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How Much Is Enough? Examining the Public's Beliefs About Consumption

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Relatively little public opinion research has explored beliefs about consumption. This lack of research is surprising given the increasing attention paid by many commentators to the relationship between consumption and ecological sustainability. Reporting on data collected from a series of five statewide surveys of Oregonians conducted between 2008 and 2009, we find that a strong majority (74–88%) of the Oregon public supports reducing consumption and believes doing so would improve societal and individual well-being. These findings appear to challenge conventional wisdom about our collective and never-ending need for consumption of material goods. Our results reveal broad agreement on the consumption issue across traditional ideological divides. We also conducted in-depth qualitative interviews, which allowed us to explore what "consumption" means to Oregonians and why people think our country would be better off if we reduced consumption. Our findings suggest that populist attitudes toward reducing consumption may fill a role that policymakers avoid for a variety of reasons. We discuss the relevance of consumption beliefs to public policy aimed at reducing greenhouse gas (GHG) emissions, as well as directions for future research.

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PolicyInteractive welcomes questions, feedback, criticism, and suggestions. Project purpose, in-depth descriptions of survey methodologies used, sample characteristics, and all survey results can be viewed at www.policyinteractive.org. The authors want to thank Sam Porter, Matthew Clement, Stacy Vynne, and the rest of the PolicyInteractive advisory board for their efforts and useful feedback on the project. We also want to thank two anonymous reviewers for their very useful feedback.

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Policy-oriented efforts to address greenhouse gas (GHG) emissions appear to be moving more slowly than required to achieve stabilization of GHG concentrations at current levels anytime in the near future (Hulme, 2009; Revkin, 2010). After 20 years of policy inaction, many are convinced that other pathways toward reducing GHG emissions, including action at the individual and household levels, deserve greater attention. Because consumption of material goods and services by individuals is intimately tied to GHG emissions (cf., Gilligan, Dietz, Gardner, Stern, & Vandenbergh, 2010; Munksgaard, Alsted Pedersen, & Wein, 2000), it is critical that research examine factors that motivate individuals to reduce their own consumption. Here, we present findings from a 2-year, multimethod project in which we explored Oregonians' beliefs about the importance of consumption and the relations between climate change and consumption beliefs and policy preferences. As discussed below, our research suggests that while public opinion regarding climate change supports the present wait-and-see policy advocated by most policymakers, as well as a "green" economic transition, there is also widespread support for reducing consumption; such beliefs may represent another path on which to move forward with respect to reducing GHG emissions.

Consumption and Climate Change

Anthropogenic influences on the climate and other natural systems operate through three well-established pathways: population, consumption/affluence, and technology (Dietz, Rosa, & York, 2007). In the present research, we are primarily interested in the link between consumption and GHG emissions. A positive association between consumption and emissions has repeatedly been demonstrated, both at the national level (e.g., using measures of GDP to represent consumption; cf., Hamilton & Turton, 2002) and at the individual or household level (cf., Cohen, Lenzen, & Schaeffer, 2005; Munksgaard et al., 2000; see Girod & de Haan, 2010, for a more nuanced argument). At the individual level, expenditures on consumer goods and services clearly rise with rising income, at least to a certain point. More importantly, various studies demonstrate that GHG emissions rise with increasing consumption (cf., Baiocchi, Minx, & Hubacek, 2010), despite the fact that some of this increased consumption is of relatively lower emissions intensity goods (e.g., hybrid vehicles; local foods). Thus, the relations among income, consumption, and GHG emissions are all positive, if not linear (Tukker, Cohen, Hubacek, & Mont, 2010). Taken together, these findings suggest that reducing consumption among individuals and households (particularly in highly developed nations) would indeed have a significant impact on GHG emissions.

Given the well-established relation between current patterns of consumption and emissions, two competing solutions to avoiding substantial adverse consequences of consumption have emerged (Bluhdorn & Walsh, 2007; Knight & Rosa, 2009; Princen, 2001; Rees, 2009). The first, and dominant, approach promotes an

efficient, "green" technological overlay on the contemporary economic model of mass consumption and sustained economic growth. This "solution" suggests that we can grow our way out of both recession and ecological disaster by redirecting investment toward a sustainable, green future; such an approach requires little meaningful change at the individual level with respect to consumption habits. The second solution proposes that psychological, cultural, and behavioral changes in consumption are necessary. As has been observed by others and confirmed in our own research, political and economic decision makers tend to embrace the first and ignore the second of these approaches for a variety of reasons (cf., Schneider, Kallis, & Martinez-Alder, 2010). However, an emerging body of research challenges the efficacy of the growth and efficiency model as a sufficient path toward meaningful sustainability (Dietz et al., 2007; Heuting, 2010; Sustainable Development Commission, 2009; York, Rosa, & Dietz, 2003). Our own research explores the viability of the second approach by revealing previously unrecognized currents in the American public's attitudes toward consumption.

Consumption, Materialism, and the American Public

The American public is popularly characterized as deeply attached to nonessential or conspicuous consumption (Brooks, 2008). Prior to the current economic downturn, consumption of nearly all goods and services had been surging for years (BEA, 2010), as had perceptions regarding the necessity of goods once viewed as luxuries (PewResearchCenter, 2006). It has generally been accepted wisdom that Americans like their stuff and are not giving it up any time soon. However, various researchers and social commentators (e.g., Hamilton, 2003; Huneke, 2005; Shaw & Moraes, 2009) have noted that there is a small but growing sector of the public that is voluntarily downscaling consumption habits (e.g., living in smaller homes; eliminating air travel; purchasing second-hand items); researchers have explored the values, personality traits, and beliefs of such "downshifters," as well as the cultural or sociological contexts that have supported such behavior (e.g., Hamilton, 2003; Shaw & Moraes, 2009).

Interestingly, relatively little public polling work has explicitly explored individuals' beliefs about consumption and its relation to well-being (both individual and societal). However, the research that has been conducted with Americans over the past 15 years suggests that many individuals are deeply concerned about issues related to overconsumption (cf., Schor, 1999; Stafford, Taylor, & Houston, 2001). For example, a nationally representative survey conducted in the mid-1990s (Harwood Group, 1995) revealed that a strong majority of Americans were concerned about what they perceived to be an overly materialistic society; moreover, 28% of those surveyed indicated that they had already voluntarily begun downshifting (i.e., scaling back their consumption and income). Reasons cited for doing so included a desire to spend more time with family and friends, reducing stress

and increasing free time, and having the ability to lead a more balanced life (Harwood Group, 1995).

More recently, the Center for American Progress (CAP) released a report titled *The Forty Ideas Which Frame American Politics* (CAP, 2009), which reports findings from a nationally representative survey of American adults. The CAP survey found that the most strongly endorsed of the 40 items used to tap political and cultural attitudes was "Americans should adopt a more sustainable lifestyle by conserving energy and consuming fewer goods" (80% agreement). Although this item wording is flawed in that it asks a double-barreled question, it seems that the CAP findings provide further evidence that the American public is generally in favor of reducing consumption of material goods.

Although public opinion research on consumption beliefs is fairly limited, there does exist a considerable body of psychological and sociological research on the closely related construct of "materialism" (cf., Inglehart, 1990; Richins, 2004). Richins and Dawson (1992) defined materialism as "the importance ascribed to the ownership and acquisition of material goods in achieving major life goals or desired states" (Richins, 2004, p. 10). Moreover, these researchers conceptualized materialism as a consumer value or personality trait composed of three related components: acquisition centrality, acquisition as pursuit of happiness, and possession-defined success. Richins's (2004) Material Values Scale (MVS) has been widely used over the past two decades in an attempt to identify individuals as either "high" or "low" materialists with respect not only to their behavior (e.g., purchasing habits) but also to the value they ascribe to the act of consuming goods and services.

Taking a more sociological approach, Inglehart (1990) and others have examined shifts in both individual- and cultural-level values away from materialism and toward "postmaterialism" as a result of changes in economic, political, and social conditions. Inglehart (1990) argues that once individuals and societies are able to relatively easily fulfill basic survival needs and services, they are in a position to shift from endorsing materialistic values, such as economic and physical security, to embracing postmaterialistic values, which emphasize autonomy, self-expression, and an expanded scope of concern for others. The shift from "lower" order to "higher" order needs and values appears to be related to an increase in socially conscious consumption behavior, although frugal consumer behavior may have more to do with external constraints (i.e., income) and low materialism values (Pepper, Jackson, & Uzzell, 2009).

While the work on materialism is clearly related to our own work on consumption, we see important distinctions between the two concepts, particularly with respect to the primary focus and aims of each research agenda. For example, much of the past work on materialism has focused on identifying underlying values and personality traits that describe people who ascribe to the goals of material acquisition described by Richins (2004). Moreover, this work has tended to

focus on individuals at the high end of the materialism spectrum, that is, on those individuals who can normatively be identified as "materialists" (although recent work on frugality and voluntary simplicity focuses primarily on low materialists; cf., Pepper et al., 2009; Shaw & Moraes, 2009). In contrast, our interest in consumption is less focused on categorizing individuals as materialists or not, and much more oriented around exploring individuals' generalized beliefs about the relationship between consumption of goods and well-being, be it the well-being of the individual or of an entire nation. Thus, our research essentially straddles the "psychological" and "socio-political" (Pepper et al., 2009) conceptualizations of materialism.

Present Research

Our research represents both a follow-up and an extension to the extant findings regarding attitudes toward consumption. Relatively little work (beyond that cited above) has looked at individuals' beliefs about the impacts of consumption on societal well-being. Moreover, we have not been able to identify past research that examines links between such beliefs and individuals' climate-change-policy preferences and beliefs, despite considerable public opinion research exploring demographic and psychological correlates of climate-change-policy preferences (and personal behavioral responses; cf., Leiserowitz, Maibach, & Roser-Renouf, 2010).

Although the objective relation between consumption of material goods and climate change may seem clear, we were interested in examining whether individuals' beliefs about these two issues are in fact related to one another. While climate change has become an ideologically polarized (and polarizing) issue in the United States (see Dunlap & McCright, 2008; Leiserowitz et al., 2010; Nisbet, 2009), we hypothesized that consumption might be viewed by many people as a distinct issue and, critically, that it might not show the same level of polarization as climate change. To the extent that this is the case, and to the extent that many Oregonians perceive overconsumption to be an important issue, individuals' beliefs about consumption may represent a novel and potentially powerful route to reducing GHG emissions. Recent community-based interventions aimed at reducing GHG emissions and reliance on fossil fuels have shown that positive strides can be made in this domain despite skeptical or outright dismissive beliefs about climate change (see Kaufman, 2010); these and other events further point to the importance of examining *all* possible routes to a lower emissions future.

Here, we report findings from five statewide representative telephone polls conducted with Oregonians, as well as results from two sets of in-depth interviews conducted by the authors (and support staff) in 2009. Our research was conducted just prior to and during the current economic downturn, providing insights into the robustness of beliefs about "de-consumption" under unfavorable environmental

conditions (unfavorable to the extent that economic hardship pushes individuals and societies toward materialist values; Inglehart, 1990). The remainder of the article progresses as follows. After describing our polling methods, we report results and provide a brief discussion of those surveys. Next, we describe the methods and results obtained through in-depth interviewing of two groups of Oregonians: self-identified conservatives and a set of "policy elites." Finally, we present a general discussion of our findings, mention potential limitations of the research, and discuss future directions.

Statewide Polling

Methods

Participants. Between April 2008 and November 2009, we conducted a series of five surveys with representative samples of Oregonians. We were also peripherally involved in a nationally (United States) representative survey conducted by the Yale Cultural Cognition Project (YCCP) (see www.culturalcognition.net) in January 2009 (see www.culturalcognition.net). Sample sizes for all Oregon surveys were between 400 and 406, providing a margin of error below 5%. Surveys were conducted via telephone by a variety of professional call centers (the use of different polling agencies reduced the likelihood of "house effects"). Call centers were carefully selected for quality control, and operators were randomly monitored by the research team during each survey. Random sampling of participants was achieved by random digit dialing of landline phone numbers using a computer-generated number base tied to a geographic distribution model of the sample. Due in part to the exclusion of cell phone numbers, the distribution of respondents (in all Oregon samples) was slightly skewed toward the inclusion of relatively more women, older adults, and people living in rural areas (see Table 1). However, no statistical weighting of the data was performed.

General overview of survey instruments. Across all five surveys, we asked participants a wide range of questions tapping three basic domains of interest: attitudes toward broad social and economic issues (e.g., taxes, economy, terrorism, fuel prices); perceptions of climate change and consumption; values and worldviews (e.g., religiosity, ideology, social hierarchy). In addition, we collected core demographic data (i.e., age, gender, income, occupation). The items used included novel items created by the authors as well as widely used measures from past research (e.g., values and worldviews measures developed by Douglas & Wildavski, 1982; Graham, Haidt, & Nosek, 2009; Inglehart, 1990; Kahan et al., 2007). Interested readers may contact the authors for full survey instruments and for data from any of the five polls that we conducted (also accessible at www.policyinteractive.org).

Table 1. Sample Demographics for All Five Statewide Surveys and Relevant Population Demographics

Demographic variable	State (population)	April 2008	July 2008	November 2008	April 2009	November 2009
Gender, % female	50.4	61	55	52	54	52
Age (median)	36.3	57	56	53	57	55
Income, % <40k/year	43	40	42	40	35	41
Total *N*	3,825,657	402	400	405	406	403

Note: Population statistics come from U.S. Census 2000. Population median age includes *all* individuals living in Oregon, including minors; our samples consisted only of adults 18 years of age and older, partially accounting for the discrepancy between the average age of our survey respondents and the median age of Oregonians. Recognizing the overrepresentation of women in the Poll 1 (April 2008), we put a quota on gender in subsequent polls.

In the present article, we focus specifically on items included in all or most of the surveys and which tapped respondents' beliefs about consumption and, to a lesser degree, climate change. Our primary question of interest asked respondents, "How much do you agree or disagree with the following statement: We'd all be better off if we consumed less." The item was contained within a battery of attitudinal items specifically designed to avoid creating the impression that the survey was ideologically motivated. Participants responded using a 4-point scale (*strongly disagree* to *strongly agree*), except in Poll 3, when participants were also explicitly provided a *don't know* response option. Except in Polls 1 and 2, we also explored participants' agreement to the statement, "We need to buy goods for the good of the economy." This allowed us to measure relative levels of agreement with the two presumably contrasting items and, importantly, to study possible order effects (there were none). Additionally, in two surveys (April and November 2008), we probed possible attitudinal discord about our current economic model by asking participants: "Which do you agree with more even if neither question represents your views exactly: 'Given this economic downturn our leaders should do everything they can to stimulate the economy' or 'This economic downturn may be just what we need to reorder our values'?"

We also asked participants a variety of climate change belief questions. In Polls 1 and 5, participants were asked whether they thought climate change posed a major threat, a minor threat, or no threat at all to humans. In Poll 3, respondents indicated how much they agreed or disagreed that global warming threatens life on earth. Except in Poll 1, we severely limited the number of questions that we asked about climate change (usually to no more than one or two), primarily due to a concern that simply asking individuals about climate change might unduly influence responses to many other domains of questioning. Finally, we asked participants a variety of more specific questions regarding their policy preferences, personal behaviors, and

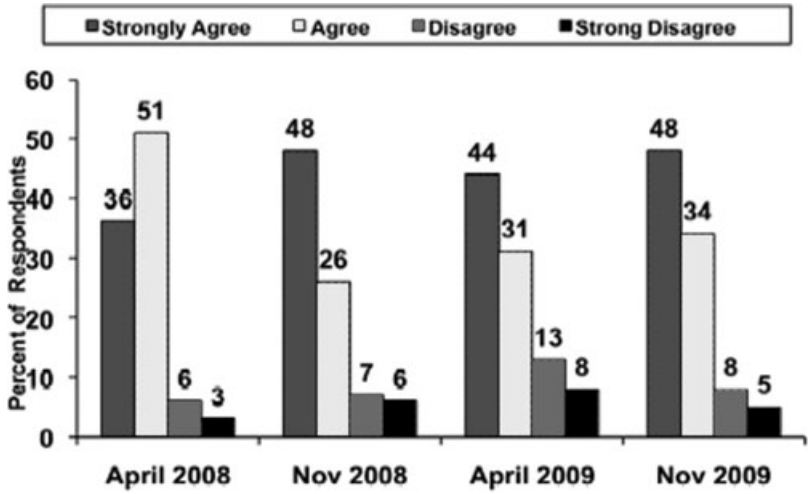

Fig. 1. Shows respondents' level of agreement and disagreement (percent), across four surveys, with the statement: "Our country would be better off if we all consumed less."
Note: November 2008 poll used a 5-point response scale that included the option "in between" (12% of participants selected); this has been omitted from the figure for visual clarity.

beliefs relevant to consumption (a subset of which is discussed below), primarily in an effort to allow an examination of how agreement with the "consume less" item related to more concrete behavioral commitments to reduce consumption. A more extended discussion of survey development is available from the authors upon request.

Survey Results and Initial Discussion

Across all five polls, the level of agreement to the "consume less" item was very high, ranging from a low of 74% (*agree* and *strongly agree* combined) in November 2008 (Poll 3) to a high of 88% in April 2008 (Poll 1). Figure 1 shows the level of agreement and disagreement with the item for all polls except Poll 2 (which asked a slightly modified "consume less oil" question; total agreement was 80% to that item). Although it appears that there was a dip in agreement to this item during the height of the economic downturn, overall it seems the vast majority of Oregonians equate reduced consumption with improved societal outcomes. There were no clear and consistent differences between men's and women's levels of agreement with the "consume less" item; similarly, agreement was very high across all income levels (although it was somewhat lower among respondents with income- above $80,000 per year). More importantly from our perspective, agreement with the "consume less" item was strong across traditional ideological

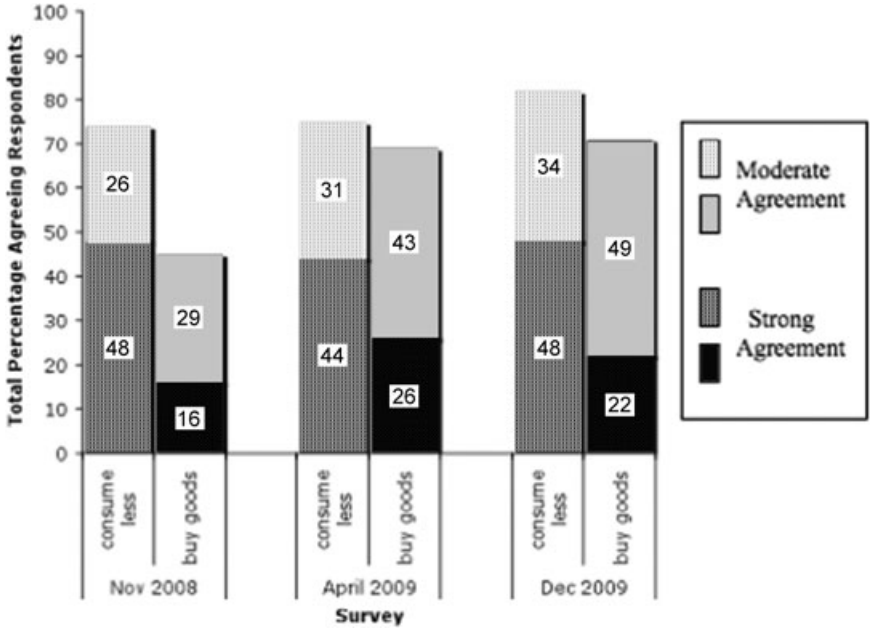

Fig. 2. Shows respondents' level of agreement (percentage) to two items (randomly rotated across respondents) across three surveys. Exact wording was: "I'll read some statements we sometimes hear people say about the current economic downturn. Please tell me if you strongly disagree, moderately disagree, moderately agree, or strongly agree with each statement: A. Our country would be better off if we all consumed less. B. We need to buy goods for the good of the economy."

and political divides: although agreement tended to be higher among Democrats, liberals, and environmentalists, strong majorities of conservatives, Republicans and evangelical Christians also agreed with the consume less item.

In stark contrast, beliefs about climate change showed classic ideological divides. As various researchers have demonstrated (e.g., Leiserowitz et al., 2010), "climate change" appears to have transformed over the past decade or so into a truly partisan issue in the United States (Nisbet, 2009). Our own findings seem to support this conclusion: while 94% of self-identified Democrats (in Oregon) polled in April 2008 said they were somewhat, very, or extremely concerned about climate change or global warming, just 27% of Republicans said the same. Similarly, just 9% of Republicans but 62% of Democrats in Poll 1 perceived climate change to be a major threat to life on earth; these numbers changed little when the question was asked again nearly 18 months later (November 2009).

One concern we had after seeing the high level of agreement to "consume less" in the first poll was the possibility that respondents were failing to think about the positive aspects of consumption (e.g., job creation) when responding.

This concern led us to include the "buy goods" item in subsequent polls. In November 2008 (Poll 3), total agreement with the "consume less" item was 30 percentage points higher than agreement to the "buy goods" item (74% vs. 44%); moreover, three times as many respondents strongly agreed with "consume less" than with "buy goods." By April 2009, the overall level of agreement to the items was much less divergent, although by November 2009, the gap in agreement to these two items had grown slightly (see Figure 2). Somewhat surprisingly, further analysis revealed that people's responses to the "consume less" and "buy goods" items were orthogonal to one another in Polls 3–5 (all rs $< .05$, all ps $> .05$). This lack of relationship suggests that individuals can believe that we would be better off if we consumed less while at the same time maintaining the widely held (veridical) belief that our economy relies on consumption of goods. Understanding the uncoupling of these two seemingly basic (and conflicting) beliefs about the function and effects of consumption on economic and societal well-being is a key underlying question in our continuing research efforts.

Findings from the A/B format question in both April and November 2008 further indicated the strength of the deconsumption orientation of the Oregon public. In both surveys, 60% of respondents chose the "reorder our values" option over "our leaders should stimulate the economy." This result appears to challenge the conventional wisdom that the economy trumps all other concerns (especially during an economic downturn), and may reflect, in part, problems with using traditional Likert-type measurement scales to measure the relative importance of various issues (see Larson, Yeager, Krosnick, & Tompson, under review for a related critique). Taken together, these results appear to suggest that while climate change remains a highly divisive issue in Oregon, the belief that reduced consumption is a generally good thing may be something that most Oregonians (and Americans) can get behind.

Indeed, findings from a 2009 study conducted by the YCCP appear to replicate and extend our own findings from the Oregon context to the entire United States. At our request, the YCCP included the "consume less" item in a nationally representative survey of 1,500 Americans and found that 79% of respondents agreed with the item. Moreover, strong majorities of conservatives and Republicans (above 70%), as well as liberals and Democrats (above 80%), agreed with the statement. Taken together with the CAP findings discussed above, these national survey results indicate that our findings with Oregonians are not exclusive to the social geography of Oregon. As discussed further below, these findings lead us to believe that the "consume less" item may be tapping a "big tent" undercurrent in American culture, that is, a shared belief that unites rather than separates us.

When we dug deeper into the "reducing consumption is a good thing" sentiment (Poll 5, November 2009), we found broad agreement with respect to which positive outcomes our respondents believed reduced consumption would lead to.

For example, 84% of respondents agreed that reduced consumption would "be better for the earth," 67% of respondents agreed that we would have more time to spend with family and friends, and 84% believed that reducing consumption would lead to greater self-reliance and (re)learning of basic skills. More generally, a set of items also included in Poll 5 revealed broadly shared cultural objectives, such as: placing more emphasis on family life (97% saw as a "good thing"); learning new skills and self-reliance (93%); reducing our individual consumption levels (74%); and increasing protection for the environment (78%).

However, despite both the consistency and the apparent depth of the "consume less" finding, it is important to note that there is a big difference between an individual saying that he or she believes we would be better off if we consumed less and showing that such a belief translates into actual behavior in the real world, both in the supermarket and at the voting booth. Thus, we were interested not only in measuring public opinion on consumption but also in identifying whether such beliefs translate into increased support for consumption-reducing policies and behaviors. To do so, we tested public support for a wide variety of revenue-raising consumption-based policies (e.g., gas tax; inverted utility rate structure), some of which have been examined within the context of public polling on climate change (e.g., Leiserowitz et al., 2010). A key question to be answered was whether the public disposition to consume less could be leveraged into a revenue flow for public services. A number of our surveys have probed this subject. For example, in November 2008 we examined support for a fuel tax of 25 cents per gallon to address global warming (53% in support), support for "investments in reducing our need to drive" (22% support), and support to pay for public transportation (23%).

Our April 2009 survey extended these initial findings by including several sets of questions exploring the willingness of the public to support a variety of consumption fees, gauged against relative support for a sales tax. Oregon has no sales tax and has voted it down nine times by wide margins. Therefore, public support for a sales tax was deemed a reasonable baseline against which to compare relative levels of support for the "consumption-oriented" fee-based policies we asked our respondents about. Predictably, support was weak for a state sales tax (30% in favor). However, we found modest (relative) gains in support for various consumption-fee proposals. Seven of 11 consumption-fee proposals surpassed the 30% support benchmark, and three revealed solid majority support, including an inverted energy utility rate structure (76%), higher home efficiency standards (75%), and a 5% tax on private yachts, airplanes and motor homes (61%).

Although support for all 11 of the consumption-reducing policies was positively correlated with the "consume less" item (all ps $< .05$), correlations were generally small (rs between .19 and .33). This may reflect the fact that new consumption fees and regulations are simply a hard sell in the present period of tax and government resistance (including broad distrust of government), despite

strong deconsumption beliefs, although item unreliability or a lack of variance in the "consume less" item could also explain the weak correlations. Moreover, findings from our energy and transportation-oriented Poll 2 (July 2008) further indicated that while Oregonians are concerned about overconsumption, support for specific policies aimed at decreasing consumption is still relatively weak. Thus, while consumption fees should be further explored as possible routes to reduced consumption, we conclude for the moment that other avenues, for example, linking attitudes to shifts in behavior, deserve more attention.

Looking across all the polling results we have collected over the past 2 years, it appears that lowering consumption levels through downshifting, working less, and spending more time with family may in fact be complementary narratives in the Oregonian, and perhaps the American, mindset. Perhaps most importantly, all the findings discussed thus far suggest that public attitudes that could potentially yield lower consumption demands (and thus GHG emissions) often exist and function independently of climate change concerns and ideological commitments; if this is true, it would seem to indicate new and potentially powerful paths on which to move forward with respect to confronting climate change. We return to this theme in the General Discussion.

Conservative and "Elite" Interviews

While we believe the results presented above reflect meaningful trends within the Oregon and broader U.S. publics, and further that the broad-based support we have found for the "consume less" item perhaps points to the potential gains of reframing GHG emissions and ecological sustainability in "consumption" terms, we are fully aware that reasonable readers might respond with a hearty, "So what?" As one political aide we talked with said in response to our findings, "Can't we all look out the window and see we all consume too much? Then we jump in our SUV and go buy some disposable trivia [*sic*]" (anonymous interview, August 2008). This statement typifies a view held by several of our critics and reviewers. Believing this to be a valid concern, we conducted in-depth, semistructured interviews, conducted by phone and in person, with two groups of individuals. One group was drawn from a previous rapid digit dial survey and the other group targeted "policy elites" (defined below). Both sets of interviews asked respondents to respond in their own words to various questions, including: What does 'consume less' mean to you? How would our country be better off if we all consumed less? Should you consume less too? What kinds of actions have you or could you take to consume less? If we all consumed less, how would this affect the economy?

The primary aim of these in-depth interviews was to obtain greater understanding and nuance with respect to Oregonians' beliefs about consumption than is generally possible with quantitative survey instruments. Qualitative interviewing generates answers to research questions that are expressed in the respondent's own

language and frames of reference rather than those of the investigators. Moreover, qualitative responses can also generate novel insights that can then be integrated back into subsequent quantitative surveying (as we have done in our own research), a positive feature of integrated mixed-methodology research (Creswell, 2009).

Interviews with Conservative Respondents

Conservative members of society who believe that we consume too much are of special interest because they typically exhibit low levels of climate change concern (cf., Leiserowitz et al., 2010). The "crossover" we observed within this group of individuals, that is, from relatively low levels of climate change concern to relatively high levels of agreement with the "consume less" item, suggested to us a ripe opportunity to explore environmentally friendly attitudes about consumption held by a social sector that is generally unmotivated by climate change concerns (and other traditionally "environmental" issues). Consequently, we interviewed a subsample of conservatives filtered from our April 2008 survey. We selected potential interviewees by screening for respondents who exhibited the general "consume less disposition," but who were not overtly "proenvironmental"; interested readers may contact the authors for a detailed description of the screening and interview process. Our screening criteria yielded 65 potential respondents from the original 400 surveyed. Four interviewers trained to avoid priming effects conducted 34 interviews using a standardized, semistructured survey instrument. Interviews lasted anywhere from 20 minutes to 2 hours.

We began by asking participants their level of agreement on the "consume less" item. When asked this question previously (in April 2008), 87% of this group of participants had originally responded that they agreed strongly or moderately to the item. Somewhat surprisingly, this time all the interviewees agreed with the statement. Next, participants were asked, "What does 'consume less' mean to you?" Their responses were nearly all pejorative, with many respondents referring to issues such as fuel and energy waste; junk, waste, and garbage; and overeating, junk food, and obesity. Next we asked respondents, "How do you see our country being a better place if we all consumed less?" Common responses included: more time spent with family and friends; less impact on environment; and fairer distribution of resources.

We then asked respondents, "In thinking about our country being a better place if we all consumed less, do you think of yourself as also being able to consume less in ways which would make our country a better place?" Ninety-four percent provided explanations indicating that they felt they personally could and/or should consume less. When asked, "What comes to mind in terms of actions on your part to consume less," comments included: drive less; buy less; eat less; walk more; prioritize real needs; avoid packaging and buy in bulk; develop self-reliance. Next, participants were asked, "Do you think our country's economic well-being would

be hurt if we all consumed less?" Nine respondents said yes, 23 said no, and two said "don't know." Interestingly, several who said yes qualified their answer as, for example, "Well, yes, I suppose it will, but it's something we have to go through to get to a better place," or "yes, in the short term, but in the long term it will work out" (anonymous interviewees).

We devoted the latter half of the interview to exploring respondents' views about transportation behavior, climate change, and the economy, and we solicited interviewees' feedback on our questions in general. Interviewer debriefing and analysis of respondent answers suggested an unexpectedly strong environmentally favorable disposition in responses and self-reported behavior among our participants, even though this group did not self-identify with the environmental community, for example, professed lack of concern over global warming and stated belief that environmentalists are "extremists."

Policy Elite Interviewing

Following the interviews we conducted with conservative Oregonians, we became curious about how *policy elites* might respond to similar questions about the importance of consumption. We define policy elites simply as individuals who are in positions of power or influence in their communities and whom we estimated spoke with at least 300 people per year about contemporary social policy matters. How might this elite sector respond to the consumption questions we had been asking of the general public and our selected subsample of Oregon conservatives? To get at this and related questions, we conducted in-person, qualitative, semistructured interviews with 32 Oregonian policy elites. We aimed for balance (but not necessarily representativeness) across the political spectrum and four occupational backgrounds: academia, business, politics, and religion. These interviews were conducted with high-level officials, including members of Congress and university presidents, as well as local officials. Interviews were conducted in person in late 2008 and early 2009. While the first half of each interview mirrored those conducted with our conservative respondents, the second half of the interview was dedicated to pursuing reactions of the policy elites to the findings of our April 2008 poll (with particular focus on the "consume less" findings described above).

Here, we describe only a small subset of the findings that came out of this second set of interviews; a more detailed analysis of the interviews will be reported at a later date. Perhaps most critically, responses from these elites on the topic of consumption were in many ways quite similar to those described above, with some important points of departure. Specifically, the vast majority of policy elites we interviewed agreed that we consume too much as a nation (15 *strongly agreed*, 7 *agreed*, 3 *disagreed*, 2 *strongly disagreed*, 1 *didn't know*, 4 *avoided response*), and that current levels of materialistic consumption are already and will continue to

produce negative cultural and environmental consequences. However, when asked about the economic impacts of reducing our consumption in meaningful ways, the elites were much more ambivalent. For example, one interviewee who had agreed with the "consume less" item, a Republican ex-mayor of a large Oregon city, said, "There'd be a transition period. In the end, we'd be better off. But you can't stop cold turkey without dramatic economic impact." Another policy elite, the director of a city Chamber of Commerce, said, "I guess I want to find the middle ground between those two statements. I think to consume less but to actively pursue economic opportunities that flow out of that."

Moreover, conservative and liberal elites differed (both from one another and from the general Oregon public) with respect to their views on how the "consume less" belief might manifest itself in terms of public policy. While progressive elites could see possibilities for consumption fees or policy-based market signals to lower energy use and emissions, conservative elites generally saw no policy implications and often referred to the oft-cited disconnect between what people may say is important to them in a survey and how they actually behave in the real world, for example, voting, consumption of goods (cf., Ajzen & Fishbein, 1977). Our own findings on this issue (discussed above) seem to suggest a middle ground between these two perspectives: on the one hand, individuals who agreed with the "consume less" item were somewhat more likely to support a variety of consumption-oriented policies; on the other hand, support for most of the policies we put forth to our respondents was relatively weak (despite the overall high levels of agreement with the desirability of reducing consumption).

General Discussion

An economic crisis provides an interesting time to be surveying public views about consumption. Conducting our 2-year exploration of the public's beliefs about consumption and climate change during the current economic downturn allowed us to gauge the importance of those issues relative to the considerable attention individuals direct toward jobs, well-being, and security (e.g., personal, financial) during times of economic hardship. As mentioned above, Inglehart (1990) has argued that postmaterialist tendencies are stronger in robust economies and retreat in times of recession or economic hardship; this would seem to suggest that individuals living through and being affected by recession should not express "de-consumptionist" values, beliefs, and attitudes. Yet, results from the five surveys we conducted (as well as the national survey by the YCCP) reveal relative stability, and strength, in public opinion toward deconsumption throughout the course of the current economic downturn.

The related findings that Oregon and U.S. adults on the one hand generally hold pejorative definitions of "consumption" and on the other hand are favorably disposed to reducing their own consumption of material goods, challenges us to

think through what implications such attitudes hold for confronting not only climate change but social and economic inequality issues as well. While reducing our per capita GHG emissions to levels that will stabilize GHG concentrations below dangerous levels (see Dessai et al., 2004; Hulme, 2009) is not something likely to manifest itself solely as a function of the observed cultural dispositions toward reduced consumption, such beliefs could provide an important alternative motivation for engaging in proenvironmental, emissions-lowering behaviors. Furthermore, we want to suggest that the results presented above may reflect an undercurrent of support for policy and behavior change that could lead the nation onto a more socially, economically, and environmentally sustainable path. Moreover, and critically, the "consumption" construct may lead us down these paths while avoiding cultural and personal roadblocks, that is, disagreement and distress over climate change.

The present research reveals both opportunities and limits to our collective ability to reduce consumption of material goods. We have shown that the public is favorably disposed to consume less and, in fact, there is some evidence that Americans began reducing their own consumption *prior to* the current recession (see, e.g., recent trends in the Michigan Consumer Survey Index, vehicle miles traveled, and new vehicle sales). In addition, our own polling results reveal modest support for certain fee-based policies, at least within Oregon. Recent national polling on policies to address GHG emissions (Leiserowitz et al., 2010) further reveals the public's support for certain approaches to reducing emissions. While we have observed reluctance among many policymakers to take the public's attitude about deconsumption seriously, some policy *implementers* have shown interest in tapping into populist dispositions to consume less. Ultimately, these findings lead to difficult questions: Given the structure of the American economy, can deconsumption dispositions (to the extent that they might actually drive real behavior) be positively engaged without causing significant harm to Americans' social and personal well-being? How can deconsumptive behavior be facilitated, both in the short term and over the long haul, given the apparent conflict between people's deconsumption attitudes and their constant bombardment with proconsumption messaging? We briefly address the latter question here; we leave the former for future exploration.

Nudging Behavior

The prodeconsumption attitudes we have found in Oregon, also revealed by the CAP and YCCP surveys, unfortunately have not attracted significant publicity, notwithstanding efforts put forth by us and by others to make these findings easily accessible (e.g., publishing op–ed pieces in local newspapers). It seems likely that our respondents have little idea that their own individual response to the "consume less" item is broadly shared by Oregonians of all political and

ideological backgrounds. Informal conversations we have held with "ordinary Oregonians" indicate that people feel their own "consume less" attitude is more aberration than norm. As the Harwood Group (1995) reports, "People from all walks of life share similar concerns about our culture of materialism and excess, and the consequences for future generations. Fundamentally, they agree that 'we overdo it and buy too much,' as a Dallas [Texas] woman said. Many are surprised and excited to find that others share their views" (p. 23).

Given the hugely significant role that both descriptive (i.e., what we see others do) and injunctive (i.e., what we think we *ought* to do) social norms play in driving our daily behavior (see Cialdini, 2004; Thaler & Sunstein, 2009), these informal findings bode poorly for our ability to reduce consumption: if everyone believes that others lead and condone high-consumption lifestyles, then personal deconsumption attitudes may in fact have little ultimate impact on individuals' own behavior. Furthermore, given that it is simply much easier to physically observe others consuming as opposed to intentionally avoiding consumption of goods, there may be little social feedback readily available that encourages reduced consumption.

If consuming less of nonessential goods and services is beneficial or necessary for long-term survival of our species, then it seems it would be prudent to publicize the widely held "consume less" disposition and, to the extent it exists, congruent behavior (e.g., voluntary reductions in car use). As Thaler and Sunstein (2009) write, "We [people] are. . .greatly influenced by consumption norms within the relevant group. A light eater eats much more in a group of heavy eaters. A heavy eater will show more restraint in a light-eating group" (p. 64). Thus, effective communication of the "consume less" findings reported above might encourage individuals to actually begin consuming less.

One potentially powerful way to encourage reduced consumption (of material goods) may be to tie extant deconsumption beliefs into values that are at least perceived to be core components of the "American way," for example, frugality, self-reliance, prosociality, and durability (e.g., of consumer goods). As mentioned above, frugal consumption behavior has been shown to be distinct from socially conscious and explicitly proenvironmental consumption behaviors (Pepper et al., 2009). Moreover, Pepper et al. found that while other forms of "lower impact" consumption were related to prosocial values, frugal consumption choices were not. This suggests that there may in fact be multiple ways to effectively frame both the need and the desirability of reducing consumption of goods. While we have shown that the deconsumption disposition is widely held within the American public, it remains to be shown whether the mediating paths from such a belief to actual changes in behavior are distinct for various groups.

Finally, in a somewhat separate but related vein, there may be significant value in working with and studying those individuals who are actually most closely involved with implementation of consumption-related policies at the governmental

level (as opposed to focusing solely on the household or the consumer), namely, mid-level administrative professional staff. We generally refer to policymakers as elected officials, but administrative-level policy implementation is often carried out by hired professionals, individuals who are often given wide latitude to meet policy mandates. Under jurisdictional policy directives to reduce energy and improve sustainability (e.g., reduce emissions), for example, mid-level managers in Oregon's first- and third-largest cities have shown keen interest in our findings regarding public attitudes toward consumption. Their interest is in developing messaging campaigns to shape behavioral choices in response to policymaker directives to meet sustainability goals. Although it is too early to judge the efficacy of this approach, as such campaigns are still in design stages, we see significant potential in these efforts. Moreover, designing these sorts of campaigns could be assisted by knowledge of public attitudes toward both consumption and specific policy proposals; for example, linking the "consume less" attitude to other nonenvironmental or cultural objectives might strengthen such campaigns.

Limitations and Future Directions

Our near-complete focus on Oregonians does reflect a limitation of the present research to the extent that we are interested in discussing trends occurring at the U.S. national level, in part because Oregon does differ from other states in potentially important ways. For example, Rentfrow, Gosling, and Potter (2008) have found that Oregonians are relatively higher in the personality trait of "openness to experience" than the rest of the United States. Recent work suggests that openness is correlated with environmental concern and behavior (Hirsh & Dolderman, 2007; Markowitz, Goldberg, Ashton, & Lee, under review). Perhaps more importantly, while Oregon may tilt dispositionally toward environmental progressivism, Oregon also has a powerful vein of populist and culturally conservative sentiment running through it (Clucas, Henles, & Steel, 2005). Thus, Oregon's progressive environmental personality is often discordant with its conservative or libertarian distrust of government and self-reliant independence.

As should be clear by this point, the present article is not offered as the final word on the issue of public opinion toward consumption. Rather, we offer our findings culled from 2 years of public polling in the hope that we might help stimulate dialog and discussion, among researchers interested in these topics as well as within the broader public, about public attitudes toward consumption, ecological stability, and cultural well-being. Moving forward, we believe further research is required on a wide range of questions and issues raised by our initial work in this field. We mention just a few of these possible future directions here.

First, it seems critical that we develop a more comprehensive understanding of what "consumption" means to people. Given the high levels of endorsement of the "consume less" item that we have observed, the next step is to dive still deeper

into the question of *how* and *why* Americans believe we would be better off if we all consumed less. Answering these questions will likely require conducting both representative surveys and further qualitative, in-depth interviews. These interviews should be conducted with individuals representing many different sectors within the U.S. public, including individuals who report being proenvironmental and politically progressive but who nonetheless live high-emission lifestyles. Understanding how these individuals cope psychologically with the dissonance that is likely aroused (Festinger, 1957) by the conflict between their stated beliefs and their observed behavior may offer insights into the motives that drive both behavior and responses to our "consume less" item.

Second, development or utilization of alternative media channels to disseminate "consume less" findings to a wider public strikes us as critical if these findings are to actually help produce and sustain reductions in consumption of material goods. As stated above, we believe that few Oregonians (and Americans) are aware of the high levels of agreement they share with others regarding the need to reduce consumption, and mainstream media outlets seem understandably shy about covering these findings given implications to their business model. Letting people know about this widely shared but largely undetectable (through direct observation of others' behavior) social norm may have its own ameliorative effects on consumption (and emissions). Additionally, as mentioned above, it is important that we actually examine Americans' beliefs about how others are thinking about consumption (and climate change): Do people indeed think that they are abnormal for believing that we would be better off as a nation if we reduced our level of material consumption? What do people think others know and believe about climate change and possible societal and individual responses to it?

Third, deeper research into the distinctions among various types of consumption (Shove & Ward, 2002) and "downshifting" (Stafford et al., 2001) is important for intervention development. For example, it may be the case that certain types of consumption are perceived positively while others are perceived negatively; such differences may hold important implications for the development of interventions aimed at decreasing specific types of consumption. In a related vein, it seems critical to heed United Kingdom Sustainability Commissioner Tim Jackson's observation that it will be difficult, if not impossible, to ask the general public to voluntarily reduce their own consumption without offering them meaningful and valuable alternatives (Sustainable Development Commission, 2009).

Finally, further examination of the linkages, or lack thereof, between wealth (e.g., personal income, GDP), consumption, collective and individual well-being, and ecological impacts (including GHG emissions) may lead to novel ideas for reducing consumption while maintaining high levels of quality of life. Considerable research points to the perhaps surprising (e.g., from a neoliberal perspective) decoupling of affluence, (human) subjective well-being, and a healthy environment (cf., Abdel-Khalek, 2006; Dietz, Rosa, & York, 2009; Steinberger & Roberts,

2009; York et al., 2003): high levels of material and environmental consumption are not monotonically (and positively) predictive of higher levels of self-reported life satisfaction (Knight & Rosa, 2009). While well-being does increase with increases in *relative* income (e.g., within a given country) as well as with increases in *absolute* income at lower levels of wealth and development, this relationship flattens out as absolute consumption levels rise. These findings suggest that it may well be possible to reduce GHG emissions by reducing consumption of material goods while maintaining (or perhaps even improving) current levels of subjective well-being. Future work should further examine both between-nation and between-state differences in emissions, consumption, and well-being in an effort to better identify opportunities for reducing the former while increasing the latter. Moreover, this work will be most effective if researchers and policymakers are able to parse apart technological (e.g., energy mix) and nontechnological (e.g., individuals' behavior) contributions to differences in emissions profiles.

Conclusion

Over the course of the past 2 years, we have consistently found that the vast majority of Oregonians and Americans believe that we would be better off as a country if we consumed fewer material goods. We believe such widely shared beliefs represent a possible opening toward conciliation between groups within the American public that are at odds with pressing environmental and social issues, namely, climate change. We recognize that it will certainly require considerable creativity to bring individuals' actions in line with their beliefs and to develop an imbedded mindset that "less is more." We hope our research on pubic sentiment provides some evidence that this is not as impossible a task as it perhaps once seemed. As President Lincoln once said, "Public sentiment is everything. With public sentiment nothing can fail; without it nothing can succeed" (Lincoln, 1858).

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