

What Green Consumption Means for the American Environmental Movement: The Consequences of Inverted Quarantine

by

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Abstract

Do green consumption practices lead to more or less collective environmental action? It is argued by Szasz (2007) that inverted quarantine, which he defines as buying green products mainly to protect oneself from a perceived risk like chemicals in food or water, is one of the main reasons for the recent decline of the American environmental movement and that it leads to less collective action because one feels that personal risk has been removed and further action is not needed. Conversely, Willis and Schor (2012) find that people who participate in conscious consumption are very likely to also be activists. I attempt to empirically find out which theory is correct. Using 2010 GSS data which includes 2,044 respondents, I create a measure of inverted quarantine and use this to test these theories. The results of my analysis show that inverted quarantine leads to more collective action not less and that inverted quarantine participation has a much stronger effect on individual environmental action than collective action. Overall my research cannot conclusively show that inverted quarantine leads to more collective action, but it, along with Willis and Schor's (2012) research, shows that there is a good possibility that Szasz's (2007) theory is not completely correct.

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Introduction

The environmental movement is one of the largest movements in the US today, yet, according to previous research (Brulle and Jenkins 2008; Dunlap and McCright 2008), it is becoming more and more ineffective. Sociology scholars have studied many different explanations for the decline of the U.S. environmental movement; these explanations can be put into three categories: problems within the movement itself (it has become an ineffective consensus movement), problems at the political level (no laws or policies are being passed potentially because of the conservative counter-movement), and problems at the individual level (inverted quarantine). In many ways the US environmental movement is most focused on encouraging individual change, but if individual action only minimally assists in the achievement of the movement's goals, then the resources devoted to promoting these actions could be used in other, more effective, ways. It is for this reason that more empirical research is needed on this topic. It is argued by Andrew Szasz (2007) that the practice of inverted quarantine is one of the main reasons for the recent decline of the American environmental movement; he defines inverted quarantine as buying green products mainly to protect oneself from a perceived risk, like chemicals in food or water. While Szasz believes that participation in inverted quarantine leads to less collective action because one feels that personal risk has been removed and further action is not needed, Willis and Schor (2012) find that people who participate in conscious consumption (the purchasing of green products not only to protect oneself but to also protect the environment and human rights) are very likely to also be activists. It seems that Willis and Schor (2012) are grouping inverted quarantine and conscious consumption into one category when these are really two distinct actions, because of this they do not specifically

investigate inverted quarantine's effect on activism. It is important to verify that both types of green consumption (inverted quarantine and conscious consumption) lead to activism, because if inverted quarantine really does lead to less collective action then movement strategies may need to be reassessed.

The Rise and Fall of the American Environmental Movement

American environmentalism dates back to conservation and preservation efforts of the late 1800s when the national park system was established by the federal government to protect wilderness areas. One of the first environmental organizations, the Sierra Club, was formed in 1892 by John Muir; the organization is still one of the most well-known environmental organizations in the U.S. today (Gottlieb 1993). Environmentalism became even more popular with the publication of *Silent Spring* by Rachel Carson in 1962; her book was one of the most powerful and influential books of the twentieth century (*ibid.*). This book along with other scholarly contributions and events of the Sixties, caused environmentalism to shift, in the late Sixties and early Seventies, into a much broader environmental movement; it was one of many social movements happening at this time, and it was pushed forward by student radicals, discontented middle-class women, the revamping of liberalism in government, and countercultural protests (Gottlieb 1993; Rome 2003). All of these events led to the first Earth Day in April of 1970, the passage of the Clean Air (1970) and Clean Water (1972) acts, and the founding of the Environmental Protection Agency as well as many other environmental organizations and public policies (Gottlieb 1993). This leads to the present day environmental movement which, according to Robert Brulle (2009), is one of if not the largest social

movement in American history, boasting somewhere between 20 to 30 million members and more than 6,500 national and 20,000 local organizations. Yet other scholars have noticed a recent decline in movement activity measured by studying Gallup polls focused on the environment. Dunlap and McCright (2008) state that the environmental movement may be in the last of three stages of the social movement process (which most successful movements follow from creation to general consensus (Snow and McAdam 2000)) and is therefore weakening; they also argue that the movement may be turning into a consensus movement, meaning that it is supported by a majority of the population. And still others claim that the movement's success has been in decline since the 1980s. Brulle and Jenkins (2008) discuss how the new environmental policies of the Seventies were not enforced in the Eighties and how there have been few recent, successful advances in environmental policy. Presently, according to Gallup polls, there has been a significant decrease in people who claim to be "sympathetic, but not active" in the environmental movement (in 2000 55 percent of Americans reported being sympathetic while in 2012 only 40 percent reported this); unfortunately there has not been an increase in "active participants" (these numbers have remained fairly constant since 2000) but there has been an increase in people who report being "neutral" and "unsympathetic" (Gallup 2013).

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Problems within the movement

The environmental movement has continued to grow since the seventies; the basic goal of the movement is that we must protect the environment for current and future generations. Although many agree with this goal, there is no consensus upon how to reach it, and there probably never will be. Burns and LeMoyné (2001) make the point that movements are actually most successful when people disagree about the details, but share the same overarching goals. According to Brulle (2009) there are eleven major frames which define the U.S. environmental movement; these frames range from wildlife management to deep ecology to animal rights but are all considered a part of the same overarching environmental movement. For each group environmentalism is defined differently. Again, although they all agree upon the main goals of the movement, each group has other goals they are trying to reach also and differing ideas about how to reach the main goals; it is these differences which divide the movement and are potentially aiding in its decline, but if all the groups are working together it is also the differences which allow the movement to appeal to many more people.

The study of identity can be helpful in showing this division. Dunlap and McCright (2008) developed a measure of social movement identity and conducted a study to validate this measure. Their measure can be used to study not only movement identity but also the state of the environmental movement. They define movement identity using Jasper's definition: movement identity is self-identifying as part of a group focused upon the goal of implementing social change, like being an environmentalist (Dunlap & McCright 2008). Dunlap and McCright's (2008) measure of movement identity showed that in 2000 the majority of American's identified with the environmental movement either through active participation or sympathy

towards the movement. Yet their findings show that only 16 percent of Americans said they were active members of the environmental movement, while 55 percent said they were sympathetic and 23.2 percent were neutral in 2000 (*ibid.*). This shows that the environmental movement may be close to becoming a consensus movement, because the majority (71 percent were active and/or sympathetic in 2000 and only 57 percent were in this category in 2012) of Americans in 2000 were active in and/or sympathetic towards the movement (Gallup 2013). (Movements can be labeled as either consensus movements or conflict movements; a consensus movement has the support of a vast majority of people and has little or no organized resistance, while a conflict movement does not have the majority's support and does face organized resistance (McCarthy & Wolfson 1992; Schwartz & Paul, 1992).) The decline which has taken place between 2000 and 2012 also points toward consensus, because as a movement's goals become more mainstream people may feel that those problems are being taken care of and they should instead give their support to other less supported causes (Snow & McAdam 2000). But it could also be argued that the movement cannot be a consensus movement because there is a conservative counter-environmental movement which has powerful influence over policy making (McCright & Dunlap 2003).

Without a strong membership base consensus movements tend to be short lived and experience the free rider problem (Schwartz & Paul 1992). The free rider problem usually happens when a movement has many active members and is successful in achieving its goals; this success can actually discourage people who agree with and/or benefit from the movement's goals from becoming active in the movement, because they do not feel that they are needed and they know that they will still benefit from the movement's success without any

effort on their part (Snow & Soule 2010). The environmental movement may be experiencing these problems. More recent data, from 2000 through 2012, actually shows that a slight decline has taken place in the supportive but not active category while the active member category has stayed relatively constant (Gallup 2013).

This data shows that there is a small core group of active members and a very large group of check writers and verbally supportive “members”. Brulle and Jenkins (2008:17) note that “today’s environmental movement seems to have become complacent and overly bureaucratic, a movement dominated by ‘protest businesses’ that substitute professional advocacy for citizen action.” Since most American’s support the movement and its goals people do not feel the need to take action, and the people who do want to be active in the movement find that there is nothing really meaningful that they can do (Brulle & Jenkins 2008). This is one of the main problems of the current movement; to have a strong and active movement people need to feel that their contributions will make a difference and that they are one of only a few who will actually step up and take action (*ibid.*).

The present day environmental movement also resembles a movement in the general diffusion stage, which is the final of three stages in the social movement process (emergence, institutionalization, and general diffusion) (Dunlap and McCright 2008; Snow and McAdam 2000). There is widespread support of environmentalism and little opposition which can be both good and bad for the movement. Once a movement reaches the general diffusion stage it has usually created a very attractive and popular collective identity which draws people in (Snow & McAdam 2000). Dunlap and McCright (2008) show that 90 percent of Americans in 2000 recycled, 82 percent used less water, 83 percent avoided products, and 83 percent

reduced their energy use. These are all things that do not require collective activism (they are private actions) and are relatively easy and popular to do. In contrast, only 20 percent of Americans in 2000 attended a meeting about something pertaining to the environment, 18 percent contacted an official, and 13 percent complained to a business (Dunlap & McCright 2008). These actions require either collective activism or more effort. According to a 2008 Gallup survey 55 percent of Americans made minor changes in their shopping and living habits to protect the environment, while only 28 percent made major changes (Gallup 2013). This shows that the majority of Americans are attracted to the collective identity of the environmental movement, but they are not willing to make any costly or inconvenient changes nor are they willing to participate in collective action within the movement.

Political Problems and Counter Movement

Politically the environmental movement has been relatively unsuccessful since the 1980s. One of the main problems, according to Brulle and Jenkins (2008:16), is that the environmental policy successes of the seventies may, in retrospect, “be considered ‘low-hanging fruit’—easy wins against problems that were plain as day to the average citizen and politician.” In contrast, the issues of today (climate change, deforestation, biodiversity loss, water shortages, soil erosion, et cetera) are more large scale, abstract problems (*ibid.*). Also hindering environmental policies is the simple fact that although most American’s are in favor of imposing environmental laws on businesses (in 2009 80 percent were in favor of “imposing mandatory controls on carbon dioxide emissions by business”) very few approve of environmental laws being imposed on individuals (in 2009 only 33 percent were in favor of “setting legal limits on the amount of energy that average consumers can use”) (Gallup 2013). It

is this “lack of deep public support for initiatives with major economic costs” which allows politicians to continue ignoring environmental issues (Brulle & Jenkins 2008:16).

Burns and LeMoyne (2001:28) have argued that the fulfillment of a political promise by a politician can actually lead to discourage a “politician’s power base because its constituents have been satisfied and thus have no more impetus to vote for the candidate,” therefore it actually makes more sense for politicians to not keep their promises to movement organizations. According to Burns and LeMoyne (2001) politicians may win an election with the support of environmental groups but will many times actually address other causes (that they themselves are more devoted to) at the expense of environmental issues once they are in office. This begins to explain why environmental issues are not taking precedence over other (arguably) less important issues. It is important to note that the anti-environmental movement in the U.S. has also had a huge impact on the environmental movement and its policy goals (McCright & Dunlap 2003).

The anti-environmental movement is strengthened and mostly led by the U.S. conservative movement. Although the environmental movement was very successful in raising public awareness about environmental problems, like climate change, and getting these problems on the political agenda, it was and is very *unsuccessful* in getting policies addressing these issues passed by Congress (McCright & Dunlap 2003). According to McCright and Dunlap (2003) conservatism is negatively related to pro-environmental attitudes mostly because environmental policies (especially policies addressing climate change) are seen as threatening to the economy; this was found to be especially true among members of Congress. They find that “our nation’s failure to enact a significant climate policy is heavily influenced by the

success of the conservative movement in challenging the legitimacy of global warming as a social problem” (McCright & Dunlap 2003:367). This means that unless environmentalists can find a way to appease these conservatives, environmental policies may never make it through Congress.

Although past studies (Dunlap 2002) have shown that vastly more Americans believed that protecting the environment should be given priority over economic growth, recent polls reflect that over the past ten years American’s responses to this question have fluctuated and the gap between environment and economy has become very narrow (Gallup 2013). Current 2013 data show that Americans are more concerned about the economy and jobs (48 percent) than the environment (43 percent) (*ibid.*). “Even self-identified environmentalist prioritize other issues—gay marriage, abortion, and illegal immigration—ahead of the environment” (Nordhaus & Shellenberger 2007:32). It is important to also note that although many people say they believe the ideals of the New Ecological Paradigm (which says that the earth and its resources are finite, and therefore there are only a limited number of people the earth can sustain), their behavior shows that they believe in the ideas of the Human Exemptionalism Paradigm (that the earth and its resources are infinite, and it can therefore support a limitless number of people) (Burns & LeMoyne 2001). Because people’s ideals really reflect human exemptionalism, it is very possible that this is the reason the majority of people in the U.S rank other issues as more important than the environment.

Problems at the Individual Level (Inverted Quarantine)

Andrew Szasz (2007:5) coined the term inverted quarantine to describe healthy people who realize that “the whole environment is toxic, illness-inducing” and decide that the best way

to protect themselves is “by isolating themselves from their disease-inducing surroundings, by erecting some sort of barrier or enclosure and withdrawing behind it or inside it.” Put simply, people buy products, like bottled water and organic products, which they feel will keep themselves and their families safe from environmental harm; this is the opposite of a normal quarantine, in which sick people are separated from healthy people to keep the disease from spreading (*ibid.*). Szasz’s inverted quarantine provides a very good explanation of why the environmental movement is not working at the individual level, and since the individual is the basis of the movement, problems at this level impact all other aspects of the movement.

There are many unintended consequences of inverted quarantine (Szasz 2007). In the case of bottled water Szasz (2007) says that at every part of its lifecycle (production to distribution to postconsumer waste) it is destroying the environment. Organic food and products, on the other hand, are actually good for the environment; but to buy either product is to also participate in inverted quarantine. According to Szasz inverted quarantine usually harms the environment in an unintended, indirect way:

Doing inverted quarantine changes people's *experience*. It alters their perception of their situation. Their sense of being at risk diminishes. The feeling, correct or not, that they have done something effective to protect themselves reduces the urgency to do something more about what, until then, felt threatening to them. If many people experience such a reduction in urgency, that will have consequences in a democracy, in a society where mass sentiment affects what government does. (2007:195)

Szasz calls this feeling that the problem has been solved and no other political action is necessary “political anesthesia”. This in turn leads to imaginary refuge (feeling more secure because of an inverted quarantine purchase when, in reality, that product could be contaminated as well) because bottled water can be more contaminated than tap water and

organic food can still contain some pesticides (*ibid.*). The state of political anesthesia, in which Szasz argues so many who participate in inverted quarantine end up, leads to no political action (no writing or calling representatives, no protests), and if a government official feels no push from voters to fix the water system or to regulate food then sadly these things will not happen. These are the consequences that are holding the environmental movement back and may even be part of what allows environmental injustice to continue.

It may also be partly because of inverted quarantine that the environmental movement has become less effective at the individual level. Instead of helping to fix environmental issues for everyone many people fix the problem for themselves and never give others, who may not have the means to do the same, a thought (Szasz 2007). People are no longer as concerned about environmental problems because they are able to “solve” the problems they are personally experiencing by buying a “green” product (*ibid.*). Most Americans would agree that the environment is important and that we are facing environmental issues, but if they are practicing inverted quarantine they may not be concerned about these problems (as illustrated by the Gallup polls discussed above) because environmental issues are no longer perceived as harming them personally (*ibid.*). But the effects of problems like climate change, water pollution and shortages, soil loss, deforestation, and toxic waste pollution will be felt by everyone.

Individual Environmental Action

Individual environmental action is the dominant, American response to climate change and other environmental problems (Maniates 2001). According to Maniates, many Americans

believe that environmental problems originated because of individual weaknesses, like greed, and must also be corrected through individual, usually consumer based, actions (2001). Therefore people are being educated by movement organizations to make “green” consumer choices which, Maniates argues, masks the root of the problems (institutions, uneven distribution of power, and problems within the political system) which many will never even consider (*ibid.*). Maniates calls this response the “individualization of responsibility” (he illustrates this idea with the example of struggling over the paper or plastic decision when we really know that neither is a very good solution) (*ibid.*). Much like Szasz, Maniates sees the individualization of responsibility (or conscious consumption) as keeping people from participating in much needed collective, political action, because it “characterizes environmental problems as the consequence of destructive consumer choice, [and] asks that individuals imagine themselves as consumers first and citizens second” (2001:34).

Szasz (2007) describes social movements and inverted quarantine as being exact opposites. He sees social movements as essentially collective in their tactics and goals whereas inverted quarantine is completely individualistic in its goals and implementation (Szasz 2007). Yet everyone who participates in inverted quarantine are not completely individualistic in their goals; Szasz (2007) argues that while some may participate in both inverted quarantine and collective action, the collective action of these people is not as powerful as it could be since they are plagued by a false sense of being *out of the line of fire* because of their purchases. Szasz’s theory has not been empirically tested but a similar concept called conscious consumption has been studied by Willis and Schor (2012) with results which contradict Szasz’s ideas.

Conscious Consumption

Willis and Schor (2012), through empirical research, find that conscious consumption is actually positively correlated with environmental activism. Conscious consumption is defined by Willis and Schor in their survey:

[Conscious consumption is] any choice about products or services made as a way to express values of sustainability, social justice, corporate responsibility, or workers' rights and that takes into account the larger context of production, distribution, or impacts of goods and services. Conscious consumption choices may include forgoing or reducing consumption or choosing products that are organic, eco-friendly, fair trade, local, or cruelty-free. (2012:162)

Although conscious consumption can involve buying or boycotting products with the goal to protect oneself (similar to inverted quarantine), it always involves buying/boycotting with the goal to create large scale changes. Whereas, people who participate in inverted quarantine see the protection of themselves and their family as more important than protecting the environment (Szasz 2007). Willis and Schor find conscious consumers and activists are very likely to be the same people; they argue that consumers can buy products to both protect themselves and the environment as well as human rights (2012).

Willis and Schor's (2012) research focused on the effect of conscious consumption on environmental activism. They used both 2004 General Social Survey data and they created their own survey on conscious consumption which was administered in 2008 by the Center for a New American Dream (CNAD) (*ibid.*). They found that in both samples having buycotted (buying more of a certain product to counter a boycott) or boycotted in the past year was indicative of higher rates of activism, and categories related to goods, water, and transportation were not

significantly related to activism (*ibid.*). Willis and Schor (2012) also find that people who are less avid conscious consumers tend to be less active environmentalist.

Willis and Schor (2012) critique previous research which states that being a citizen is associated with collective and public action, while being a consumer is associated with individual and private action; but they argue that there is no solid line dividing citizen and consumer, collective and individual, and public and private. Consumption can be both social and collective in many ways, “such as the prevalence of people shopping in groups, or consuming together” (Willis and Schor 2012:163). It is also important to note that just because a person’s shopping behaviors influence other people does not mean that s/he is *trying* to influence others. Yet although the lines between these actions may be blurry, it is still important when studying types of activism to distinguish between the different types.

Activism

There are various definitions of environmental behavior. Hadler and Haller (2011) discuss three distinct types of environmental behavior as defined by Stern (2000): “first, environmental activism such as extremely active participation in social movements; second, non-activists’ behaviors in the public sphere such as signing petitions and taking part in demonstrations; and third, private sphere behavior such as buying certain products and making a house more energy efficient” (317). They state that it is hard to distinguish between these three types using survey data and they therefore only distinguish between public and private behavior in their research (*ibid.*). Xiao and McCright (2012) distinguish between public behavior, which includes political and collective behaviors like participation in protests, and private behavior, including household and consumer actions like recycling. The terms “public” and

“collective” as well as “private” and “individual” in reference to environmental behavior are many times used interchangeably. For this paper I will use collective action to describe activist, environmental behavior which is group based and individual action to describe environmental actions done without group interaction.

Today many problems have gotten too large for “buying safety” to do much good, and these are the problems that we see some people trying to solve collectively (e.g., climate change, natural resource depletion). These problems are the main focus of many movement groups in the US and abroad; yet still the solutions these groups give to the average citizen are not that they need to get more involved collectively but that they should be doing more individual actions (e.g., green consumption, recycling). This means that as environmental concern increases, individual action should also increase. Unfortunately green consumption for most does not seem to be a lifestyle change but a way of rationalizing and continuing one’s current lifestyle (i.e., some people will only make simple changes to their lifestyle, like just buying green products, instead of trying to reduce consumption overall and completely change their way of life); this observation is supported by the Gallup poll results mentioned above which show that Americans support the restriction of businesses to protect the environment but they do not support restrictions on average citizens. Overconsumption is a problem in the US and other developed countries; problems like overconsumption, commodification, and consumerism are seen as less important to movement groups which focus on green consumption and according to some scholars (Maniates 2001) this is a huge problem within the environmental movement in the US. Maniates believes that problems related to overconsumption are only made worse by encouraging people to buy green products;

consumers are given the false idea “that the more such products are purchased and consumed, the healthier the planet’s ecological processes will become” (2001:34). Maniates (2001) states that to fix this problem individuals must see themselves as part of a collective democracy first and as consumers second. If Maniates’ and Szasz’s ideas are shown to be correct, environmental movement groups would need to revise their strategies to encourage more collective action and truly environmentally friendly behaviors instead of just encouraging green consumption.

I believe that the decline of the environmental movement in the US is in large part because of the decline in collective action and the rise in green consumption. There is a growing (but still small) literature on this topic and more and more research is being done in attempts to show the effect of green consumption participation on the movement. Szasz’s (2007) theory (that practicing inverted quarantine makes people less likely to get involved collectively within the movement) seems valid, but his argument is very hard to test empirically with current survey data and therefore has not been verified. I attempt to test Szasz’s theory; my hypotheses are: 1) Participation in inverted quarantine is associated with *less* collective action and 2) is associated with *more* individual action.

Data and Methods

There are very few national surveys which ask questions that can be used to measure participation in inverted quarantine; the General Social Survey (GSS) is the only easily accessible national survey which includes useful survey questions. I use the 2010 GSS data (the most recent year with the environmental module) to test my hypotheses. The GSS is conducted

through face to face interviews, and the 2010 sample included 2,044 complete interviews. The GSS data was used because it is easily accessible, provides a representative sample of the US, and includes questions which can be used to measure inverted quarantine.

Dependent Variables

My dependent variables are collective and individual action. There are 10 environmental behavior questions in the 2010 environmental module, five of which will be used to measure individual action. Individual action is usually defined as actions such as recycling, driving less, attempting to use less energy and/or water, and boycotting products for environmental reasons (Hadler and Haller 2011; Willis and Schor 2012; Xiao and McCright 2012). Therefore these questions were used to measure individual action: “How often do you make a special effort to sort glass or cans or plastic or papers and so on for recycling?” [VAR: RECYCLE]; “How often do you cut back on driving a car for environmental reasons?” [VAR: DRIVLESS]; “How often do you reduce the energy or fuel you use at home for environmental reasons?” [VAR: REDCEHME]; “How often do you choose to save or re-use water for environmental reasons?” [VAR: H2OLESS]; “And how often do you avoid buying certain products for environmental reasons?” [VAR: NOBUYGRN]. These five items were recoded; always, often, and sometimes were coded (1) to represent engaging in the activity, and all other responses were coded (0) for not engaging in the activity. After these items were recoded I combined them into an index of individual action which I tested with Cronbach’s alpha reliability test and found the index to be reliable with an alpha of 0.707. Membership in a movement group, protesting or demonstrating, signing a petition, and donating money are usually defined as collective action (Hadler and Haller 2011; Willis and Schor 2012; Xiao and McCright 2012) therefore these are

the variables I used to measure collective action. Collective action will be measured using the questions: “Are you a member of any group whose main aim is to preserve or protect the environment?” [VAR: GRNGROUP]; and “In the last five years have you: taken part in a protest or demonstration about an environmental issue [VAR: GRNDEMO]; signed a petition about an environmental issue [VAR: GRNSIGN]; or given money to an environmental group?” [VAR: GRNMONEY]. These variables were also recoded, with a (1) for yes and (0) for no, and combined into a collective action index which I tested and found to be reliable with an alpha of 0.618.

Independent Variables

My independent variables include inverted quarantine as well as environmental concern and the socio-demographic variables: gender, age, race, education, socioeconomic class and political views. I used these questions to measure participation in inverted quarantine: “Which environmental problem affects your family the most: Air pollution, Chemicals and pesticides, Water shortage, Water pollution, Nuclear waste, Domestic waste disposal, Climate change, Genetically modified foods, Using up natural resources, or None of these?” (using responses of: “Chemicals and pesticides” and “Genetically modified foods”) [VAR: ENPRBFAM]; “And how often do you make a special effort to buy fruits and vegetables grown without pesticides or chemicals?” [VAR: CHEMFREE]. I recoded these two variables; *enprbfam* was recoded with a (1) for chemicals and pesticides and genetically modified foods and a (0) for all other responses, and *chemfree* was recoded the same as the other five individual actions explained above. I am assuming that fruits and vegetables grown without pesticides or chemicals are usually labeled organic, and according to the USDA organic foods should also be GMO free; therefore I included

responses of “chemicals and pesticides” and “genetically modified foods” to the question about environmental problems that affect ones family. It should also be noted that unlike some of the other individual action questions, the question about buying without chemicals and pesticides (organic) does not mention the person’s reason for buying. So I am making the assumption that, because they reported “chemicals and pesticides” or “genetically modified foods” as the environmental problem that affects their family the most, they are buying organic fruits and vegetables *mostly* to protect themselves and their family. Thus, I created a new variable [VAR: INVERTED] which only includes people who buy organic produce and who believe that the environmental problems of chemicals and pesticides or GMOs in food affect them and their families most. This measure of inverted quarantine is used mostly because these are the only questions on the 2010 GSS which can be related back to Szasz’s argument that people buy products (organic food) to protect themselves and their family. I used a multiple regression analysis to analyze the relationship between inverted quarantine participation and collective and individual environmental actions respectively.

Control Variables

I controlled for environmental concern as well as the socioeconomic variables listed above and recoded them to make comparisons easier; I then used Chi-square and crosstabs to find out who is participating in inverted quarantine. Environmental concern will be measured with the variable [GRNCON] which asks how concerned the respondent is about the environment ranging from one to five, one being not at all concerned and five being very concerned. I recoded the variable [SEX] 1 for female and 0 for male because according to past studies females are more likely to engage in individual environmental action. The variable [AGE]

was recoded 0 for young adults age 18-30, 1 for adults age 31-50, 2 for older adults age 51-64, and 3 for adults who are over 65. Race [RACE] was recoded 1 for white and 0 for nonwhite (including responses of black or other); political views [POLVIEWS] was recoded 2 for conservative (including responses of extremely conservative, conservative, and slightly conservative), 1 for moderate, and 0 for liberal (including extremely liberal, liberal, and slightly liberal); respondent's highest degree [DEGREE] was recoded as 1 for college degree (including responses of graduate, bachelor's, and assoc./junior college) and 0 for no college degree (including less than high school and high school); and the subjective class identification variable [CLASS] was not recoded but includes responses of lower class, working class, middle class, and upper class. These variables are used as controls because prior research shows that they are associated with participation in environmental action (Hadler and Haller 2011; Willis and Schor 2012; Xiao and McCright 2012).

Results and Discussion

A summary of participants in inverted quarantine can be seen in Table 1 below. Only 18.9% of people interviewed participate in inverted quarantine, this means that 226 people from the total sample of 2,044 people participate. Inverted quarantine participants are mostly female, adults (31-50), white, conservative, middle class, and do not have a college degree. A Chi-square analysis with the independent variables sex, age, race, political view, education, and social class and the dependent variable inverted quarantine participation showed that participation in inverted quarantine is significantly dependent upon sex, political view, and education.

TABLE 1. *Characteristics of Inverted Quarantine Participants*

Participate in Inverted Quarantine	18.9%
Do Not Participate	81.1%
Females	63.3%*
Males	36.7%*
Young Adults (18-30)	20.4%
Adults (31-50)	40.7%
Older Adults (51-64)	24.3%
65+	14.6%
White	76.5%
Nonwhite	23.5%
Liberals	34.7%*
Moderates	28.4%*
Conservatives	36.9%*
College Degree	46.5%*
No College Degree	53.5%*
Lower Class	10.7%
Working Class	39.7%
Middle Class	47.3%
Upper Class	2.2%

** Signifies a dependent relationship between the independent variables listed and participation in inverted quarantine; inverted quarantine participation is independent of all other variables.*

The results of the first regression analysis comparing individual action and inverted quarantine (summarized in Table 2 below) show that engaging in inverted quarantine is significantly associated with more participation in individual environmental action. The analysis also shows that the beta for environmental concern is .307 meaning that it has the largest

effect on participation in individual action, while age has a beta of .001 and thus the smallest effect. The beta for inverted quarantine is .140, and it has the second largest effect on individual action; education also has a fairly large effect on individual action with a beta of .102, and other control variables have a relatively small effect. The regression coefficient for inverted quarantine is .527; this means that as participation in inverted quarantine goes up, participation in individual action also increases. For individual action R^2 is .156, meaning that about 16% of variance in individual action is explained by these variables.

Table 2. Results of Linear Regression Model Predicting Effect of Inverted Quarantine on Individual Environmental Action

<u>Variable</u>	<u>b</u>	<u>Beta</u>
Inverted Quarantine Participation	.527 (.103)***	.140***
Environmental Concern	.425 (.039)***	.307***
Sex	.214 (.082)***	.072***
Age	.002 (.041)	.001
Race	.007 (.097)	.002
Political Views	-.112 (.052)**	-.060**
Education	.312 (.088)***	.102***
Class	.051 (.063)	.024
Constant	1.448 (.241)***	
R²	.156	

The results of the second regression analysis comparing collective action and inverted quarantine (summarized in Table 3 below) show that engaging in inverted quarantine is significantly associated with more participation in collective environmental action. The analysis also shows that the beta for education is .209 meaning that it has the largest effect on participation in collective action, while age has a beta of .002 and thus again has the smallest

effect. The beta for inverted quarantine is .063, and, disregarding age, it has the smallest effect on collective action. Environmental concern (beta = .156), political views (beta = -.153), and race (beta = .099) have a relatively large effect on collective action. The regression coefficient for inverted quarantine is .135; this means that as participation in inverted quarantine goes up, participation in collective action also goes up but only slightly. For collective action R^2 is .144, meaning that about 14% of variance in collective action is explained by these variables.

Table 3. Results of Linear Regression Model Predicting Effect of Inverted Quarantine on Collective Environmental Action

<u>Variable</u>	<u>b</u>	<u>Beta</u>
Inverted Quarantine Participation	.135 (.059)**	.063**
Environmental Concern	.121 (.022)***	.156***
Sex	-.119 (.047)**	-.071**
Age	.001 (.023)	.002
Race	.194 (.055)***	.099***
Political Views	-.161 (.030)***	-.153***
Education	.361 (.050)***	.209***
Class	.111 (.036)***	.091***
Constant	-.356 (.137)***	
R^2	.144	

Discussion

Overall the analyses show that while hypothesis 1 (inverted quarantine is associated with less collective action) is not supported, hypothesis 2 (inverted quarantine is associated with more individual action) is supported. The results also show that inverted quarantine participation has a much stronger effect on individual environmental action than collective action. This could be because, as has been found in past research (Maniates 2001; Szasz 2007;

Willis and Schor 2012), private behavior is encouraged very strongly by environmental movement groups, therefore if someone is participating in inverted quarantine because of exposure to a movement groups encouragement they are more likely to engage in other individual actions also. Collective action participants are significantly more likely to be male, white, liberal, college educated, and higher class, while individual action participants are significantly more likely to be female, liberal, and college educated. Socioeconomic characteristics of both actions are similar except for sex, again similar to previous research (Xiao and McCright 2012) women are more likely to engage in individual action and men are more likely to engage in collective action.

To some extent my results strengthen Willis and Schor's argument that conscious consumption (which they believe includes inverted quarantine) leads to more collective environmental action and weaken Szasz's argument of the opposite. This would mean that green consumption is good for the environmental movement because it leads people to participate in both individual and collective environmental actions. Movement groups could strengthen their tactic of encouraging green consumption and individual actions by targeting people who are already engaging in these activities and pushing them toward getting more involved collectively. Movement groups which are not encouraging people who are already involved individually to get involved collectively could be adding to the issues within the movement.

But it is important to note that since the relationship between inverted quarantine and collective action is so weak, the support for Willis and Schor's (2012) argument is also weak. Therefore, I am hesitant to simply say that Szasz's (2007) theory is wrong and Willis and Schor's

(2012) theory is correct since there is evidence that supports both sides. Because there is limited survey data that asks questions which can be used to measure inverted quarantine participation, the survey questions used in my analysis are not ideal for measuring this action. Survey questions which are more specifically related to inverted quarantine participation and questions that ask about a wider range of inverted quarantine products, not just organic produce, are needed. On the other hand, using organic food as the basis for my measure of inverted quarantine could be one of the best types of inverted quarantine participation to use because of its limited availability and high cost. When compared to an inverted quarantine action like buying bottled water (which is so seemingly cheap that almost anyone can afford it and is available at most stores) buying organic food will most likely be practiced by a much smaller but also much more devoted group of people. Organic food almost always costs more (sometimes much more) than non-organic; even people who see the risk of chemicals and pesticides and could afford to buy organic may not do so because of the cost and limited availability. This could mean that the people included in my sample of inverted quarantine participants are the most committed to this practice and would therefore strengthen my results. Overall my research cannot conclusively show that inverted quarantine leads to more individual and more collective action, but it, along with Willis and Schor's (2012) research, shows that there is a good possibility that Szasz's (2007) theory is not completely correct.

Conclusion

Research has thus far not been able to conclusively show that green consumption is beneficial to the environmental movement's goals or the health of the environment overall.

Scholars like Szasz (2007) and Maniates (2001) believe that engaging in and promoting just green consumption as a solution to environmental problems is hurting the movement by discouraging collective action. While scholars like Willis and Schor (2012) show through their research that green consumption is related to more participation in activism overall. I attempted to add to this previous research by focusing specifically on the practice of inverted quarantine and its effect on activism. My results support Willis and Schor's (2012) findings but are not strong enough to decisively say that green consumption leads to more activism. But my findings do add to the literature on inverted quarantine by showing who is participating and how much of the US population is engaging in this activity.

According to my findings almost twenty percent of the US population is participating in inverted quarantine. Inverted quarantine participants are much more likely to be female, white, and between the ages of 31 and 50; participants are also slightly more likely to be conservative and somewhat more likely to be middle class and have no college degree. Unfortunately the survey questions I used in my research may not be the best for measuring inverted quarantine participation, but they were used because I could not find any better survey questions from a national sample. This means that better survey questions which focus more specifically on the practice of inverted quarantine are needed. To truly further research on the topic of green consumption I believe that a nationally representative survey focused mainly on green consumption practices should be conducted. Results from such a survey could more conclusively decide whether these practices are helping the environmental movement by drawing in participants who will eventually get collectively involved or hurting the movement by attracting participants who will only engage in individual environmental activities.

If inverted quarantine participation does lead to more collective action, as my results suggest, then this activity should continue to be encouraged by movement groups. These results also mean that people who are already practicing green consumption and engaging in other individual environmental actions should be encouraged by movement groups to begin participating further in collective environmental action. If more research were done on who is participating in inverted quarantine and other forms of green consumption then movement groups would have a better idea of who may be more likely to get involved collectively. More participation in collective action could really strengthen the environmental movement thus leading to more policy changes and eventually more earth friendly and sustainable businesses and communities around the world.

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