Information, Misinformation, and Political Participation

Kenneth Michael White, Michael Binder, Richard Ledet,
and C. Richard Hofstetter

This research addresses the extent to which political participation is a function of misinformation. A large body of work links information with participation, but relatively few authors have addressed the relationship between misinformation and participation. We use data from a 1997 random-digit-dial survey of 810 adults in San Diego to test the hypothesis that misinformation (confident beliefs in false facts) is associated with political participation even after controlling for other explanations, including information. We find that while both misinformation and information tend to increase participation levels, their specific impacts vary. This research ends a period of speculation by presenting empirical evidence of misinformed participation for the first time in the literature.

Background

Members of a democracy should be informed and active. Most scholars believe that high levels of information increase the likelihood of electoral participation (Delli Carpini and Keeter 1996; Palfrey and Poole 1987), although much of the American public lacks sufficient knowledge about politics and government process (Converse 1964; Delli Carpini and Keeter 1996; Nie, Verba, and Petrocik 1976; Smith 1989; but see Page and Shapiro 1992). For those with little or no information, i.e., the *un*informed, scholars have suggested that they get along politically by following "opinion leaders" who seem knowledgeable and trustworthy (Katz and Lazarsfeld 1964; Lupia and McCubbins 1998; Zaller 1992) or by using other heuristics, like partisanship, to behave in an informed way (Page and Shapiro 1992; but see Bartels 1996).

Heuristics have been shown to be relatively successful in promoting "correct" decisions (Bartels 1996; Lau and Redlawsk 1992), but we wonder if that amounts to being informed in a strict sense. Our conception of the informed is that they hold accurate views about politics, while the uninformed are unsure or lacking information. The *mis*informed, however, are

---

The authors would like to thank the anonymous reviewers who assisted in the development of this paper, as well as James H. Kuklinski, Paul J. Quirk, Zoltan Hajnal, and Jennifer Merolla for their support and comments.

KENNETH MICHAEL WHITE is a Ph.D. student in political science at Claremont Graduate University. MICHAEL BINDER is a Ph.D. student in political science at University of California, San Diego. RICHARD LEDET is a Ph.D. student in political science at University of Notre Dame. C. RICHARD HOFSTETTER is Professor of Political Science at San Diego State University.

The American Review of Politics, Vol. 27, Spring, 2006: 71-90
©2006 The American Review of Politics

different than the *in*formed and the *un*informed because the misinformed hold incorrect beliefs with confidence, and they may behave in ways that differ from the informed or the uninformed (Hofstetter et al. 1999; Kuklinski et al. 2000).

Motivated reasoning (Kruglanski and Freund 1983; Kunda 1987; Kunda 1990; Pyszczynski and Greenberg 1987; Sorrentino and Higgins 1986) posits that people form conclusions in a biased way. We agree and suggest that when motivated reasoning results in conclusions of confidence in some false fact(s) perceived significant, these misinformed people are motivated to engage in politics as a means of supporting their view. In a sense, the misinformed are compelled to participate because they see others getting it "wrong." In ancient terms, the reason why Thrasymachus "hunched up like a wild beast" and "flung himself" into a discourse with Socrates in Plato's *Republic* (see Plato, *Republic* 336b) is the reason why the misinformed engage in politics. To be fair, the phenomenon of being "flung" into politics should affect both Thrasymachus and Socrates equally; both the misinformed and the informed, respectively.

The presence of a misinformed public has been called the "I know I'm right syndrome" by Kuklinski et al. (2000). The impact of this phenomenon on participation has, until now, been limited to the realm of speculation (see Hofstetter et al. 1999; Kuklinski et al. 2000). This paper presents evidence for the first time that shows a link between misinformation and political participation. We hypothesize that the "I know I'm right syndrome" is related to increased levels of political engagement, because we assume that people who are certain about a political issue tend to be personally invested in the issue and therefore more involved in politics than others.

Misinformation

The theory of motivated reasoning explains the formation of misinformation. Kunda (1990, 480) notes that research about motivated reasoning in psychology has been split into two categories: 1) people are motivated to arrive at an accurate conclusion; and 2) people are motivated to arrive at a "particular, directional conclusion". Some scholars have criticized this second prong, suggesting that it is not motivation to conclude a certain way but the desire to hold consistent beliefs that explains misinformation (Miller and Ross 1975; Nisbett and Ross 1980). We concur with these explanations and add deception. It is easy for us to imagine confidence in a false fact as the result of an intervening third party whose conscious goal is to mislead others (Abeles and Morton 1999; Wright, Self, and Justice 2000). Ergo, misinformation stems from a closed mind, a mistaken inference, or deliberate deception. We assume that the misinformed are motivated to arrive at their

incorrect conclusions, to confirm prior beliefs, maintain a consistent worldview, and/or follow bad advice.

Misinformation and Participation

Other scholars have expressed concern that the misinformed might participate in politics. Because of the conceptual differences between the informed, the misinformed, and the uninformed, Hofstetter, Barker, Smith, Zari, and Ingrassia (1999, 354) argued that misinformation may be "the difference between staying home on election day versus holding a placard at a rally . . .writing congressmen, proselytizing for a candidate, contributing money, and so on." The concern is that misinformed citizens could influence elections and consequently alter the general direction of public policy.

Kuklinski, Quirk, Schneider, and Rich (2000) are also concerned about the impact of misinformation on politics, and they found misinformation about welfare policies to be widespread in their sample and associated with strong partisanship. They were able to correct misinformation only after a direct and blunt presentation of irrefutable information. In keeping with the theory of motivated reasoning they concluded that, because people seek to hold a consistent worldview, misinformation might be an inherent risk in human society as knowledge acquisition is riddled with latent biases that make errors in judgment likely. Because of the partisan nature of the misinformed, they also speculated that the "I know I'm right syndrome" may be reflected in the misinformed being active in politics.

From the perspective of the misinformed, there is no difference between them and their informed counterparts. Misinformed individuals think they are informed because they hold incorrect beliefs with confidence. Thus, we hypothesize the same forces that influence an informed person to participate in politics should influence a misinformed person as well. We know that when there are high levels of information there is involvement, but we do not yet have evidence about the relationship between high levels of misinformation and involvement. This paper is the first empirical study that addresses this gap in the literature specifically.

What is the theory that links misinformation with political participation? The same question should be asked about information. Zaller (1992) argues that interest plus what we call information equals awareness, which is what really drives politics. The assumption is that when people know what is going on, they get involved because they know there is the opportunity to get involved and they are driven to get involved as a matter of course. The force behind this process remains, however, a mystery in the literature. We assume that what we know determines what we do, but we do not know the steps of this process exactly. As Hannah Arendt ([1958] 1998) pointed out,

the nexus between speech and action is as old as mankind, and the link between misinformation and action can be seen in Plato's writings.

Plato's Apollodorus is presented as a character of unchecked passion and political participation (Plato, *Symposium* 172c). Likewise, Plato's Euthyphro is also so certain of his point of view that he is compelled to engage in politics for its sake (Plato, *Euthyphro* 2b). Whereas Apollodorus was infamous for arguing with others about politics, Euthyphro was infamous for bringing a questionable lawsuit against his own father. Both Apollodorus and Euthyphro were passionate, to a fault, and that passion led them to engage in politics. They were misinformed and active.

The phenomenon of being misinformed and inspired to engage in politics has been observed by contemporary philosophy, too. Plato's Apollodorus and Euthyphro represent what Jose Ortega y Gasset (1958, 94) called "pseudo-thinking." Pseudo-thinkers think without thinking, and they tend to accept what others say without any criticism. Ortega y Gasset (1958, 114) worried that pseudo-thinking was increasing in the modern age: "[T]here are beginning to rise on the European horizon groups of men who, however paradoxical it may seem to us, do not want to be right, to have reason."

The paradox stemmed from what Ortega y Gasset (1932) described in *The Revolt of the Masses*. The masses are a collection of unthinking people who could turn into a rebellious mass, which was and is the big concern of politics throughout history. During his time, Ortega y Gasset (1932, 69-71) describes what we assume is the basis of the nexus between misinformation and political participation today:

> The individual finds himself already with a stock of ideas. He decides to content himself with them and to consider himself intellectually complete. . . . The mass-man regards himself as perfect. . . . Why should he listen [to others] if he has within him all that is necessary? There is no reason now for listening, but rather for judging, pronouncing, deciding. There is no question concerning public life, in which he does not intervene, blind and deaf as he is, imposing his 'opinions.'

Thus, when people become convinced that their worldview is complete and there are no more surprises to life, then there is the likelihood of action. Arendt might say that when there is no chance for speech there still remains, oddly, the chance for action. We think that while the details of this phenomenon may change over time in degree, the issue is ever-present in the human condition. There are plenty of reasons to suspect that today there is still cause for concern about misinformed participation, as there was in the past. Given the increased isolation of modern life (Putnam 2000) and the growing opportunities to seek out only that information that conforms to an already entrenched worldview (Baker 1994); we think the problem of mass misinformed participation is still ripe for inquiry.

We suspect that misinformed participation is most evident in an environment where false ideas go unchallenged, i.e., when there is no one to present the blunt facts that contradict what the misinformed believe. Thus, those activities capable of completion without external interference are where we expect to find a misinformation effect. When a person with a confident belief in a false fact has settled the matter internally, such that the time for learning something new has past, then the only thing that remains to do is engage. The point where speech ends and action begins is the point where the misinformed get involved in politics and the "I know I'm right syndrome" manifests itself as political participation.

Research Design and Methodology

This research is a secondary analysis of data originally gathered for a study about the impact of political talk-radio on levels of information and misinformation. The misinformation scale is taken from that study. While the majority of the respondents did not report listening to political talk-radio, we assume that the scale employed to measure levels of misinformation for talk-radio listeners is applicable to the entire sample. Misinformation was measured in a straightforward and simple way, as the respondents were only required to indicate their level of agreement with a series of factual statements about politics. Our focus is not on how misinformation came into being in the population but about the effect of misinformation on political participation.

The Sample

Data were originally collected in a 1997 random-digit-dial survey of English-speaking adults (18 years of age and over) residing in the metropolitan San Diego area who could be reached by residential telephone (over 96 percent of all households). Household selection of respondents was based on the last birthday method. Fewer than 5 percent of respondents were not interviewed due to an inability to speak English. Interviews were completed with about 55 percent of eligible persons contacted (N = 810). After training in the objectives of the study and in telephone interviewing techniques, San Diego State University students in graduate and undergraduate political behavior classes conducted interviews in late spring and early summer of 1997. Sample demographics generally correspond with the 1990 U.S. Census data for San Diego. The SDSU Committee for the Protection of Human Services approved all procedures for the study.

San Diego, California, is a socially and culturally diverse, affluent, and highly educated coastal city sandwiched between Mexico to the south and

Los Angeles to the north. The city enjoys mild year-round climate and a rich media market, with at least 85 languages spoken, and several metropolitan daily newspapers and many less frequently published newspapers. California's second largest city, San Diego receives television and radio from Los Angeles and Tijuana in addition to local, cable, and satellite sources.

Of the entire sample, 46 percent were male, 69 percent White, 12 percent Latino, 7 percent Black, 7 percent Asian, and 4 percent identified with another group or refused to answer. About 28 percent were strong or weak Republicans, 41 percent independent or independent leaners, and 27.3 percent strong or weak Democrats. The mean age was 41.6 years (SD = 16.7), years of education was 14.9 (SD = 2.5), and length of residency was 9.9 years (SD = 11.4). About 33 percent were strong or weak conservatives, 24 percent strong or weak liberals, and 43 percent were middle-of-the-road or did not classify themselves as either conservative or liberal.

Dependent Variables

General Political Participation: Participation in politics in general was measured by asking respondents whether, in the last three or four years, they did each of the following nine activities "very often, often, not very often, or never": "Voted in national elections?" "Done work for one of the parties or candidates?" "Worked with others to try to solve a local problem or to get something done?" "Participate in a demonstration in order to oppose a law or policy?" "Personally contacted a public official about a problem that affected you or your family?" "Argued with someone you did not know personally about an issue or policy?" "Written a letter to a public official about a problem?" "Written a letter about a political concern to a newspaper?" "Send a message on the internet to someone about a political issue?" A composite general participation index was formed by computing the mean of the answers to these nine questions, coded as very often = 4, often = 3, not very often = 2, never =1 (Mean = 1.67, SD = .48, α = .79).[1]

Independent Variables

Misinformation: The measurement of misinformation was copied exactly from a prior study designed to analyze correlates of political talk radio (see Hofstetter et al. 1999). In that study, the authors first did a content analysis of the dominant local talk-radio shows that broadcast into the San Diego area (Hedgecock, Limbaugh, Leykus, Matalin, Suarez, and Liddy were all conservative or very conservative hosts). There was no "liberal" political talk-radio programming broadcast into the San Diego media market at the time of the survey. Every third program of each host's respective show

was taped during a one-month period immediately prior to the survey. In order to develop statements for the study, a total of about 30 complete three hour broadcasts were recorded, resulting in about 90 hours of total programming in during the 30 day period.

Second, analysts recorded their spontaneous reactions to the programs and cast them in the form of statements. The statements, over 300, were vetted for accuracy so that only those statements that could have been corrected by reference to publicly available media were retained. The procedure resulted in 32 statements that could have been inferred as false by talk-radio listeners from programming.

Third, for purposes of improving validity, the 32 false statements were reduced to 22 statements using discussion and collaboration among experts in the field. Misinformation was measured by counting the number of instances respondents were "sure" the false statements were true. Wording and distribution for the statements used to compile the misinformation scale are presented in Table 1. Although some might regard several misinformation items as publicly unverifiable, information to substantiate the incorrectness of each statement did appear at the time in newspapers, public statements, and other easily accessible sources according to the original study. The results of the earlier study, moreover, support the validity of the measure (Hofstetter et al. 1999). Due to the constraints of secondary data analysis, we focused only on the question of the existence of misinformation within public discourse and not on any association between misinformation and political talk radio.

We note that there are competing methods of measuring misinformation more precisely. The method employed here consists of counting the instances respondents said they were "sure" one of the 22 false statements about politics is true. Another method would be to first ask respondents a factual question and then ask a follow-up question about their level of certainty about their answer (see Kuklinski et al. 2000). This latter method enables the researcher to measure confidence in both correct and incorrect facts similarly, which could also be done with the method employed here if correct statements are also presented to respondents. Future research will have to bear out the preferable method of measurement.

Information: To measure the extent to which respondents were informed—that is, hold correct beliefs about politics—an eight-item information index was created based on the work of Delli Carpini and Keeter (1993). Correct answers to the following questions were summed: 1) "Whose responsibility is it to determine if a law is constitutional or not?" (78 percent correct); 2) "Whose responsibility is it to nominate judges to the federal courts?" (69 percent correct); 3) "How much of a majority is required for the U.S. Senate and House of Representatives to override a

Table 1. Misinformation Scale Items and Distributions

Statement	Percentage "sure true"
a. Most people are on welfare because they do not want to work.	12.5
b. More African-Americans are on welfare than any other group.	10.4
c. Illegal immigrants get most of the benefits from the social welfare system.	11.2
d. Illegal immigrants commit most of the crimes in this area.	5.3
e. Test scores in public schools have dropped sharply in the last 20 years.	34.6
f. Pregnancy by unwed teenagers continues to increase rapidly.	38.3
g. Spending money is unrelated to school achievement.	15.3
h. Private schools are better at teaching standard knowledge and skills than public schools.	27.0
i. Bill Clinton has been indicted for illegal activities in Arkansas.	11.9
j. Hillary Clinton was found to have been implicated in Vince Foster's death in Washington.	5.7
k. Growth in the budget deficit has increased during the Clinton presidency.	15.1
l. Unemployment has increased during the Clinton presidency.	6.3
m. America spends more on foreign aid than on law enforcement.	25.3
n. American spends more on welfare than on defense.	13.1
o. President Reagan cut the national deficit.	9.3
p. Bilingual education in California is just an excuse to avoid learning English.	12.1
q. Teaching about religious observations is illegal in public schools.	32.6
r. Giving clean needles to drug addicts has increased AIDS in California.	3.3
s. Most of the homeless in America are too lazy to work.	8.3
t. Nearly all Americans oppose sex education in public schools.	3.8
u. Most Americans are opposed to abortion.	5.3
v. More money is spent for abortion than on care for the elderly.	6.4

Note: Respondents were asked: "Following is a list of things that some people think are true and others think are untrue. For each of the following, just tell me whether you are sure that it is true, think that it can be true, think that it may be false, or are sure that it is false." The sum of the "sure true" answers to these false statements composes the misinformation scale. Min = 0, Max = 18, Mean = 3.13, SD = 3.16, Cronbach's Alpha = .83, and N = 810.

presidential veto?" (73 percent correct); 4) "Do you happen to know which party has the most members in the House of Representatives in Washington?" (86 percent correct); 5) "Which party, if any, is more conservative?" (86 percent correct); 6) "Can you tell me what the length of term is for U.S. Senators?" (49 percent correct); 7) "Can you tell me what the length of term is for U.S. House Members?" (53 percent correct); 8) "Can you tell me the name of the current Vice-President?" (97 percent

correct). We created an information index by computing the mean across responses to all eight questions (Mean = .73, SD = .24, α = .66).

Control Variables

Interest: Interest in politics has been shown to be a robust predictor of political participation (Brady, Verba, and Schlozman 1995). Interest was measured by asking respondents: "How interested would you say you are in politics and public affairs? Are you very interested, interested, not very interested, or not at all interested?" Responses were coded 1 through 4, with the lower number representing less interest. The sample was mildly interested in politics (Mean = 2.84, SD = .78).

Education: A key variable in explaining political participation (Brady, Verba, and Schlozman 1995), education was measured by asking respondents: "How many years of formal schooling did you complete, that is, what is the last grade you completed?" (Mean = 14.90, SD = 2.53).

Professional: Professional employment emphasizes the kinds of civic skills necessary to engage in the political process (Brady, Verba, and Schlozman 1995). Respondents were asked: "What is your main occupation, that is, what do you do to make a living?" A dummy variable was created; coded "1" if the respondent held a professional job, "0" otherwise (28 percent were professional).

Ideology: In order to control for differences in participation across the ideological spectrum, we employ a 5-point measure of political ideology with conservatives at the low end and liberals at the high end of the scale. Respondents were asked: "Do you usually think of yourself as very conservative, conservative, middle of the road, liberal, or very liberal?" (Mean = 2.50, SD = .99).

Strong Party ID: Because intensity of partisanship has been a strong predictor of political participation (Conway 2000), and because a high level of partisanship has been associated with misinformation (Hofstetter et al. 1999; Kuklinski et al. 2000), intensity of partisanship was included as a control variable. Respondents were asked: "In general, do you consider yourself to be a strong Republican, weak Republican, leaning Republican, independent, leaning Democratic, weak Democrat, strong Democrat, something else, or don't think of yourself that way?" Persons who identified strongly with either Republicans or Democrats were coded "1" and all others as "0"; about 30 percent intensely identified as strong Republicans (N = 109) or as strong Democrats (N = 110).

Confidence: Because interest has been correlated with political participation (Brady, Verba, and Schlozman 1995) we similarly assumed that confidence in one's ability to understand the issues and become informed should

also be related to political participation. If Delli Carpini and Keeter (1996) are right—that is, there is an information gap between those who have information and the ability to get more and those who do not have information and the ability to get more—then the belief that one is informed and can get informed should matter for political engagement since information matters for political engagement. Respondents were asked whether they would "agree strongly, agree, disagree or disagree strongly" with the following two questions: 1) "I feel that I have a pretty good understanding of the important political issues facing our country" and 2) "I feel that I have a pretty good understanding of how to use the mass media to get information about politics and current events." These two questions were scaled to form an index, with higher scores indicating more confidence (Mean = 2.83, SD = .56, $\alpha = .59$).

Internal Efficacy: Internal efficacy is the belief that one can make a difference in the political process by getting involved (Conway 2000). Respondents were asked whether they would "agree strongly, agree, disagree or disagree strongly" with the following statements: 1) "Sometimes politics and government seem so complicated that a person like me can't really understand what's going on," and 2) "People like me don't have any say about what the government does." These two questions were scaled to form an index, with higher scores indicating more increased internal efficacy (Mean = 2.46, SD = .60, $\alpha = .40$).

External Efficacy: External efficacy is the belief that government pays attention to the interests of the people when making decisions (Conway 2000). Respondents were asked whether they would "agree strongly, agree, disagree or disagree strongly" with the following statements: 1) "Over the years, government pays a good deal of attention to what the people think when it decides what to do," and 2) "I don't think public officials care much what people like me think." After reversing the direction of the former question, so that the higher score indicates more external efficacy, the mean of the two items were scaled to form an index (Mean = 2.55, SD = .59, $\alpha = .46$).[2]

Gender: According to the Center for American Women in Politics (2002), a gender gap exists in voting with more women casting ballots than men. We assume this is also true for political participation in general. Gender was coded "1" for females and "0" for males (54 percent were female).

Race: Race is an important variable in political participation studies (Verba et al. 1993). Asians (7 percent), African-Americans (7 percent), and Latinos (12 percent) were all dummy coded with Whites serving as the reference group.[3]

Correlations and Model Specification

The major hypothesis of this study is that misinformation is associated with political participation. Before describing the initial model, however, it is important to describe several key correlations. The correlation between information and misinformation is negative -.22 ($P<.01$), as expected, yet moderate in magnitude suggesting that while information and misinformation are related, they are not simply opposite ends of the same continuum.

Education was also positively correlated with information ($r = .33$, $P < .01$) and negatively correlated with misinformation ($r = -.12$, $P < .01$) as expected. Interest in politics was positively correlated with information ($r = .23$, $P < .01$) and with misinformation ($r = .10$, $P < .05$). Professional occupation was correlated with information ($r = .13$, $P < .01$), but not with misinformation. Confidence was correlated with both information ($r = .18$, $P < .01$) and misinformation ($r = .11$, $P < .01$). Internal efficacy was correlated with information ($r = .24$, $P < .01$) but not related to misinformation. External efficacy was positively correlated with information ($r = .09$, $P < .05$) but negatively correlated with misinformation ($r = -.14$, $P < .01$).

Because the content of political talk-radio in San Diego was mostly conservative in tone and because talk-radio was the source of the misinformation scale, the correlations between misinformation and ideology are negatively related ($r = -.14$, $P < .01$). However, ideology was not correlated with information. Similarly, intense partisanship was not correlated with information, but was with misinformation ($r = .10$, $P < .01$).

Females were less informed than males ($r = -.12$, $P < .01$), but were neither more nor less misinformed than males. African-Americans ($r = -.11$, $P < .01$) and Latinos ($r = -.18$, $P < .01$) were less informed than Whites, but were not more or less misinformed than Whites.

Looking at the correlations between information, misinformation, and political participation reveals that information was positively correlated with the general participation index ($r = .19$, $P < .01$), as was misinformation ($r = .10$, $P < .05$). Breaking down the general participation index into its component items reveals the association between each item and information and misinformation. Voting, working for a party or candidate, demonstrating, arguing with a stranger about politics, and sending a message on the internet is correlated with information, but not with misinformation. Working with others in the community to solve a local problem, contacting a public official, writing a letter to a public official, and writing a letter to a newspaper is related positively to both information and misinformation.

Thus, correlations between information and misinformation on the one hand, and the general political participation index and specific political activity measures on the other hand, support the hypothesis that both

information and misinformation are related positively to political participation. However, the correlations also show that while information and misinformation behave similarly when it comes to working with others in the community, contacting a public official, and writing letters to officials and the newspaper, there are significant differences between information and misinformation when it comes to voting, working for the parties or candidates, demonstrating, arguing with a stranger, and sending a message on the internet. This suggests that there may be some discrimination between misinformation and information concerning specific modes of participation. However, a more precise understanding of the association between misinformation, information, and political participation requires a more completely specified statistical model that controls for the possible confounding effects of other correlates of these variables.

Findings

General political participation was regressed (OLS) on information, misinformation, and selected predictors in order to assess the relationship between the three variables after controlling for possible confounds. As Table 2 indicates, misinformation is independently and significantly related to the general political participation index (B = .015, P < .01). However, the association between information and general participation was only statistically significant at the .10 level (B = .146). Thus, we find only tenuous support for our initial hypothesis that misinformation and information behave similarly with regard to political participation in general. To explore the effect of misinformation and information on individual acts of participation, we disaggregate the general participation scale and evaluate each of its components independently.

With voting as the dependent variable, we find that after controlling for other factors information, but not misinformation, is independently and significantly related to this form of political participation (B = .666, P < .01). The relationship between information and voting is fairly strong, suggesting that citizens who go to the polls maintain a certain level of political information.

Neither misinformation nor information was significantly related to working for a party or candidate or arguing with a stranger about politics. Misinformation was significantly correlated with working with others in the community to solve a local problem or to get something done (B = .036, P < .01). Hence there may be a reason to suspect that misinformation could make the difference between staying at home versus getting involved in this type of political activity. The correlation between information and this form of participation is not statistically significant, which again suggests that

Table 2. Regression of Information and Misinformation on Full Participation Index, Vote, Work for Parties or Candidates, Work with Others to Solve a Local Problem or Get Something Done, and Demonstrate to Oppose a Law or Policy

Predictors	Model 1 (Full Participation Index)	Model 2 (Vote)	Model 3 (Work for Party or Candidate)	Model 4 (Work with Others in Community)	Model 5 (Demonstrate)
Misinformation	.015***	.009	-.003	.036***	.001
	(.006)	(.011)	(.008)	(.011)	(.008)
Information	.146*	.666***	.000	.062	-.109
	(.081)	(.164)	(.121)	(.160)	(.112)
Interest	.165***	.100*	.211***	.193***	.133***
	(.027)	(.054)	(.040)	(.053)	(.037)
Professional	.121***	.246***	.086	.213***	.112**
	(.038)	(.077)	(.057)	(.076)	(.053)
Education	.019**	.054***	.012	.024	.018*
	(.007)	(.015)	(.011)	(.015)	(.010)
Strong Party ID	.060	.209***	.134**	.000	-.016
	(.038)	(.077)	(.056)	(.075)	(.052)
Ideology	.033*	-.032	.009	.085**	.037
	(.017)	(.035)	(.026)	(.034)	(.024)
Confidence	.038	.185**	.035	.016	-.060
	(.036)	(.073)	(.055)	(.072)	(.051)
Int. Efficacy	.112***	.091	.107**	.202***	.120***
	(.033)	(.068)	(.050)	(.066)	(.046)
Ext. Efficacy	-.074**	.081	-.036	-.101	-.123***
	(.032)	(.064)	(.048)	(.063)	(.044)
Female	.065*	.171**	.097*	-.028	-.031
	(.034)	(.070)	(.051)	(.068)	(.047)
Black	-.074	-.193	-.026	.015	-.052
	(.071)	(.143)	(.105)	(.140)	(.098)
Asian	-.171**	-.646***	-.093	-.290**	-.045
	(.073)	(.150)	(.110)	(.145)	(.101)
Hispanic	-.034	-.261**	-.037	-.004	.015
	(.056)	(.113)	(.083)	(.111)	(.077)
R^2	.23	.24	.13	.12	.07
F	13.655	14.387	6.455	6.329	3.208
df	648	643	642	645	643

Note: Unstandardized coefficients are presented with standard errors in parentheses. The minimal N for this analysis was 583 using listwise deletion. There were no significant differences in the results when using pairwise deletion or mean substitution.
***Significant at <.01 (two-tailed); **Significant at <.05 (two-tailed); *Significant at <.10 (two-tailed)

information and misinformation behave independently when it comes to certain types of political participation.

Neither misinformation nor information was correlated with participation in a demonstration. In fact, information, intense partisanship, confidence in understanding political events, and external efficacy were all negatively correlated with demonstrating. It appears that having an understanding of and confidence in the democratic process may lead citizens to believe that their efforts are better directed at other political pursuits.

With contacting a public official as the dependent variable we find a significant relationship with misinformation ($B = .038$, $P < .01$), but information is not statistically significant. Again we find that information and misinformation have different effects on specific dimensions of participation. There is possible cause for concern here since the misinformed might be able to gain the sympathetic ear of public officials—whom are often put in a position to respond to public inquiries, regardless of their factual quality.

Arguing with a stranger about politics is not related to either misinformation or information. We doubt that the misinformed and informed view their political engagement as argumentative, and we suspect that most respondents do not want to be thought of as argumentative.

Misinformation was a statistically significant predictor of writing a letter to a public official ($B = .035$, $P < .01$), as was information ($B = .284$, $P < .10$). Unlike other forms of participation where the effects were dissimilar, both information and misinformation exert positive influence on writing letters to public officials; however, their substantive impacts differ. Similarly, misinformation ($B = .019$, $P < .01$) and information ($B = .298$, $P < .01$) are both statistically significant predictors of writing letters to a newspaper.

Misinformation and information are not statistically significant influencers of political participation through the internet. Because use of the internet was not as widespread in 1997 as it is today, this finding did not surprise us even though writing letters to officials and the newspaper share similar qualities with sending a political message on the internet. We would not be surprised if future research found a link between misinformation and information and sending a political message on the internet.

Discussion

We found partial support for the hypothesis that misinformation is positively related to political participation after holding other variables constant, thus confirming the suspicions of Hofstetter et al. (1999) and Kuklinski et al. (2000). We found mixed support for the contention that the

Table 3. Regression of Personally Contact a Public Official, Argue with a Stranger about Politics, Write Letter to Public Official, Write Letter to Newspaper, and Send a Political Message on the Internet on Information and Misinformation and Selected Predictors

Predictors	Model 6 (Personally Contact Official)	Model 7 (Argue with a Stranger)	Model 8 (Send Letter to Official)	Model 9 (Send Letter to Newspaper)	Model 10 (Send Message on Internet)
Misinformation	.038***	.004	.035***	.019***	-.005
	(.011)	(.012)	(.010)	(.007)	(.009)
Information	.134	-.131	.284*	.298***	.082
	(.160)	(.168)	(.148)	(.104)	(.125)
Interest	.268***	.205***	.158***	.093***	.090**
	(.053)	(.056)	(.049)	(.035)	(.041)
Professional	.156**	.009	.194***	-.021	.079
	(.076)	(.079)	(.070)	(.049)	(.059)
Education	.010	.030*	.024*	.011	.012
	(.015)	(.015)	(.014)	(.010)	(.012)
Strong Party ID	.043	.114	.074	-.029	.024
	(.075)	(.078)	(.069)	(.049)	(.059)
Ideology	.030	.040	.047	.037*	.079***
	(.034)	(.036)	(.031)	(.022)	(.027)
Confidence	-.051	.169**	.051	.025	.056
	(.072)	(.075)	(.067)	(.047)	(.057)
Int. Efficacy	.043	.197***	.064	.083*	.086*
	(.067)	(.070)	(.062)	(.043)	(.052)
Ext. Efficacy	-.088	-.245***	-.084	-.041	.022
	(.063)	(.066)	(.058)	(.041)	(.049)
Female	.132*	.060	.164***	.064	-.094*
	(.068)	(.071)	(.063)	(.044)	(.053)
Black	-.082	-.210	-.135	.010	-.023
	(.140)	(.147)	(.129)	(.092)	(.115)
Asian	-.205	.069	-.216	-.153	-.096
	(.145)	(.153)	(.135)	(.094)	(.112)
Hispanic	-.032	-.088	.088	.069	.044
	(.111)	(.116)	(.102)	(.072)	(.085)
R^2	.10	.10	.12	.08	.07
F	5.21	5.40	6.10	3.77	3.20
df	646	643	640	640	583

Note: Unstandardized coefficients are presented with standard errors in parentheses. The minimal N for this analysis was 583 using listwise deletion. There were no significant differences in the results when using pairwise deletion or mean substitution.
***Significant at <.01 (two-tailed); **Significant at <.05 (two-tailed); *Significant at <.10 (two-tailed)

misinformed and the informed behave the same way. Misinformation and information are both independently related to the general participation index; however, the differences in the partial associations between information and misinformation and the various specific indicators of participation suggest that the findings of the general participation index cannot be generalized to all types of participation.

Misinformation was a predictor for working with the community to solve a local problem or to get something done, contacting a public official about a problem, writing a letter to a public official, and writing a letter to a newspaper. Information had a stronger effect than misinformation on voting, writing a letter to a public official, and writing a letter to a newspaper. Information was unrelated to working for a candidate or a political party, working with others in the community, demonstrating, contacting public officials, arguing politics with a stranger, or sending a message on the internet. With the exception of writing letters to public officials and newspapers, the informed do not seem to behave like the misinformed when it comes to political participation.

While there may be a difference between the political activities the misinformed and the informed respectively engage in, our findings contribute to the literature by providing evidence that *both* the informed and the misinformed are participating. Our findings offer tentative confirmation to the speculation of a misinformation effect on the policy cycle (Hofstetter et al. 1999; Kuklinski et al. 2000). We note that the activities that related to misinformation could take place in environments without competing viewpoints. Of the nine types of participation in our index, five (voting, personally contacting officials, sending letters to officials, sending letters to newspapers and sending messages via the internet) are circumstances that can be reasonably completed without external interference. We found statistically significant effects for three of the five forms of participation. We contend that one of the null results, sending messages on the internet, may have been a result of the lack of internet access during the mid 1990s. On the other hand, the four forms of participation in which no misinformation effect was expected (working for a candidate, working with others, demonstrating and arguing with a stranger), there were null results for three of the four and it is possible, in a truly homogeneous community, that working with others could be done in an environment without external interference. While certainly not deterministic, the hypothesis that misinformation is related to those activities capable of completion without external interference is supported by these findings. Thus, as Ortega y Gasset (1932) posited, the misinformed may be acting without regard to reality precisely because the misinformed have no desire or need to address reality.

One can argue that the misinformed gain information as a result of working with others, and we agree if the misinformed choose to work with the informed and thereby become exposed to correct information. The problem occurs if the misinformed avoid the informed. Kuklinski et al. (2000) found that the misinformed tend to reject information they find distasteful and do not easily relinquish their incorrect beliefs. Thus, it may be that the mistakenly misinformed are able to work with the informed and achieve positive results, but the close-minded or persuaded misinformed may delay noble causes by participating in politics and insisting on an incorrect point of view. It may also be that the misinformed organize collectively and work only with other misinformed people to achieve some goal.

A misinformation effect on the policy cycle should concern advocates of democracy. The period between elections is long, and zealous advocates can greatly influence elected officials by engaging in non-electoral political activities (Conway 2000). When the informed work with others in the community to solve a local problem or to get something done democracy is strengthened in many ways (see Barber 1984), but the misinformed probably also affect change. If enough public officials are contacted and if enough letters are disseminated, then something that starts as an outlier movement can become the popular standard over time, especially if public officials believe the misinformed are speaking for a silent constituency (see Fiorina, Abrams, and Pope 2006; Hunter 1991).

We found that the misinformed are likely to contact public officials and write letters to officials and newspapers. Getting "face time" with leaders is important to any advocacy effort and presenting ideas in the media is also crucial to political success. We suspect that an obnoxiously misinformed person contacting an official or writing letters gets quickly noticed and subsequently ignored, but we note that advocacy may not be obnoxious. This underscores our concern with the misinformation effect on democratic processes. We worry that the misinformed may be successful activists, as they apparently only have to compete for political attention with small groups of informed individuals and larger groups of uninformed citizens. We worry because we think that the way a thing happens is as important as the happening itself; therefore, even if the misinformed advocate for good policy, because such advocacy is based on false facts we find that still problematic. The rationale matters as much, if not more sometimes, than the conclusion itself. Thus, we think misinformed participation is an important topic for future research.

This study is subject to several limitations. Based on a secondary analysis of previously collected data, this study uses regional data so generalization must be done with caution. The measure of misinformation used here is context specific and fails to take liberal misinformation into account. We

hypothesize that liberal misinformation exists; although we acknowledge that it was not adequately captured in this study. Future research should fill this gap; however, even given this gap, by examining only "conservative" misinformation we ignore any potential effects of liberal misinformation, which actually bolsters our conclusions because even with just one tail of the misinformation distribution we are still able to find significant effects of misinformation on political participation. Future studies are thus likely to find an even stronger effect than what we present here if liberal misinformation is included in the analysis.

A potential alternate explanation for our findings is that confidence is driving participation, regardless of the presence of misinformation. We think that we captured some level of confidence by means of our control variables, but we are nevertheless still concerned and suggest that future research measure misinformation consistent with our suggestions above. Although our data are dated, we do not think that they are antiquated and believe this research presents valid evidence of a phenomenon ripe for study. We conclude by noting that the solution to misinformation is the marketplace of ideas, but only if those people who are in a position to rectify political misinformation engage in politics themselves and effectively rebut falsehoods.

APPENDIX
Political Action Taken in Last Three or Four Years

Political Activity	Mean	Std. Deviation
Voted in national elections	3.11	1.04
Worked for parties of candidates	1.33	.65
Worked with others to solve a local problem	1.74	.86
Participated in demonstration	1.26	.57
Contacted a public official	1.61	.86
Argued with a stranger about politics	1.82	.92
Wrote letters to public official about a political issue	1.57	.80
Wrote letters to the newspaper about a political issue	1.28	.58
Sent a message on the internet about a political issue	1.25	.62

Note: The minimal N for this analysis was 723. Min=1 and Max=4. Respondents were asked whether they participated in these activities "very often (4), often (3), not very often (2), or never (1)."

NOTES

[1]See the appendix for descriptive statistics of the individual components of participation index.

[2]Being misinformed could decrease participation among those who are not internally efficacious, while simultaneously increasing the participation of those who are externally efficacious. In order to rule out this possibility, an interaction term between external efficacy and misinformation was included in the analysis. The inclusion of this variable did not substantively alter any of our findings; hence it was removed from the analysis and ruled out as an alternate explanation.

[3]We found that the participation rates for Asians compared to Whites is dramatically different and identify this as an important issue for future research, but we do not address it here as our intention is simply to test a previously hypothesized link between misinformation and political participation in the literature.

REFERENCES

Abeles, Paul, and John Morton. 1999. Avoiding Misinformation: Reinstating Target Modality. *The Quarterly Journal of Experimental Psychology* 52:581-592.

Arendt, Hannah. 1998. *The Human Condition*, 2nd ed. Chicago: University of Chicago Press.

Baker, Brent. 1994. *How to Identify, Expose and Correct Liberal Media Bias*. Alexandria: Media Research Center.

Barber, Benjamin R. 1984. *Strong Democracy: Participatory Politics for a New Age*. Berkeley: University of California Press.

Bartels, Larry M. 1996. Uninformed Votes: Information Effects in Presidential Elections. *American Journal of Political Science* 40:194-230.

Brady, Henry E., Sidney Verba, and Kay Lehman Schlozman. 1995. Beyond SES: A Resource Model of Political Participation. *American Political Science Review* 89: 271-294.

Center for American Women in Politics. 2002. Fact Sheet: Sex Differences in Voter Turnout. Eagleton Institute of Politics, Rutgers University.

Converse, Philip E. 1964. The Nature of Belief Systems in Mass Publics. In *Ideology and Discontent*, ed. David Apter. New York: Free Press.

Conway, Margaret M. 2000. *Political Participation in the United States*. Washington, DC: CQ Press.

Delli Carpini, Michael X., and Scott Keeter. 1993. Measuring Political Knowledge: Putting First Things First. *American Journal of Political Science* 37:1179-1206.

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

Fiorina, Morris P., Samuel J. Abrams, and Jeremy C. Pope. 2006. *Culture Wars? The Myth of a Polarized America*. New York: Pearson Longman.

Hofstetter, Richard C., David Barker, James T. Smith, Gina M. Zari, and Thomas A. Ingrassia. 1999. Information, Misinformation, and Political Talk-radio. *Political Research Quarterly* 52:353-369.

Katz, Elihu, and Paul F. Lazarsfeld. 1964. *Personal Influence: The Part Played by People in the Flow of Mass Communications*. New York: Free Press.

Kruglanski, Arie W., and Tallie Freund. 1983. The Freezing and Unfreezing of Lay-Inferences: Effects on Impressional Primacy, Ethnic Stereotyping, and Numerical

Anchoring. *Journal of Experimental Social Psychology* 19:448-468.
Kuklinski, James H., Paul J. Quirk, Jennifer Jerit, David Schwieder, and Robert F. Rich. 2000. Misinformation and the Currency of Democratic Citizenship. *The Journal of Politics* 62:790-816.
Kunda, Ziva. 1987. Motivation and Inference: Self-Serving Generation and Evaluation of Evidence. *Journal of Personality and Social Psychology* 53:636-647.
Kunda, Ziva. 1990. The Case for Motivated Reasoning. *Psychological Bulletin* 108:480-498.
Lau, Richard R., and David P. Redlawsk. 1997. Voting Correctly. *The American Political Science Review* 91:585-598.
Lupia, Arthur, and Mathew D. McCubbins. 1998. *The Democratic Dilemma: Can Citizens Learn What They Need to Know?* New York: Cambridge University Press.
Miller, Dale T., and M. Ross. 1975. Self Serving Biases in Attribution of Causality: Fact or Fiction? *Psychological Bulletin* 82:213-225.
Nie, Norman H., Sidney Verba, and John R. Petrocik. 1976. *The Changing American Voter*. Cambridge, MA: Harvard University Press.
Nisbett, Richard E., and Lee Ross. 1980. *Human Inference: Strategies and Shortcomings of Social Judgment*. Englewood Cliffs, NJ: Prentice-Hall.
Ortega y Gasset, Jose. 1932. *The Revolt of the Masses*. New York: Norton.
Ortega y Gasset, Jose. 1958. *Man and Crisis*. New York: Norton.
Page, Benjamin I., and Robert Y. Shapiro. 1992. *The Rational Public: Fifty Years of Trends in Americans' Policy Preferences*. Chicago: University of Chicago Press.
Palfrey, Thomas R., and Keith T. Poole 1987. The Relationship Between Information, Ideology, and Voting Behavior. *American Journal of Political Science* 31:511-530.
Plato. *The Republic*. Trans. Alan Bloom. 1991. Basic Books.
Plato. *Euthyphro*. In *Four Texts on Socrates*. Trans. Thomas G. West and Grace Starry West. Ithaca, NY: Cornell University Press.
Plato. *Symposium*. Trans. Seth Benardete. 2001. Chicago: University of Chicago Press.
Putnam, Robert D. 2000. Bowling Alone: The Collapse and Revival of American Community. New York: Simon and Schuster.
Putnam, Robert D. 2003. APSA Presidential Address: The Public Role of Political Science. *Perspectives on Politics* 1:249-255.
Pyszczynski, T., and J. Greenberg. 1987. Toward an Integration of Cognitive and Motivational Perspectives on Social Inference: A Biased Hypothesis-Testing Model. In *Advances in Experimental Social Psychology*, ed. L. Berkowitz. New York: Academic Press.
Smith, Eric R.A.N. 1989. *The Unchanging American Voter*. Berkeley: University of California Press.
Sorrentino, Richard M., and E. Tory Higgins. 1986. Motivation and Cognition: Warming Up to Synergism. In *Handbook of Motivation and Cognition: Foundations of Social Behavior*, eds. Richard M. Sorrentino and E. Tory Higgins. New York: Guilford Press.
Verba, Sidney, Kay Lehman Schlozman, Henry Brady, and Norman H. Nie. 1993. Race Ethnicity and Political Resources: Participation in the United States. *British Journal of Political Science* 23:453-497.
Wright, Daniel B., Gail Self, and Chris Justice. 2000. Memory Conformity: Exploring Misinformation Effects When Presented by Another Person. *British Journal of Psychology* 91:189-202.
Zaller, John R. 1992. *The Nature and Origins of Mass Opinion*. New York: Cambridge University Press.