Getting off the (Water) Bottle: Constraining or Embracing Individual Liberty in Pursuit of the Public Interest[[1]](#footnote-1)

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Abstract

Opponents of the consumption of bottled water have criticized the wasteful nature of its production, the exaggeration of its advertising, and its lack of stringent regulation. The banning of bottled water by a number of universities, as well as the city of San Francisco, shows how contentious the issue has become. The case of bottled water is an interesting one for exploring the tradeoffs between individual liberty and public interest. Critics of bottled water are correct to point out the problems with the water bottle industry. There are, however, legitimate reasons to protect individual choice in this case. People drink bottled water for health, taste, and convenience, all of which can justify the continued sale of bottled water. It will be argued that while a ban on bottled water may be justifiable on normative grounds, there may be alternatives that allow for the preservation of individual choice while simultaneously protecting the public interest. Instead of constraining choice by banning bottled water, the state can instead embrace choice by pursuing proper labeling of bottled water, improving its own public water sources, or subsidizing home filtration systems, among other possible actions. The implications of the case of bottled water has broader implications for environmental regulation broadly, as it will be argued that the seemingly agonistic relationship between individual liberty and public good may be reconcilable in certain cases.

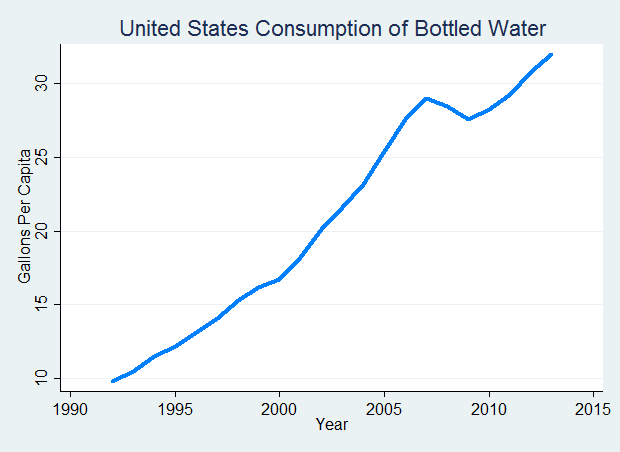
Introduction

On March 11, 2014, the San Francisco board of supervisors unanimously approved an ordinance banning the sale of bottled water on city property, making it the second United States city, after Concord, Massachusetts, to enact a bottled water ban. (Timm 2014). David Chiu, the author of the ordinance, suggested that the legislation was necessary due to the “incredibly wasteful and environmentally damaging” nature of bottled water, and the fact that San Francisco has access to high quality municipal water, drawing from the Hetch Hetchy reservoir (Sabatini 2013). Responding to the ban, Kate Krebs, a spokeswoman for the American Beverage Association, protested that “The consumer should have a choice on how they drink their water” (Sabatini 2013). The banning of bottled water sales on San Francisco city property is just the most recent and largest measure taken by a community to attempt to curb the environmental costs caused by growth in the bottled water sales over the past twenty years, and the comments by Chiu and Krebs reveal the fundamental issue of the debate between those who think the growing use of bottled water must be stopped, and those who believe bottled water consumption should be allowed to continue. In citing the wasteful and damaging nature of bottled water consumption, Chiu is appealing to the public interest, suggesting that by banning the sale of bottled water, San Francisco would be helping to provide a better environment for all. Meanwhile, Krebs, in arguing for consumer choice, is appealing to individual freedom.

The tension between the public interest and individual freedom has been at the center of environmental debates since Garrett Hardin’s (1968) seminal article on the tragedy of the commons. In suggesting that Adam Smith, or at least the most common interpretation of Smith, was wrong, and that individuals’ acting in their best interest does not always lead to an optimal outcome for society, Hardin argued that individual freedom can at times be indefensible, specifically suggesting that the freedom to reproduce is “intolerable.” Famously, Hardin suggested that the solution to the tragedy of the commons was coercion, arguing that even if coercion is unjust, it is justifiable compared to the alternative, the destruction of commonly held resources in the Earth. Hardin’s foundational insight that individual choice and the public interest are at odds has shaped the way we think about many environmental issues, and even if one disagrees with his prescription of coercion, it is difficult to question that many environmental issues stem from individual choices and behavior.

Every time a person purchases an SUV, they are making a decision that has an impact on the common interest. When an individual sets their thermostat even a few degrees lower during a hot summer day, the resources consumed to produce the extra energy needed to lower the temperature will impact everyone. Even the consumption of beef presents such a problem. The raising of cows requires the consumption of many calories from plants that could have otherwise been used for the humans to eat, and cows produce methane that contributes to global warming. By eating a steak, rather than a less environmentally damaging alternative, an individual has contributed to the degradation of the public interest in a sustainable environment. All of these individual choices contribute to the loss of a common good by damaging the environment, and the consumption of bottled water is no different. When an individual chooses to drink water from the bottle rather than the tap, they are participating in a process that has an impact on the shared environment. In the case of bottled water, individual choice and the public interest seem to be in tension.

The goal of this paper is to explore this tension between the public interest and individual freedom in the consumption of bottled water, and to ask whether the preservation of the public interest necessarily means constraining individual choice. The paper begins by exploring the charges brought against bottled water, and questioning whether the claims are specific to bottled water. It will be argued that while the various arguments against bottled water are perhaps not unique on their own, but rather symptomatic of larger problems, the growing consumption of bottled water is in fact a threat to the public interest because of the way the problematic elements come together. After exploring the ways in which bottled water presents a threat to the collective good, I will explore the reasons frequently given for choosing it over the tap, concluding even though the justification for a ban may exist, the reasons individuals give for choosing bottled water are at least worthy of defense. Finally, the potential policies to curbing bottled water consumption will be explored, and I will argue strategies need not constrain individual choice, but rather that protecting the public interest can involve embracing it.[[2]](#footnote-2)



The Unique Threat of Bottled Water

Before asking what should be done about the problem of increasing bottled water consumption, we must be clear that it is indeed a problem. If we are to explore the ways in which individual choice can be made to work in the direction of the public interest in the case of bottled water, we must first figure out what that public interest is, and whether the growing consumption of bottled water is working against it. While the full case against bottled water cannot be rehashed here, since scholars, activists, and journalists have filled entire books on the topic, we should attempt to understand the basic arguments that have been made. Further, we should investigate whether the claims made against bottled water are specific to bottled water, or whether it is not a unique offender, and merely an example of troubling larger phenomena. It certainly could be argued that whether bottled water is a unique offender or not is irrelevant to the question of whether policy actions to prevent its consumption are appropriate. I would suggest, however, that if the problems caused by bottled water cannot be considered unique, then the discussion of policy alternatives should be about the larger systematic issues, rather than bottled water alone. If the threats to the public interest are being caused by something other than the production and consumption of bottled water qua bottled, then any policy prescriptions should not necessarily focus on bottled water specifically. Essentially, the goal of this section is to ask: why bottled water?

We can separate the charges made against bottled water into five distinct categories. First, some argue that it is wrong to sell something that is a human right, and that further, it is wrong to profit off of public goods by increasing their price. Second, critics suggest that bottled water presents health and safety risks to consumers due to a lack of stringent regulation, especially when compared to the regulatory regime governing tap water. Third, manufacturers have been criticized for deceiving consumers about the beneficial impacts of their product, as well as the quality of municipal tap water. Fourth, and perhaps most concerning to critics is the potentially damaging impact that the production, distribution, and disposal of bottled water has on the environment. Finally, critics have noted that consumption of bottled water may affect government delivery of tap water.

We should first attempt to address the argument that the production, sale, and consumption of bottled water should be stopped because it allows manufacturers to profit off of something that is a human right (Geick 2010; Clake 2005; Jaffe and Newman 2013). While it may very well be true that bottled water manufacturers are selling something that is a human right, we should attempt to discern whether this is an argument against bottled water specifically, or whether bottled water is part of a larger group of offenders. Narrowly, we could ask whether bottled water is unique in privatizing water. If the claim is that the privatization of water is wrong because individuals have a human right to water, then bottled water is not our only concern. As of 2013, twenty-four percent of Public Water Systems serving more than 500 people in the United States were privately owned. Over fifteen percent of people currently living in the United States are served by privately owned water systems, and the numbers are higher in other countries. If the concern is that privatizing water is wrong because water is a human right, then the problem of utility privatization would seem to be a much larger issue. The privatization of water as a general phenomenon has received great scholarly attention, and it should be noted that the argument presented here is not to suggest that the privatization of water is an appropriate action, but rather to suggest that the privatization of the human right of water is not unique to bottled water. If our main opposition to the bottling of water is that it is wrong to privatize water, then our criticism should be to privatization generally, rather than directed at bottled water specifically. Any policy choice would deal with the general phenomena of water privatization rather than the specific case of bottled water.

Of course, it could be argued that in the United States, water that is bottled is privatized in a different way than private tap water. For one, public utility commissions exists to regulate the prices of tap water, in a way that keeps utilities from profiting too heavily from its sale. No such mechanism exists for the regulation of the profits of bottled water. Still, commoditizing and privatizing the human right to water is not unique to water bottle manufacturers.

At a higher level of analysis, we can ask the question of whether privatizing something that is a human right is unique to water. Education, housing, health, and food are also considered human rights, and yet all have been privatized to some extent. Additionally, putting a price on something that is a fundamental human right is not tantamount to denying someone that human right. It is unlikely that any of the critics of bottled water who suggest it is wrong to privatize something that is a human right would apply the same argument to food or housing. Even if this was indeed their argument, the policy solution would not be to target bottled water, but privatization of human rights in general.

Another major issue presented by the critics of bottled water is safety. While bottled water manufacturers present their product as clean and pure, critics suggest that in reality, bottled water is just as vulnerable, if not more vulnerable than tap water to contamination, especially when considering that the regulation of bottled water is not as stringent as that of tap water. Numerous studies have found that bottled water may be more contaminated than manufacturers let on. Ikem et al. (2002) analyzed 25 different brands of bottled water purchased in the United States, and compared their contents to EPA drinking water standards, and found that in many cases, the bottled water did not meet the standards set by the EPA for many constituents. Additionally, they found that spring water, often thought to be cleaner than purified tap water, contained even higher levels of chemicals. This result is consistent with other studies of bottled water in Canada (Pip 2000; Warbuton et al. 1998) and Brazil (Zamberlan de Silva et al. 2008).

Perhaps this finding is unsurprising when one considers that bottled water has been criticized for its lack of stringent regulation (Gleick 2010; Clarke 2005; Olson 1999). While the FDA has regulations for bottled water, they are often not as strict as the regulations the EPA has for tap water, and the monitoring abilities of the FDA are limited. A National Resource Defense Council (Olson 1999) study found that bottled water plants were investigated on average only every five to six years. Peter Gleick (2010) points out that the issue may be even larger, since most FDA inspections do not actually involve testing the water. Additionally, Gleick outlines some of the circular reasoning involved in the FDA’s decision not to regulate bottled water more heavily. The FDA argues that there is little need to monitor bottled water because bottled water has a good regulatory record, but it is difficult to know how good a compliance record bottled actually has because of how infrequently it is investigated.

Further, Gleick (2010) has pointed out that the reporting mechanisms which are supposed to inform citizens about any quality issues with their bottled water are limited. While the Safe Drinking Water Act requires that all utilities report tests and violations to regulatory officials, and that they distribute annual reports about the quality of their water, no such requirements exist for bottled water. Gleick (2010) points out that while violations of tap water regulations are frequently reported in the local news, bottled water recalls rarely receive attention. In his analysis, he found that only one third of bottled water recalls were ever made public.

Again, however, we can recognize that the critiques of bottled water safety above are not issues that deal with bottled water as bottled water, but rather higher order problems. If the concern with bottled water is that it is potentially unsafe because of a weak regulatory regime, the answer is not coercive action against bottled water, but improved regulation. Strengthening FDA regulation to the point where it is as stringent as the EPA’s regulation of tap water would seemingly alleviate any concerns of safety. Improving the regulatory regime governing bottled water is almost certainly justifiable, but again, the solution to the safety concerns of bottled water is not coercive action against the individuals drinking it.

The third major point on which critics have condemned bottled water companies is the ways in which they market their products, with their tactics often compared to those of snake oil salesmen (Gleick 2010; Clarke 2005). Critics argue that the advertisements deliberately try to deceive consumers by suggesting that bottled water is cleaner and purer than it is, by implying that tap water is unsafe, and by eluding to potential health benefits that bottled water may provide.

It can be argued that this too is not a problem of bottled water, but a problem with the way advertising works in general. As Steve Vanderheiden suggests in his assessment of a similar criticism levied against SUV manufacturers, “if advertisers were to be prohibited from implying that products had any desirable properties that could not be substantiated by double-blind testing procedures, the modern advertising industry would shrink dramatically in ambition and reach” (2006: 31). In singling out the SUV movement for its advertising strategies, Vanderheiden argues, the anti-SUV movement is being disingenuous; a similar charge could be levied against the movement against bottled water. It could very well be argued that the dramatic reduction in ambition and reach of the advertising industry would be a good thing, but the solution would not be specific to bottled water, but rather a part of a larger move against exaggerated claims in the marketing of any product. The problem of advertising alone does not place bottled water as a unique offender.

Perhaps the biggest concern with the growing consumption of bottled water, and the one that is most often used to justify coercive action against it, is its negative impact on the environment. We can break down this concern over the environmental impact of bottled water into three distinct criticisms. First, there is the problem of water takings. The taking of water from ground and surface sources may disrupt the ability of local citizens to take water for their own use. The pumping of groundwater can create cones of depression that cause the water table to drop below residents’ wells. There have been a number of cases of bottled water companies’ production affecting local communities’ abilities to access their ground water (Clarke 2005; Royte 2008).

I would argue, however, that the problems caused by groundwater withdrawal are not problems of bottled water withdraw, but problems caused by inadequacies in the laws that regulate the appropriation of groundwater in the United States. We can see how this may be the case by observing a pair of contrasting examples. In 1996, residents of Henderson County, Texas were unable to draw water from their wells when Ozarka Natural Springs Water Co., a subsidiary of Nestle, began pumping 90,000 gallons of groundwater a day from land adjacent to theirs. The case was brought before the Texas Supreme Court, where they ruled that the taking of the water was acceptable because Texas follows the capture rule, which only restricts withdrawals of groundwater if the water is wasted. The effect on other appropriators use are not considered. This can be contrasted with a case in Sanctuary Springs, Michigan, where a group of concerned local activists opposed the building of a bottled water plant by Nestle. A court ruled that the amount of groundwater pumping by Nestle would exceed a reasonable use since it would affect local surface water use (Gleick 2010). In this case, the court applied a different standard than Texas, since Michigan’s rule for groundwater is reasonable use, rather than the capture rule. Differences in law help to explain why one community was successful in preventing groundwater takings, and why the other was not.

Another concern with the environmental impact of bottled water is with the energy used in the production and distribution. Like any good, the production of plastic bottles requires energy, and while the purified brands of bottled water are usually distributed within the state they are bottled in, more specialized brands require transportation across great distances, which uses additional energy. Gleick and Cooley (2009) attempted to estimate the amount of energy involved in the production and distribution of bottled water in the United States, and found that in 2007, it required somewhere between 32 and 54 million barrels of oil. Additionally, PET, the plastic out of which bottled water containers are usually made, is primarily composed of petroleum. In an era where the continued use of fossil fuels is a concern, the amount of energy involved in the production of bottled water is certainly an issue worthy of attention.

Relatedly, those who are concerned about the growth of bottled water consumption point to the problems with waste caused by bottled water. While the majority of bottles are recyclable, there is little indication that they are being recycled at a high rate. Gleick (2010) estimates that, at most, a quarter of the bottles are actually recycled, which is significantly lower than what the recycling rates were in the 1990s and the recycling rates for other products. Not only is bottled water consumption increasing, but people are recycling their bottles at a lower rate. Additionally, PET does not degrade or compost, so when plastic bottles are not recycled, the consequences are long lasting. If the waste is incinerated, this contributes to greenhouse gas emissions.

There is little question that the production and distribution of bottled water, as well as the impact of plastic waste have a negative impact on the environment, and should concern anyone who is interested in the preservation of the public interest in a sustainable planet. The problems of production, distribution, and waste are not just problems of plastic bottles, however, but again indicative of larger problems. Any criticism that can be levied against bottled water on these grounds also applies wholly to plastic soft drinks, plastic sports drinks, and any other number of plastic products. This does not mean that the banning of plastic bottles in general would not be justified, or that more stringent actions could be taken to make sure they are properly recycled, but again to that the criticism does not only apply to bottled water.

The final argument made by critics of bottled water is that it negatively impacts municipal tap water, both directly and indirectly (Jaffe and Newman 2013; Szasz 2007; Wilk 2006; Clarke 2005). The concern is that by framing bottled water as a clean and pure alternative, bottled water manufacturers undermine the trust that individuals have in their government’s ability to provide them with a public service. In doing so, they actually undermine the ability of governments to provide the service by turning attention away from it. If citizens believe they have a safer alternative to tap water, they will be unlikely to push their municipality to improve it. This is not a problem unique to bottled water either. Andrew Szasz (2007) argues that the increasing consumption of bottled water is actually typical of individuals moving away from publicly supplied goods to private ones in order to provide for their own safety, negatively impacting the public interest in some way. Similarly, Richard Wilk (2006) contends that the turn to bottled water is indicative of the growing contest for trust between government and corporations.

To this point, it seems that any concerns about bottled water are not really about bottled water at all, but either misguided or indicative of larger problems. At each point of criticism, we can recognize that the problems identified with bottled water are not problems that are necessarily specific to bottled water, even if there are some distinct elements of the product that make it especially worrisome. Again, critics would likely suggest that the lack of uniqueness of the issues presented by bottled would does not mean regulation is unwarranted. I do not disagree. If we are to consider each of the issues on their own, however, the solution to the problems caused by bottled water would not be to craft policy dealing with bottled water specifically, but rather to deal with the larger problems.

Policy choices that would deal with the larger issues would also help to alleviate the negative impact of bottled water, and they may certainly be justifiable, but when journalists, activists, and in the case of some cities around the country, politicians call for bans and taxes on bottled water, they are not concerning themselves with these broader issues. Their concern is with bottled water, specifically. How then can we explain why bottled water has garnered so much specific attention from the environmental community? I would argue that while none of the individual charges against bottled water necessarily make it a unique offender, the combination of problems is unique, and it is also unique in terms of the alternative that is available. Bottled water, as Clarke (2005) puts it, involves turning water into water. As a product, it may be marginally different than the water that is drawn from the tap, but certainly it is not categorically different. In this process, the good that was commonly owned is sold to consumers in a way that damages the public interest in a clean environment, and negatively affects a publicly supplied good, while simultaneously being less regulated than the publicly supplied good. While there are other goods that damage the public interest, bottled water is unique in that it does not provide anything that is significantly different than a readily available alternative. Many of the problems with bottled water can also apply to bottled soft drinks, but soft drinks are categorically different than water. Using cars rather than public transit in a city may damage the common good, but cars are at least categorically different than the less damaging public transportation. To turn to David Chiu again, what made the ban in San Francisco justifiable was not just that bottled water is environmentally damaging, since that claim could be made about any number of products; it was that the damaging behavior made no sense when high quality water was readily available from the Hetch Hetchy reservoir.

The Choice of the Bottle

Considering the arguments made above, we may conclude that even though the charges against bottled water considered individually may not be enough to indict it as a unique threat to the public interest, the combination of them, and the available alternative, show that the growing consumption is indeed problematic. That something is against the public interest does not, however, mean that coercive action is necessarily justifiable. As suggested in opening, environmental problems are so often about the tension between the public interest and individual choice. In our consideration of bottled water to this point, we have considered the ways in which the growth of bottled water consumption may stand against the public interest, but in order to evaluate the issue fully, we must understand why individuals choose to consume it. Are the reasons individuals give for consuming bottled water enough to justify the continued unencumbered freedom to consume? Empirical studies have found that there are three major reasons why individuals choose to consume bottled water. They believe that bottled water is safer and purer than the water that they get out of the tap, they prefer the taste and smell of bottled water to that of tap water, or they drink it for its convenience. We should evaluate each of these reasons in turn.

Studies have found that despite the less stringent regulation, consumers consider bottled water to be safer and cleaner than tap water (Ward et al. 2009; Doria 2006; Hu et al. 2011; Huerta Saenz et al. 2012). In general, the perceived safety advantages provided by bottled water is the main justification given for its consumption. Critics like Gleick (2010) and Clarke (2005) often attribute the public’s belief in the safety of bottled water to the advertising campaigns of manufacturers. Importantly, however, research into consumer preferences for bottled water has revealed that the choice to consume bottled water is positively related to concern about local water conditions (Huerta-Saenz et al. 2012; Hu et al. 2011; Anadu and Harding 2000). Perhaps most interestingly, Edith Anadu and Anna Harding(2000), in their study of four United States towns’ consumption of bottled water, found that people in the town with an ongoing contamination problem were the ones most likely to report high levels of bottled water consumption. It was not just a perception of poor tap water quality, but actual contamination of their water that pushed them to the bottle. Additionally, minority populations tend to drink more bottled water than whites, and this is thought to be due to their higher distrust of government services (Huerta-Saenz et al. 2012; Gorelick et al, 2011). When one considers that municipal utilities that serve higher populations of minority residents are more likely to violate the Safe Drinking Water Act[[3]](#footnote-3), it may reasonable to expect that minority populations may wish to turn to bottled water rather than their tap.

That those individuals who are most exposed to unsafe tap water are those who are mostly likely to drink bottled water shouldn’t be surprising, but it provides some amount of justification for preserving individuals rights to choose bottled water, and avoiding coercive action. Even though the quality and safety of tap water in the United States and other developed countries is exceptionally high in general, this is not true for all areas within those countries. While consuming bottled water may not be the solution to this problem, I would argue that concern over health and safety should be viewed as legitimate interests that warrant consideration of non-coercive policy alternatives.

The second major reason that individuals give for choosing to consume bottled water instead of tap water is taste and odor (Doria 2006; Hu et al. 2011). The taste and smell of tap water can differ greatly depending on the source of the water, the content of minerals in the water, and the treatment techniques used. Consumers may dislike the unique taste of their local tap water, and prefer something different. Bottled water allow consumers to choose water that may be more pleasing to them. Dasani and Aquafina, the two largest “purified” water brands, add a special formula to all of their water to make water from taps around the country taste the same (Gleick 2010). Mineral water may provide different tastes that are enjoyable for consumers, and in some cases provide something of a luxury alternative. Is consumer preference for the taste and odor of bottled water a legitimate reason for protecting individual choice? Potentially. I would argue that considering taste and odor are legitimate reasons of exercising a behavior. While organoleptic reasons may not fully justify behavior that goes against the public interest, they should at least push us to think of ways in which the individual choice can be preserved.

Finally, consumers choose to drink bottled water because of convenience (Ward et al. 2009; Hu et al. 2011). While this is not as important a consideration as health or taste, it is commonly given as a reason for consumption. Ward et al. (2009) found that limited consumers of bottled water chose it when a tap water alternative wasn’t available, concluding that “it seems obvious that people who would normally drink tap water would be motivated to buy bottled water when tap water is unavailable.” Again, we must ask whether convenience provides justification for the protection of individual choice of drinking water. Convenience plays a role in other behaviors that are potentially destructive to the public interest. Lowering speed limits could significantly diminish the number of auto accidents that occur, but would cost people in terms of the convenience of faster travel. Air travel is extremely costly to the environment, but it is far more convenient than the alternatives. Perhaps the convenience of bottled water justifies its consumption in a similar way. I would make a similar argument about what convenience means for coercive regulation as I did for taste and odor. It may be justifiable to restrict behavior regardless of how convenient it is, but that individuals choose a behavior because of its convenience means we should at least attempt to preserve that choice.

In general, the reasons that individuals give for choosing to consume bottled water can be considered legitimate. While the damage to the public interest caused by bottled water is large enough that the individual reasons for choice may not override the justification for coercive action, I would argue that the legitimacy of the individual choice of bottled water means that limiting regulation may not be entirely desirable. With this in mind, we should explore the ways in which it may be possible to embrace choice rather than constrict it.

Constraining or Embracing Individual Choice

Now that we have considered the reasons why people choose to consume bottled water, as well as the reasons why bottled water consumption may be against the public interest, we can turn to our options in terms of policy prescriptions. In evaluating our policy options, we should question whether coercive measures aimed at constraining choice are necessary for the protection of the public interest, or whether we can understand solutions to bottled water consumption as encouraging and embracing individual choice. Simply because restricting individuals’ choice to drink bottled water may be normatively justifiable, this does not mean it is the only, or even correct, course of action.

There are a few coercive solutions available that would likely have some success in terms of reducing the consumption of bottled water. Perhaps the least coercive action that could be taken to curb the consumption, or at least the negative effects, of bottled water is a deposit-refund system. Many states have bottle bills that charge consumers a surcharge when they purchase recyclable goods that is then returned to them when they recycle the product. This is a common solution to the problem of waste, and can be an effective one, especially since it eliminates the need for monitoring and enforcement. While minimally so, deposit-refund systems are coercive, and do impose a cost on individual choice. A more stringent regulation would be a bottle water tax, like the one currently used by Chicago. This would charge the consumer some amount of money on every purchase of bottled water they make, in an attempt to both curb consumption of bottled water and to collect funds for public use. Again, while the costs do not have to be extremely prohibitive, the presence of a tax on bottled water would be an attempt to constrict individual behavior through coercion. Of course, the most obvious coercive solution limiting individual choice would be a ban on bottled water, either in a limited fashion, like the ban on the sale on public property in San Francisco, or a total ban on all sales and consumption (excepting emergency situations like floods or hurricanes). Obviously, if the government were to implement such a ban they would be constraining individual choice over drinking options in the most obvious sense.

These are not the only options available, however. Instead of constraining individual choice through coercive actions, there are potential policy alternatives aimed at reducing the consumption of bottled water that could rely on the individuals’ freedom of choice instead. If we once again consider the reasons why people choose to consume bottled water, we can consider policy alternatives that work to towards embracing those reasons.

We should first consider the perceived safety of bottled water. Again, this is the most common reason people give for choosing to consume it. While those who are most exposed to risks are more likely to consume bottled water, the sense that bottled water is safer in general is misguided. As noted earlier, bottled water is less regulated than tap water, and numerous studies have shown that there are concerns with contamination. Broadly speaking, in developed countries, there is little reason to trust the safety of the bottle more than the tap. With this in mind, it is possible to understand the individual choice of the bottle as a problem of incomplete information. Consumers lack knowledge about both the potential risks of bottled water consumption and about the water that comes out of their tap. Strategies that focus on filling this knowledge gap would allow consumers to make more informed decisions about their water consumption, and indeed rely on individual choice to take them away from the bottle.

One such strategy would be to make information about bottled water more easily accessible. Clearer labeling of bottled water contents and sources would allow for consumers to know what goes into their bottles, and where the water is coming from, especially in the cases of the “purified” water brands that are just filtered tap water. Additionally, the reporting systems for bottled water problems could be improved. As noted, when tap water is found to be contaminated, utilities are required to report this to government officials, and often are required to publicize the contamination. In some sense, by being diligent in the monitoring and reporting of risks, public water systems are putting themselves at a disadvantage when it comes to a comparison with bottled water. People are made aware of contamination in their tap water in a way that they are not with bottled water, and Anadu and Harding (2000) show, this leads to them to turn away from tap water. By requiring bottled water manufacturers to provide more information to the public about contamination in their product, this would give individuals more information about the safety of bottled water, especially as it compares to the tap.

If individuals are choosing the bottle because they believe it is safer, providing information is not the only strategy that could turn them away from bottled water. Actual improvements in the health and safety of municipal water systems would increase trust in the service, and draw people back to tap water. Updating infrastructure and treatment at older systems would encourage individuals Also, if public officials were more proactive in publicizing the safety of the tap, this would potentially help to push people back to tap water. Any number of alternatives could be considered, but it should be recognized that since individuals choose bottled water because of its perceived safety advantages, it is possible to craft strategies to move them away from the bottle that embraces the reason for that choice.

The second reason for consuming bottled water, issues with odor and taste, can also be considered when it comes to the choice of policy. Improving infrastructure and decontamination techniques for health and safety reasons would likely also improve the taste of tap water, but there are other strategies that could be adopted as well. In terms of water fountains, there are now a number of technologies that would allow for better tasting water, and governments could install these new systems. Indeed, on the college campus where I currently work, this is exactly the strategy that has been adopted. New water fountains have been placed around campus, and all of them have filtration systems to help with the odor and the taste of the water. In fact, these water fountains are put in direct contrast with bottled water, as there is a display showing the number of bottles of water that have been avoided by individuals choosing to drink from the water fountain rather than choosing bottled water. This type of strategy is indicative of choosing to embrace choice rather than constrain it. By improving the taste of the tap water through filtration, and framing the decision to drink from the fountain as a contrast with bottled water, these fountains do not attempt to curb bottled water consumption by preventing people from drinking it, but rather by encouraging people to drink from fountain.

Another possibility would be to subsidize the installation of home filtration systems. Although these systems can actually cause problems with the safety of water if not properly maintained, when they are used correctly they can remove the taste and odor of local water at a fraction of the cost of bottled water. By monetarily encouraging individuals to install their own filtration systems that will make their water taste better, this may turn consumption away from environmentally damaging bottled water. Again, by considering how individuals choose water for taste and odor reasons, we can understand how embracing choice rather than constraining it can lead to the desirable outcome in terms of the public interest.

Finally, responding the consumer demand for convenient water options is perhaps the simplest to address in terms of the motivating reasons for consuming bottled water, since a preference for the convenience of bottled water can in part be explained by the lack of convenience of the alternative, the tap. Policy solutions could be imaged that would make access to high quality tap water more convenient, which would make using bottled water less desirable. It could actually be argued that bottled water is no more convenient than tap water. Portable, reusable bottles provide just as much convenience as recyclable bottles, but at a fraction of the cost. There are a number of things that could be done to help individuals realize the convenience of the reusable water bottle. For one, a government could provide a free bottle to all of its citizens. This would ensure that all individuals at least have access to a reusable alternative to the plastic bottle. Additionally, the government could incentivize the bringing of reusable bottles to public events or attractions by creating discount programs that reduce the cost of entry for those that have their own bottle.

Perhaps the best way to embrace individuals’ propensity towards the convenient behavior in the case of water consumption is to ensure that there are an adequate number of water fountains around at all times. Gleick (2010) brings up the example of the 45,000 person University of Central Florida football stadium, which opened in 2007 without a single water fountain in the entire stadium, with the idea that all of the individuals would be served by plastic bottles. While drinking fountains were later added, in this case it was completely inconvenient to drink anything but bottled water. Building codes often require that water fountains be included in construction, but this is not true everywhere. By making sure that all buildings require a certain number of water fountains, the comparative convenience advantage of bottled water will be mitigated. Additionally, by including fountains that allow for the easy fill up of portable bottles, it would become even more convenient for individuals to bring their own portable bottle, rather than purchase bottled water.

The policy alternatives outlined above are just a handful of different alternatives that could be available, but they illustrate the major argument made here: that constraining choice is not the only option when it comes to stopping individual behavior that is against the public interest. It is possible to recognize ways in which embracing choice may provide a way of avoiding the tension between individual freedom and the public interest that is so often prevalent in environmental controversies.

Attitudinal or Behavioral Changes?

We can also evaluate the potential effectiveness of different policy alternatives by considering their impact in terms of environmental citizenship. Andrew Dobson (2007) notes that while coercive regulation may lead to changes in the short run, a focus on changing the attitudes of individuals will result in more sustainable behavior in the long run. Although Dobson’s idea of environmental citizenship focuses on changes in attitudes about the environment in general, it is possible to understand the consumption of bottled water in similar ways. If we focus on changes only to the behavior of individuals by focusing on coercive governmental actions like taxes and bans on bottled water, this is less likely to lead to long term changes in behavior than if the focus was on changing citizen attitudes. If someone in San Francisco stops drinking bottled water because of the ban, it is not likely that her change in behavior would last if she moved to a different city. If she were to change her behavior because she became convinced that tap water is a safer alternative or in the public interest (as would be reflective of environmental citizenship), however, she would be likely to continue her positive behavior after the move.

In addition to the strategies that aim at the public interest by embracing choice, we could also imagine strategies that focus on helping individuals understand the positive effect on the public interest of choosing tap water over bottled water. Dobson (2007) notes the importance of education in the development of environmental citizenship, and education could potentially play a role in curbing the consumption of bottled water. Interestingly, bottled water manufacturers have realized how beneficial it can be to focus on the young. Through school contracting, these companies are able to access potential consumers at a young age, and develop brand loyalty, which is crucial for bottled water (Clarke 2005). Municipal water providers should be attempting to do a similar thing. By providing students with information about the advantages of drinking tap water, and the problems that bottled water causes to the environment, it is more likely that they will adopt a viewpoint emphasizing the importance of sustainable choices in their drinking water.

Additionally, moral approbation and public shaming can play a role in encouraging the choice of tap water over bottled water. Even if we think there is a protected individual right to drinking water choice, and that the government should not be involved in coercive regulation, this does not mean individuals who choose bottled water cannot be shamed for their decision. John Stuart Mill suggests that even when individual behavior does not violate the harm principle and is not to be stopped by coercive government action, that does not mean the behavior is beyond reproach. Public shaming and moral disapprobation are still acceptable strategies when dealing with behaviors that are undesirable. Despite the successes of the anti-bottled water movement in getting bottled water banned in certain areas, it is unlikely to have any long term success without making the consumption of bottled water a recognized wrong associated with public disgrace.

If the trend of growing bottled water consumption is to be curbed, it will likely not be because of policies that attempted to coerce individuals away from its consumption, but rather because of a change in attitude. Public education to help instill environmental citizenship and the practice of moral disapprobation are strategies that may make such attitudinal changes possible.

Conclusions

The case of bottled water seems to be a classic case of the tension between individual freedom and the public interest in a healthy environment. When individuals consume bottled water, they are participating in a process that leads to a worse outcome for everyone. Recent bans on bottled water have seemed to follow Hardin’s strategy for such conflicts in constraining individual choice. In this paper, I have attempted to show that in the case of bottled water, individual choice and the public interest do not necessarily have to be in tension. Policy can embrace choice in the goal of improving the public interest by focusing on the reasons why individuals choose their environmentally destructive individual behavior.

The lessons learned from the case of bottled water may be exportable to other areas of conflict within environmental politics, especially in terms of climate change. Embracing strategies such as the use of HOV lanes, the adoption of bike share programs, and major improvements in public transportation is a way of embracing choice to get people to cut down on transportation emissions. While individual choices often lead to damaging collective outcomes, the solution is not necessarily to eliminate choice. Instead, it may be to embrace it.

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1. Prepared for the 2015 Western Political Science Association Annual Meeting. This paper is a work in progress; comments and criticism are welcome. Please do not cite without permission. [↑](#footnote-ref-1)
2. It should be noted that the analysis here mainly focuses on the US, but the arguments could be extended to include other developed nations with safe drinking water. The issues caused by a lack of safe and dependable drinking water in developing countries around the world makes the discussion of the consumption of bottled water in those countries a different case altogether. [↑](#footnote-ref-2)
3. From own analysis of the EPA Safe Drinking Water Information System. [↑](#footnote-ref-3)