

Who Deserves Health Care? The Effects of Causal Attributions and Group Cues on Public Attitudes about Responsibility for Health Care Costs

Sarah E. Gollust

University of Minnesota

Julia Lynch

University of Pennsylvania

Abstract This research investigates the impact of cues about ascriptive group characteristics (race, class, gender) and the causes of ill health (health behaviors, inborn biological traits, social systemic factors) on beliefs about who deserves society's help in paying for the costs of medical treatment. Drawing on data from three original vignette experiments embedded in a nationally representative survey of American adults, we find that respondents are reluctant to blame or deny societal support in response to explicit cues about racial attributes—but equally explicit cues about the causal impact of individual behaviors on health have large effects on expressed attitudes. Across all three experiments, a focus on individual behavioral causes of illness is associated with increased support for individual responsibility for health care costs and lower support for government-financed health insurance. Beliefs about social groups and causal attributions are, however, tightly intertwined. We find that when groups suffering ill health are defined in racial, class, or gender terms, Americans differ in their attribution of health disparities to individual behaviors versus biological or systemic factors. Because causal attributions also affect health policy opinions, varying patterns of causal attribution may reinforce group stereotypes and undermine support for universal access to health care.

This study examines how cues about social group membership and causes of illness influence the public's beliefs about who deserves society's assis-

Author names are listed in alphabetical order. We acknowledge the University of Pennsylvania's University Research Fund and the Robert Wood Johnson Foundation for financial support of this research. We are indebted to the networks of scholars engaged in the RWJF Health Policy Scholars, Health and Society Scholars, and Investigator Awards programs for ongoing intellectual support of and engagement with this project. We also thank Larry Jacobs, Suzanne Mettler, Nicholas Valentino, Michael Bader, Daniel Gillion, and our anonymous reviewers for their very helpful comments on earlier drafts.

Journal of Health Politics, Policy and Law, Vol. 36, No. 6, December 2011
DOI 10.1215/03616878-1460578 © 2011 by Duke University Press

tance in paying for the costs of health care. Attitudes about social groups are important determinants of Americans' opinions about public policy matters (Sniderman 1993; Kinder and Sanders 1996; Kinder and Kam 2009). Designating a particular social group as the beneficiary of a policy activates attitudes and stereotypes about that group when the public considers the policy issue at stake (Nelson and Kinder 1996). Such group cues influence policy preferences partly because they simplify otherwise complex policy decisions: when the social group membership of the policy's target population is highlighted, people can draw on their attitudes, emotions, and beliefs about that group to inform their policy opinions (Nelson 1999). Similarly, cues signaling the likely causes of misfortune provide useful heuristics or shortcuts for people forming policy opinions. For example, when (bad) behaviors on the part of potential beneficiaries are understood to be at the root of hard times, people are less inclined to consider the stricken deserving of society's support than if factors outside the individuals' control were the cause of misfortune (Weiner 2006). Of course, one reason that group cues influence policy opinions is precisely because they can tap into stereotypes about presumed behavior—for example, whether members of a group tend to be hardworking, providential, or adherent to dominant social norms (Gilens 1999; Sniderman and Piazza 1993; Cook and Barrett 1992; Nelson 1999). Thus cues about ascriptive group characteristics and cues about behavioral characteristics can both individually and jointly influence policy opinions, indicating whether the beneficiaries of a policy are likely to be perceived as deserving of sympathy or support.

Decades of research confirm the influence of cues about social group membership on opinions about social policy matters. Framing health policy issues in certain ways has been shown to activate groupcentric modes of thinking (Nelson and Kinder 1996; Winter 2005; Rigby et al. 2009). Cues about the likely causes of illness and health—particularly attributions of illness to behavioral causes—are also likely to influence political beliefs about health policy. Public health policy has long focused on regulating, monitoring, and making people accountable for behaviors considered nonnormative or even “sinful” (Leichter 2003; Morone 2003), and contemporary discourse on health care reform continues to reflect the notion that patients should be held accountable for their unhealthy behaviors (Schmidt, Voigt, and Wikler 2010). The 2010 health reform legislation (the Patient Protection and Affordable Care Act) offers incentives for employers to implement work site wellness programs that allocate support services, premium discounts, and financial penalties to individuals based on their health behaviors. This

strong emphasis on personal behaviors and personal responsibility has great traction in media and policy discourse (Brownell et al. 2010; Kersh 2009), and has the potential to undermine the case for a societal role in sharing the burden of health care costs (Wikler 1987).

But do cues about the causes of illness in fact affect the public's beliefs about how the costs of health care should be distributed? If so, how do the effects of these causal cues compare with, and interact with, the effects of group cues that indicate the race or socioeconomic status of likely beneficiaries? These questions have particular relevance within a health policy context that emphasizes both the problem of health disparities by race and class (CDC 2011; Kawachi, Daniels, and Robinson 2005) and the importance of personal responsibility for health (Wikler 2002). We analyze data from three experimental vignettes embedded in a nationally representative survey of American adults to assess the consequences for health policy preferences of both attributional and group cues, independently and in interaction.¹

The first two experiments, which manipulate both the group and causal cues available to respondents, are designed to allow us to estimate the net effects of different cues. We find that behavioral indicators are more powerful than racial or class-related signals in predicting opinions about whether individuals or society should pay for health care. Yet we recognize that in a natural, nonexperimental, setting, beliefs about groups and behaviors are deeply intertwined. Put another way, the degree to which respondents attribute group differences in health to behavioral factors or other causes is likely to vary with the identified ascriptive characteristics of that group (i.e., gender, race, income, or educational attainment). So in the third experiment, we allow respondents to provide their own causal attributions in response to group cues. We find that when people attribute group differences in health status to the behavior or biology of individuals making up the less-healthy group, they are more likely also to believe that individuals, not the government, should be responsible for the costs of medical care.

Deservingness in Public Policy

An extensive literature describes the robust influence of the concept of deservingness on the politics of American social policy. In fact, as Skocpol

1. We use Druckman et al.'s (2010: 137) definition of a cue as "a piece of information" that "enable[s] individuals to make simplified evaluations without analyzing extensive information."

(1992: 149) remarks, “institutional and cultural oppositions between the morally ‘deserving’ and the less deserving run like fault lines through the entire history of American social provision.” In the realm of health policy, as in so many other areas of American social policy, government programs historically have been targeted at groups such as the elderly and pregnant women (Grogan and Patashnik 2005; Cook and Barrett 1992) who are perceived by the public—and constructed by policy—as deserving (Schneider and Ingram 1993). In their seminal definition of deservingness in the context of the American welfare state, Cook and Barrett (1992) identify five criteria that the American public and policy makers use to define a policy target’s deservingness. Three of these criteria—the cause (or perceived cause) of the target’s needs, whether potential recipients strive toward independence and self-sufficiency, and whether recipients are likely to use benefits in a prudent manner—are strongly linked to beliefs about the behavioral and other causal forces that define the situation of potential policy targets. But beliefs about deservingness are also strongly shaped by the construction of beneficiaries as belonging to particular gender, race, and class groups (see, e.g., Gordon 2002). Research suggests that group cues affect opinions at least partly because they activate stereotypical causal attributions, such as attributions of a group’s achievements, or lack thereof, to individual moral failures (i.e., laziness) versus structural barriers to normative behavior (Kinder and Sanders 1996; Kluegel and Smith 1986; Nelson 1999; Gilens 1999). The construct of deservingness thus helps explain why both attitudes about groups and perceptions of causal attributions can influence policy opinions, and in potentially overlapping ways.

Group and Attributional Cues Affect Policy Support

Because racial politics is central to U.S. social policy, much of the research on the effects of group attitudes on policy opinion in the United States has focused on race-related policy opinion and on the influence of negative stereotypes about African Americans (Hutchings and Valentino 2004). One dominant strain of research posits that by the 1960s (after the civil rights movement), old-fashioned racism based on socially unacceptable beliefs about the biological inferiority of blacks was replaced by “symbolic racism,” in which whites link their objection to public policy support for blacks with the latter’s purported refusal to adhere to acceptable behavioral norms and take personal responsibility for their unmet needs (Kinder

and Sears 1981; Hutchings and Valentino 2004). When whites believe that social policies benefit African Americans, racialized stereotypes about normative behaviors are activated, shaping whites' support for these policies (Gilens 1999; Peffley, Hurwitz, and Sniderman 1997). A group cue thus activates an implicit schema—here, an association between a racial group and stereotypical behaviors—making behavioral attributions and their associated deservingness considerations more cognitively accessible than they would otherwise be (Winter 2008).

Group cues may also influence political and policy attitudes through affective or emotional processes. Research in psychology has long demonstrated that thinking about social groups can arouse emotional responses (Mackie and Smith 2003), and a limited body of research provides evidence that group cues trigger noncognitive mechanisms, such as activating anxiety or feelings of threat, that affect political attitudes and behaviors (Brader, Valentino, and Suhay 2008; Nelson 1999). Feelings of solidarity and empathy toward one's in-group, and negative emotions (hostility, threat) toward others, help explain public attitudes on such diverse policy issues as the war on terror, immigration, and gay rights (Kinder and Kam 2009). The "likability" of groups provides another, noncognitive heuristic for political decision making (Brady and Sniderman 1985).

Compared with racial or ethnic group cues, we know far less about the effects of cues about groups defined by income, education, occupation, or social class (Weeks and Lupfer 2004; Stuber and Schlesinger 2006), independent of these groups' associations with racial groups (Gilens 1999). Cook and Barrett's (1992) schema of deservingness criteria identifies beliefs about the level of beneficiary *need*—including financial need—as a positive influence on perceptions of deservingness. Low-income working people, who figure importantly in health policy discourse, seem likely to be marked by both their financial need and their working behavior as a particularly deserving group. However, we can draw on very limited empirical research to infer how a working-class cue might affect, for example, health care policy attitudes.

In fact, surprisingly little research has addressed the influence of either racial- or class-related group attitudes in the health policy domain, despite the presumed salience of social groups in the discourse (Stone 2006; Schlesinger and Lee 1993). There have been only a handful of notable studies examining group-related attitudes toward health programs. Some of these studies suggest that group cues do affect health policy attitudes: Rigby and colleagues (2009) found that public support for interventions to address health disparities was highest when the researchers portrayed

disparities as affecting groups defined by income, and lowest for groups defined by race. Winter (2005) found that, as a result of the framing of health reform in the 1990s to emphasize Hillary Clinton's role, attitudes toward women were associated with attitudes toward health reform. But the few survey-experimental studies that assess the associations between racial group cues and respondents' preferences toward health resource allocation have found limited effects of the former on the latter (Gollust, Lantz, and Ubel 2010; Lenton, Blair, and Hastie 2006; Murphy-Berman, Berman, and Campbell 1998). Given the inconclusive results of the existing literature and the extensive and growing public attention to racial disparities in the media (Kim et al. 2010) and in recent policy reports (CDC 2011), more research on the influence of racial group attitudes on health policy sentiment is clearly warranted.

With regard to social class–related cues, political rhetoric on health insurance reform abounds with expressions of concern about the affordability of health care and the security of benefits for working-class Americans (Jerit 2008). The working class is characterized in these debates as particularly deserving of societal support because despite hardworking and providential behavior, they still need assistance to make their health insurance benefits affordable and secure.² Hence we expect considerations about the economic status of beneficiaries to be salient when Americans form opinions about health insurance expansions. Yet there has been no study, to our knowledge, that assesses how the perceived social class identity of beneficiaries affects public attitudes toward the role of the public sphere in providing social assistance for health care costs.

Like attitudes toward social groups, causal attributions play an important role in explaining policy judgments for the public and policy makers alike (Baumgartner and Jones 1993; Stone 1989). Perceptions of what causes a social problem—particularly whether the cause is internal or external to the individual and how controllable the cause is perceived to be—have been found to influence judgments about who is responsible for causing, and for *treating*, the problem (Weiner 2006; Jayaratne et al. 2009; Iyengar 1991). Potential causes for health outcomes include behavioral factors (like poor diet or smoking, which imply some level of voluntary control), biological factors (which are generally under the control of neither the individual nor society at large), systemic factors (not under

2. In his September 2009 address to Congress, for instance, President Obama (2009) emphasized the health insurance needs of middle-class Americans, saying specifically, “These are not primarily people on welfare.”

the control of the individual, but related to social structural features like discrimination or the functioning of the health care system), and other impersonal factors like bad luck or fate. Consistent with research on non-health-related social inequality (Kluegel and Smith 1986), survey and experimental research has found that in the health domain, people have more sympathy and are more willing to support governmental action when they believe that systemic or environmental factors, rather than individual behaviors or personal responsibility, are the cause of some health problem or inequality (Barry et al. 2009; Oliver and Lee 2005; Reutter, Harrison, and Neufeld 2002; Lenton, Blair, and Hastie 2006; Murphy-Berman, Berman, and Campbell 1998; Ubel, Baron, and Asch 1999). With rare exceptions (Lenton, Blair, and Hastie 2006; Murphy-Berman, Berman, and Campbell 1998), however, these health studies have not evaluated how social group cues interact with these causal cues. Because assumptions about personal behavioral and biological causes of illness may provide some of the force behind group cues, and because both group cues and attributional cues have a strong theoretical relationship to deservingness, further study of the interaction of the two is warranted.

Research Aims and Hypotheses

This study assesses how explicit cues about race, social class, and health behaviors affect the public's willingness to identify a societal, rather than simply a personal, responsibility for "treating" health policy problems. The attribution of treatment responsibility to society, where it occurs, is simultaneously a policy preference and an indicator that the beneficiaries are seen as deserving of social support. By experimentally manipulating both ascriptive and attributional cues, we can measure their causal impact on these outcomes.

Blame likely plays an important role in mediating between beliefs about causal responsibility and treatment responsibility. Blame occurs when a normatively neutral belief about the cause of a health condition (the causal attribution) is transformed into a moral judgment about the affected person. Blame combines cognition (an assessment of who is responsible) and affect (anger), which mediate the effect of a causal attribution on a policy judgment (Weiner 1993). Unlike some previous scholarship that conceptually elides the causal attribution and the assessment of blame (see, e.g., Lenton, Blair, and Hastie 2006), we consider blame an intervening step in the process that links the group or causal attribution cues, on the one hand, to judgments of policy responsibility (or "treatment responsibility")

[Iyengar 1991]), on the other. Group and attributional cues are expected to activate considerations about blame, making them accessible to respondents as they form their political beliefs (Zaller 1992). Since blame has both cognitive and affective components, we expect these cues will prompt a blame response regardless of whether the psychological mechanism is cognitive (i.e., via causal attributions or deservingness) or affective (i.e., through “likability” or emotion).

We begin from the hypothesis that explicit information about both ascriptive characteristics and the causes of illness affects respondents’ assessments of blame and ultimately their allocation of treatment responsibility. When a sick individual is portrayed as being causally responsible for his or her illness, we expect that this cue will elicit more blame and thus less social support for his or her medical care than when the behavioral cue is absent. We extend this hypothesis to the level of groups: when group health differences are attributed to behavioral choices, we expect the public to be less supportive of a government role in providing universal health insurance. Depicting a sick individual as a member of the working class, a “needy” group framed sympathetically in health policy rhetoric, should elicit less blame and more policy support than a depiction of a higher-earning sick individual. Given the explicit nature of the text-based racial group cue and strong public norms against reporting equality-violating sentiment (e.g., Mendelberg 2001), we expect that simply cueing a sick individual’s race as African American (compared with white) is unlikely, on average, to exert an independent effect on either blame or policy support among white respondents.

However, the effects of causal attributions and group cues are likely to be particularly closely intertwined in the health domain. In an epidemiological context in which racial minorities and people of lower socioeconomic status (SES) are disproportionately likely to smoke and to be overweight (Lantz et al. 1998), and in a media environment in which behavioral causes of illness and of racial differences in health are emphasized (Kim et al. 2010; Saguy and Gruys 2010), we expect to observe an interactive effect of causal attributions and group cues on beliefs about blame and policy deservingness. Signaling that a black individual engages in unhealthy behaviors may provide justification for expressing the otherwise socially unacceptable opinion that he or she is undeserving of societal support (Lenton, Blair, and Hastie 2006; Murphy-Berman, Berman, and Campbell 1998). An analogous interactive effect could occur when pairing class cues and behaviors: greater sympathy toward a working-class

individual would appear only when that individual is otherwise wholly deserving—that is, not causally responsible for his or her illness.

Finally, we hypothesize that causal attributions and ascriptive group cues will also interact at another conceptual juncture: group-based sentiment will influence public beliefs about the causes of group differences in ill health. Since members of the public rely so strongly on perceptions of social groups to make social judgments (Nelson and Kinder 1996), group cues are likely to influence the public's own causal explanations for why health differs across group (Rigby et al. 2009), just as causal attributions for other types of group differences (socioeconomic inequality, intelligence, sexual orientation) have been shown to differ depending on the group in question (Jayaratne et al. 2009; Kluegel 1990).

By using three discrete experimental designs in which attributional and group cues are randomly assigned to respondents, this study allows us to test the causal impact of these factors on health policy judgments in two controlled ways. First, we test whether ascriptive group cues influence policy opinion, both independently and in interaction with experimentally induced causal attributions. Second, we test whether group cues affect causal attributions for health inequalities, and ultimately public preferences for governmental support for health insurance.

Survey and Methods

Data in this study come from an original nationally representative, Internet-based survey of American adults fielded by the survey firm Knowledge Networks between August 22 and September 13, 2007. Knowledge Networks maintains a panel of about fifty thousand potential study participants, recruited using random-digit dialing so as to be representative of the national U.S. population. The survey was administered in two waves, separated by two weeks, to minimize respondent fatigue (each half took a median of fifteen to sixteen minutes to complete) and cross-contamination between experimental treatments in the two halves of the survey. The first two vignettes described below were administered in wave 1. The third occurred near the beginning of the wave 2 survey instrument. The completion rate for this survey was 72.6 percent in wave 1 and 79.7 percent in wave 2 (higher than the average survey completion rate of 65 percent among Knowledge Networks panelists at this time). The total sample size of respondents who completed wave 1 was 1,676, and the total sample size of respondents who completed both waves was 1,334 (with fewer respon-

dents assigned to certain experimental vignettes based on study design; see below).

Embedded within the survey were three experimental vignettes about health and health care (see complete text in the appendix). In the first two, we presented a hypothetical man (Chuck or Ralph) suffering from diabetes or heart disease who either engaged in unhealthy behaviors (smoking or poor diet) or had a family history of the disease. Other variables randomly assigned in the vignette were his race (African American versus white) and SES (working class or middle class). Thus each experiment used a 2 x 2 design, varying the ascriptive group cue (group status) and the behavioral cue (engaged in unhealthy behavior or not) present in each.³ The main outcomes were respondents' attribution of blame to the individual described in the vignette (measured on a ten-point scale with endpoints labeled "[Name of protagonist] is completely to blame" [1] and "[Name of protagonist] is not at all to blame [10]) and who, in a fair society, should be the one to pay for the costs of the man's medical care ("[Name of protagonist] should pay all costs" [1] and "Citizens in society should pay all costs" [10]).⁴

In the third experiment, we presented respondents with text about inequalities in life expectancy between two social groups (e.g., African Americans versus whites), randomly assigning the type of social group (i.e., gender, race, income, and education) described in the scenario.⁵ We then measured the causes to which respondents attributed the gap in life expectancy under these four scenarios, asking respondents to select which ones, from a list of six explanations for these group differences, they considered most important. Note that this task is conceptually different from the causal attribution featured in experiments 1 and 2; for experiment 3, *respondents* identified the cause of *group* differences in health, while in the first two the *vignette* provided the cause of an *individual's* poor health.

3. One-fifth of respondents (~330) in experiments 1 and 2 were randomly assigned to a condition that provided respondents with no information about the vignette protagonist's race and class identity or the cause of illness. These respondents have not been included in the present analysis, but data comparing this group are available on request. There were no statistically significant ($p > 0.05$) differences among the respondents assigned to the different treatments in age, race, gender, income, educational attainment, partisan self-identification, health status, insurance history, or egalitarian or humanitarian values.

4. The wording of this policy question is intentionally indifferent to whether health insurance or health care should be provided by public or private actors.

5. The randomization of treatments in experiment 3 was successful on all of the demographic and health-related criteria in note 3 above, except that respondents assigned to the race condition were slightly more likely than those assigned to the other conditions to have been uninsured at some point in the last three years. We control for insurance history in all regression models.

To determine whether the causal attributions for group health differences predict health policy opinions, at the conclusion of the survey we asked all respondents their preferences about the role of government in health insurance provision: “Some people feel there should be a government insurance plan that would cover all medical and hospital expenses for everyone. Others feel that medical expenses should be paid by individuals, and through private insurance plans. Where would you place yourself on this scale?” The response scale ranged from 1 (“Individuals and private insurance”) to 7 (“Government insurance plan”).

Analyses of the first two experiments consisted of ordinary least squares (OLS) regression of the outcome variables (blame and opinion about who should pay for medical care) on dummy variables for the treatments (group cue and causal cue), independently and in interaction. To test whether respondent characteristics (respondents’ own race or social class) affected their response to the vignettes, we estimated regression models including interaction terms with respondents’ race and class. Finally, to assess whether any effects of the experimental treatments on policy opinion were mediated by respondents’ assignment of blame, we added blame as a covariate and estimated the corresponding Sobel statistics (Baron and Kenny 1986).

Statistical analysis for the third experiment consisted of chi-square analyses to assess whether respondents’ causal attributions for group differences in mortality varied by the type of group difference to which they were randomly assigned. Next, we estimated multinomial logit models to determine whether the group cues and respondent characteristics were associated with the respondents’ choice of causal attribution. Finally, to determine whether these causal attributions predicted policy preferences, we estimated OLS regression models of policy preference (the government health insurance provision question described above) on the randomly assigned group, respondents’ causal attributions, and characteristics of respondents. All analyses in this article were performed using Stata 10.1 and used the survey weights provided by Knowledge Networks to adjust the results to be representative of the national U.S. population.

Results

Experiment 1: Effects of Racial and Behavioral Cues on Blame and Support for Societal Assistance with Health Care Costs

The first experiment presented survey respondents with information about a fictitious man with heart disease who is unable to pay the bills for his treatment because he has no insurance. The vignette states that “Ralph” is forty years old, employed full time, and uninsured because his employer does not provide health insurance and he is unable to afford to purchase insurance himself. Respondents ($N = 1,342$) were randomly assigned to one of four conditions based on joint manipulation of Ralph’s race (African American or white) and the likely cause of Ralph’s illness (“He smokes and has heart disease” [behavioral] or “He has heart disease, as did his father” [family history]) ($n = \sim 330$ per condition).

First, we evaluated the impact of causal and group cues by estimating regression models of respondents’ assignment of blame on variables representing Ralph’s race (1 = African American, 0 = white) and the implied cause of his illness (1 = behavioral, 0 = family history) (table 1, model 1). The random assignment of respondents to these experimental conditions allows us to produce unbiased estimates of the effects of these variables without including covariates indicating respondent characteristics.⁶ In a second model, we added an interaction term between the causal cue and the race cue to evaluate whether there is an interactive effect of the two types of cues (table 1, model 2). While racial group cues may affect both whites and nonwhites (White 2007), the African American racial group cue may affect white respondents and racial minorities differently given the power of ethnocentric attitudes (Kinder and Kam 2009). Hence in a third model we examined whether the pattern of effects of the group cue is different for whites and nonwhites by including an interaction between the racial group cue and the respondent’s race (table 1, model 3).⁷

Table 1 (model 1) reveals that respondents assign significantly more blame to Ralph when the vignette specifies that he has engaged in behaviors that could have caused his illness. Respondents rate Ralph 2.73 units more blameworthy on the ten-point blame scale when they are told that

6. Introducing a full battery of demographic and attitudinal controls (available on request) does not substantively affect the results.

7. We combine members of different racial minority groups into a single nonwhite category ($N = 328$). Variation in attitudes across different nonwhite groups would bias the observed effects toward the null.

Table 1 The Effects of Racial and Behavioral Cues on Attribution of Blame for Ill Health and Responsibility to Pay for Health Care

<i>Outcome Variable</i>	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7
	<i>Ralph to blame</i>	<i>Ralph to blame</i>	<i>Ralph to blame</i>	<i>Ralph should pay</i>	<i>Ralph should pay</i>	<i>Ralph should pay</i>	<i>Ralph should pay</i>
Group cue = African American	-0.279 (0.150)	-0.072 (0.210)	-0.037 (0.172)	-0.043 (0.150)	-0.024 (0.203)	0.139 (0.167)	0.090 (0.134)
Behavior cue = smoking	2.73*** (0.150)	2.94*** (0.205)	2.73*** (0.148)	1.02*** (0.150)	1.04*** (0.212)	1.01*** (0.148)	-0.325* (0.163)
Group cue*behavior cue		-0.416 (0.298)			-0.039 (0.300)		
R nonwhite*African American group cue			-1.03** (0.337)			-0.797* (0.356)	
R nonwhite			0.331 (0.227)			-0.193 (0.246)	
Blame (rescaled 0-1)							4.44*** (0.299)
Constant	3.91*** (0.128)	3.81*** (0.147)	3.83*** (0.142)	5.20*** (0.124)	5.19*** (0.140)	5.25*** (0.140)	3.76*** (0.152)
Sobel test of blame as mediator of effect of behavior cue							1.49*** (0.089)
Sobel test of blame as mediator of effect of group cue							-0.114 (0.064)
R-squared	0.28	0.28	0.29	0.05	0.05	0.07	0.29
N	1,335	1,335	1,335	1,336	1,336	1,336	1,334

Source: Data from What's Fair in Health Care survey (Lynch 2007)

Notes: Table entries are OLS coefficients with standard errors in parentheses.

* $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$; R = respondent

he smokes, compared with when the vignette states that he has a family history of disease. In contrast, the model shows no significant effect of the racial group cue on how much respondents blame Ralph for his illness, nor does it show a statistically significant interactive effect of the causal cue and the group cue (model 2). However, the effect of the racial group cue is, as predicted, different for white and nonwhite respondents (model 3), with nonwhites blaming Ralph significantly less when he is described as African American ($M = 4.42$) than when he is described as white ($M = 5.39$, $t = -2.82$, $p = 0.005$). White respondents attribute statistically indistinguishable levels of blame to Ralph when he is described as African American ($M = 5.20$) or white ($M = 5.17$, $t = 0.10$, $p = 0.92$).

The fourth through seventh columns of results in table 1 show the results of regression models predicting respondents' allocation of treatment responsibility—that is, whether society at large (lower values) or Ralph himself (higher values) should be responsible for the costs of Ralph's medical care. While the effect of the behavioral causal cue is smaller than in the models predicting blame, respondents also assign significantly more treatment responsibility to Ralph when they are told that he engages in the proscribed behavior (smoking) than when he has a family history of heart disease. If Ralph's behavior is held constant, his race has no effect on respondents' beliefs about who should pay for his medical care costs. The lack of a significant coefficient on the interaction term in model 5 reveals that the effect of the group cue is the same regardless of the causal cue assigned. The significant interaction term in model 6 shows that nonwhite respondents assign less treatment responsibility to Ralph when he is portrayed as African American ($M=4.89$) than when he is portrayed as white ($M = 5.51$, $t = -1.95$, $p = 0.05$), while whites assign treatment responsibility no differently when Ralph is African American ($M = 5.91$) or white ($M = 5.75$, $t = 0.92$, $p = 0.36$).

Does blame explain this relationship between the manipulated variables and the allocation of treatment responsibility? We test for this mediation in table 1 (model 7) by including blame as a covariate in the regression of treatment responsibility on the experimental conditions (Baron and Kenny 1986). We observe a strong association between respondents' assignment of blame and their assignment of treatment responsibility: an increase in the level of blame assigned to Ralph from the lowest to highest level was associated with a 4.44 unit increase on the ten-point scale of treatment responsibility. The reported Sobel tests demonstrate the expected mediation pathway. The positive effect of the behavioral causal cue on respondents' assessment that Ralph should pay his medical care costs are

fully accounted for by respondents' propensity to blame Ralph more for his heart disease when they are told that he smokes.

Overall, the causal cues affected all respondents significantly, with the behavioral (smoking) cue generating a marked increase in propensity to assign both blame and treatment responsibility to the vignette target. Furthermore, the African American racial group cue elicited more sympathy (less blame and less attribution of treatment responsibility to Ralph) among nonwhite than among white respondents. In contrast, we find minimal effects of the explicit racial cue on whites, similar to other studies in the health domain (Gollust, Lantz, and Ubel 2010; Lenton, Blair, and Hastie 2006; Murphy-Berman, Berman, and Campbell 1998). Our findings are consistent with research that suggests explicit racial cues have muted effects on policy opinion under two conditions. First, an overtly explicit cue can trigger a social desirability response bias such that white respondents avoid expressing a policy opinion that deviates from egalitarianism (Mendelberg 2001; Valentino, Hutchings, and White 2002). Second, when an individual is depicted in a counterstereotypical way, such as hardworking instead of lazy (as the protagonist in this case was employed), the racial group cue loses much of its effect (Peffley, Hurwitz, and Sniderman 1997; Sniderman and Piazza 1993; Valentino, Hutchings, and White 2002; Winter 2008).

Similarly, we do not observe the hypothesized interactive effect, in which portraying Ralph as behaviorally responsible for his illness would minimize respondents' social desirability response bias and allow an otherwise-suppressed racial cue to exert an influence. This could be because pairing a racial cue with the family history causal cue offered similarly counterstereotypical information as Ralph's employment status; the two sides of the possible interactive hypotheses may have worked against each other, creating the observed null effect. Had we provided only a racial cue—and especially an implicit cue, such as an image—with no accompanying causal attribution, it would have allowed readers to “fill in” their own, possibly stereotypical, causal attribution for Ralph's ill health, which might then have allowed for the appearance of a group cue effect. Because we designed our experiment to distinguish the effects of racial and causal cues, however, no respondents received only the racial group cue without the accompanying causal cue.

One way to interpret these data is that “race doesn't matter” in the health policy domain. The fact that the data were collected in 2007, before health care reform became associated with Barack Obama's presidency and potentially with racial attitudes, makes such an inference plausible.

This inference relies, though, on a presumption that has been treated skeptically in the public opinion literature: that explicit racial group cues in a survey context can generate valid information about the underlying racial attitudes of respondents. A more conservative, yet troubling, reading of the evidence presented here is that the norms that prevent many respondents from denying policy support on the basis of a recipient's race *do not similarly constrain* attitudes toward policies aimed at groups defined by their health *behaviors*. And because in a natural setting (as distinct from our experimental setup) beliefs about the causes of illness are likely to draw on underlying stereotypes about and attitudes toward racial groups, racial and behavioral cues may in fact be closely linked.

Experiment 2: Effects of Class and Behavioral Cues on Blame and Support

A parallel experiment about “Chuck” allows us to assess the effects of behavioral cues and social class, rather than racial group cues, in a scenario similar to the first experiment. As in the Ralph vignette, the Chuck vignette describes a forty-year-old, full-time employed man with a chronic health problem (in this case, diabetes), no health insurance (again because it is not offered through his job and he cannot afford to purchase it himself), and either a behavioral (“He eats a lot of processed foods and few vegetables and has diabetes”) or a family history (“He has diabetes, as did his father”) causal cue. Respondents ($N = 1342$, ~330 per condition) were randomly assigned to one of four conditions based on joint manipulation of the causal cue and Chuck's social class: working class (“earning \$24,000 per year working in an auto-body repair shop”) or middle class (“earning \$48,000 per year working in an insurance company”). As before, respondents were asked to rate how much Chuck is to blame for his own illness and who should pay for the costs of Chuck's medical care—Chuck or society.

We analyzed the data from the Chuck vignette in a fashion directly analogous to the Ralph vignette; results are presented in table 2. The effect of the behavioral causal cue on blame attribution, while somewhat smaller than in the Ralph (heart disease) vignette, is nevertheless consistently large and significant, with respondents blaming Chuck almost two units more on the ten-point scale when he was said to have poor diet and exercise habits than when he was said to have a family history of illness.

The group cue also had a significant effect on blame (model 1). The depiction of Chuck as a full-time employed blue-collar worker seems

Table 2 The Effects of Socioeconomic and Behavioral Cues on Attribution of Blame for Ill Health and Responsibility to Pay for Health Care

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7
<i>Outcome Variable</i>	<i>Chuck to blame</i>	<i>Chuck to blame</i>	<i>Chuck to blame</i>	<i>Chuck should pay</i>	<i>Chuck should pay</i>	<i>Chuck should pay</i>	<i>Chuck should pay</i>
Group cue = working class	-0.562*** (0.142)	-0.559** (0.204)	-0.640** (0.208)	-0.331* (0.149)	-0.163 (0.220)	-0.316 (0.225)	-0.094 (0.139)
Behavior cue = diet/exercise	1.98*** (0.141)	1.99*** (0.209)	1.97*** (0.141)	0.216 (0.148)	0.387 (0.224)	0.205 (0.148)	-0.584*** (0.143)
Group cue*behavior cue		-0.007 (0.284)			-0.342 (0.296)		
R low income*working class group cue			0.168 (0.283)				-0.004
R low income			-0.533* (0.210)			(0.298) -0.276 (0.232)	
Blame (rescaled 0-1)							3.58*** (0.315)
Constant	3.82*** (0.130)	3.83*** (0.154)	4.13*** (0.178)	5.65*** (0.145)	5.57*** (0.174)	5.81*** (0.211)	4.53*** (0.180)
Sobel test of blame as mediator of effect of group cue							0.815*** (0.067)
Sobel test of blame as mediator of effect of behavior cue							-0.246*** (0.052)
R-squared	0.19	0.19	0.20	0.01	0.01	0.01	0.17
N	1,332	1,332	1,332	1,335	1,335	1,335	1,329

Source: Data from What's Fair in Health Care survey (Lynch 2007)
 Notes: Table entries are OLS coefficients with standard errors in parentheses.
 p* < 0.05; *p* < 0.01; ****p* < 0.001; R = respondent

likely to have triggered positive attitudes about deservingness associated with hard work, need for assistance, and no alternative sources of help to meet this need (Cook and Barrett 1992) so that Chuck is blamed less for his illness when he is portrayed as working class than when he is portrayed as middle class. We find no interaction effect of the class group cue and the causal cue (table 2, model 2). We also find no significant interaction effect between the class group cue and the respondent's socioeconomic status (table 2, model 3), indicating that higher-income and lower-income participants responded in indistinguishable ways to the working-class group cue.⁸

Respondents who were exposed to the working-class version of Chuck indicated that he should pay a smaller share of the costs of his medical care (model 4). In contrast to the Ralph vignette, respondents were not statistically significantly more likely to indicate that Chuck should pay more for his medical care when he maintains an unhealthy diet (although the coefficient on the behavior cue is positive, as expected). Models 5 and 6 indicate no statistically significant interaction effects between the group cue and the causal cue, nor any differing effects of the class cue by respondents' level of income. As in the Ralph vignette, blame thoroughly mediates the relationship between the causal cue and the evaluation of who should pay; blame also mediates the effect of the class group cue.

Net of any "damning" information about bad health behaviors, respondents showed more willingness to help the vignette protagonist with fewer economic resources. Perhaps respondents perceived the middle-class Chuck to be as deserving of *sympathy* as his lower-income counterpart, but because he was more able to bear the costs of his own treatment, respondents attributed less treatment responsibility to society and more to Chuck himself. However, the strong negative effect of the working-class group cue on blame suggests otherwise. It is also possible that the effect of the group cue results from respondents "punishing" middle-class Chuck for one form of improvident behavior (failure to purchase individual insurance) even when he does not engage in the "bad" health behavior (poor diet). This might occur if, despite the identical wording in both versions of the vignette stating that Chuck could not afford to purchase insurance, respondents simply found it more plausible that insurance was unafford-

8. The SES moderator we analyzed was size-adjusted household income above or below 200 percent of the federal poverty level. The results are robust to alternate specifications of SES using various measures of income and educational attainment (not shown).

able for working-class Chuck. We sought to minimize this possibility by stating that Chuck's employer did not provide insurance, thus signaling that the onus for Chuck's lack of insurance should fall on his employer.

These caveats aside, and noting that the effect of the social class group cue fades when blame is included in the model, the main message that we take from the results of experiment 2 is once again the importance of cues about the causes of illness for respondents' attribution of blame and treatment responsibility. The importance of blame in mediating between information about the causes of illness and respondents' willingness to profess societal support further suggests that considerations of deservingness tinged by both cognitive and affective understandings play an important role in generating health policy preferences.

Experiment 3: Effects of Group Cues on Causal Attributions and Policy Support

In the two preceding experiments, we manipulated both vignette protagonists' ascriptive group membership (race or class) and information about their health behaviors or a family history of disease. In the real world, however, people generally make their own judgments about the likely causes of health and illness—judgments that previous research has found to be influenced by prior beliefs and stereotypes surrounding race and class (Rigby et al. 2009). In experiment 3 we ask what respondents perceive as the main causes of differences in health outcomes between different social groups, manipulating the groups to which the respondents are exposed. Thus the third experiment allows us to assess whether the attribution of causal responsibility for poor health outcomes—which we have already seen strongly affects respondents' allocation of blame and treatment responsibility—is affected by cues about the group that suffers disproportionately from ill health.

Recall that this vignette presented respondents ($N = 1,334$) with information about five-year gaps in average life expectancy between two social groups in society—African Americans versus white Americans, low-income versus medium-income Americans, Americans with less than a high school education versus those who have attended college, and men versus women (~330 per condition). Following the vignette, respondents were asked to choose which of six options was, in their view, the most important reason for the five-year gap: “just bad luck,” “personal behavior” of the disadvantaged group, “prejudice and discrimination,” “inborn characteristics (genetic or biological),” “failure of the health care system,”

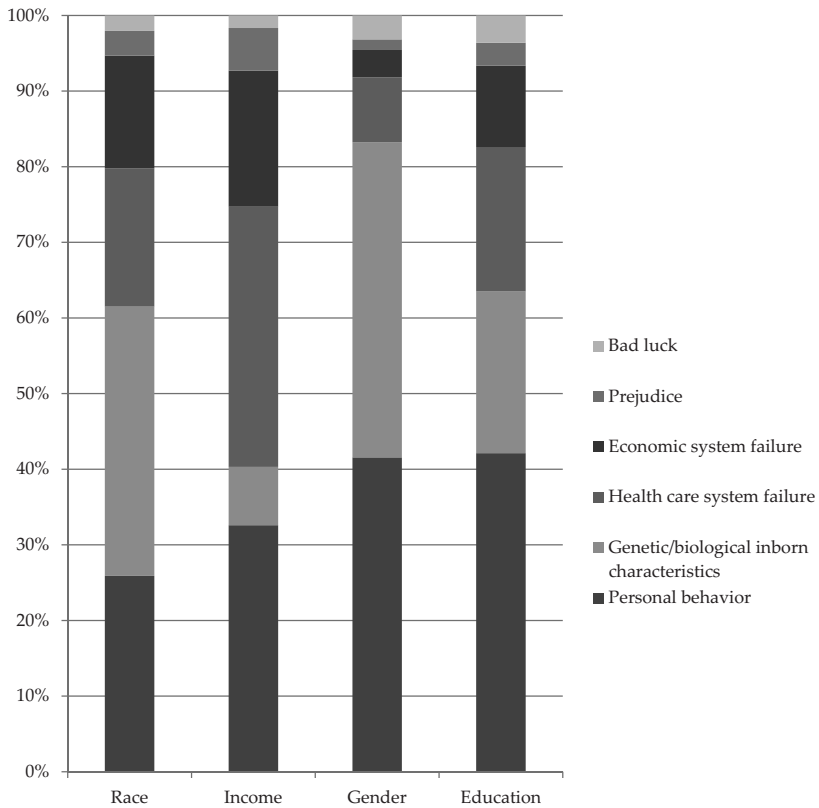


Figure 1 Percent of Respondents Endorsing Various Causal Attributions for Five-Year Group Differences in Life Expectancy, by Treatment (Group Type)

Source: Data from What's Fair in Health Care survey (Lynch 2007)

or “failure of the economic system.” Choices were presented in the same order for all respondents. There was no “don’t know” option.

Figure 1 displays the distribution of respondents’ choice of causal attributions for life expectancy gaps, for each group cue. Respondents attributed a far more prominent role to failures in the health care system in generating lower life expectancy for the low-income group, as compared with the low-education group (or indeed any of the other disadvantaged groups). This may be due partly to the prevalence of affordability considerations in public discussions about health care policy. Educational disparities, on the other hand, were more likely to be attributed to either

behavioral causes or inborn genetic or biological characteristics. Even so, respondents were more likely to choose a systemic cause (health care system failure or economic system failure) for educational and income-related disparities than for racial or gender differences, while the latter two were far more frequently attributed to inborn biological or genetic characteristics. While this finding may appear “natural”—gender and race, after all, have biological or physical attributes while income and education do not—it is worth recalling that both scholars and the general public have recognized genetic, physiognomic, phrenological, and neurological differences between groups with different intellectual and earnings capacities that seemed quite as biologically “real” as racial and gender categories appear to us now (Stern 2005). Hence attribution of racial or gender differences in life expectancy to biological causes requires explanation and should not be treated as an obvious or default response any more than when the groups are defined by education or income.⁹

Behavioral attributions for racial health disparities were surprisingly infrequent in light of recognized racist stereotyping of African Americans as lazy, irresponsible, or happy-go-lucky (Peffley, Hurwitz, and Sniderman 1997) and the emphasis in current health policy discourse on the behavioral basis of health disparities (Kim et al. 2010). It may be that once again the explicit racial group cue in our experiment generated a social desirability response bias on the part of some respondents, who avoided attributing racial differences to behaviors because of the resonance of the behavioral attribution with now-discredited racist stereotypes of “typical” African American behaviors. The biological explanation, which is the most frequent attribution for racial differences in life expectancy in our sample, may have attracted some of those respondents who, in the absence of an explicit racial prompt, might have felt more comfortable selecting the behavioral attribution. White respondents and self-identified political conservatives both were overrepresented among those who chose the biological as well as the behavioral attribution (table 3), lending at least *prima facie* plausibility to this conjecture.

Table 3 reports the results of multinomial logit regressions predicting the choice of behavioral or biological causal attributions, as compared with systemic attributions (health care or economic system failure or prejudice) across all four group treatments.¹⁰ Compared with the education

9. Behavioral attributions for the gender disparity may have been more prominent because this treatment was the only one for which the socially dominant group (in this case, men) experienced higher mortality.

10. The forty respondents who identified “bad luck” as the main cause of disparities were omitted from the analyses presented in table 3.

Table 3 Effects of Group Cues and Respondent Characteristics on Choice of Causal Attributions

	Behavioral attribution		Biological attribution	
	<i>Model 1</i>	<i>Model 2</i>	<i>Model 1</i>	<i>Model 2</i>
<i>Group cues</i>				
<i>(Reference = education treatment)</i>				
Race	-0.514*	-0.825**	1.36***	1.24***
	(0.235)	(0.290)	(0.315)	(0.346)
Income	-0.745***	-0.934***	-0.635	-0.873*
	(0.209)	(0.240)	(0.367)	(0.401)
Gender	0.949***	0.969**	2.50***	2.58***
	(0.271)	(0.315)	(0.354)	(0.386)
<i>Respondent characteristics</i>				
Age in years		0.004		-0.004
		(0.008)		(0.009)
Female		-0.272		0.118
		(0.198)		(0.227)
Nonwhite		-0.894***		-1.07***
		(0.239)		(0.301)
Low income		-0.335		0.004
		(0.225)		(0.259)
High school education or less		-0.347		-0.562*
		(0.219)		(0.255)
Liberal-conservative ideology		1.64**		1.58*
		(0.493)		(0.649)
Democratic-Republican Party ID		1.63***		0.645
		(0.328)		(0.443)
Self-rated health (higher = healthy)		1.02*		0.620
		(0.498)		(0.537)
Uninsured (last three years)		-0.326		-0.348
		(0.307)		(0.340)
Medicare		0.191		0.747*
		(0.299)		(0.328)
Medicaid/SCHIP		-0.440		-0.052
		(0.456)		(0.567)
Other govt. insurance plan		0.292		0.408
		(0.530)		(0.503)
Constant	0.170	-0.298	-1.38**	-1.44*
	(0.150)	(0.473)	(0.270)	(0.616)
<i>N</i>	1,279	1,106	1,279	1,106

Source: Data from What's Fair in Health Care survey (Lynch 2007)

Notes: Systemic causal attribution (prejudice, health system failure, economic system failure) is the base outcome. Respondents who attributed group differences to luck ($n = 40$) were excluded. All covariates except age scaled 0–1. Table entries are multinomial logit coefficients and standard errors.

* $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$

group cue (the reference category), the other treatments all exercised a significant effect on the selection of causal attributions. Both the racial and income group cues prompted less frequent behavioral attributions, as we have seen in figure 1, while respondents exposed to the gender group cue were far more likely to cite behaviors as the main cause of the disparity in life expectancy. Biological attributions, on the other hand, were rarest in the income group treatment and more prevalent for respondents exposed to the gender and race cues. The effects of the group cues on causal attributions are robust to the inclusion of individual-level demographic, health-related, and ideological/partisan control variables, as the randomization into treatment groups should guarantee. When we control for the effects of the experimental treatments, nonwhite respondents were more likely to attribute *any* group difference to systemic factors rather than to behaviors or to biology, while conservatives and Republicans were more likely to attribute group differences to behaviors (and biology, for conservatives) as compared with systemic factors. Healthier people were also more likely to attribute differences to behaviors.

We saw in the first two experiments that different cues about the cause of illness affected the extent to which respondents blamed individuals for their own illnesses and also predicted preferences about who should pay (individuals or society) for the costs of treating those illnesses. In the final set of analyses, we ask whether respondents' *own* beliefs about the cause of group differences in mortality are related to their preference for government versus private financing of health insurance. Table 4 shows that it is not the type of group portrayed but the type of explanation that respondents provide for these group differences that is most strongly related to preferences about government-financed health insurance. Compared with systemic attributions, behavioral and biological attributions are both associated with significantly less support for government-financed health insurance (model 2).

Ideology, partisanship, and other individual characteristics are important predictors of opinion about the role of government in delivering health insurance and are also correlated (as shown in table 3) with participants' causal attributions. But even after adjusting for these characteristics (table 4, model 3), we observe that the reasons participants adduce to explain why some people die younger than others strongly predict how much government involvement in health insurance financing they are willing to endorse. As expected, this model also indicates that liberals, Democrats, sick people, and those who are enrolled in the government-financed Medicaid or SCHIP programs prefer a larger role for government in financ-

Table 4 Effects of Group Cues and Causal Attributions on Support for Government Role in Health Insurance

	<i>Model 1</i>	<i>Model 2</i>	<i>Model 3</i>
<i>Group cues</i>			
<i>(Reference = education treatment)</i>			
Race	0.045 (0.180)	-0.047 (0.170)	-0.085 (0.149)
Income	0.015 (0.183)	-0.244 (0.165)	-0.290* (0.147)
Gender	0.167 (0.194)	0.387* (0.190)	0.104 (0.168)
<i>Causal attributions</i>			
<i>(Reference = system attribution)</i>			
Behavioral attribution		-1.58*** (0.139)	-0.933*** (0.137)
Biological attribution		-0.922*** (0.159)	-0.529*** (0.149)
<i>Respondent characteristics</i>			
Age in years			0.002 (0.004)
Female			0.051 (0.108)
Nonwhite			-0.247 (0.138)
Low income			-0.072 (0.122)
High school education or less			0.232 (0.121)
Liberal-conservative ideology			-2.06*** (0.263)
Democratic-Republican Party ID			-1.08*** (0.185)
Self-rated health			-0.896*** (0.251)
Uninsured (last three years)			0.202 (0.158)
Medicare			-0.114 (0.156)
Medicaid/SCHIP			0.901*** (0.193)
Other govt. insurance plan			-0.155 (0.280)
Constant	4.50*** (0.134)	5.36*** (0.133)	5.98*** (0.288)
<i>R-squared</i>	0.001	0.14	0.36

Source: Data from What's Fair in Health Care survey (Lynch 2007)

Notes: Table entries are OLS coefficients and standard errors. Respondents who attributed group differences to luck ($n = 40$) were excluded. All covariates except age scaled 0-1.

* $p < 0.05$; ** $p < 0.01$; *** $p < 0.0001$

ing health insurance. But causal attributions—one’s perceptions about the reasons for unequal health outcomes in society—have a considerable influence on public preferences for government involvement in health care above and beyond one’s political views, health, or health insurance status.

Conclusions

This research investigated the impact of cues about ascriptive (race and class) and behavioral (smoking and diet) characteristics on the formation of health-related opinions. The key findings across all three experiments center on the robust impact of behavioral causal attributions on attitudes and policy opinion. While respondents may be reluctant to express negative attitudes in response to explicit cues about racial attributes, *they do not hesitate to cast blame or deny social support based on equally explicit cues about behavioral attributes*. Respondents were more likely to blame individuals and less likely to offer them societal support for their medical expenses when their illnesses were presented as being linked to behavioral choices. Similarly, respondents who perceived health inequalities between groups as resulting from behavioral differences were less likely to support a government role in providing health insurance than those who perceived that health inequalities resulted from societal forces.

A few limitations of the study design are worth noting. First, the study was conducted over the Internet and relies on a previously established panel of respondents. However, Internet surveys have been found to compare favorably with telephone surveys in terms of validity (Chang and Krosnick 2002), and the Knowledge Networks’s platform does not appear to suffer from biases created by panel attrition or other “panel effects” (Dennis and Li 2007; Hines, Douglas, and Mahmood 2010). Second, the key policy measures describe a simple bipolar continuum of responsibility for medical care costs (i.e., “Ralph should pay all costs” versus “Citizens should pay all costs”; and “Individuals and private insurance” versus “Government insurance plan”) when, in fact, the current policy environment features a much more complex array of government interventions and regulation of health care. Third, framing the vignettes in experiment 3 as concerning *differences between groups* may have made biological/genetic attributions more salient than if the vignette had concerned attribution of characteristics to individuals (Singer et al. 2010). Thus experiments 1 and 2 are not directly comparable with experiment 3, since the target of evaluation was an individual in the former and groups in the

latter. Finally, the study was conducted in 2007, before the lengthy, divisive, politicized public debates about the Obama administration's health care reform efforts began. Race, class, and behavioral attributes—and deservingness considerations more generally—have no doubt become even more central to public sentiment over who should pay for health care costs today.

Despite these limitations, these data allow us to draw some useful conclusions about Americans' health policy opinions. Reactions to the three vignette experiments suggest that health policy attitudes are consistent with American philosophical traditions that emphasize deservingness deriving from exercise of personal responsibility, but also that these attitudes are tempered by considerations of need. Respondents in experiment 2 attributed less blame and offered more societal support to the vignette protagonist described as working class than to his higher-income counterpart, suggesting that financial needs warranted extra help with medical expenses.

The impact of racial attitudes is more difficult to extract from these data. The racial group cue in experiment 1 induced a preferential response among nonwhites, but little response among whites. We could conclude from this that white Americans are no less likely to help an African American than a white American cope with health care costs, even though they may be reluctant to assist African Americans through other welfare programs (Gilens 1999)—perhaps because they consider blacks in poor health more deserving than blacks in poverty. However, an equally plausible explanation is that the vignette's explicit, textual identification of Ralph's race and counterstereotypical portrayal of the African American protagonist as employed full-time suppressed the group cue's effect (Peffley, Hurwitz, and Sniderman 1997; Sniderman and Piazza 1993; Mendelberg 2001; Valentino, Hutchings, and White 2002; Winter 2008). Moreover, because our study did not include any direct measures of anti-black affect or racial resentment, we cannot assess whether the racial group cue might have affected people with predisposing negative racial attitudes differently than those with more favorable attitudes, leading to a null net effect. At least one recent study finds that opposition to health care reform under Obama is explained partly by underlying racial resentment (Knowles, Lowery, and Schaumberg 2010).

The findings from experiment 3 show more conclusively that Americans do link causal attributions to ascriptively defined groups in systematic ways when they think about health inequalities: inborn biological or genetic factors seem to respondents a more likely cause of gender or racial

health inequalities than of SES-related inequalities, and health care system failures are more often the attributed cause of income-related inequalities than of racial inequalities. The explicit racial group cue in experiment 3 may once again have triggered a social desirability response bias. In multivariate analysis we found that attribution of health differences to either biological or behavioral causes predicted lessened support for government provision of health insurance. A movement in respondents' stated preferences away from behavioral and toward biological explanations would tend to heighten the negative effect of the biological attribution on support for government health insurance. In any case, the frequency with which respondents attribute racial differences in health to inborn biological characteristics signals that, despite a decline in the expression of "old-fashioned" racism that presumes the biological inferiority of African Americans (Schuman et al. 1997), essentialized notions of racial group difference remain common among the public.

What can we conclude about the politics of health policy from these findings? First, we find that people who attribute group differences in health to systemic factors are more supportive of a government role in health insurance, above and beyond other political and demographic characteristics. This suggests that people who see health disparities from a social structural perspective represent an important coalition to mobilize around government intervention (see also Lynch and Gollust 2010; Robert and Booske 2011).

Yet, in contrast, we find that biological attributions and behavioral attributions for health inequalities are associated with weak support for a government role in providing health insurance. This means that a reflexive attribution of disparities in health to biological, genetic, or behavioral causes is likely to produce a politics of health that systematically devalues government action to redress those disparities. The reification of racial group differences as biological may reflect ignorance about the well-documented structural roots of contemporary health inequalities. It is not yet clear whether these public narratives about the causes of ill health are rigid, or whether they are malleable and might change over time (Niederdeppe et al. 2008).

A second implication of this research springs from the very strong observed effects of behavioral cues on both blame and policy preferences. Health behaviors like smoking, diet, and exercise are often not exclusively voluntary—especially among low-income or otherwise disadvantaged groups that face major societal barriers to pursuing a healthy lifestyle (Lantz et al. 1998; Link and Phelan 1995). Given these obstacles to true

choice, blaming people who engage in these behaviors for their ill health seems not only unjust but also likely to undermine public support for policy designed to ensure equitable and universal access to medical care (see also Wikler 1987). Moreover, a historical perspective indicates that unhealthy behaviors that arouse public scrutiny and blame (like smoking, poor diet, and lack of exercise) have become increasingly associated with low-status groups over time (Aronowitz 2008). In public debate, then, negative attitudes toward groups defined by health behaviors not only are socially acceptable and highly consequential for policy attitudes but also may serve to subtly reinforce discredited stereotypes about groups defined by characteristics like race and class.

The notion of personal responsibility for health, while potentially suppressing support for a societal role in redistributing the costs of medical care, resonates strongly with the public. Thus it is reasonable to argue that policy makers make use of this construct in developing policies that maximize individual opportunities to make healthy choices (Brownell et al. 2010). Yet we think advocates and policy makers should be cautious. Too strong a focus on personal responsibility for health could increase blame and contribute to the already strong social stigmatization of people engaging in those “sinful” health behaviors (Bayer and Stuber 2006; Puhl and Heuer 2009). Thus finding the right balance in emphasis between personal and collective responsibility for health is a critical challenge for policy makers and advocates (Forde and Raine 2008; RWJF 2010). Discussing the societal and environmental barriers that constrain individuals’ opportunities to take personal responsibility for their health could help educate the public about why collective, societal responses to health care challenges are warranted, and indeed, deserving of public support.

Appendix: Detailed Survey Questions and Measures

Experiment 1

Respondents were randomized into one of the following conditions:

	African American	White
Behavioral cause	$N = 337$	$N = 336$
Family history cause	$N = 339$	$N = 330$

Prompt: Ralph is a forty-year-old [white/African American] man. He works full-time, but his employer does not offer health insurance, and he cannot afford to purchase it for himself. [He smokes and has heart disease./He has heart disease, as did his father.] Ralph is not able to pay the bills for his treatment because he has no insurance.

Based on this limited information, some people might guess that Ralph is completely to blame for his own illness. Others might guess that he is not to blame at all. Still other people, of course, might guess something in between. Where would you place yourself on this scale?

Ralph completely to blame Ralph not at all to blame
 1 2 3 4 5 6 7 8 9 10

Some people think that in a fair society, Ralph should be the one to pay for all the costs of his own medical care. Others think that in a fair society citizens would cover all the costs of Ralph's medical care through their taxes or insurance premiums. Other people, of course, have opinions somewhere in between. Where would you place yourself on this scale?

Ralph should pay all costs Citizens in society should pay all costs
 1 2 3 4 5 6 7 8 9 10

Experiment 2

Respondents were randomized into one of the following conditions:

	Low income	Medium income
Behavioral cause	$N = 340$	$N = 331$
Family history cause	$N = 333$	$N = 338$

Prompt: Chuck is a forty-year-old man who works full-time [in an auto-body repair shop earning \$24,000 per year/in an insurance company earning \$48,000 per year]. His employer does not provide health insurance, and he can't afford to purchase it for himself. [He eats a lot of processed foods and few vegetables, and has diabetes./He has diabetes, as did his father.] Ralph is not able to pay the bills for his treatment because he has no insurance. Based on this limited information, some people might guess that Chuck is completely to blame for his own illness. Others might guess that he is not to blame at all. Still other people, of course, might guess something in between. Where would you place yourself on this scale?

Chuck completely to blame	Chuck not at all to blame
1 2 3 4 5 6 7 8 9 10	

Some people think that in a fair society, Chuck should be the one to pay for all the costs of his own medical care. Others think that in a fair society citizens would cover all the costs of Chuck's medical care through their taxes or insurance premiums. Other people, of course, have opinions somewhere in between. Where would you place yourself on this scale?

Chuck should pay all costs	Citizens in society should pay all costs
1 2 3 4 5 6 7 8 9 10	

Experiment 3

Four different versions of the vignette (gender, race, income, and education) were randomly assigned to respondents ($N = \sim 330$ per condition). The bracketed text indicates the differences in the vignette wording across the four treatments. The vignette was followed by a policy question.

Prompt: As you might know, the average number of years people can expect to live is different among different groups in society. For example, there is a five-year gap in the life expectancy of [American women versus American men/ white Americans versus African Americans/wealthy versus low-income Americans/Americans who have attended college versus those with less than a high school education]: on average, [American men/ African Americans/low-income Americans/Americans with less education] live five years fewer.

There are likely many causes of the difference in life expectancy between [women versus men/ white Americans versus African Americans/wealthy

versus low-income Americans/Americans who have attended college versus those with less than a high school education]. Although you may find it difficult to choose only one, please say which of these is, in your view, the *most important* reasons why [American men/African Americans/low-income Americans/Americans with less than a high school education] have shorter lives:

- 1 = just bad luck
- 2 = personal behavior of [men/African Americans/low-income Americans/Americans with less than a high school education] themselves
- 3 = prejudice and discrimination
- 4 = inborn characteristics (genetic or biological)
- 5 = failure of the health care system
- 6 = failure of the economic system

Policy question: Some people feel there should be a government insurance plan that would cover all medical and hospital expenses for everyone. Others feel that medical expenses should be paid by individuals and through private insurance plans. Where would you place yourself on this scale?

Medical expenses should be paid by . . .

individuals and private insurance							government insurance plan
1	2	3	4	5	6	7	

References

- Aronowitz, R. 2008. Framing Disease: An Underappreciated Mechanism for the Social Patterning of Health. *Social Science and Medicine* 67:1–9.
- Baron, R. M., and D. A. Kenny. 1986. The Moderator-Mediator Variable Distinction in Social Psychological Research: Conceptual, Strategic, and Statistical Considerations. *Journal of Personality and Social Psychology* 51:1173–1182.
- Barry, C. L., V. L. Brescoll, K. D. Brownell, and M. Schlesinger. 2009. Obesity Metaphors: How Beliefs about the Causes of Obesity Affect Support for Public Policy. *Milbank Quarterly* 87:7–47.
- Baumgartner, F. R., and B. D. Jones. 1993. *Agendas and Instability in American Politics*. Chicago: University of Chicago Press.
- Bayer, R., and J. Stuber. 2006. Tobacco Control, Stigma, and Public Health: Rethinking the Relations. *American Journal of Public Health* 96:47–50.
- Brader, T., N. Valentino, and E. Suhay. 2008. What Triggers Public Opposition to

- Immigration? Anxiety, Group Cues, and Immigration Threat. *American Journal of Political Science* 52:959–978.
- Brady, H. E., and P. M. Sniderman. 1985. Attitude Attribution: A Group Basis for Political Reasoning. *American Political Science Review* 79:1061–1078.
- Brownell, K. D., R. Kersh, D. S. Ludwig, R. C. Post, R. M. Puhl, M. B. Schwartz, and W. C. Willett. 2010. Personal Responsibility and Obesity: A Constructive Approach to a Controversial Issue. *Health Affairs* 29:79–87.
- Centers for Disease Control (CDC). 2011. CDC Health Disparities and Inequalities Report—United States 2011. *Morbidity and Mortality Weekly Report* 60:1–114.
- Chang, L. C., and J. Krosnick. 2002. A Comparison of the Random Digit Dialing Telephone Survey Methodology with Internet Survey Methodology as Implemented by Knowledge Networks and Harris Interactive. Paper presented at the American Political Science Association annual meeting, Boston, August 28.
- Cook, F. L., and E. J. Barrett. 1992. *Support for the American Welfare State: The Views of Congress and the Public*. New York: Columbia University Press.
- Dennis, J. M., and R. Li. 2007. More Honest Answers to Surveys? A Study of Data Collection Mode Effects. *Interactive Marketing Research Organization (IMRO) Journal of Online Research*, October 10. ijor.mypublicsquare.com/view/more-honest-answers.
- Druckman, J. N., C. L. Hennessy, K. St. Charles, and J. Webber. 2010. Competing Rhetoric over Time: Frames versus Cues. *Journal of Politics* 72:136–148.
- Forde, I., and R. Raine. 2008. Placing the Individual within a Social Determinants Approach to Health Inequity. *Lancet* 372:1694–1696.
- Gilens, M. 1999. *Why Americans Hate Welfare: Race, Media, and the Politics of Antipoverty Policy*. Chicago: University of Chicago Press.
- Gollust, S. E., P. M. Lantz, and P. A. Ubel. 2010. Images of Illness: How Causal Claims and Racial Associations Influence Public Preferences for Diabetes Research Spending. *Journal of Health Politics, Policy and Law* 35:921–959.
- Gordon, L. 2002. Who Deserves Help? Who Must Provide? In *Lost Ground: Welfare Reform, Poverty and Beyond*, ed. R. Albelda and A. Withorn, 9–25. Cambridge, MA: South End.
- Grogan, C., and E. Patashnik. 2005. Medicaid at the Crossroads. In *Healthy, Wealthy, and Fair: Health Care and the Good Society*, ed. J. Morone and L. R. Jacobs, 267–295. Oxford: Oxford University Press.
- Hines, D. A., E. M. Douglas, and S. Mahmood. 2010. The Effects of Survey Administration on Disclosure Rates to Sensitive Items among Men: A Comparison of an Internet Panel Sample with a RDD Telephone Sample. *Computers in Human Behavior* 26:1327–1335.
- Hutchings, V. L., and N. A. Valentino. 2004. The Centrality of Race in American Politics. *Annual Review of Political Science* 7:383–408.
- Iyengar, S. 1991. *Is Anyone Responsible?* Chicago: University of Chicago Press.
- Jayaratne, T. E., S. A. Gelman, M. Feldbaum, J. P. Sheldon, E. M. Petty, and S. L. R. Kardia. 2009. The Perennial Debate: Nature, Nurture, or Choice? Black and White Americans' Explanations for Individual Differences. *Review of General Psychology* 13:24–33.

- Jerit, J. 2008. Issue Framing and Engagement: Rhetorical Strategy in Public Policy Debates. *Political Behavior* 30:1–24.
- Kawachi, I., N. Daniels, and D. E. Robinson. 2005. Health Disparities by Race and Class: Why Both Matter. *Health Affairs* 24:343–352.
- Kersh, R. 2009. The Politics of Obesity: A Current Assessment and Look Ahead. *Milbank Quarterly* 87:295–316.
- Kim, A. E., S. Kumanyika, D. Shive, U. Igweatu, S. H. Kim. 2010. Coverage and Framing of Racial and Ethnic Health Disparities in U.S. Newspapers, 1996–2005. *American Journal of Public Health* 100:S224–S231.
- Kinder, D. R., and D. Sears. 1981. Prejudice and Politics: Symbolic Racism versus Racial Threats to the Good Life. *Journal of Personality and Social Psychology* 40:414–431.
- Kinder, D. R., and C. D. Kam. 2009. *Us against Them: Ethnocentric Foundations of American Opinion*. Chicago: University of Chicago Press.
- Kinder, D. R., and L. Sanders. 1996. *Divided by Color: Racial Politics and Democratic Ideals*. Chicago: University of Chicago Press.
- Kluegel, J. R. 1990. Trends in “Whites” Explanations of the Gap in Black-White Socioeconomic Status, 1977–1989. *American Sociological Review* 55:512–525.
- Kluegel, J. R., and E. R. Smith. 1986. *Beliefs about Inequality: Americans’ Views of What Is and What Ought to Be*. New York: Aldine de Gruyter.
- Knowles, E. D., B. S. Lowery, and R. L. Schaumberg. 2010. Racial Prejudice Predicts Opposition to Obama and His Health Care Reform Plan. *Journal of Experimental Social Psychology* 46:420–423.
- Lantz, P. M., J. S. House, J. M. Lepkowski, D. R. Williams, R. P. Merio, and J. Chen. 1998. Socioeconomic Factors, Health Behaviors, and Mortality: Results from a Nationally Representative Prospective Study of U.S. Adults. *Journal of the American Medical Association* 279:1703–1708.
- Leichter, H. M. 2003. “Evil Habits” and “Personal Choices”: Assigning Responsibility for Health in the Twentieth Century. *Milbank Quarterly* 81:603–626.
- Lenton, A. P., I. V. Blair, and R. Hastie. 2006. The Influence of Social Categories and Patient Responsibility on Health Care Allocation Decisions: Bias or Fairness? *Basic and Applied Social Psychology* 28:27–36.
- Link, B. G., and J. Phelan. 1995. Social Conditions as Fundamental Causes of Disease. *Journal of Health and Social Behavior*, extra issue, 35:80–94.
- Lynch, J. 2007. What’s Fair in Health Care? Survey, Knowledge Networks for the University of Pennsylvania, August 22–September 13.
- Lynch, J., and S. E. Gollust. 2010. Playing Fair: Fairness Beliefs and Health Policy Preferences in the United States. *Journal of Health Politics, Policy and Law* 35:849–887.
- Mackie, D., and E. Smith. 2003. *From Prejudice to Intergroup Emotions*. New York: Psychology.
- Mendelberg, T. 2001. *The Race Card*. Princeton, NJ: Princeton University Press.
- Morone, J. A. 2003. *Hellfire Nation: The Politics of Sin in American History*. New Haven, CT: Yale University Press.
- Murphy-Berman, V. A., J. J. Berman, and E. Campbell. 1998. Factors Affecting

- Health-Care Allocation Decisions: A Case of Aversive Racism? *Journal of Applied Social Psychology* 28:2239–2253.
- Nelson, T. E. 1999. Group Affect and Attribution in Social Policy Opinion. *Journal of Politics* 61:331–362.
- Nelson, T. E., and D. R. Kinder. 1996. Issue Frames and Group-Centrism in American Public Opinion. *Journal of Politics* 58:1055–1078.
- Niederdeppe, J., Q. L. Bu, P. Borah, D. A. Kindig, and S. A. Robert. 2008. Message Design Strategies to Raise Public Awareness about Social Determinants of Health and Population Health Disparities. *Milbank Quarterly* 86:481–513.
- Obama, B. 2009. Barack Obama's Health Care Speech to Congress, September 9. www.nytimes.com/2009/09/10/us/politics/10obama.text.html.
- Oliver, J. E., and T. Lee. 2005. Public Opinion and the Politics of Obesity in America. *Journal of Health Politics, Policy and Law* 30:923–964.
- Peffley, M., J. Hurwitz, and P. M. Sniderman. 1997. Racial Stereotypes and Whites' Political Views of Blacks in the Context of Welfare and Crime. *American Journal of Political Science* 41:30–60.
- Puhl, R. M., and C. A. Heuer. 2009. The Stigma of Obesity: A Review and Update. *Obesity* 17:941–964.
- Reutter, L. I., M. J. Harrison, and A. Neufeld. 2002. Public Support for Poverty-Related Policies. *Canadian Journal of Public Health* 93:297–302.
- Rigby, E., J. Soss, B. C. Booske, A. M. K. Rohan, and S. A. Robert. 2009. Public Responses to Health Disparities: How Group Cues Influence Support for Government Intervention. *Social Science Quarterly* 90:1321–1340.
- Robert, S. A., and B. C. Booske. 2011. US Opinions on Health Determinants and Social Policy as Health Policy. *American Journal of Public Health* 101:1655–1663.
- Robert Wood Johnson Foundation (RWJF). 2010. A New Way to Talk about the Social Determinants of Health. Messaging guide. Princeton, NJ: RWJF. www.rwjf.org/files/research/vpmessagingguide20101029.pdf.
- Saguy, A. C., and K. Gruys. 2010. Morality and Health: News Media Constructions of Overweight and Eating Disorders. *Social Problems* 57:231–250.
- Schlesinger, M., and T. Lee. 1993. Is Health Care Different? Popular Support of Federal Health and Social Policies. *Journal of Health Politics, Policy and Law* 18:555–621.
- Schmidt, H., K. Voigt, and D. Wikler. 2010. Carrots, Sticks, and Health Care Reform—Problems with Wellness Incentives. *New England Journal of Medicine* 362:e3.
- Schneider, A., and H. Ingram. 1993. Social Construction of Target Populations: Implications for Politics and Policy. *American Political Science Review* 87:334–347.
- Schuman, H., C. Steeh, L. Bobo, and M. Krysan. 1997. *Racial Attitudes in America: Trends and Interpretations*. Cambridge, MA: Harvard University Press.
- Singer, E., M. P. Couper, T. E. Raghunathan, T. C. Antonucci, M. Burmeister, and J. V. Hoewyk. 2010. The Effect of Question Framing and Response Options on the Relationship between Racial Attitudes and Beliefs about Genes as Causes of Behavior. *Public Opinion Quarterly* 74:460–476.

- Skocpol, T. 1992. *Protecting Soldiers and Mothers: The Political Origins of Social Policy in the United States*. Cambridge, MA: Belknap Press of Harvard University Press.
- Sniderman, P. M. 1993. The New Look in Public Opinion Research. In *The State of the Discipline II*, ed. A. Finifter, 219–245. Washington, DC: American Political Science Association.
- Sniderman, P. M., and T. Piazza. 1993. *The Scar of Race*. Cambridge, MA: Harvard University Press.
- Stern, A. M. 2005. *Eugenic Nation: Faults and Frontiers of Better Breeding in Modern America*. Berkeley: University of California Press.
- Stone, D. A. 1989. Causal Stories and the Formation of Policy Agendas. *Political Science Quarterly* 104:281–300.
- . 2006. Reframing the Racial Disparities Issue for State Governments. *Journal of Health Politics, Policy and Law* 31:128–152.
- Stuber, J., and M. Schlesinger. 2006. Sources of Stigma for Means-Tested Government Programs. *Social Science and Medicine* 63:933–945.
- Ubel, P. A., J. Baron, and D. A. Asch. 1999. Social Responsibility, Personal Responsibility, and Prognosis in Public Judgments about Transplant Allocation. *Bioethics* 13:57–68.
- Valentino, N. A., V. L. Hutchings, and I. K. White. 2002. Cues That Matter: How Political Ads Prime Racial Attitudes during Campaigns. *American Political Science Review* 96:75–90.
- Weeks, M., and M. B. Lupfer. 2004. Complicating Race: The Relationship between Prejudice, Race, and Social Class Categorizations. *Personality and Social Psychology Bulletin* 30:972–984.
- Weiner, B. 1993. On Sin versus Sickness: A Theory of Perceived Responsibility and Social Motivation. *American Psychologist* 48:957–965.
- . 2006. *Social Motivation, Justice, and the Moral Emotions: An Attributional Approach*. Mahwah, NJ: Lawrence Erlbaum Associates.
- White, I. K. 2007. When Race Matters and When It Doesn't: Racial Group Differences in Response to Racial Cues. *American Political Science Review* 101:339–354.
- Wikler, D. 1987. Who Should Be Blamed for Being Sick? *Health Education and Behavior* 14:11–25.
- . 2002. Personal and Social Responsibility for Health. *Ethics and International Affairs* 16:47–55.
- Winter, N. J. G. 2005. Framing Gender: Political Rhetoric, Gender Schemas, and Public Opinion on U.S. Health Care Reform. *Politics and Gender* 1:453–480.
- . 2008. *Dangerous Frames: How Ideas about Race and Gender Shape Public Opinion*. Chicago: University of Chicago Press.
- Zaller, J. R. 1992. *The Nature and Origins of Mass Opinion*. Cambridge, MA: Cambridge University Press.

