dependent upon the acquisition of a variety of information from the media, and are more structural in nature.

During the mist-clearing and winnowing phases these are rather powerful effects that can be traced directly to the news provided by the media. One day's news can become the next day's resolution of cognitive and affective uncertainty, and that in turn can manifest itself in the media's next round of poll results. Primary election voters, being comparatively high in exposure to the news of the day, can be quite sensitive to these shifts in the direction of greater structure during the early primary period. It is worth noting in this regard that only five candidates -- Carter, Reagan, Anderson, Kennedy, and Bush -- received more than 10% of their parties' primary votes in either the Illinois primary that was held the day after our survey ended, or in the Wisconsin primary a few weeks later. Carter and Reagan won both those primaries, on their respective roads to eventual nomination. The impact of media reports was not mass persuasion on behalf of these few candidates but simply uncertainty-resolving information that

permitted the high-exposure sub-audience to focus in on a reduced list of plausible candidates. With a clearer picture of the structure of the competition, people who are heavily exposed to the news are in a better position to evaluate the prospects of their own candidates, as well as others'. This--combined with more information about issue positions, personal qualities, and style--may result in the more rapid restructuring of affect that also occurs in this group.

Research on Primary Campaign Communication. We should stress that this study is scarcely an optimal model for analyzing the processes we have examined. One of our main independent variables, phase of campaign, became a variable only because it had been impractical to complete so many interviews in a briefer span of time. Data collection was designed for another purpose entirely; in a sense our study is a "secondary analysis" of data from the political socialization project -- even though no other findings from that project have been reported yet. In a study devoted specifically to comparisons of different phases of a campaign, we would recommend interviewing during condensed periods (e.g. a week or so) at several carefully preselected points during the campaign year. A prototype is Patterson's (1980) design.

The nature of our sample is obviously not optimal either. The selection of adolescents and their parents was dictated by the imperatives of the political socialization project, not our needs for this study. Inclusion of the adolescents here has, however, pointed up a major issue for consideration in future sampling designs. If one were to plan a study of campaign communication processes in a "general population", what definition of that population should be employed? The usual answer, to judge from prior research on political communication, would be either "voters" or perhaps "adults." We would suggest instead expanding the universe of study to the "audience" for mass

media. It is clear from our data that, while the adolescents generally had lower information levels than their parents, when we controlled for media exposure our process hypotheses held up about equally well for each group. Indeed, in most cases the slopes of the lines plotted in Figures 3-7 were practically parallel for parents and adolescents of similar media exposure levels.

Another research design issue concerns the merits of repeated measurement of a panel of the same respondents, as against the measurement of comparable random samples of different respondents in different time periods. We have noted earlier the advantage of our not having asked the same person the same informational questions repeatedly, an unfortunate feature of panel designs that could encourage respondents to find out the information after having once been asked the question -- when they would not have learned it otherwise. This kind of reactive measurement is particularly a threat to the validity of inferences about increases in information over time. It is not such a great problem where affective and behavioral measures are concerned, though, and the panel design offers some important advantages when the object of one's study is change in attitudinal or behavioral criterion measures. The choice between the panel and the successive-samples design should be tailored to the purposes of the study, with the panel generally preferred if reactive measurement is not a potential problem. In the present case, a panel design would have rendered highly suspect all of our findings regarding changes over time in criterion measures 1, 2, and 4. On the other hand, it might have provided more sensitive tests of changes in criterion measures 3 and 5.

Conclusions. Despite shortcomings in sample design and precision of interview timing, we have established that there is considerable variation during the early weeks of a presidential campaign in the flow and acquisition

of political information. Audience members who are heavily exposed to campaign-related news events are quick to translate these into more highly structured affective reactions and preferences regarding candidates. This probably tends to hasten the process of sorting out a few leading candidates from their straggling opponents ("winnowing"). Simple conceptions of "information" that are limited to individual-level cognitions fail to tap some of the most important aspects of these processes. The structuring of political affect, and the arousal and resolution of uncertainty at the aggregate level, are important indicators of the dependence of the media's audience on campaign news in these critical early phases of the campaign year.

Notes

1. "Election Campaigns and Preadult Political Socialization", National Science Foundation grant No. SES-7913435 to Jack Dennis (Department of Political Science, University of Wisconsin-Madison), David O. Sears (Department of Psychology, University of California at Los Angeles), and Chaffee. Preparation of this paper was also supported by the Vilas Estate Trust through the University of Wisconsin Foundation.

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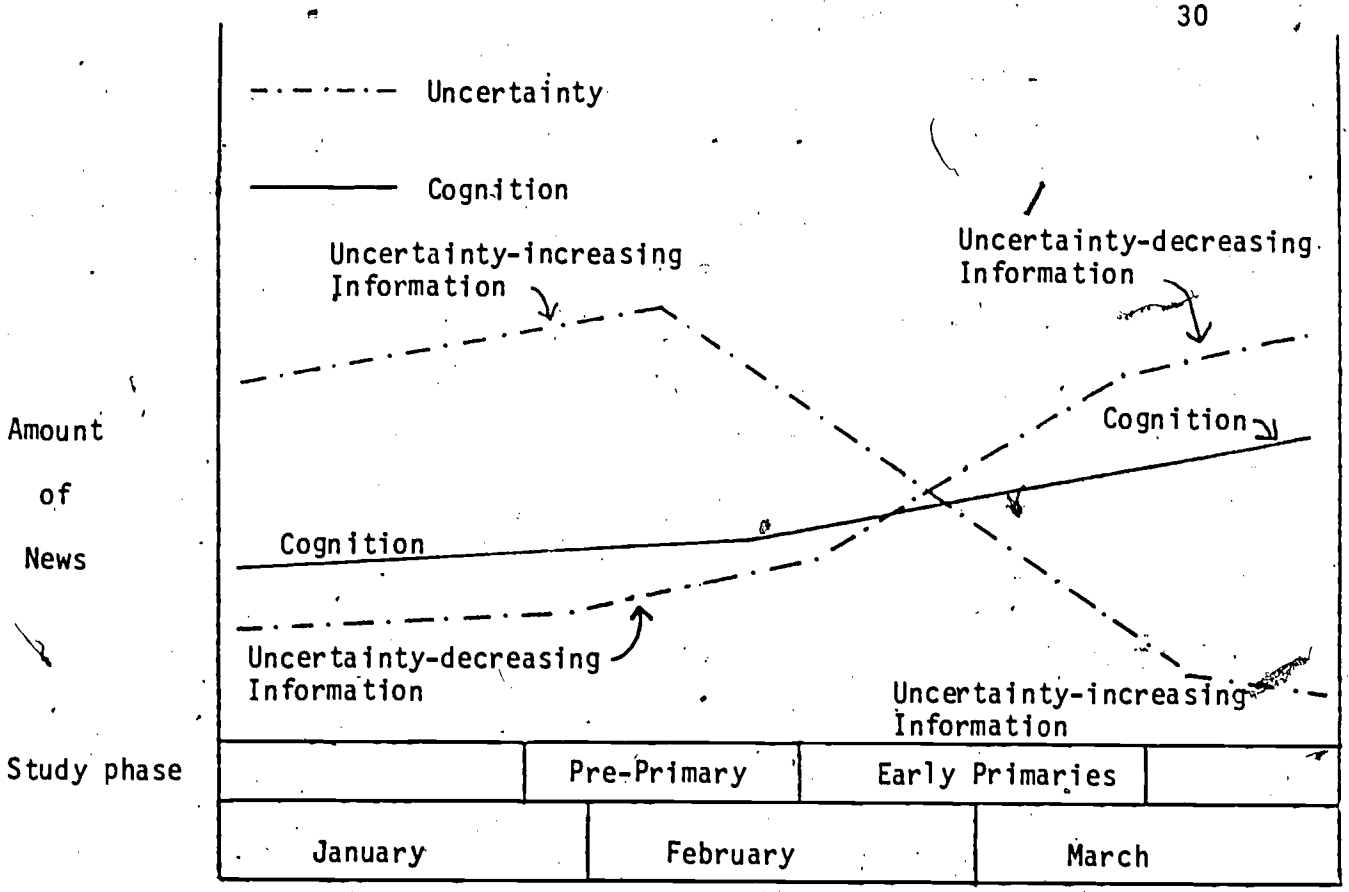

Figure 1. Schematic Flow of Three Types of Political Information from Media during Period of Study

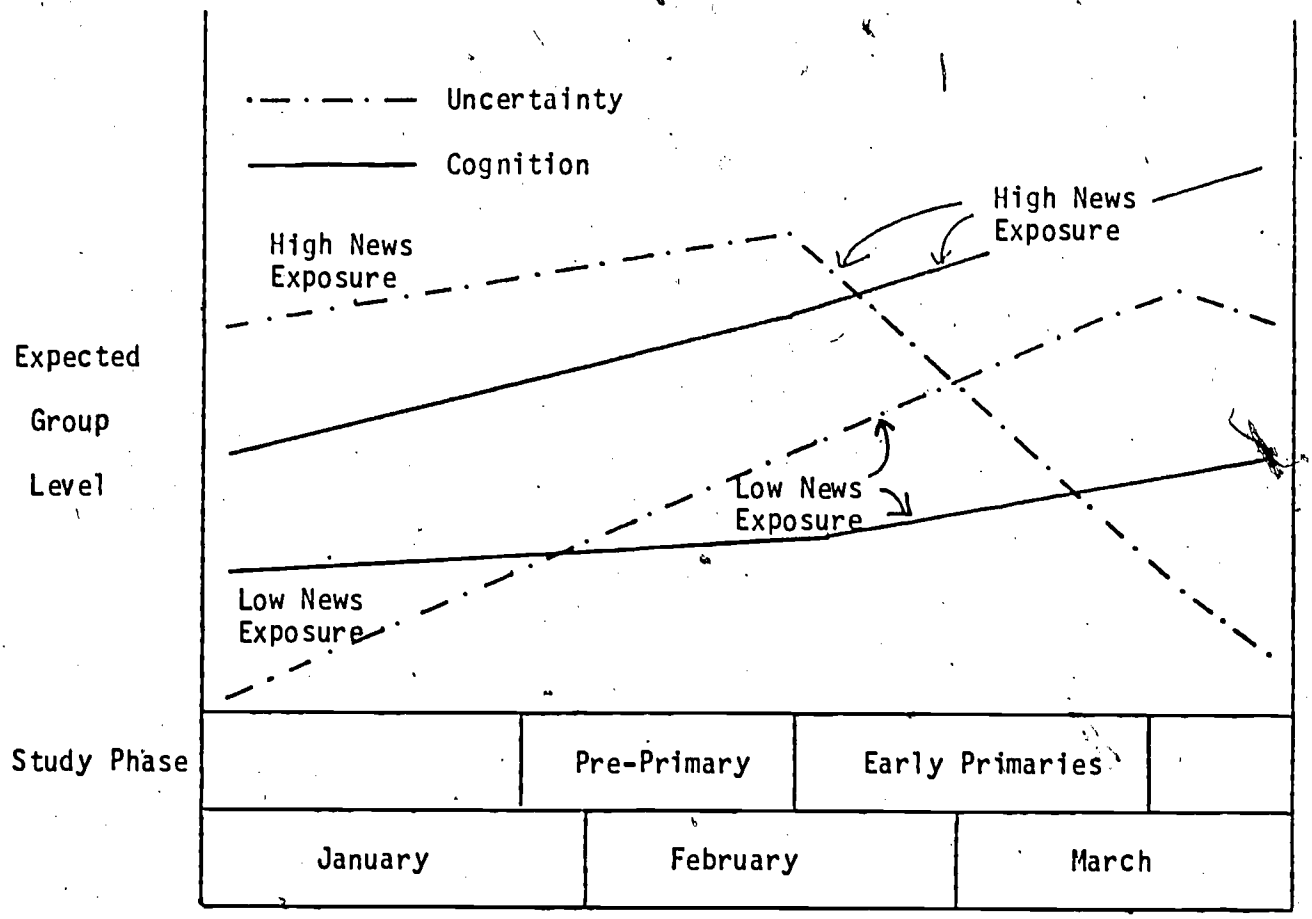

Figure 2. Theoretical Reactions to Media News, by Level of Media Exposure

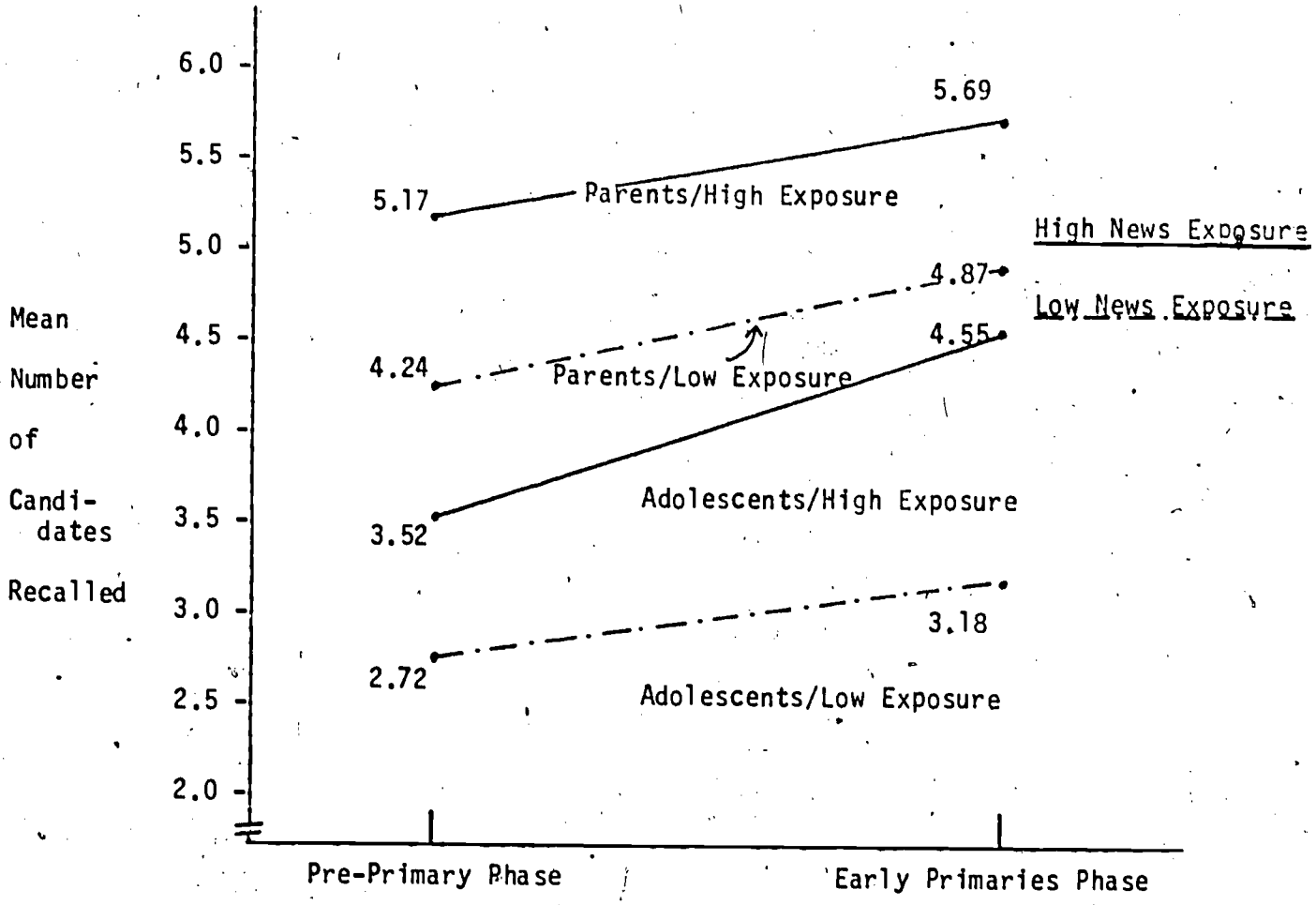

Figure 3. Mean Number of Candidates Recalled, by Group

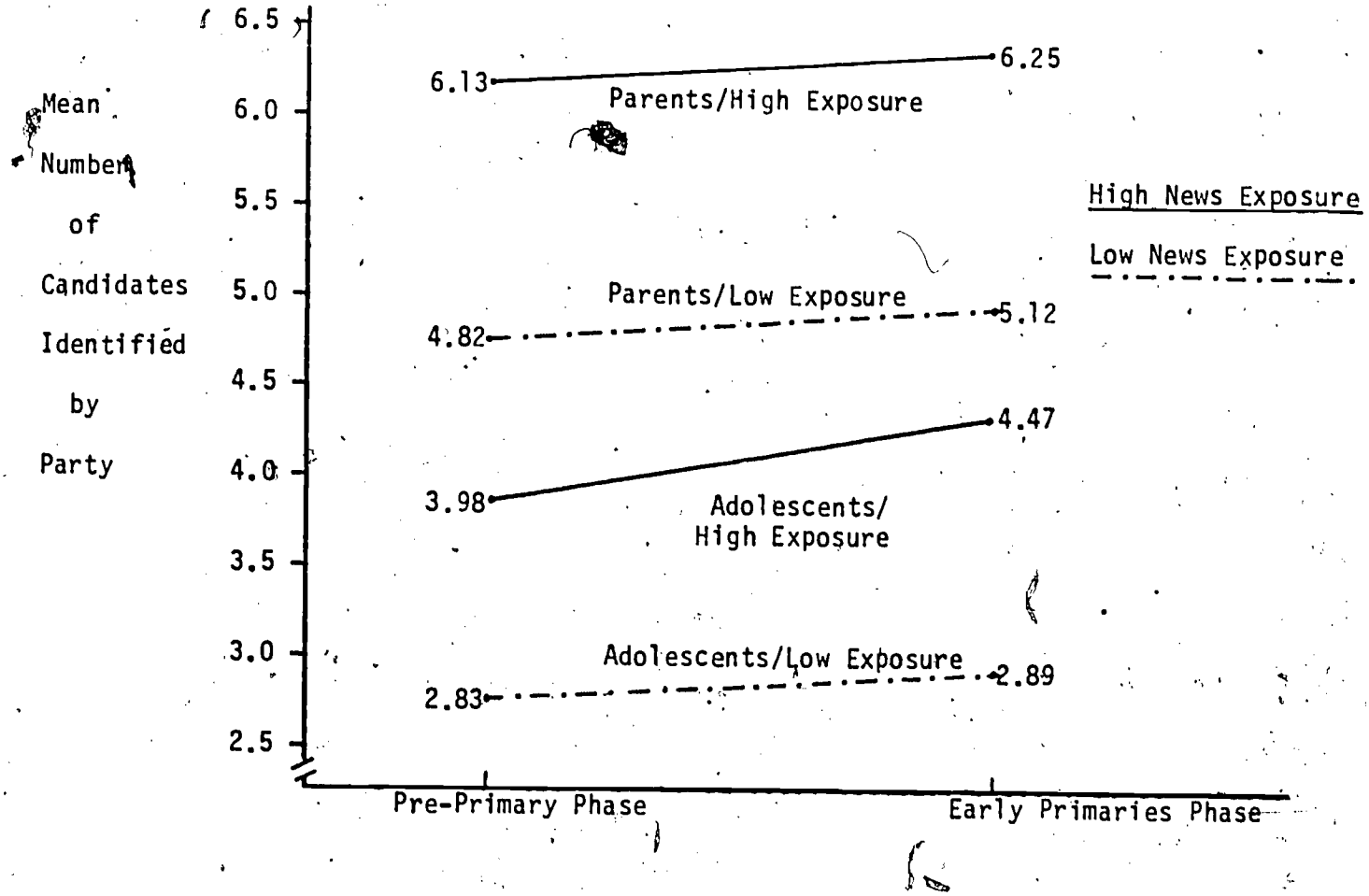

Figure 4. Mean Number of Candidates Correctly Identified by Party, by Group

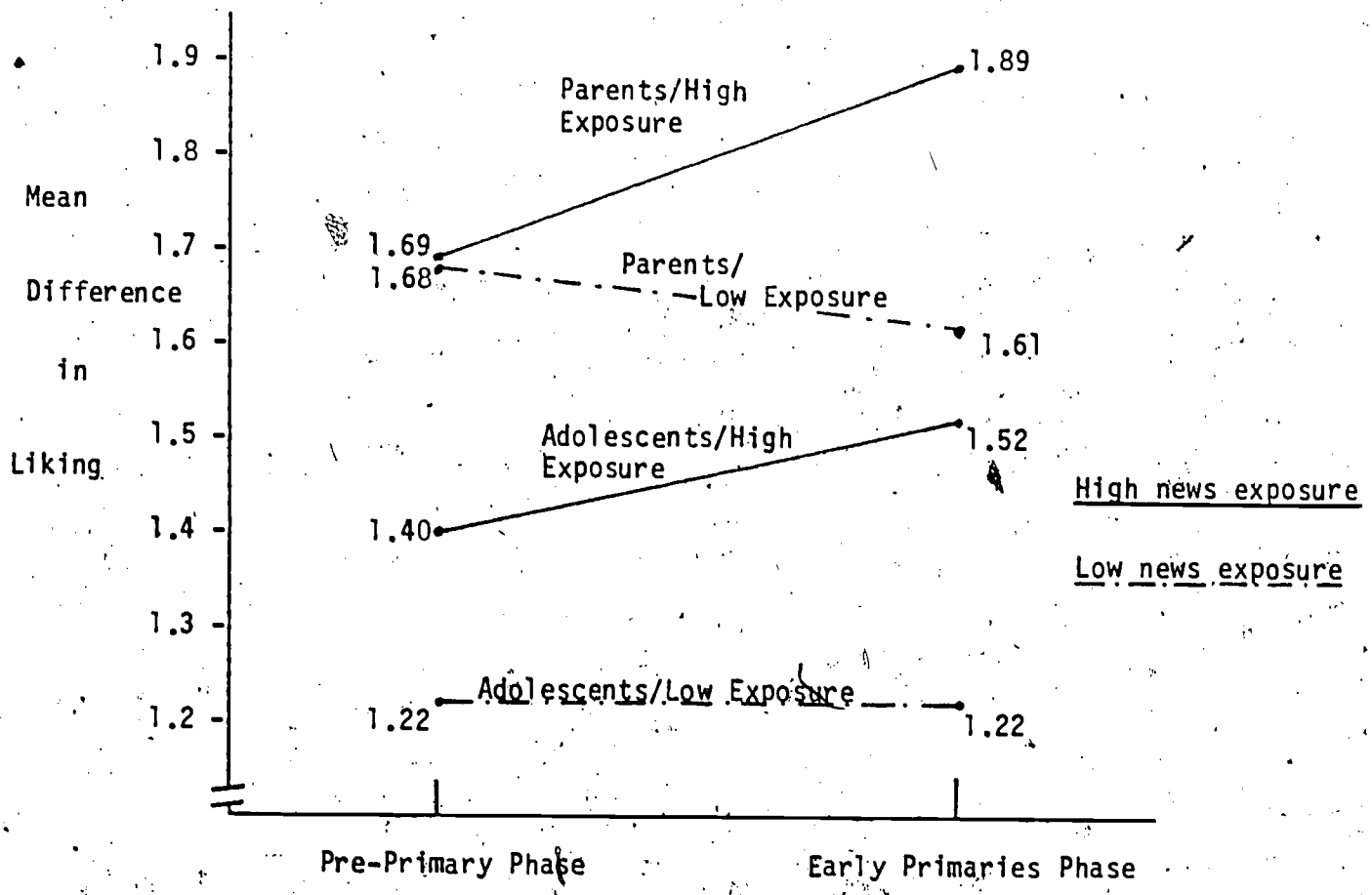

Figure 5. Difference Between Liking of Preferred Candidate and Liking of Other Candidates, by Group

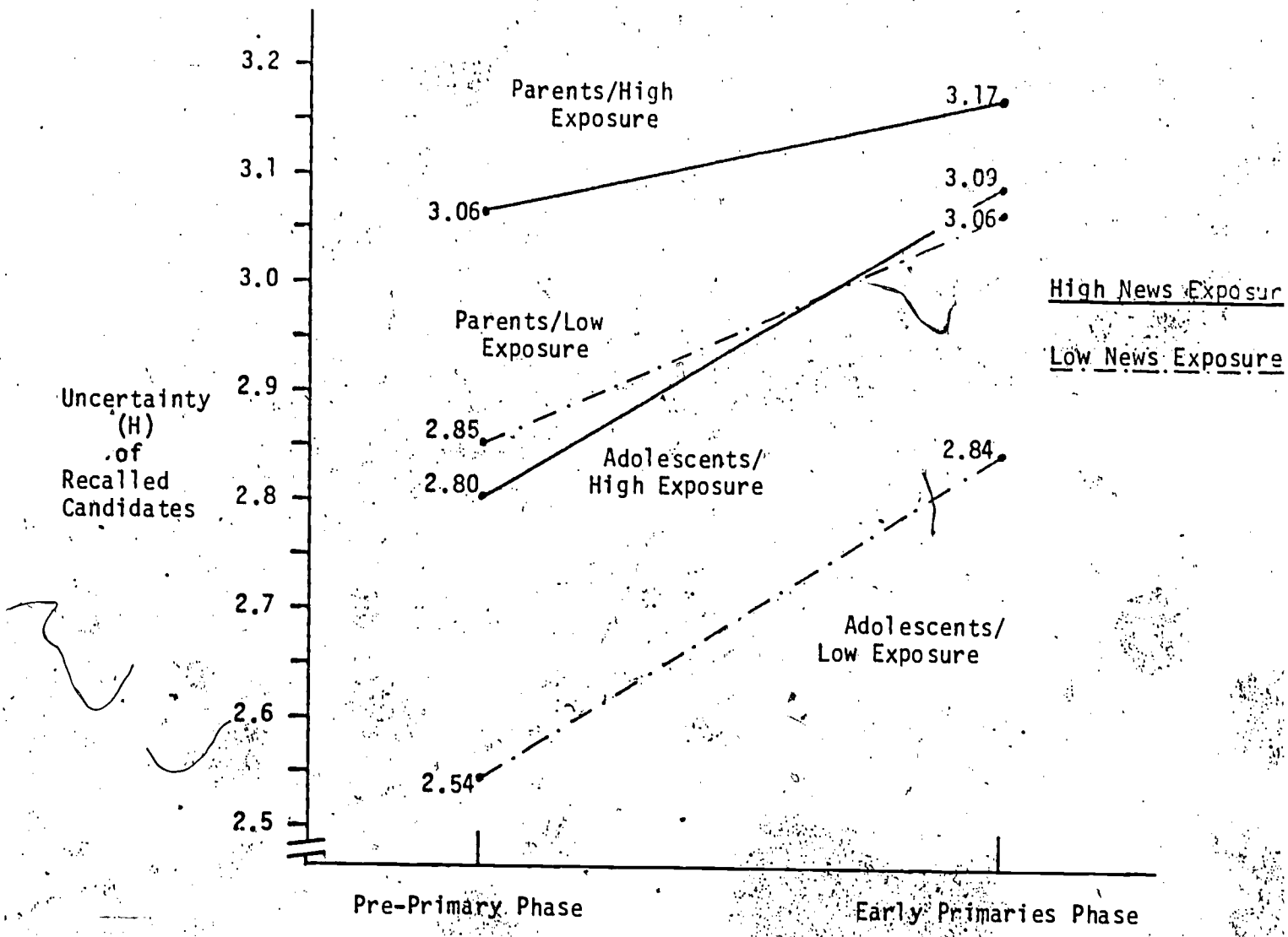

Figure 6. Uncertainty in Aggregate Distribution of Candidates Recalled, by Group

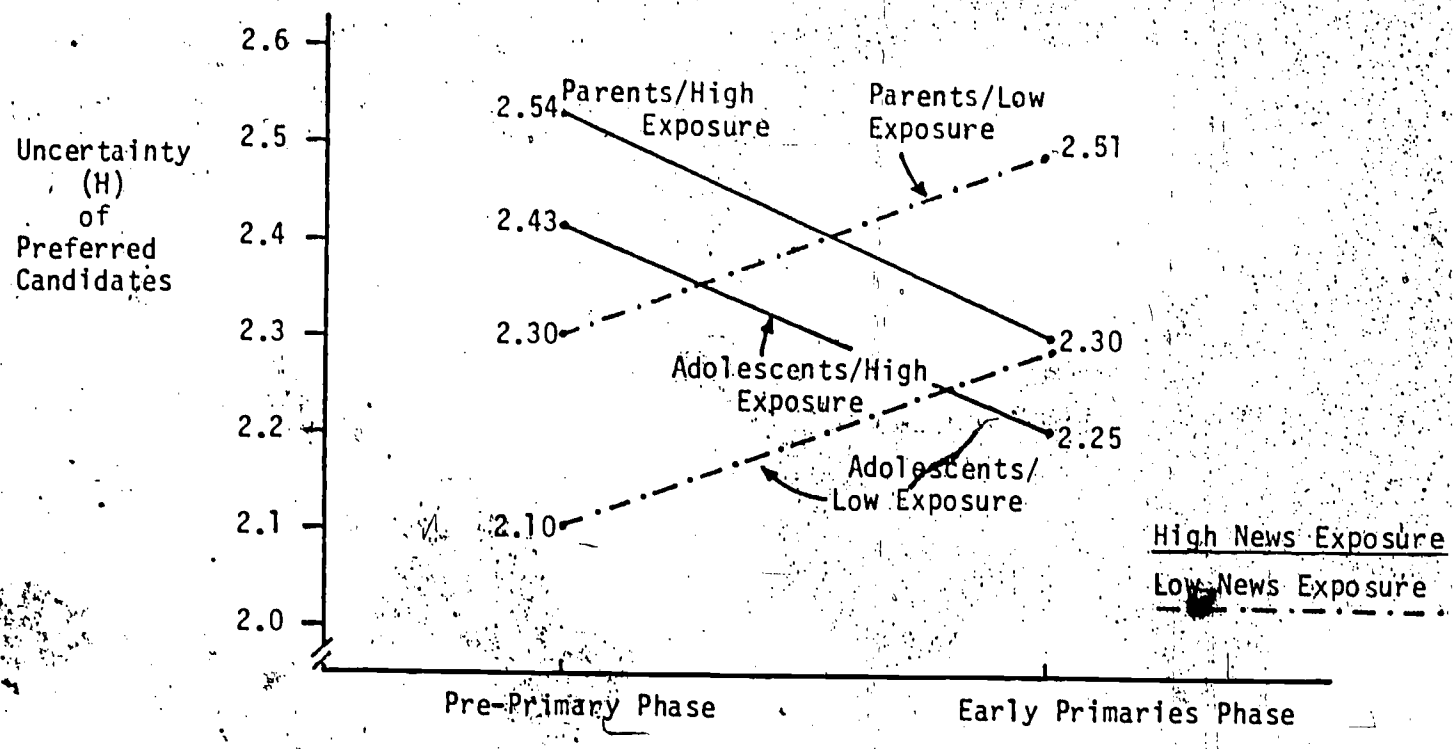

Figure 7. Uncertainty in Aggregate Distribution of Candidate Preferred, by Group