Collective Action and Responses to Poor-Quality Recycling in St. John's
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ABSTRACT

This paper discusses the lack of proper recycling programs in St John's, NL and explains the relevance of collective action and rational choice theories in addressing the matter. The city has done a poor job of implementing proper recycling programs, and is one of only two provincial capitals that does not offer a government-funded curb-side recycling program. While some private recycling programs do exist in the city, they are inefficient and thus viewed by the populace as a waste of time. As most people believe that their individual waste contributions will not make much difference to the overall state of the environment, waste continues to accumulate and negatively impact the environment, as well as the image and state of the city. Collective action theory, as discussed by Ostrom, offers several possible solutions, such as privatization of territory or discussion amongst the populace. Unfortunately, such solutions are impractical for this particular problem. The government must step in and impose a recycling "Leviathan" by implementing mandatory recycling and forcing citizens to recycle or be left with their own refuse. Only by making recycling a self-interested priority for the populace will St John's be able to improve its waste management practices.

In this paper, I will argue that the poor quality of recycling programs in St. John's is due to a collective action problem, coupled with a lack of awareness of the impact of excess waste. Recycling programs in St. John's are inefficient, and are having a negative impact upon the environment. This problem, while it is in the rational self-interest of the populace to solve, has not been solved due to its nature as a collective action problem. Privatization, while it may work in other, smaller-scale collective action problems, would be useless in this case. Negotiations amongst the citizens of St. John's, while they may produce a solution to which everyone might consent, would not necessarily produce one which would be effective. A central authority figure, or a "Leviathan," is what is necessary to fix this problem. Although Leviathans do have their limitations, in this scenario, they provide the best possible solution. I will use collective action theory to study this issue, drawing on Olson, Ostrom, Hobbes and others. I will also use information from various books, articles and web sites for evidence. The environment is a limited resource that impacts us all, making its preservation imperative.

First is the issue of the current state of recycling and composting programs in St. John's. Although many aspects of the city, such as the economy and the housing market, have been improving in recent years, recycling programs in the city have not: "[on 12 February 2008] the only free recycling operator in St. John's stopped accepting paper, cardboard, boxboard and glossy materials, and scaled back its collection of newsprint" (Canadian Press, 2008). This line, taken from a Canadian Press article on the CBC website, reports on the state of recycling programs in St. John's, and in Newfoundland in general. While there are some recycling operations in St. John's and the rest of the province, most of them being private enterprises, they are not particularly successful. The article goes on to note that there are few options in terms of disposing of these materials, apart from simply dumping such items in the garbage. Recycling services in the city are very limited, and the province has a history of poor waste management (Canadian Press, 2008). Although the city itself has improved in recent years, the waste management system has not.

The poor quality of recycling in St. John's is an issue in need of examination. In order to do this, it is necessary to study some basic theory. Indeed, as this paper will evaluate each of the available options for improving the recycling system in St. John's, it is necessary first to discuss rationality. Robert Nozick (1993:71-72) discusses how people attempt to make rational decisions: "Rationality involves not simply doing or believing something because of the reasons in *favour* of it but also taking into account (some) reasons *against* it"(emphasis in original). Any time one is confronted with a choice, it makes the most sense to do a simple cost-benefit analysis of the potential courses of action. For example, if one is running late for work, one may have to decide whether or not to skip breakfast. The potential benefits of not eating breakfast would be that said person might be able to get to work as quickly as possible, thereby not getting in trouble. On the negative side, not eating breakfast may cause the person in question to become excessively hungry, and even lose concentration while working, thus making the person unproductive. By considering both sides of the issue, the worker may realize that the best option is to take some food with him or her to work, and wait until there is a sufficient coffee break or lull in work before eating. He or she still gets to work on time, and manages to fight off hunger also. Although this merely serves as an example, the issue of rationality when making choices will figure prominently in this paper.

The poor quality of recycling programs in St. John's, while it is certainly an environmental problem, is also to be considered a collective action problem. Garrett Hardin (1968: 1244) explains collective action problems through the example of a shared pasture: "the rational herdsman concludes that the only sensible course for him to pursue is to add another animal to his herd. And another, and another . . . but this is the conclusion reached by each and every rational herdsman sharing a commons. Therein is the tragedy." In this scenario, there is a common pasture used by multiple herdsmen so that their unnamed animals can graze. As each herdsman wants to gain as much benefit (ie, profit) as possible, each one will increase the size of his herd. Rationalizing that adding only one or two more animals to his herd will not make much difference in terms of overgrazing. However, since every herdsman will have the same idea and continue to slightly increase the size of his herd, the overall number of animals grazing on the common land dramatically increases. The combined effects of the larger herd result in overuse of the land until it can no longer be used at all.

Although each individual herdsman is thinking rationally about how best to maximize his profit, the combined effects of these herdsmen's actions yield a result that is negative for them all. As Mancur Olson (1965: 2) stated: "*rational, self-interested individuals will not act to achieve their common or group interests*" (emphasis in original). Rather than maximizing profit through feeding a large number of animals, the herdsmen have created a situation in which they can no longer feed any of their animals, resulting in a loss of income. Had the herdsmen cooperated from the start, they would have not had any problems. Collective action problems, at their very core, deal with situations in which individual, rational actors, by trying to maximize their own potential benefits, collectively produce an outcome that is negative for them all.

The issue discussed in this paper is also a collective action problem, although it is slightly different from Hardin's example. In the case of poor-quality recycling in St. John's, a communal resource, the environment, is the issue. Rather than the environment being excessively used, it is instead being excessively abused. As each person throws away an item which could instead be recycled, the logical conclusion is that one un-recycled bottle or piece of paper will not make

much of a difference. Rather than cleaning and sorting their recyclables and driving down to a recycling depot, most people rationalize that their individual waste contributions will not make much difference in terms of damage to the environment. But when everyone in the city does this, the waste quickly adds up. This results in more and larger landfills in the province and more air pollution as gases are released from these landfills. What is even worse is the lack of observation of these effects. The herdsmen in Hardin's example may eventually see the damage that overgrazing does, and work to stop or even reverse its effects. But where the general populace rarely, if ever, goes near a landfill, it does not fully realize the damage it is doing in not properly recycling. This collective action problem, coupled with a lack of awareness as to its effects, results in little public sentiment to improve recycling programs in St. John's. This lack of public sentiment allows the problem to continue.

There are many different theories regarding how best to solve collective action problems. One such method, noted by Elinor Ostrom (1990: 12), advocates the use of privatization: "the imposition of privatization on the herdsmen would divide the meadow in half and assign half the meadow to one herder and the other half to the second herder . . . the herders will now need to invest in fences and their maintenance, as well as in monitoring and sanctioning activities to enforce their division of the grazing area." This passage, referring to Hardin's herdsmen game, changes the rules of the game so that it is in the best interest of each herdsman not to overgraze. Rather than trying to take advantage of a communal resource, overgrazing would now amount to damaging one's own property. No rational person would willingly destroy their own goods. Therefore, each herdsman will now seriously work to ensure that he does not overgraze his own land, and all the herdsmen will ensure that no one herdsman tries to use the land of another. By privatizing the very resource of which the herdsmen were taking advantage, they begin to cooperate out of rational self-interest.

This concept, while it may be useful for the overgrazing of land, does not help to deal with the issue discussed in this paper. Privatization would not realistically help improve recycling programs in St. John's. As previously stated, the problem in this case is excessive abuse of the environment, not excessive use of a field. The only way in which privatization could help improve the quality of recycling programs would be for all potential landfill sites to be privatized and then owned as individual lots. As the landfills inevitably expand, they would then be limited by the fact that the remaining lands have been bought. Private citizens, more than likely not wanting their personal lands to be filled with garbage, could then withhold their lands for the use of landfills, and work to fix the problem. This solution, while technically possible, is by no means realistic. One would have to survey the various lands which could potentially be used as landfill sites in the future, select the plots, and then privatize them by selling them to either citizens or private companies. This would involve privatizing huge amounts of land in the province. Even then, as each land-owner would be presumed to be a rationally self-interested being, he or she might sell the land if the potential profit were large enough; there is no guarantee that the idea would work. There is no efficient or practical method whereby privatization could help to stop the problem of poor quality recycling in St. John's.

Another possible option is for the citizens to negotiate amongst themselves and reach consensus on how to best solve the problem. Elinor Ostrom (1990: 17) elaborates upon this idea: "the self-interest of those who negotiated the contract will lead them to monitor each other and to report observed infractions so that the contract is enforced." Allowing the pasture

which the herdsmen use to remain a communal resource, Ostrom suggests that having the herdsmen negotiate and arrange a system to stop overgrazing would work quite well. As they each have a stake in the well-being of the land, they would cooperate to ensure that the land is not overused. If one or a few of the herdsmen tried to propose an idea that would benefit them particularly, the other herdsmen would see through it and veto the motion. Once an agreement is reached, the issue of enforcement could then be addressed. The herdsmen could enforce the agreement themselves, or they could hire someone else to enforce it for them. Either way, a solution would be reached which would protect the meadow from overgrazing.

In the context of recycling programs in St. John's, however, this approach would simply not work. First of all, the herdsmen example involves discussions amongst a few herdsmen who, working the same land, presumably know one another. It would be next to impossible to have the tens of thousands of citizens of St. John's reach consensus on what to do. The sheer logistics of even having all of them in one place to discuss the issue would be a nightmare. So, the logical conclusion would be to send not every citizen, but to delegate certain people to represent the thoughts and views of the populace, and have them discuss the issue. This body, in fact, already exists; St. John's City Council.

Were the populace to have these elected officials come up with a plan to improve the state of recycling in St. John's, another problem would arise. The herdsmen in the example would all have to be, by the nature of their work, very well acquainted with working the land. This experience would give them the necessary level of expertise when negotiating how best to avoid overgrazing. The elected officials of City Council, however, are likely not all experts in effective waste management. While they may be able to negotiate an agreement, there would be absolutely no guarantee that it would resolve the collective action problem with respect to the abuse of the environment. While it may be democratic, this method would not be guaranteed effective.

A final option presented is to have the populace delegate power not to elected officials, but to a central figure or body, capable of enforcing the law. This idea is most famously advocated by Thomas Hobbes (1997: 95) : "The only way to erect such a common power, as may be able to defend them from the invasion of Forraigners [sic], and the injuries of one another . . . is, to conferre [sic] all their power and strength upon one Man, or upon one Assembly of men." By subjecting themselves to a central power, the herdsmen would engage in a trade-off. They would limit their freedoms in that they would no longer be able to do whatever they want, because the Leviathan (the name Hobbes gave to this central figure) might punish them for certain acts. At the same time, this limitation of random acts would serve to protect themselves from harm they might otherwise inflict upon each other, in this case the overgrazing of the communal pasture. Rather than every herdsman working out of self-interest, the Leviathan would force them to cooperate and thereby achieve the best possible outcomes. By creating a Leviathan, one can ensure stability and success.

However, there is always the issue of corruption. Giving a single person or body complete executive power might lead to an abuse of this power. This concept is well illustrated by Michael Laver (1997: 43): "A rational monarch will presumably use such power not just to enforce agreements, and maybe not even to enforce agreements at all, but to exploit subjects without mercy for personal profit." This passage, referring to the types of Leviathans predicted by Hobbes, shows that such institutions sometimes become corrupted by their power(s). The

French king Louis XIV epitomized this concept, famously stating "L'etat, c'est moi" (Rowen, 1961: 83), or "I am the state." Such corruption can ultimately lead to an overthrow of the Leviathan, resulting in a period of chaos. The American and French revolutions are both examples of populations rising up against what they perceived to be tyranny. Although a Leviathan can be useful in creating and enforcing order, it can easily get out of hand.

Relating this idea of a Leviathan to the problem of recycling in St. John's, one can see that a Leviathan could be quite useful. By having a powerful central authority enforce proper recycling regulations, the problem would effectively be fixed. Even better, there are already examples of successful Leviathans for this issue. In the case of Antigonish, NS, this Leviathan is the municipal government: "Summary offence tickets (fines) are issued to those who continue to violate the use of proper receptacles/bags for garbage, recyclables and organic containers . . . the hauler has the authority to leave material at the curbside if there is a violation" (Antigonish, 2007). This quotation is taken from the municipal regulations for waste collection in the town. In Antigonish, all recyclables and compost material are collected at the curbside, in the same manner as garbage is in most communities. As all garbage and recyclables must be placed in clear plastic bags in Antigonish, the hauler can easily see what is inside each bag. If a hauler notices that certain items are not being properly disposed of, then the waste will simply not be collected. This system plays into the rational self-interest of the populace. By not properly recycling materials, one would be left with excess piles of waste. Simple sorting of certain items into the appropriate bags eliminates this problem; rather than having to drive to a landfill or recycling depot and attempt to have them accept it there, one cane avoid this unnecessary work by simply cleaning and sorting a few items. By enforcing stricter regulations, a Leviathan can not only ensure that people will recycle, but that it will be in their best interest to do so.

There is obviously a difference in terms of population between the small town of Antigonish, NS and the city of St. John's. One would then be led to wonder if such a program would be successful if applied on a large scale. However, Antignonish is but one example of such a waste management program. There are many other cities across the country that have similar curb-side recycling programs. In fact, St. John's is "one of only two provincial capitals that doesn't offer such a service" (Canadian Press, 2008). The city of Edmonton, AB has even had a curb-side recycling program since 1988 (Edmonton, 2008). In comparison, a study by Statistics Canada released in 2007 found that, in Newfoundland and Labrador, "only 35% of households reported having access to paper recycling, while 61% had access to metal recycling, 72% to plastic and 75% to glass" (Statistics Canada, 2007). The use of a Leviathan to enforce stricter recycling regulations in St. John's, as proven in the examples of other Canadian cities, would be the best way to resolve the problem of poor recycling.

The Leviathan also overcomes the vast majority of other limitations. As noted previously, having the populace (or elected officials) decide upon a recycling policy, even if that were possible, would not necessarily result in an optimal outcome. Consensus may be achieved, but it may not be informed. If City Council were to have civil servants already employed to deal with environmental issues come up with a proper recycling scheme, it could ensure that an educated policy for dealing with recycling issues was achieved. Also, as many other cities in Canada have established proper mandatory recycling programs, these civil servants would have the benefit of looking at these examples. A properly informed Leviathan can easily be used to stop the problem of poor recycling in St. John's.

Also, as noted, corruption can sometimes be an issue with a Leviathan. In this case, however, the threat seems quite minimal. As this Leviathan would only be dealing with the proper methods of waste disposal in the city, it seems highly unlikely that those who developed these policies would develop a taste for power and seek to consolidate it; it has not occurred in any other Canadian city, and the concept of authoritarian recycling fanatics trying to seize power in St. John's is absurd to say the least. Even if such a bizarre situation were to occur, the populace could stop this corruption through simple, non-violent means. By expressing its dissatisfaction with those controlling recycling policies in the city at the next municipal election, the populace could force the elected officials in charge of these civil servants to direct policy revisions. Having the environmental civil servants of the City Council act as a (limited) environmental Leviathan, one could ensure that the city's recycling problems were effectively resolved.

In this paper, I have argued that the poor quality of recycling programs in St. John's is due to a collective action problem, coupled with a lack of awareness of the impact of excess waste. Recycling programs in St. John's are inefficient, and having a negative impact upon the environment. This problem, while it is in the rational self-interest of the populace to solve, has not been solved because it is a collective action problem. Privatization, while it may work in other, smaller-scale collective action programs, would be useless in this case. Negotiations amongst the citizens of St. John's, while they may produce a solution to which everyone might consent, would not necessarily produce one which would be effective. A central authority figure, or a "Leviathan," is what is necessary to fix this problem. Although Leviathans do have their limitations, in this scenario, they are the best possible solution. I have used collective action theory to study this issue, drawing on Olson, Ostrom, Hobbes and others. This issue is important because the environment is a limited resource that impacts us all.

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