Public Opinion, Media Use, and the Senses of Humor

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Abstract

This research examines the relative impact of media exposure on public opinions toward marginalized populations, applying the notion of multiple “senses of humor” as an affective filter in the process of opinion formation. A sample of 288 students at a large urban university responded to an online survey measuring a variety of public opinions, media use (including traditional, interactive, and news), four senses of humor (arousal, disparagement, incongruity, and social currency), and social locators (including political ideology). Results confirm that, aside from social locators, senses of humor are a viable and important predictor of public opinion about marginalized populations, surpassing time spent using media. The value of considering senses of humor in scholarship on the contemporary media environment is discussed.
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Different conceptualizations of what constitutes "public opinion" make various distinctions, between basic values and transitory preferences, between organized and unorganized opinions, between the public and private expressions of opinions, and between an aggregate, socially controlling force and a collection of individual opinions. Nisbet (1978) distinguishes between popular opinion and public opinion, between the mass or crowd and the organized community. Nimmo (1978) identifies three concepts of public opinion: Basic beliefs and assessments expressed in the private voting booth or in letters to elected representatives, mass opinion captured by pollsters, and group opinions expressed in private conversations within social groups. Policy makers often respond to what they see as mass opinion rather than public opinion (Zukin, 1981).

Media influence public opinion in various ways, through commissioning polls, by reporting polls of others, by reporting on current topics and events that affect public perceptions, and through stories that relay how groups view issues. While the importance of polls has grown dramatically, sociologist Herbert Blumer (1948) attacked the practice long ago because, he argued, public opinion is not the equivalent to the sum of individual opinions but rather reflects the organization of society into functional groups interacting in complex communication patterns. Converse (1987) disputes the view that expression in a public forum by influential people—a feature in Blumer’s thinking—is a requirement for public opinion.

Political discourse has become increasingly negative as pundits use ad hominem attacks and wall-to-wall commercials trying to cast doubt on opponents rather than advancing issues or positions. One way to cope with this disturbing mountain of messages is through humor, yet our research into public opinion has neglected this audience strategy of coping. And humor can be
important for both privately held and publicly-expressed opinions in conversations, as well as processing of mediated messages. In this paper, we will examine the notions of public opinion and the individual differences that are potentially related to such strategic applications of humor.

**Public Opinion and Mass Communication**

One important distinction centering on the expression in private versus public settings is articulated most clearly in the spiral of silence (Noelle-Neumann, 1989). If people believe their views are losing ground, they are seen as less likely to express their opinions in public for fear of negative reactions, resulting in a less accurate public opinion climate. According to this perspective, “[p]ublic opinion is based on the unconscious striving of people living in a social unit to arrive at a common view, at the kind of agreement which is required to act and, if necessary, to make decisions” (Noelle-Neumann, 1989, p. 4).

The influence of mass communication in creating a “common view” of public opinion has been acknowledged for nearly a century, dating back to Lippmann’s (1922) seminal work that served as the foundation for agenda setting theory. Since then, numerous agenda setting studies have been conducted, beginning with McCombs and Shaw (1972) and proceeding to the present day (see McCombs & Reynolds, 2009, for a review). This research generally supports the idea that mass media have an influence on public opinion, due to an emphasis on certain issues over others. In related fashion, cultivation theory (Gerbner, 1969) argues that the mass media (television in particular) present a consistent stream of images that affect audience perceptions of reality, leading to a mainstreaming or overriding of differences in perspective and behavior among heavy viewers (Gerbner, Gross, Morgan, Signorielli, & Shanahan, 2002). The implication of classic mass communication theories such as agenda setting and cultivation is that heavy media users should have similar perceptions and public opinions reflective of the media
Challenges to Mass Communication: Media Changes and Individual Differences

The notion of mass communication effects has been challenged in recent years due to (a) changes in the media environment and (b) greater attention to individual differences in reception to mass messages. Chaffee and Metzger (2001) argue that the diffusion of computer and information technologies has fostered more individualized media products tailored to smaller, homogenous audiences rather than an undifferentiated mass. This reality, coupled with the sheer number and diversity of channels available to audiences today through cable television, the Internet, and the like, challenges the likelihood of true mass communication effects. Instead, it suggests that selective exposure is more likely in the new media environment, with audiences choosing channels and content that reflect their predispositions.

Instead of thinking in terms of mass communication, the countering view embraces the individual’s values and preferences and acknowledges unorganized, private, collective and potentially diverse opinions. This view may be less satisfying to the political scientist, the media scholar examining the audience at large, or the social organizer attempting to identify a specific public. Yet to ignore individual differences, e.g., needs, traits, and readiness to respond (Oliver & Krakowiak, 2009), is to miss an opportunity to identify important filters through which individuals process information about current social events in the formation of opinions. Such filters may be primarily cognitive in nature (Price, 1988), or affective in tone (Feldman, 1987), or set in a social context (e.g., “climates” of opinion as articulated by Jeffres, 1997; see also Jeffres et al., 2009). Regardless, they can help explain variance that cannot be accounted for through media exposure alone.
Indeed, a widening body of literature considers individual differences in determining viewing motives and ultimately public opinion. Much of this work addresses how one’s state may influence media attendance, (e.g., Bryant & Zillmann, 1984; Labbé et al., 2007; Zillmann, 1988), including how one’s personality traits determine media attendance (e.g., Beatty et al., 2001; Finn, 1997; Weaver, 2003). Although personality traits are thought to be largely stable over time (Liebert & Spiegler, 1994), one’s emotional state may suggest why one is watching a program and how one feels about an issue at a specific time. By contrast, a person’s personality traits may help provide a more enduring profile of one’s viewing habits and political attitudes over time.

The uses and gratifications framework (Katz, Blumler, & Gurevitch, 1974; Rosengren, 1974) considers the motivations one expresses when selecting and attending to media. It has been argued that individuals seek media to manage their emotional state in an effort to achieve an optimal level of arousal (Donohew, Finn, & Christ, 1988; Zillmann & Bryant, 1994). While the emphasis of uses and gratifications is media attendance to achieve a desired state, previous research has also acknowledged that psychological traits may push individuals to use media to achieve specific gratifications (Lin, 1996; Neuendorf, 1998). When considered together, one’s personality traits may determine viewing habits that enable the individual to move towards their optimal level of arousal or other targeted affective state. Although we don’t consider the impact of conventional traits like extraversion, psychoticism or neuroticism here, the present study will instead investigate the influence of humor preference as a trait determining public opinion holdings.

There is little in life about which humans do not seek humorous interpretations. Current events seem particularly prone to filtering through various “senses of humor,” as evidenced
through jokes about political figures such as George W. Bush or John Boehner, stories on Internet news sites such as *The Onion*, the enduring popularity of satiric television programs such as *The Daily Show with Jon Stewart* and *The Colbert Report*, and liberal bloggers using comedy to drive their political agendas (see, e.g., [http://www.huffingtonpost.com/2009/09/30/jon-stewart-schools-sean_n_304011.html](http://www.huffingtonpost.com/2009/09/30/jon-stewart-schools-sean_n_304011.html)). This investigation considers the role of humor appreciation in public opinion, specifically opinions about marginalized others.

**Mass Media and Opinions Concerning Marginalized Populations**

Despite the widespread belief that blatant racism retreated following passage of the Civil Rights Act of 1964 (e.g., Pew Research Center, 2010; Wilson, 1980), research suggests that stereotypical beliefs persist, although in subtle, implicit or symbolic forms (e.g., Devine & Elliot, 2000; Schuman, Steeh, Bobo, & Krysan, 1997; Sniderman & Carmines, 1997; Wittenbrink, Judd, & Park, 1997; 2001). Such scholarship posits that this symbolic racism—motivated by other symbols including welfare, single parenting and crime, as well as the perception that Blacks have gotten more than they deserve (Sears & Henry, 2005; Shugart, 2006)—has largely replaced the more blatant, "old-fashioned" or overt racist attitudes (e.g., support for segregation), as well as a personality-based view of prejudice (Grossarth-Maticek, Eysenck, & Vetter, 1989; Richardson, 2005). Most recently Black Americans have identified the “birther movement,” which questions Barack Obama’s nationality of birth, as a “lightning rod” for polarization of racial attitudes (Hartman, 2011; Ross, 2011). After President Obama released his birth certificate, African Americans were cited as feeling this was a “manifestation of the idea that when a black person accomplishes something great, there must be something wrong” (Ross, 2011, p. A3). And, among other critics, *Miami Herald* columnist Leonard Pitts Jr. called for a connection “to be
publicly drawn between birthers and racism: ‘So it is time to call this birther nonsense what it is—not just claptrap, but profoundly racist claptrap”’ (Hartman, 2011).

Mass media represent an important source of information about minorities for many (e.g., Matabane, 1988; Neuendorf, Atkin, Jeffres, et al., 2000). In explorations of the symbolic world of television, content analyses reveal that Latinos and Blacks have been overrepresented in stereotypical portrayals such as lawbreakers (e.g., Dixon & Linz, 2000; Mastro & Greenberg, 2000; Mastro & Stern, 2000; Oliver, 1994). These media portrayals, in turn, represent key contributors to the larger public perception about stereotyped groups (e.g., Brown-Givens & Monahan, 2005; Matabane, 1988; Neuendorf, Atkin, Jeffres et al., 2000). In recent years, the entertainment media in particular have been located at the center of conflicts over values (e.g., Lind, 2010). Minority groups argue that the media serve up stereotypic images that conflict with reality. Other social differences are the subject of controversies that claim the media denigrate families, religion, women, and those with different sexual orientations (e.g., Newcomb, 2006).

Such coverage thus contributes to audience conceptions about race and race relations, including more implicit forms of symbolic racism, such as lack of support for affirmative action and perceptions about the pervasiveness of discrimination (e.g., Hernnstein & Murray, 1995; Neuendorf, Atkin, Jeffres et al., 2000; Sniderman & Carmines, 1997). Since racism is now stigmatized and, perhaps consequently, expressed in more subtle forms (e.g., Krysan, 1998), traditional measures of overt racism may yield diminished returns. Scholars (e.g., Tuch & Weitzer, 1997) advocate the development of measures based on less obtrusive response latencies or social desirability norms.
Opinion responses to media coverage about marginalized populations may be filtered via the individual’s own relevant social categories. Research on divisive news coverage (Anastasio, Rose, & Chapman, 2005) has indicated that exposure to media reports of public opinion divided by gender, race, or political affiliation may lead to polarization of audience members’ opinions. Further, negative evaluation of Black media images has been related to endorsement of affirmative action among Black respondents (Fujioka, 2005).

**The Senses of Humor**

Humor has been proposed to be an important filter through which individuals may view and cognitively process issues of contestation and importance (Martin, 2007). Thus, the introduction of humor appreciation to the discussion of opinions about the treatment of marginalized groups may be a fruitful application. The interdisciplinary scholarly literature on humor to date has identified four broad mechanisms of humor apprehension—i.e., ways in which we might find something funny. Each of these four emerges from a body of work that identifies the underlying assumptions of the particular approach to humor, and also provides a reasonable amount of empirical support for its existence (Martin, 2007). While most scholars writing within these literatures take the view that one particular mechanism is paramount (usually to the exclusion of the other mechanisms), it is our view that multiple mechanisms are likely, and that these may come into play simultaneously when a receiver encounters a potentially humorous stimulus. Further, we contend that any examination of humor must begin with this essential taxonomy of humor types.

The four independent mechanisms are:

1. Superiority/disparagement: Among others, Freud (1960) recognized the aggressive basis in many jokes. As far back as Aristotle (McKeon, 1941), laughter is seen as originating in
malice. Seventeenth-century British philosopher Thomas Hobbes (1651/1981) reinforced the notion of humor as derived from a sense of superiority over others. More recently, the superiority mechanism has been validated in work by the theoretic examinations of Gruner (1978) and the quantitative research of Zillmann and Bryant (1974; 1980; Zillmann & Cantor, 1976) and of LaFave (LaFave, Haddad, & Maesen, 1976). Common applications of humor aimed at engaging this mechanism include racist and sexist humor (Thomas & Esses, 2004). Attempts to generate a superiority mechanism in response to potentially humorous stimuli include “putdown” humor, satire, sarcasm, self-deprecation, and the overt display of stupid behaviors.

2. Incongruity: The juxtaposition of inconsistent or incongruous elements is the focus of this oft-mentioned mechanism by which humor might be apprehended. Dating back to articulations by 19th century German philosopher Arthur Schopenhauer (Martin, 2007), this notion was further elaborated by Arthur Koestler (1964). His concept of bisociation is an attempt to explain the mental processes involved in the humorous resolution of incongruous stimuli, as well as the process of artistic creativity and scientific discovery. Briefly, these theoretical approaches indicate that humor is experienced when two disparate perspectives are simultaneously experienced; the joy of humor derives from the “solving” of the incongruous puzzle. Contemporary empirical support for this mechanism of humor includes a series of studies by Shultz and colleagues (e.g., Shultz & Horibe, 1974) and others (Perlmutter, 2002; Vaid et al., 2003; Veal, 2004). Particular types of humorous stimuli intended to invoke an incongruity mechanism include wordplay (e.g., puns), “pure” visual incongruity, absurdity, and sight gags.
3. Arousal/Dark humor: Although early attempts to explicate this possible mechanism for experiencing humor emphasized the humorous response as a simple release of pent-up psychological strain or tension (e.g., the works of writers/philosophers Immanuel Kant and Herbert Spencer; Spencer, 1860), a later articulation by psychologist Daniel Berlyne (1972) posited two arousal-related processes—arousal boost and arousal jag. The arousal boost mechanism operates when a pleasurable increase in generalized arousal results from a humorous stimulus. This is commonly achieved via shocking humorous stimuli. The arousal jag mechanism comes into play when arousal passes an optimal level, and a punchline or other resolution successfully reduces arousal to a pleasurable level once again. Arousal-provoking humor may theoretically be manifested in a variety of ways, such as dark or death-related humor, sick humor, and sexual or naughty humor. However, our data collections over a period of years have failed to confirm that sexual content is situated in this dimension; it’s clear that contemporary Americans do not view sexual humor as particularly shocking.

4. Social currency: Although less often acknowledged as an independent dimension of humor apprehension, social interaction humor has been widely studied as a means of building and maintaining relationships (e.g., Chapman, 1983; Fine, 1983; Lamaster, 1975). Further, humor may be experienced as the pleasure derived from playful interaction (Apter, 1982), the establishment of a functional social hierarchy (Fry, 1963), or the achievement of a sense of group belonging or understanding (Dundes, 1987; Pollio, 1983). Particular behaviors meant to activate this mechanism include the use of “inside jokes,” joking to fit in, and parody (relying on a shared view of a known form, such as a film genre).

These broadly defined mechanisms may be found to manifest in a variety of ways in the mass media. Although some attempts have been made at typologizing mediated humor (e.g.,
Buijzen & Valkenburg, 2004), there is no consensus as to the number or types of humor utilized in mass media products (Vandaele, 2002). Further, attempts at typologies have focused on content dimensions rather than the four theoretic humor dimensions that are the focus here.

Research by the current authors and others has established the validity of this multidimensional approach to the measurement of Senses of Humor (SOH). It has been confirmed that the four humor mechanisms seem to operate independently, and that particular combinations of preferences across the four can constitute Senses of Humor “profiles” that vary among demographic groups (Lieberman et al., 2009; Neuendorf with Fennell, 1988; Neuendorf, Skalski, & Powers, 2004). Additionally, links between specific SOH profiles and media use patterns have been established (Neuendorf, 2007; Neuendorf & Skalski, 2000; Powers, Neuendorf, & Skalski, 2005), as well as links connecting SOH to perceived quality of life (QOL; Neuendorf, Jeffres, Skalski, & Atkin, 2000). Initial construct validation of the SOH measures against social values has been conducted (Neuendorf, Skalski, & Powers, 2004), finding that, for example, attraction to disparagement humor relates to greater endorsement of the value of social power, and lesser endorsement of the values of equality and helpfulness. And, some evidence has been found of a relationship between SOH profiles and reactions to public events such as the O. J. Simpson murder trial and the Bill Clinton/Monica Lewinsky affair (Neuendorf et al., 1999).

Further, statistical validation of the four mechanisms against preferences for popular mass media products (Neuendorf & Skalski, 2000) has established some criterion validity. For example, preference for disparagement humor was found to relate to greater enjoyment of the TV programs The Simpsons, Late Night with David Letterman, and Hogan’s Heroes, and lesser enjoyment of Full House. Preference for incongruity humor was related to greater enjoyment of
Monty Python’s Flying Circus and The Tracey Ullman Show, and lesser enjoyment of The Cosby Show.

Most recently, qualitative work inquiring into respondents’ understanding of the deep meanings of the mechanisms of humor has further validated the theoretic four-part dimensionality of these senses of humor with evidence collected from respondents’ open-ended elaborations.

**Hypotheses and Research Questions**

This investigation introduces the idea that senses of humor may operate as trait-based filters for perceptions of the world. This research raises questions of whether senses of humor will predict opinions, in particular those related to the status of marginalized population groups. In line with the mass communication literature, however, we first examine how traditional media exposure and social locators (including political ideology) relate to public opinion on issues related to historically discriminated against groups in society. While we do not test as to what content is being accessed specifically, this approach acknowledges that media effects may still be important. An initial hypothesis, therefore, is:

**H1:** Amount of traditional media use will predict public opinion toward the treatment of marginalized groups, after controlling for social locators (i.e., ascriptive demographics such as age, gender, and race, plus acquired factors such as income and political ideology).

As mentioned earlier, media use has fragmented in recent years, particularly due to new technologies and applications. One might expect distinct effects on public opinion about others as a function of this type of media use due to interactivity, including the ability to execute point-to-point communication with vast numbers of others, and the greater control this type of
communication offers. This paper looks at several prominent forms of interactive media as distinct, specifically email use, social media use, and web surfing. We anticipate that, since users have greater ability to select content matching their views, and that they should be exposed to similar others, interactive media exposure can help explain public opinion alongside traditional predictors. Assuming that audiences engage in selective exposure to messages in line with their political predispositions, it is expected that patterns of exposure to social media content among liberal users will differ from conservative users, with liberal users choosing mediated messages that strengthen favorable opinions toward historically discriminated against groups, and conservative users choosing messages that strengthen opinions against these groups. Therefore:

H2: Social media use will statistically interact with political ideology in the prediction of public opinion regarding the treatment of marginalized populations.

In order to hone in on specific media content relevant to the formation of public opinion, a final media-related hypothesis addresses the role of news media in public opinion, with the expectation that news media consumption will uniquely contribute to public opinion due to the explicit and generally homogenous focus of such media on issues of public concern, and following from the substantial literature on the agenda-setting function of the news media:

H3: News media use will predict public opinion after controlling for social locators, traditional media use, and interactive media use.

Additionally, this research is interested in individual differences as predictors of public opinion, chiefly the four senses of humor discussed earlier. Particular senses of humor are expected to affect certain public opinions beyond what one would expect from the more commonly studied, previously discussed predictors. Specifically, based on literature on symbolic racism, it is expected that liking of disparagement humor will lead to less sensitivity to the current treatment
of historically discriminated against groups and less support for human rights initiatives directed
toward those groups, while social currency humor preference should relate positively to those
public opinion outcomes. Based on the nascent body of literature on humor types and their effect
on viewing behavior, we pose the following hypotheses:

H4: Preference for disparagement humor will be related to opinions less favorable toward
discriminated against groups.

H5: Preference for social currency humor will be related to opinions more favorable
toward discriminated against groups.

Given the exploratory nature of this investigation concerning the relationship between senses of
humor and public opinion, we offer a final research question that adds quality of life to the pool
of opinions:

RQ1: How do the four senses of humor relate to public opinion and to perceived quality
of life?

Method

Study data were collected in the Spring of 2010 using an online survey. The instrument
was administered to a sample of undergraduate Communication students who received either
course credit or extra credit for their participation. The survey included a variety of measures
tapping public opinion, media use, and senses of humor, along with several social locators.

Measures

Public opinion. Public opinion, primarily toward historically discriminated against
groups and issues affecting those groups, was measured using 12 items. Most were adapted from
questions used by the Gallup organization, available on their website (www.gallup.com). All
addressed the measurement of opinions toward the treatment of marginalized groups from a
“symbolic” perspective as outlined above. Included were six items asking participants to indicate their satisfaction with “the way various groups in society are treated,” including women, Blacks, Asians, Arabs, immigrants, and Hispanics, and three items focusing on issues, including belief in (a) the necessity of affirmative action, (b) gay marriage legalization, and (c) whether O.J. Simpson was innocent of murder (as a follow-up on earlier work by Neuendorf et al. (1999) that identified a strong “racial divide” in opinions about Simpson’s guilt or innocence; see also Thaler (1997) for a discussion of the broad-reaching implications of this seminal touchstone for racial attitudes in the 1990s). An additional three items asked participants whether they thought Obama was doing a good job as President and about their perceived quality of life in their city and their neighborhood (Neuendorf, Jeffres, Skalski, & Atkin, 2000). All items were administered using a 0-10 scale, with “0” indicating no satisfaction or agreement and “10” indicating complete satisfaction or agreement.

Media use. Items used to measure media use were divided into three sections tapping amount of traditional media use, interactive media use, and news media use. The traditional media use items asked about TV viewing yesterday, radio listening yesterday, magazines read regularly, newspaper readership in the past week, books read in the past six months, theatrical movies attended in the past month, and movies watched via DVD/video/DVR in the past month. The interactive media use items inquired about emails sent yesterday, time spent on the Internet yesterday, and social networking online yesterday. Finally, the news media use items asked about listening to news (radio, online) yesterday, reading news (newspaper, magazine, online) yesterday, and watching news (TV, online) yesterday.

Senses of humor. The Senses of Humor Scale, a 16-item, four-dimensional self-report scale, is derived from a series of investigations by Neuendorf, Skalski, and others (e.g.,
Neuendorf, 2007; Neuendorf, Jeffres, Skalski, & Atkin, 2000; Neuendorf & Skalski, 2000; Powers, Neuendorf, & Skalski, 2005). The scale includes items tapping the Social Currency, Arousal/Dark Humor, Disparagement, and Incongruity dimensions of humor appreciation, measured on a 0-10 scale (with “0” indicating “strongly disagree” and “10” indicating “strongly agree”). Four items were used to measure each dimension. The items and their scale construction are described further in the results section below.

Social locators. A variety of social locator measures were included in this study. Participants were asked to indicate their biological sex, age (in years), annual household income (using six categories ranging from under $25,000 a year to $150,000 or more), and political ideology (using five categories ranging from strong conservative to strong liberal). An open-ended question asked them about their race or ethnicity. Answers to this question were coded into “white” or “non-white” for subsequent analyses.

Results

A total of 288 respondents completed the online instrument. The mean age was 22.55 years old ($SD = 5.94$), and 56 percent of respondents were female. Not surprisingly, given the student sample, only 3 percent of participants reported being married; the vast majority were never married/not in a relationship (49 percent) or never married/in a relationship (45 percent). The modal household income was less than $25,000 (33 percent), with 87 percent falling below $100,000, and 30 percent of respondents reporting being nonwhite. In terms of political philosophy, 6 percent said they were strongly conservative, 14 percent said they were conservative, 31 percent reported being middle of the road, 30 percent said they were liberal, and 18 percent said they were strongly liberal.
A confirmatory factor analysis was conducted on the 16 Senses of Humor Scale items. The resultant factor structure was as expected, and is shown in Table 1. Four orthogonal factors emerged, corresponding to the four theoretical dimensions of the senses of humor. The first factor, Social Currency Humor, obtained high and clean loadings for the items: “I find it amusing when others make reference to things I’m really familiar with,” “I like humor that is shared by a group,” “I find it humorous when I explore common knowledge or experiences with others,” and “I like ‘inside’ jokes (jokes only certain people ‘get’).” The second factor, Arousal/Dark Humor, was defined primarily by the high-loading items: “I like dark comedy,” “I like humor about death,” “I think it’s funny when other people actually get hurt,” and “I like gross-out humor.” The third factor, Disparagement Humor, had as high loaders the following items: “I like humor that puts down arrogant people,” “I like humor that puts down stupid people,” “I like humor that puts down other racial or ethnic groups,” and “I enjoy humor that criticizes society.” The fourth factor, Incongruity Humor, had as high loaders: “Unlikely events seem funny,” “I think it’s funny when things are combined in unexpected ways,” “When something happens that is a ‘one in a million’ occurrence, I find it funny,” and “I think incongruity is funny (i.e., when incompatible elements are put together).”

All communalities exceeded .50, with the exception of one item (“I think incongruity is funny. . . “ with a communality of .49). The four factors represented 59.18% of the total variance of the pool of 16 items. Cronbach’s alphas were calculated on standardized items for an assessment of internal consistency reliability. The resulting alpha coefficients ranged from .70 to .81, which is appropriate, given the call for a counterbalancing of internal consistency reliability and content validity (Bollen & Lennox, 1991; Clark & Watson, 1995).
Correlational, ANOVA, and hierarchical multiple regression analyses were conducted to test the hypotheses, and explore answers to the research question.

Hypothesis 1 forwarded that amount of traditional media use will predict public opinion toward the treatment of marginalized groups, after controlling for social locators. Table 2 displays the results for a series of hierarchical multiple regressions that test this hypothesis, using one regression for each of the twelve public opinion items of interest. Block 1 of each regression equation included as controls the social locators of age, income, gender (female), race (non-white), and political ideology (liberal). This block proved to be statistically significant at the p<.05 level in all cases but one (satisfaction with treatment of Arabs), and this was near-significant. Individual variables significantly predicting each dependent measure varied across the DVs; significant partial regression coefficients are listed in Table 3.

-----Tables 2 & 3 about here-----

Not surprisingly, a more liberal political ideological orientation was related to greater support for President Obama and same-sex marriage, and to less satisfaction with the treatment of women, Blacks, Asians, Hispanics, and immigrants. Nonwhite respondents were significantly more supportive of Obama, O. J. Simpson, and affirmative action, but less supportive of same-sex marriage, and less satisfied with the treatment of Blacks, Asians, and Hispanics. Nonwhites also reported a lower quality of life (QOL) for both their city and their neighborhood. Older respondents were more supportive of affirmative action and less satisfied with the treatment of Blacks and Asians. Higher income respondents were less supportive of Obama and reported a higher QOL for their neighborhood. The only significant gender difference was that women reported a lower QOL for their neighborhood.

Testing Hypothesis 1 directly, Block 2 (traditional media use) was significant for only
three dependent variables: (1) Belief that O. J. Simpson is innocent of murder, (2) the opinion that affirmative action is still necessary, and (3) satisfaction with the treatment of Blacks. It is noteworthy that all three of these DVs are centered on the status of African Americans in U.S. society.

Thus, Hypothesis 1 garnered minimal support; only for issues related to African Americans was support found.

Hypothesis 2 acknowledged the likelihood of strong selective exposure to interactive media, as motivated by political ideology: Social media use will statistically interact with political ideology in the prediction of public opinion regarding the treatment of marginalized populations. A series of 2x2 ANOVAs was executed, one for each of the 12 DVs. The main effects tested were social media use and political ideology, both split at the median. For none of the analyses was the interaction term significant. Thus, Hypothesis 2 was not supported.

The third hypothesis posited a significant role for content-specific media in the prediction of public opinion, i.e., News media use will predict public opinion after controlling for social locators, traditional media use, and interactive media use. Table 2 presents the findings for the test of this hypothesis; Block 4 contains the three news media exposure measures. This block was not significant in the prediction of any of the 12 dependent variables. News media exposure did not offer a significant incremental prediction after controlling for other social locator and media measures. Thus, Hypothesis 3 was not supported.

Hypotheses 4 and 5 posited relationships between particular senses of humor and opinions concerning the treatment of marginalized social groupings--H4: Preference for disparagement humor will be related to opinions less favorable toward discriminated against groups, and H5: Preference for social currency humor will be related to opinions more favorable
toward discriminated against groups. Table 4 includes correlational analyses for all four Senses of Humor subscales and the 12 opinion measures, with both zero-order correlation coefficients and partial correlations, controlling for social locators, reported.

------Table 4 about here------

Results show that those with a stronger appreciation for disparagement humor were less supportive of affirmative action, and more satisfied with the current treatment of essentially all the groups asked about (women, minorities, immigrants). The magnitudes of these relationships dimmed somewhat after statistical control for social locators, but most remained significant. Hypothesis 4 received substantial support.

Results contained in Table 4 also show that those with a stronger appreciation for social currency humor were more supportive of continued affirmative action and of same-sex marriage, and less satisfied with the treatment of Arabs, Hispanics, and immigrants. These relationships dipped to non-significance with the introduction of social locator controls, but remained in the predicted directions. Hypothesis 5 received partial support.

The single research question of the study was a broad-reaching one, asking how the four senses of humor relate to public opinion and quality of life. A range of answers to this question may be gleaned from results reported in Tables 2 and 4. Table 2 includes the four Senses of Humor Scale dimensions as a fifth and final block in each hierarchical multiple regression predicting opinions. Even after controlling for social locators, traditional media use, interactive media use, and news media exposure, the senses of humor contribute a significant increment to the variance explained in six instances: Support for the continuation of affirmative action, support for same-sex marriage, satisfaction with the treatment of Asians, Hispanics, and immigrants, and QOL for the city. The nature of the patterns of relationships between the four
Senses of Humor subscales and all 12 opinion items is shown in Table 4.

In addition to the patterns already identified for those with higher disparagement humor preference and higher social currency preference, we may also see additional, unpredicted relationships for the other two senses of humor. A higher level of appreciation for arousal/dark humor was found to relate to greater support for same-sex marriage, and at the same time greater satisfaction with the treatment of women, Blacks, Hispanics, and immigrants. And, arousal/dark humor preference was also related to greater perceived QOL for the city. Further, a greater appreciation for incongruity humor was related to support for President Obama, affirmative action, and same-sex marriage.

**Discussion**

The present findings suggest that senses of humor are among the more potent predictors of public opinion on a wide range of issues. This provides some confirmation for a conceptual framework positing long-overlooked linkages derived from the literature, supporting a social-cognitive model that marries one’s humor preferences to opinions held.

The study provides further confirmation of the multidimensional nature of the senses of humor (e.g., Powers, Neuendorf, & Skalski, 2005), and the differential impact of these humor preferences on opinion formation. Preference for social currency humor is predictive of “kinder, gentler” orientations toward the marginalized, with greater support for affirmative action and gay marriage, and greater concern over the treatment of minorities and immigrants. Preference for disparagement humor presents nearly the opposite profile, with lesser support for affirmative action and greater satisfaction with the current treatment of minorities. Preference for arousal/dark humor seems to relate to a type of laissez-faire philosophy—holding the opinion that minorities and immigrants are treated well, while supporting gay marriage. And, preference
for incongruity humor presents a partial profile of a quintessential liberal—it is related to positive positions on the Obama presidency, affirmative action, and same-sex marriage.

While the paths between senses of humor and public opinion are clear, the role of mass media is murkier. There is no evidence that news media exposure contributes to public opinion, or that use of social media interacts with political ideology in the prediction of public opinion. Traditional media use is significant only for three of the 12 public opinion items, all of which focus on the status of African Americans in society. These associations may simply be reflective of the strides African Americans have taken in society and in their media portrayals over time, with corresponding increases in visibility. Overall, a more intriguing implication of the pattern of findings uncovered in this study is that media exposure time by itself is minimally predictive of opinions toward marginalized others today, consistent with predictions about the dissolution of mass communication as a mainstreaming force (e.g., Chaffee & Metzger, 2001), and perhaps heralding an era of selective exposure over agenda setting with regard to news media. Future research should investigate the extent to which these patterns hold with other public opinion issues.

It is expected that additional indirect paths, from senses of humor through content-specific media messages to public opinion, may well exist. The processes circumscribed by these paths are most likely reinforcing, rather than opinion-changing, in nature, given the selective nature of exposure in the contemporary media-rich environment. Subsequent investigations need to expand the range of media exposure measures from the current medium-based and news-specific indicators to include measures of exposure to particular programs, films, web sites, etc., to tap this expected extreme selective exposure/opinion reinforcement process.
Drawing from recent work showing that like media preferences can stimulate interpersonal discussion about politics—which Scheufele (2002) terms the “soul” of democracy—we can see how the present results have implications for office cooler conversations about key issues. Just as Johnny Carson provided a common cultural reference point in decades past, one that was focused on humorous entertainment, the newly fragmented late-night environment might well inform discussions on political issues along more narrowly based humor and political archetypes. Mondak (1995) found that media exposure prompted political discussion. Moreover, as work from the knowledge gap tradition (Tichenor, Donohue, & Olien, 1980) suggests, exposure to communication channels can shape public opinion, knowledge, and even political involvement.

Exploring this dynamic in the era of narrowcasting, we can posit major implications for theory building to be found in the humor and media exposure archetypes uncovered here. Just as Jon Stewart and Stephen Colbert used their Comedy Central programs to catalyze a progressive “Rally to Restore Sanity” rally on Halloween weekend 2010, we might anticipate that viewers would be motivated to take political action based, in part, on patronage of particular humor types that lean toward satire, i.e., a combination of social currency humor and disparagement humor (Holbert et al., 2007). This, combined with work showing a higher need for cognition (NFC) among liberals (Nowak, Hamilton, Atkin, & Rauh, 2010) might help explain some of the ties of political liberality to preferences for social currency humor and incongruity humor noted in this study’s exploratory analyses. Also, past work (Neuendorf et al., 1999) suggests that incongruity is the most “cognitive” of humor types, and that appreciation for incongruity might relate to intelligence, or at least NFC.
Even further, recent research on brain architecture has identified structures in the brain that are significantly larger in individuals with liberal, or with conservative, political leanings. In a study of 90 adults, the University College London researchers found liberals to have increased gray matter volume in the anterior cingulate cortex, which is associated with understanding complex information. Conservatives were found to have a greater volume in the right amygdala, which is associated with processing fear (“Brain structure,” 2011).

To further explore the current data set so as to examine the role of political leaning and the senses of humor, relationships between the four Senses of Humor Scale dimensions and the single indicator of political ideology were examined. Using exploratory zero-order correlational analyses, a more liberal political ideology was found to be significantly related to greater appreciation for both social currency humor and incongruity humor, but not to arousal/dark humor or disparagement humor (see the final row of Table 4). The finding with regard to incongruity humor is notably consistent with the recent brain research findings, in that liberals, whose brains are more attuned to integrating complex information, are more attracted to incongruity, which requires such integration of conflicting information.

Thus, the current study, combined with recent brain research, hints at tantalizing relationships among brain structure, political leaning, and the senses of humor. Whether brain structure is a necessary and sufficient precursor to political attitudes and humor appreciation, or whether well-worn cognitive paths resulting from life experiences (including experiences that forge humor preferences and political leanings) can in fact bring about physiological changes in the brain, must be determined by future research. And, the mechanisms by which these factors affect public opinion formation and expression must also be further tested.
Over time, we might expect to see that growing diversity in new media environments (Jeffres, 2007) should lead to fragmenting audiences and allow users to tailor and filter the news and other media content in line with their individual interests (Bucy, Gantz, & Wang, 2007). Thus, while emerging outlets for various humor types may build social capital (e.g., Putnam, 2000; Holbert et al., 2007), the specialized “daily me” media use pattern (Lasica, 2002) could result in audience fragmentation into narrow constituencies based on humor preference templates, among other trait-based factors. Later work should proceed on this link between humor appeals and political involvement--perhaps including matching content analyses focused on humor types--as the media environment continues to fragment.
References


http://news.yahoo.com/s/afp/20110407/ts_alt_afp/healthpoliticsusbritain_2011040717582


Table 1. Orthogonal Factor Analysis of 16 Senses of Humor Measures.

<table>
<thead>
<tr>
<th>Item</th>
<th>Factor 1</th>
<th>Factor 2</th>
<th>Factor 3</th>
<th>Factor 4</th>
<th>Communality</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reference to familiar things</td>
<td>.82</td>
<td>-.01</td>
<td>.10</td>
<td>.20</td>
<td>.73</td>
</tr>
<tr>
<td>Shared by a group</td>
<td>.81</td>
<td>.02</td>
<td>.08</td>
<td>.07</td>
<td>.66</td>
</tr>
<tr>
<td>Common knowledge/experiences</td>
<td>.82</td>
<td>.01</td>
<td>.08</td>
<td>.14</td>
<td>.59</td>
</tr>
<tr>
<td>“Inside” jokes</td>
<td>.70</td>
<td>-.04</td>
<td>.19</td>
<td>.07</td>
<td>.53</td>
</tr>
<tr>
<td>Dark comedy</td>
<td>.08</td>
<td>.79</td>
<td>.05</td>
<td>.11</td>
<td>.65</td>
</tr>
<tr>
<td>Humor about death</td>
<td>.11</td>
<td>.73</td>
<td>.24</td>
<td>.01</td>
<td>.61</td>
</tr>
<tr>
<td>Other people actually getting hurt</td>
<td>-.19</td>
<td>.70</td>
<td>.21</td>
<td>.01</td>
<td>.57</td>
</tr>
<tr>
<td>Gross-out humor</td>
<td>-.04</td>
<td>.66</td>
<td>.22</td>
<td>.18</td>
<td>.52</td>
</tr>
<tr>
<td>Put down arrogant people</td>
<td>.18</td>
<td>.04</td>
<td>.74</td>
<td>.18</td>
<td>.61</td>
</tr>
<tr>
<td>Put down stupid people</td>
<td>.06</td>
<td>.25</td>
<td>.72</td>
<td>.05</td>
<td>.59</td>
</tr>
<tr>
<td>Put down other racial/ethnic groups</td>
<td>.02</td>
<td>.30</td>
<td>.68</td>
<td>.02</td>
<td>.56</td>
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<tr>
<td>Criticize society</td>
<td>.25</td>
<td>.18</td>
<td>.64</td>
<td>.15</td>
<td>.53</td>
</tr>
<tr>
<td>Unlikely events</td>
<td>-.01</td>
<td>-.05</td>
<td>.10</td>
<td>.82</td>
<td>.68</td>
</tr>
<tr>
<td>Things combined in unexpected ways</td>
<td>.40</td>
<td>.00</td>
<td>-.01</td>
<td>.69</td>
<td>.64</td>
</tr>
<tr>
<td>“One in a million” occurrence</td>
<td>.17</td>
<td>.16</td>
<td>.06</td>
<td>.69</td>
<td>.53</td>
</tr>
<tr>
<td>Incongruity (incompatible elements)</td>
<td>.09</td>
<td>.22</td>
<td>.23</td>
<td>.61</td>
<td>.49</td>
</tr>
</tbody>
</table>

| Eigenvalue (Initial)                        | 4.33     | 2.61     | 1.46     | 1.07     |
| Eigenvalue (Rotated)                        | 2.73     | 2.35     | 2.23     | 2.16     |
| % of total variance                         | 17.08%   | 14.69%   | 13.92%   | 13.49%   | 59.18%      |
| Cronbach’s alpha for principal loading items (standardized) | .81 | .75 | .73 | .70  |
| n                                           | 266      | 262      | 267      | 265      |

Note. Factor analysis $n = 251$. 
Table 2. Hierarchical Regressions Predicting Public Opinions.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Block 1</th>
<th>Block 2</th>
<th>Block 3</th>
<th>Block 4</th>
<th>Block 5</th>
<th>Total</th>
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<tbody>
<tr>
<td></td>
<td>Social</td>
<td>Traditional</td>
<td>Interactive</td>
<td>News</td>
<td>Senses of</td>
<td>Equation</td>
</tr>
<tr>
<td></td>
<td>Locators</td>
<td>Media Use</td>
<td>Media Use</td>
<td>Media Use</td>
<td>Humor</td>
<td></td>
</tr>
<tr>
<td></td>
<td>R²</td>
<td>p</td>
<td>R²</td>
<td>p</td>
<td>R²</td>
<td>p</td>
</tr>
<tr>
<td>Obama doing good job as President</td>
<td>.29</td>
<td>.000</td>
<td>.04</td>
<td>.212</td>
<td>.02</td>
<td>.171</td>
</tr>
<tr>
<td>Believe O.J. Simpson innocent of murder</td>
<td>.11</td>
<td>.000</td>
<td>.10</td>
<td>.001</td>
<td>.02</td>
<td>.007</td>
</tr>
<tr>
<td>Affirmative action still necessary</td>
<td>.22</td>
<td>.000</td>
<td>.06</td>
<td>.018</td>
<td>.01</td>
<td>.485</td>
</tr>
<tr>
<td>Same-sex marriage should be recognized</td>
<td>.32</td>
<td>.000</td>
<td>.02</td>
<td>.318</td>
<td>.02</td>
<td>.234</td>
</tr>
<tr>
<td>Satisfied with treatment of women</td>
<td>.12</td>
<td>.000</td>
<td>.02</td>
<td>.806</td>
<td>.05</td>
<td>.008</td>
</tr>
<tr>
<td>Satisfied with treatment of Blacks</td>
<td>.14</td>
<td>.000</td>
<td>.07</td>
<td>.021</td>
<td>.03</td>
<td>.079</td>
</tr>
<tr>
<td>Satisfied with treatment of Asians</td>
<td>.09</td>
<td>.002</td>
<td>.04</td>
<td>.249</td>
<td>.01</td>
<td>.513</td>
</tr>
<tr>
<td>Satisfied with treatment of Arabs</td>
<td>.05</td>
<td>.053</td>
<td>.02</td>
<td>.879</td>
<td>.01</td>
<td>.468</td>
</tr>
<tr>
<td>Satisfied with treatment of Hispanics</td>
<td>.11</td>
<td>.000</td>
<td>.02</td>
<td>.732</td>
<td>.02</td>
<td>.211</td>
</tr>
<tr>
<td>Satisfied with treatment of immigrants</td>
<td>.09</td>
<td>.002</td>
<td>.02</td>
<td>.675</td>
<td>.01</td>
<td>.407</td>
</tr>
<tr>
<td>Quality of life—city</td>
<td>.06</td>
<td>.019</td>
<td>.03</td>
<td>.414</td>
<td>.02</td>
<td>.257</td>
</tr>
<tr>
<td>Quality of life—neighborhood</td>
<td>.14</td>
<td>.000</td>
<td>.02</td>
<td>.754</td>
<td>.01</td>
<td>.695</td>
</tr>
</tbody>
</table>

Note. Block 1 (min $d_{f}=5$, 199), Social Locators, is comprised of age, income, gender (female), race/ethnicity (non-white), and political ideology (liberal); Block 2 ($d_{f}=7$, 192), Traditional Media Use, is comprised of TV viewing yesterday, radio listening yesterday, number of magazines read regularly, newspaper readership in past week, books read in past six months, theatrical movies attended in past month, and number of movies watched via DVD/video/DVR in past month; Block 3 ($d_{f}=3$, 189), Interactive Media Use, is comprised of emails sent yesterday, minutes spent on Internet yesterday, and minutes spent social networking online yesterday; Block 4 ($d_{f}=3$, 186), News Media Use, is comprised of minutes spent listening to news (radio, online) yesterday, minutes spent reading news (newspaper, magazine, online) yesterday, and minutes spent watching news (TV, online) yesterday; Block 5 ($d_{f}=4$, 182), Senses of Humor, is comprised of the four factor-created scales—Social Currency, Arousal/Dark, Disparagement, and Incongruity Humor.

Note. Inspection of collinearity diagnostics (tolerances, condition indices) revealed no problems with multicollinearity.
Table 3. Significant Beta Coefficients for Significant Blocks 1, 2 & 3 in Hierarchical Regressions

Predicting Public Opinions.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Block 1: Social Locators</th>
<th>Block 2: Traditional Media Use</th>
<th>Block 3: Interactive Media Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>Obama doing good job as President</td>
<td>Political ideology (liberal) .321**; Nonwhite .176**; Income -.141*</td>
<td>ns block</td>
<td>ns block</td>
</tr>
<tr>
<td>Believe O.J. Simpson innocent of murder</td>
<td>Nonwhite .299**</td>
<td>Theatrical movies .203**; Movies on DVD/video -.189**; Emails yesterday .126*</td>
<td>ns block</td>
</tr>
<tr>
<td>Affirmative action still necessary</td>
<td>Age .117*; Nonwhite .382**</td>
<td>Magazines read -.142*; Theatrical movies .218**</td>
<td>ns block</td>
</tr>
<tr>
<td>Same-sex marriage should be recognized</td>
<td>Political ideology (liberal) .499**; Nonwhite -.292**</td>
<td>ns block</td>
<td>Internet yesterday .264**; Social networking yesterday -.176*</td>
</tr>
<tr>
<td>Satisfied with treatment of women</td>
<td>Political ideology (liberal) -.149*; Nonwhite -.158*</td>
<td>ns block</td>
<td>ns block</td>
</tr>
<tr>
<td>Satisfied with treatment of Blacks</td>
<td>Age -.143*; Political ideology (liberal) -.183**; Nonwhite -.263**</td>
<td>Radio listening .228**</td>
<td>ns block</td>
</tr>
<tr>
<td>Satisfied with treatment of Asians</td>
<td>Age -.146*; Political ideology (liberal) -.178*; Nonwhite -.194*</td>
<td>ns block</td>
<td>ns block</td>
</tr>
<tr>
<td>Satisfied with treatment of Arabs</td>
<td>ns block</td>
<td>ns block</td>
<td>ns block</td>
</tr>
<tr>
<td>Satisfied with treatment of Hispanics</td>
<td>Political ideology (liberal) -.184**; Nonwhite -.154*</td>
<td>ns block</td>
<td>ns block</td>
</tr>
<tr>
<td>Satisfied with treatment of immigrants</td>
<td>Political ideology (liberal) -.239**</td>
<td>ns block</td>
<td>ns block</td>
</tr>
<tr>
<td>Quality of life—city</td>
<td>Nonwhite -.152*</td>
<td>ns block</td>
<td>ns block</td>
</tr>
<tr>
<td>Quality of life—neighborhood</td>
<td>Gender (female) -.156*; Nonwhite -.323**; Income .162*</td>
<td>ns block</td>
<td>ns block</td>
</tr>
</tbody>
</table>

a - \( p < .10 \); * - \( p < .05 \); ** - \( p < .01 \)
Table 4. Correlations and Partial Correlations—Four Senses of Humor with Public Opinion Items, with Social Locator Controls.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Factor 1</th>
<th>Factor 2</th>
<th>Factor 3</th>
<th>Factor 4</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Social Currency</td>
<td>Arousal/Dark</td>
<td>Disparagement</td>
<td>Incongruity</td>
</tr>
<tr>
<td></td>
<td>Humor</td>
<td>Humor</td>
<td>Humor</td>
<td>Humor</td>
</tr>
<tr>
<td>Obama doing good job as President</td>
<td>.10 (.04)</td>
<td>-.12&lt; .01</td>
<td>-.08 (-.04)</td>
<td>.23** (.15*)</td>
</tr>
<tr>
<td>Believe O.J. Simpson innocent of murder</td>
<td>-.06 (-.10)</td>
<td>-.10 (-.03)</td>
<td>-.09 (-.06)</td>
<td>-.03 (-.08)</td>
</tr>
<tr>
<td>Affirmative action still necessary</td>
<td>.14* (.10)</td>
<td>-.08 (.04)</td>
<td>-.17** -.12&lt; .13*</td>
<td>.13* (.07)</td>
</tr>
<tr>
<td>Same-sex marriage should be recognized</td>
<td>.13* (.09)</td>
<td>.22** .22**</td>
<td>-.07 -.02</td>
<td>.18** .13&lt;</td>
</tr>
<tr>
<td>Satisfied with treatment of women</td>
<td>-.09 (-.05)</td>
<td>.13* (.06)</td>
<td>.16* .12</td>
<td>-.07 -.02</td>
</tr>
<tr>
<td>Satisfied with treatment of Blacks</td>
<td>-.06 (-.02)</td>
<td>.15* (.09)</td>
<td>.16* .14*</td>
<td>.01 .07</td>
</tr>
<tr>
<td>Satisfied with treatment of Asians</td>
<td>-.02 (.01)</td>
<td>.06 (.02)</td>
<td>.23** .22**</td>
<td>.07 .10</td>
</tr>
<tr>
<td>Satisfied with treatment of Arabs</td>
<td>-.12* -.10</td>
<td>.08 (.06)</td>
<td>.11* .10</td>
<td>-.05 -.02</td>
</tr>
<tr>
<td>Satisfied with treatment of Hispanics</td>
<td>-.16* -.13&lt;</td>
<td>.17** .11</td>
<td>.23** .21**</td>
<td>.08 .12&lt;</td>
</tr>
<tr>
<td>Satisfied with treatment of immigrants</td>
<td>-.15* -.11</td>
<td>.19** .16*</td>
<td>.19** .16*</td>
<td>-.10 -.05</td>
</tr>
<tr>
<td>Quality of life—city</td>
<td>-.03 -.03</td>
<td>.21** .14*</td>
<td>-.09 -.13&lt;</td>
<td>.12&lt; .13&lt;</td>
</tr>
<tr>
<td>Quality of life—neighborhood</td>
<td>.01 .04</td>
<td>.06 -.02</td>
<td>.05 -.01</td>
<td>.03 .08</td>
</tr>
<tr>
<td>Political orientation (liberal)</td>
<td>.14* .11</td>
<td>.00 .03</td>
<td>-.11 -.04</td>
<td>.17** .13&lt;</td>
</tr>
</tbody>
</table>

a - *p*<.10; * - *p*<.05; ** - *p*<.01

Note. *pr* is partial correlation controlling for social locators: age, income, gender (female), race/ethnicity (non-white), and political ideology (liberal); *n*=249 and *n*=201 for *r*’s and *pr*’s, respectively.