ENGAGING THE MASSES

A quantitative analysis of the role of reputation in explaining membership in environmental organizations

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Abstract

This thesis found its point of departure in the conundrum of why people join environmental organizations. To find what factors can predict membership in environmental organizations is becoming increasingly important as climate change worsens, and collective action seems out of reach. The value-belief-norm theory argues that when individuals harbor the right values, beliefs and norms, proenvironmental behavior will ensue and thus alleviate collective action problems. To some extent, this has been shown to be the case. The literature has failed, however, in explaining costly proenvironmental behavior. This thesis furthers the research agenda by investigating whether reputation can add explanatory power to the VBN theory, through a tentative quantitative analysis of World Values Survey data. Reputation has long been seen as a facilitator of cooperation and could potentially explain why some individuals join environmental organization or not. The hypotheses tested are 1) Individuals with a strong personal norm will be more likely to join an organization; 2) That an individual that accords a high reputation to the environmental movement will be more likely to join an organization; 3) That an egoistic individual will be as likely as an altruistic individual, or more likely, to join an organization. Through conducting several logistic regressions this thesis finds support for all of the hypotheses. Future research would benefit from replicating the results found in this thesis. Furthermore, future research should focus on disaggregating the "environmental movement" and study membership in relation to specific organizations whether local or national, big or small.

Keywords: Environmental organization; Proenvironmental behavior; VBN theory; Reputation; Collective action

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[1] Section from course paper in the course Environmental Politics and Institutions (SK2221), Gothenburg university 2017.
(Karan N. (2017) Support for social movements – The power of reputation)

[2] Ibid

[3] Ibid

[4] Ibid

[5] Ibid

[6] Ibid

[7] Ibid

[8] Ibid

1. Introduction

Environmental organizations are important players, channeling public opinion, putting pressure on politicians and generally trying to affect policy decisions. In Sweden, the SSFNC (Swedish Society for Nature Conservation) is the largest NGO, but – why do people join such organizations, how can that be explained?

Determining which factors influence pro-environmental, or pro-social behavior in general, is highly important in order to successfully create policies for combating a range of contemporary collective action problems such as e.g. climate change, resource depletion or pollution (Harring, Jagers & Matti, 2017). Whilst exploring previous literature this thesis finds that while the research conducted provides extensive answers, it does not quite fill in all the blanks. The variance explained by the literature in proenvironmental behavior ranges from between 20 percent to 50 percent. There has been success in finding determinants for less costly behavior, but still, explanatory power is still lacking when it comes to costlier behaviors (Jagers et al, 2017). This thesis proposes the idea, following Ostrom's (1998) example in relation to collective action, that the introduction of indirect reciprocity, inferred through reputation, to the value-belief-norm theory of proenvironmental behavior (henceforth VBN theory) would paint a more complete picture of how e.g. policies, organizations and social movements gain support and acceptance. In this thesis this relationship will be tested by analyzing World Value Survey (WVS) data.

Research concerning what factors determine voluntary proenvironmental behavior is mainly found in the field of environmental psychology (Harring & Jagers, 2013). There are general directions of research within this field; first the value-basis of environmental beliefs and behavior, second the role of environmental concern and the third strand of research concern itself with the role of moral obligation to act pro-environmentally (Steg & Vlek, 2009). In this thesis the primary concern is the third line of research, although there are lessons to be learned from the other directions as well. The first line of research has found e.g. that people who are more pro-social, altruistic and self-transcendent are more likely to be more actively pro-environmental. The second strand of research has found that the more environmental concern an individual harbor, the more prone the individual is to engage in pro-environmental behavior (Steg & Vlek, 2009).

As I stated above the third general line of research concerns the moral obligation to act pro-environmentally. Studies conducted within this research usually set out from the norm

activation model, the planned behavior theory or, as in the case of this thesis, the VBN theory. By using these points of departure this line of research has been able to explain some forms of pro-environmental behavior. These behaviors include e.g. policy acceptance and political behavior e.g. signing petitions, demonstrating or contacting representatives (Steg & Vlek, 2009, Harring & Jagers, 2013). However, the theory falls short of explaining behaviors that are associated with higher personal costs in relation to time, money and effort e.g. restricting one's car use or being a member in an organization. Also, in line with this, the theory has been shown to be able to better explain individuals' acceptance of governmental policies in the form of "pull"-instruments rather than "push"-instruments i.e. it can explain support for instruments that are aimed at incentivizing rather than punishing (Jagers et al, 2017, Jagers et al, 2018, Eriksson et al, 2008). This does not mean that the theory is lacking the potential to explain costlier behaviors; it simply suggests that something is missing from the equation. Values, beliefs and norms only take one so far.

In line with this thought, a lot of authors have tried to include other explanatory factors and determinants in an effort to expand the VBN theory, spanning from attempts to include e.g. individual motivation (Steg et al, 2005), to political and interpersonal trust (Harring & Jagers, 2013) to motivations (Jagers et al, 2016). Harring and Jagers (2013), showed that political and interpersonal trust affects the extent to which people are willing to accept environmental policy, in their case operationalized as carbon dioxide tax. In other words, if an individual trust that their *fairly* elected politicians knows what is required to combat climate change and that they will utilize tax revenue in an effective way while also trusting their fellow citizens to cooperate, the individual will be more prone to accept environmental policy. At least at a low cost to oneself. Similarly, Jagers et al (2016) explored whether individual motivations lead to what they call *environmentally significant behavior* (ESB). They judge that individuals have different motivations for acting proenvironmentally e.g. some people act environmentally because they want to be conscientious about the environment, while others may act environmentally because of potential outcomes of the behavior itself e.g. economic or health outcomes (Jagers et al, 2018).

However, although including trust in the VBN theory makes the theory able to explain pro-environmental behavior to a greater degree, it still falls short of the mark when it comes to explaining how costlier behavior can take place. I think part of the answer to that particular conundrum lies in the importance of a, normatively, good reputation. The costlier an endeavor is to the individual; the more important prior knowledge of an organization or social movement

becomes i.e. their reputation. In this thesis I will explore and try to explain the role of reputation might have in the support for social movements, specified in this thesis as membership in environmental organizations.

Thus, it is the past behavior of an organization or social movement that comes to the fore. This past behavior is used by individuals as a predictor of future behavior (Bitektine, 2011). In this thesis I argue that even if an individual harbor the correct values, beliefs and norms that individual will not engage in costly behavior, e.g. membership in an organization, if the organization or social movement at hand does not have a good reputation. It has been shown in previous research that reputation levels extend to trust i.e. a bad reputation leads to less trust from your peers, and vice versa (Barclay 2004). In large scale collective action (LSCA), where cooperation is hard to enforce due to the large number of people making it hard to hold defectors accountable, a good reputation becomes a receipt of past good behavior and cooperation, thus signaling to others that one is trustworthy. In other words, in relation to LSCA where faces change, one needs another guarantee e.g. a reputable name (Milinski, 2016). As such, the aim of this thesis is to investigate if *the inclusion of reputation in the VBN-theory can explain costlier pro-environmental behavior.*

As stated above, this thesis will examine the discussion on what determinants there are for pro-environmental behavior, in general, but will also conduct a tentative theory developing analysis to evaluate if reputation potentially lends the VBN model more explanatory power in relation to costlier pro-environmental behaviors. The rest of the paper is structured as follows; first I will describe the research gap and contribution of this thesis. Next, I will account for the theoretical background of the VBN model, Reputation and how the two fits together. In the third part I will present my methodology, data and the limitations of the research. Fourth I will present the results of my analysis and discuss this in relation to my hypotheses. Finally, I will discuss my results and suggest future avenues of research.

1.1. Contribution of the thesis and research gap

> "… [T]he theory of collective action is *the* central subject of
>
> political science. It is the core of the justification of the state."
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> (Ostrom, 1998, p 1)

As Ostrom states, research surrounding collective action is at the very center of political science. History is a story of fierce competition and conflict that ranges from fighting over natural resources to expanding the borders of the state. And yet, despite this, we can see

evidence of cooperation everywhere. The social contract between the state and its citizens, compliance with rules and regulation and trade between nation-states are but a few examples of collective action. Nowak (2006), in reference to the fact that no other living organism is engaged in the same complex struggle concerning cooperation and defection, claims that "[h]umans are the champions of cooperation" (Nowak, 2006, p 1560). Humans have a singular ability to overcome the problems inherent to collective action.

There are plenty of examples where humans fail to solve collective action problems, but perhaps the most prominent is the issue of climate change. The environment is a global common which means that negative events, e.g. pollution, ultimately affects everyone. Environmental problems such as the depletion of fish stocks, degradation of air quality and global warming are situations where the long-term consequences of doing nothing or too little will have catastrophic consequences, yet we fail to find solutions that people are willing to adhere to (Harring & Jagers, 2013). In general people are more prone to do what benefits themselves *individually* in the short-term, thus disregarding future *collective* losses if this has costly consequences for themselves. In LSCA this phenomenon becomes even more prevalent since the collective usually does not have any way to ensure accountability between all individuals. The ways to ensure accountability in small scale collective action are not feasible when the number of people involved becomes greater. Face-to-face communication and direct reciprocity simply are not feasible in LSCA which increases the opportunities for individuals to defect (Ostrom, 2010, Duit, 2010).

There is a plethora of suggestions of how to facilitate cooperation in the research surrounding collective action. For example, there are those who propagate the view that deliberative democracy is the foremost way to combat environmental issues, there are also those that research ways to influence peoples' pro-environmental values and behavior through different various policies. In economic research most researchers advance the argument that market-based solutions are what have the highest chance of alleviating the collective action problems inherent to environmental issues (Harring & Jagers, 2013).

However, what success various policy measures enjoy is immaterial if they do not gain acceptance and support from the general population. Thus, the focus of this thesis is on factors that can explain support and acceptance of organizations, policies and movements, in general, and what can explain costly behavior, e.g. membership in an environmental organization, in particular. A lot of research has been conducted on this topic already, and it has been able to partially explain, relatively, cheap pro-environmental behavior. However, costlier pro-social

and pro-environmental behavior has yet to be fully understood. Costlier behavior is characterized by instances where e.g. an individual has to be willing to sacrifice more time, money and effort. This is indeed problematic since as Ostrom (2010) states, that in order to combat climate change, it is required that "many participants take expensive actions" (Ostrom, 2010: 550). One such behavior that Ostrom (2010) speaks of, and the behavior intended for analysis in this thesis, is membership in an, environmental, organization. Being a member in an environmental organization, in most cases, has costly consequences in relation to time, money and effort (Jagers et al, 2016, Jagers et al, 2018, Stern et al, 1999). Harring and Jagers (2013) raise the question that if value research is right, i.e. that what you need is the correct values, which leads to a certain behavior, then why are there "grey" individuals? "Grey" individuals are conceptualized as individuals who have all the right prerequisites but do not act accordingly (Harring & Jagers, 2013: 213-214). Furthermore, Tam and Chan (2018) states that there is "dearth of investigations" in relation to what they call the "concern-behavior" gap i.e. the gap between high levels of environmental concern and actual proenvironmental behavior (Tam & Chan, 2018: 183).

This thesis, in an effort to add to literature concerning these "grey" individuals and the "concern-behavior" gap, explores the possibility that indirect reciprocity, inferred through reputation, might explain why some individuals engage in costly behavior while others do not. To the author's knowledge no research has been conducted to explore the potential role of reputation in the VBN-theory, or otherwise. The main contribution of this thesis is that it will address this research gap and add to the field of research. Furthermore, it will lend further understanding to the literature of how to overcome collective action problems in relation to costly behavior.

Additionally, as the vast majority of previous research has been conducted on pro-environmental behavior in general, without paying special attention to specific behavior, this thesis will make a contribution with an analysis of a specific costly behavior, namely; membership in an environmental organization.

1.2. Purpose and aim
As mentioned above the suggested research gap this thesis intends to fill pertains to the determinants of costly proenvironmental behavior. Focus will be on the role of reputation in relation to the VBN theory of support for social movements when it comes to membership in

an environmental behavior. To fulfill the aim of this thesis, an analysis of WVS data will be conducted. The following overarching question will be answered:

Can the inclusion of reputation in the VBN-theory of support for social movements explain costly proenvironmental behavior?

2. Theoretical framework and literature review

The determinants of proenvironmental behavior have been amply studied in past research. Yet there has, to the author's knowledge, not been any successful attempt of explaining why some individuals engage in costly behavior and others do not. I have chosen to focus on the arguments put forward in the research concerning the moral obligation to act proenvironmentally. In the following sections I account for the VBN theory of support for social movements, as well as the existing critiques of it. Additionally, I also present a review of the research on reputation and how it facilitates collective action through reciprocity, both direct and indirect. Finally I present my arguments for why reputation should facilitate costly proenvironmental behavior and thus be a plausible addition to the VBN theory.

2.1. Environmental behavior explained by values, beliefs and norms

The VBN theory has been developed in the last couple of decades within the field of environmental psychology. It holds that proenvironmental and prosocial behavior has its roots in peoples' personal values. In other words, peoples' normative ideals concerning how the world should be; guide their actions. The theory posits that values held by an individual are part of a causal chain where values leads to beliefs about how the world should work i.e. an awareness of the consequences attached to one's actions or inaction and an ascription of responsibility for these actions or inaction. These beliefs in turn lead to the individual developing personal norms of how to act (Stern et al, 1999, Stern, 2000). The VBN theory is a *hierarchical* model, where each variable is mediated through the next i.e. values are mediated by beliefs which in turn are mediated through a personal norm (Harring & Jagers, 2013).

The inventors of the VBN theory drew inspiration from a few different prior theories when creating it, basically one for each step in the model. The general value orientation of an individual is assessed by using a condensed version of Schwartz's (1992, 1994) value inventory scale. The original version outlined by Schwartz measured two dimensions; openness to change and self-transcendence vs. self-enhancement. Self-transcendence includes values such as altruism, universalism and benevolence while self-enhancement includes value types such as power, achievement and self-interest (Schwartz, 1992, 1994). In Stern et al's (1999) version

only the second dimension of self-enhancement vs. self-transcendence is included. In a later version the value dimension of the VBN theory has been further developed to only specify altruistic, egoistic and biospheric values (Stern, 2000). Unsurprisingly the more altruistic the individual, the more prone to proenvironmental behavior the individual is.

The second source of inspiration is the New Ecological Paradigm (NEP), which is not so much a theory as it is a perspective. It is representative of individuals' growing realization that one's actions has far-reaching effects that can be harmful to the biosphere (Stern et al, 1999). In sum, it leads to an *awareness of the consequences* of one's actions. This in turn leads to an *ascription of responsibility* of how one chooses to act regarding the values one holds, and the consequences of one's action or inaction (Stern et al, 1999). In Stern et al's (1999) study the primary focus is environmentalism, which lends itself well to NEP. Should one's focus lie on a different social movement, e.g. the labor movement, one could potentially replace this variable with another perspective. Altruistic values would then lead to another pro-social worldview, giving rise to awareness of consequences particular to that struggle and ascription of responsibility for the consequences of action or inaction.

The third inspiration is found in the Norm Activation Theory (NAT) (Stern et al, 1999). This theory posits that, given the right circumstances, personal norms held by individuals will be activated, which in turn leads to the individual acting in line with the norm. According to the theory norm activation occurs when an individual is aware of the consequences of one's action or inaction and ascribes responsibility to oneself for those consequences (Stern et al, 1999). The VBN theory states that this activation of a personal norm leads to proenvironmental behavior. Research into proenvironmental behavior has shown that it is necessary to categorize different kinds of behavior. Stern (2000) found that pro-environmental behavior can be divided into three major distinct categories; *environmental activism*, *non-activist behaviors in the public sphere* and *private-sphere environmentalism*. Environmental activism mainly concerns joining environmental organizations and demonstrating. Public-sphere non-activism is characterized by e.g. signing petitions and supporting policy. Private-sphere environmentalism predominantly takes place in the everyday life of citizens e.g. recycling and buying local produce for environmental reasons. He also found four different factors that act as determinants for these behaviors; *attitudinal*, *contextual*, *personal capabilities* and *habits and routines*. Attitudinal factors signify values, beliefs and norms, with subsequent views on costs and benefits of specific actions. Contextual factors denote e.g. laws and regulations and material costs. Personal capabilities concern e.g. an individual's formal education level or specific

knowledge about environmental matters. Habits and routines is quite self-explanatory and simply dentoes that an individual's usual way of doing things will affect whether specific actions are, to a greater or lesser extent, feasible. These determinants can under the wrong circumstances act as constraints on individuals' capacity to act pro-environmentally, and vice versa (Stern, 2000: 416-417)[9].

Stern (2000) further argues that each category of environmental behavior has different causes. Therefore, one should not assume that all environmental behaviors are caused, or affected, in the same way by the different determinants. For example, attitudinal factors should explain more of the variance in behaviors that are not constrained by contextual aspects or personal capabilities. Whilst costly or expensive behaviors, theoretically should be better explained by personal capabilities or contextual factors. In this thesis, the main focus is on attitudinal and contextual factors in the form of indirect reciprocity induced by organizational reputation (Stern, 2000: 418).

These different sources of inspiration are all brought together in the VBN theory and create a causal chain. Values are mediated through one's world view, which gives rise to an awareness of consequences and ascription of responsibility that in its turn activates one or several personal norms thus leading to pro-social behavior. It is a moral obligation stemming from the awareness of consequences and ascription of responsibility that activates the norm and subsequent behavior (Stern et al, 1999, Stern, 2000). There are, however, critics of the VBN theory that need to be voiced.

2.2. Critique of the VBN theory of support of social movements

Kaiser et al (2005) state that the theory of Planned Behavior (TPB) is better equipped to explain pro-environmental behavior. While moral and altruistic norms play a key role in the VBN theory, in TPB they only play an implicit role. Kaiser et al (2005) also object to the VBN theory explaining behavior through the mediation of long line of variables. According to TPB *intention* is the direct antecedent of overt behavior. Intention is explained as being an individual's perceived control, their attitude towards a certain act and their subjective norms. Attitude is further specified as the rational evaluation of consequences associated with a certain behavior, and subjective norms are described as the strength of normative beliefs and the motivation to act according to these beliefs (Kaiser et al, 2005). The authors test the two theories against each

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[9] Paragraph taken from course paper in the course Applied statistical analysis, SF2321, University of Gothenburg, 2017. (Karan N. 2018, Environmental Attitudes and Behavior)

other and find support for both, but further state that they believe TPB explains the relationship between intention and behavior more fully than the VBN theory. However, as Nordlund and Garvill (2002) state, this might be a consequence of the concepts of intention and behavior being closer, rather than the long causal chain of causality inherent to VBN. Nordlund and Garvill (2002) further argue that values as a concept are abstract and transcend situations, which could explain the rather weak relation found between general values and behavior.

There is also a literature criticizing VBN for presupposing that proenvironmental behavior always stems from proenvironmental values, beliefs and norms (Steg & Vlek, 2009). These authors argue that proenvironmental behavior is "equifinal, (i.e. an outcome that can be reached by many potential means)" (Jagers et al, 2016, p 645). As such, they argue that not only prosocial, or proenvironmental, values can promote proenvironmental behavior. Instead, proenvironmental behavior is seen as something that it is possible for to stem from both personal aspirations as well as collective interests. It is also shown that the same motivational foundation, i.e. environmental values, beliefs and norms, can vary in its predictive power on the *same* proenvironmental behavior (Stern, 2000, Steg & Vlek, 2009). Jagers and colleagues (2016) show that respondents often state that their proenvironmental behavior is not motivated by proenvironmentalism at all, but state e.g. health or economic reasons instead (Jagers et al, 2016: 652-653). This goes to show that one does not necessarily have to have proenvironmental values, beliefs and norm to act proenvironmentally. But rather that proenvironmental behavior can have "self-serving" motivations as well.

However, since the aim of this paper is to include reputation in a model for explaining public support for social movements, moral and altruistic norms must be included. Reputation levels are affected by altruistic and moral actions as well as historical performance and inferred future behavior (Milinski et al, 2002a, Lange et al, 2005). This and the fact that the VBN theory has almost as much explanatory power as TPB, shows that the theory is still a valid choice, even though TPB potentially explains the relation between intention and behavior more fully.

Furthermore, both De Groot and Steg (2009) and Steg and De Groot (2010) show that the norm activation model works as a mediator model. Behavior and intentions were found to be affected by level of problem awareness, ascription of responsibility and outcome efficacy. Nordlund and Garvill (2005) also find support for the mediator model, when testing whether personal values affect personal norms of behavior on 1400 individuals in Sweden. This lends further strength to the VBN model, showing that behavior depends on the level of awareness of consequences, awareness of responsibility and personal values. However, as stated above, the VBN theory

does have difficulties with painting a full picture of why people decide to act pro-environmentally. Harring and Jagers (2013) included political and interpersonal trust in the VBN theory and succeeded in part. They found that people who have higher levels of trust are also more prone to act pro-environmentally i.e. more likely to comply with policy in the case of their study. But they could still not explain why people with all the right prerequisites do not engage in costlier behavior.

Incorporating trust in the VBN theory did get results, but it still does not explain why some people act pro-environmentally and others do not. The individuals who have the correct values, are aware of the consequences of action or inaction and ascribe responsibility to themselves but still choose to not act are still a puzzle to the research field. This thesis tries to explain these "grey" individuals by adding the concept of reputation to the VBN-theory. However, before such an addition can be made it is important to have a discussion on how reputation is conceptualized in this thesis.

2.3. Reputation and collective action

Milinski (2016) describes reputation as a universal currency because of its social nature. Any prior information about the other part, i.e. the reputation of the other part, in a social transaction helps to make good decisions. Having a good reputation thus becomes paramount to be considered a trustworthy counterpart in a transaction. Reputation is even argued, by some authors, to help stabilize the tragedy of the commons (Semmann et al, 2005, Panchanathan & Boyd, 2004, Milinski et al, 2002b). A good, or bad, reputation is gained by mechanisms of either *direct* or *indirect* reciprocation. Direct reciprocation is characterized by tit-for-tat strategies, i.e. if you scratch my back, I will scratch yours. Direct reciprocity mandates that the same two individuals will repeatedly interact, which is not the case in LSCA. Since this version of reciprocation is quite immediate in nature and does not hinge upon prior knowledge, it will not be further analyzed in this paper. Indirect reciprocation however, requires at least two steps in contrast to the one step tit-for-tat strategies of direct reciprocation. Rather than "you scratch my back, I scratch yours" it is "I see you scratch someone else's back, I scratch yours" (Milinski, 2016, Nowak & Sigmund, 2005, Nowak, 2006). Along those lines Nowak (2006) states that "[t]he money that fuels the engine of indirect reciprocity is reputation" (Nowak, 2006, p 1561).

Through indirect reciprocation one obtains a good reputation that helps in future transactions, if your behavior has been observed by others. Another way to describe it is that when direct

reciprocation is observed, it becomes indirect reciprocation when the observers reward that behavior in later transactions (Nowak & Sigmund, 2005). Observation not only works as a catalyst for indirect reciprocation, i.e. when the observers reward the contributor in a latter transaction, it also works as a catalyst for altruistic behavior. Haley and Fessler (2005) show that being observed, through putting eyes on the desktop of the computer during an experiment, raised individual's propensity to act altruistically thus sustaining cooperation and ensuring prosocial behavior. They draw the conclusion that individuals not only observe overt and explicit signals and information when making judgments about others and engaging in certain behaviors but are influenced by much more implicit and subtle cues.

In a similar vein Vonasch et al (2017) show that individuals will go to extreme lengths to preserve their reputation in a series of hypothetical experimental situations. When asked if they would e.g. endure intense pain rather than being known as a Nazi or child molester, most people chose to endure pain or even death (Vonasch, 2017: 7). The authors' state that this is due to society is based on pro-social behavior and cooperation. To damage one's reputation in this setting equals making one's life that much harder to lead. The stimuli in their experiment are rather extreme albeit hypothetical, and their results should be taken with a grain of salt. Stimuli like these, however, are never perfectly calculated, but in general; researchers seem more forgiving of stimuli that say too much than stimuli that say nothing at all.

Milinski et al (2002a) find that altruistic behavior is rewarded with more contributions from observers. In their experimental study they noticed that if a hypothetical politician was seen giving a contribution to UNICEF, they not only received more contributions themselves, but their political reputation was also enhanced. They note, however, that their results might have been different had they chosen to use a less known organization than UNICEF as the recipient (Milinski et al, 2002a, p 882-883). Nevertheless, Hardy and Van Nugt (2006) find similar results in an experimental study of their own. They show that altruism bestows more status to group members. Altruistic individuals were more respected, held in higher esteem and were more often put forward as group leaders.

Furthermore, Semmann et al (2005) find that reputation is important not only within one's own social group, but it carries over to other social contexts as well. A good reputation makes all your peers more prone to cooperate with you, given that they know of your prior behavior. In their experiment, they alternated participants between groups. Each participant had their transaction history on full display regardless of which group they played with. What they found was that contributors during public good games took no note of if the person they contributed

to had been in the same group during earlier indirect reciprocity games. Thus, they conclude that reputation carries over, if one is regarded as a good person one is rewarded with more contributions not only in one's own social group. This could be because of individuals' propensity to trust more altruistic people (Barclay, 2004). If people have a prior knowledge of a person's past good behavior, this individual becomes more trustworthy in their eyes thus receiving more contributions. Rönnerstrand and Sundell (2015) in a study concerning reciprocity and trust, find that people are willing to postpone antibiotic treatment for a longer period of days, if they know that other people have postponed treatment. They deduce that this might be due to people's desire for a good reputation and indirect reciprocity.

2.4. Social judgments of organizational reputation

So far, I have introduced how indirect reciprocity and reputation affects an individual's judgment of their fellow people in small scale collective action (SSCA). In LSCA, however, where faces change, and direct reciprocity is infeasible additional information, a heuristic, is needed to foster cooperation i.e. a reputable name (Mishina et al, 2012, Milinski, 2016). When dealing with individuals' evaluation of e.g. corporations, organizations or the state it is important to keep in mind that organizational reputation is not to be confused with its conceptual cousin legitimacy. It is true that both concepts share some of the same antecedents e.g. organizational size and charitable giving.

What distinguishes the two concepts is by what *aspects* they are evaluated by individuals. Simply put, legitimacy is evaluated in relation to *similarity* while reputation is evaluated in relation to *differences* (Bitektine, 2011: 160). In line with this claim legitimacy is considered to be evaluated in relation to social acceptance, i.e. how well an organization live up to normative, regulative norms and expectations. Reputation is also evaluated in relation to how well organizations live up to these same norms and expectation, as well as other attributes, but in relation to how other organizations perform (Deephouse & Carter, 2005, Bitektine, 2011). Additionally, there is an economic logic to reputation. Evaluating an organization's past behavior, in relation to e.g. reciprocity, creates expectations of how that organization will behave in the future. It is an indication of what the organization is capable of, and how it will likely behave in a similar situation. As reputation levels are used a heuristic for determining future behavior it is important to note that they are vulnerable to new information about past behavior. Negative effects on reputation levels may cause stakeholder, e.g. members, to defect. A good reputation is therefore paramount for e.g. environmental organizations, corporations and NGO's (Lange et al, 2011, Bitektine, 2011, Mishina et al, 2012).

Bitektine (2011) analyzes how individuals make judgments of social organizations regarding, legitimacy, reputation and status. The evaluator will analyze the past behavior of the organization in relation to other organizations e.g. its honesty, quality of product, if it is a viable competitor and if it is well-managed. This information is then used as a predictor of how the organization can potentially behave in the future (Bitektine, 2011). If no information can be found on a specific organization, it will most likely be treated as reputation neutral (RN) by the evaluator. If for example an individual wants to join an environmental organization, they will join an organization judged to have a positive reputation (RP) in the first hand, if one cannot be found an RN organization will be chosen. The author hypothesizes that, if an RN or RP organization cannot be found the individual will join an organization with bad reputation (RB) (Bitektine, 2011: 165-166). Considering the detrimental effects, a bad reputation has for cooperation between individuals, I believe an individual would be hard-pressed to join or actively support an organization with a bad reputation if they have a choice of abstaining from participation altogether.

2.5. Hypotheses

This thesis aims to explore the differences in engaging in costly proenvironmental behavior, conceptualized as membership in an environmental organization, and how an individuals' evaluation of an organization's reputation affects the relationship. The main focus is to assess this relationship in relation to the hierarchical model of the VBN theory, as presented above in the theory section. Based on the previous research the first hypothesis pertains to the personal characteristics explained in the VBN theory and the hierarchical nature of the VBN theory (Stern et al, 1999, Stern, 2000, Nordlund & Garvill, 2005, Harring & Jagers, 2013). That is, individuals with altruistic values, proenvironmental beliefs and strong personal norms of behavior, will be more inclined to join environmental organizations. Additionally, the second hypothesis relates to the hierchical nature of the VBN theory. Since it is hierarchical personal norms are considered to mediate the effects of the antecedent factors in the model i.e. an individual's personal norm of proenvironmental behavior mediates the effects of that individual's values and beliefs. Thus, the first two hypotheses that will be tested are formulated as follows:

H_1 In accordance with the VBN theory, individuals with a stronger personal norm for proenvironmental behavior will be more likely to join environmental organizations

However, since membership is characterized as a costly behavior in previous research, the relationship hypothesized in H_1 is expected to be rather weak albeit positive. The relationship is expected to strengthen with the introduction of reputation to the model. As shown in previous research, reputation has been shown to facilitate cooperation in both smaller and larger groups through indirect reciprocity. Additionally, reputation has also been shown to carry over from one's own social group to other social groups. Through evaluations of an individual's or an organization's past conduct people assess their probable future behavior (Milinski, 2016, Nowak & Sigmund, 2005). In relation to LSCA, reputation is used a heuristic to assess how well e.g. an environmental organization performs in relation to other organization along certain attributes e.g. altruism. Individuals using reputation as a heuristic to evaluate an organization's past behavior and to gauge probable future behavior will thus be more or less inclined to become a member, based on the level of confidence the reputation inspires (Deephouse & Carter, 2005, Bitektine, 2011). Hence the second hypothesis to be tested in this thesis is formulated as follows:

H_2 The higher the reputation of an environmental organization, the more likely an individual is to become a member

Furthermore, since reputation is seen by individuals as something normatively desirable because it enhances people's willingness to cooperate with them within and outside of their social group, a hypothesis considering egoistic motivations for becoming a member should be included in the study. Egoistic motivations could include wanting to be recognized, or maximizing one's reputation. If others in an individuals social group notice that they are members of an environmental organization with a good reputation this may send signals that the individual is worthy of cooperation, therefore making membership in an organization desirable to an individual with egoistic motivations. This, despite potentially not having as strong pro-environmental values and beliefs. Hence the third and final hypothesis to be included in the analysis is formulated as follows:

H_3 An individual with self-enhancement values will be as likely as, or more likely than, an individual with altruistic traits to become a member in an environmental organization

3. Method

This section of the thesis will discuss and describe the data that was chosen for the analysis. Additionally, the potential problems and advantages of using this kind of data is discussed. Furthermore, the section will also problematize and discuss the operationalization of the

concepts that are to be tested in the analysis. Finally, a description of the chosen method of statistical analysis is presented and discussed.

3.1. Data

For this thesis the World Values Survey (WVS) dataset has been chosen for the analysis. The WVS is the largest non-commercial and cross-national investigation into the values and beliefs of the general public that has ever been conducted. The data is widely accessible and is frequently used by scientist. The individual data has not been aggregated. Since its conception in 1981, the investigation has been conducted in a number of waves, with the most recent being wave six in 2010 to 2014. The data is collected nationally, and the respondents are sampled randomly from the population. Additionally, even though the data is collected by scientists in the individual nations, only one standardized survey is used in all countries, thus ensuring comparability along respondents from the different countries. Data is collected on everything from socio-demographic variables e.g. income, age, religion, to whether an individual would be willing to go to war for her country (WVS, 2018). In this thesis the fifth wave, conducted in 2005-2008 in 58 countries and gathering 83,795 respondents, was chosen for further analysis. After applying a filter, removing all respondents who had not answered all of the variables included in the analysis, 44314 respondents from 47 countries remained. The reason for not choosing the most recent one is simple; the latest wave has much fewer variables pertaining to climate change and other environmental issues.

For a thesis on the VBN theory the WVS is by no means the best data set available. The International Social Survey Programme (ISSP), for example, has a much more comprehensive set of variables in relation to Schwartz universal values, NEP and the remaining variables. However, after scouring every dataset that came to mind, e.g. the European Social Survey (ESS), ISSP and the EVS, it became clear that the WVS was the only dataset that included a question on respondents' evaluation of the reputation of the environmental movements. As a result of this choice, this thesis loses the ability to operationalize most of the key concepts in the same way as previous research has done. Consequently, this thesis becomes more tentative and heuristic in nature. Instead of adding directly to the cumulative nature of earlier research on proenvironmental behavior, this thesis explores the potential of the proposed relationship. If the thesis should find support for its hypotheses, it will be a sign that further research, using standard operationalizations, is warranted. Therefore, the author feels confident in moving forward with the analysis, despite flawed operationalizations. For a full account of which variables were used in the operationalizations, i.e. wording and answer categories, see appendix

1. All variables were recoded to filter out all missing categories, and if needed they were reversed so that all response options go in the same direction.

3.1.1 Dependent Variable

My dependent variable in this thesis is whether or not the respondent is a member in an environmental organization. Being a member in a social movement or organization has been categorized as a costly action by previous literature (see e.g. Stern et al, 1999). The variable originally had three response option; 0: not a member, 1: passive member, 2: active member. However, since this study is quite tentative in its nature, it was decided that intensity of membership was not as interesting as membership overall. Membership, whether active or passive, still represent a costly behavior, albeit of different intensity. Having two categories that denote membership, could potentially dilute the effect of the predictors, and make it harder to discern the effect of reputation. Therefore, in the hope that two categories would bring clearer answers in relation to the effect of reputation, the variable was recoded into two response options; 1: Not a member, 2: Member.

3.1.2. Independent variables

Reputation is the key variable for this thesis and is measured by a question asking for the respondents' *confidence* in the environmental movement. The question has four response options, that were reverse coded to make theoretical sense: 1: None at all, 2: Not very much, 3: Quite a lot, 4: A great deal. The fact that the question deals with the environmental *movement* and not environmental *organizations*, or for that matter a *specific* environmental organization, could potentially be an issue. However, as environmental organizations are part of the environmental movement, one can presume that the level of confidence in the movement can be transferred to, specific or as a whole, organizations as well. Confidence can be seen as a plausible proxy for reputation since it suggests that the respondents reflect on the historical performance of the environmental movement and how it will likely perform in the future (Lange et al, 2005, Bitektine, 2011).

Following the example of Harring and Jagers (2013) and Steg and colleagues (2005), in order to measure peoples' personal values I have used a condensed version of Schwartz's (1992) universal values scale. With the variables provided by WVS two value sets could be included in the analysis, self-enhancement and self-transcendence i.e. egoism and altruism. Egoism and altruism were measured with 10 items, five measuring self-enhancement and five measuring self-transcendence, asking the respondent to answer if a described person was similar to them. The response options were: 1: Very much like me, 2: Like me, 3: Somewhat like me 4: A little

like me, 5: Not like me, 6: Not at all like me. The respective five items were turned into scales, denoting altruism and egoism. The altruism scale hade a Cronbach's alpha of 0,713 and the egoism scale had a Cronbach's alpha of 0,672. Ideally, the Cronbach's alpha value should be over 0,7, however 0,672 is close enough to 0,7 that it does not seem necessary to exclude the scale from the analysis. Additionally, using scales with values below 0,7 has been done in the previous literature (see e.g. Harring & Jagers, 2013).

NEP has by the previous literature been defined as the growing realization that one's action has profound and far-reaching effects on the global environment (Stern et al, 1999, Stern, 2000, Dunlap et al, 2000). It is usually investigated through a 15-item battery of variables, in which respondents give share their views on e.g. the state of the global environment, whether science is good for the environment or not and if humans have the right to exploit the planet or if nature has a right to exist without human interference (Dunlap et al, 2000). Though there are examples where scientists use a condensed 10-item scale instead (Harring & Jagers, 2013). However, since the WVS do not offer the 15-item scale or the condensed 10-item scale, this thesis has operationalized NEP using three items that asks respondents about their opinion on the state of the *global environment*. The response options for the three items were: 1: Very serious, 2: Somewhat serious, 3: Not very serious, 4: Not serious at all. The items were coded into a scale that had a Cronbach's alpha of 0,811. Even though it is not as comprehensive as the 15- or 10-item operationalizations, the main point of the growing realization of effects on the global environment still stands. The operationalization in this thesis mainly taps in to one dimension of NEP, i.e. the state of the global environment.

AC, similar to NEP, is hard to capture in the usual way using WVS data. In the previous literature it has been measured through asking questions about if the respondents consider environmental problems will be a serious issue to them and their social context or whether climate change problems have been exaggerated (Stern et al, 1999, Harring & Jagers, 2013). In this thesis it is measured using three questions asking the respondents how serious they deem environmental problems in their *community*. This does not capture AC as well as it has been operationalized in previous literature, but it still invokes thought on how serious the issue of environmental degradation is, in the respondents. Knowing how serious, or thinking they know, environmental problems are in their community indicates a certain awareness of consequences. Thus, the three items were deemed sufficient to include in the analysis. The three items that were used had four response options; 1: Very serious, 2: Somewhat serious, 3: Not very serious,

4: Not serious at all. Furthermore, they were turned into a scale that had a Cronbach's alpha of 0,899.

When it comes to measuring AR, there were no variables that are usually included in the operationalizations. Traditionally, AR is measured through asking the respondents if they feel personally, or jointly, responsible for different environmental problems or if they feel that their contribution to the problem at hand is insignificant in the larger scheme (Steg et al, 2005, Harring & Jagers, 2013). In this thesis it is measured through using a standard survey question on whether, if the choice is presented, the respondent would rather prioritize economic growth and the creation of job opportunities or if they would rather prioritize environmental protection. This is answered on two response options; 1: Protecting the environment, 2: Economic growth. This, arguably, does not capture the dimension of ascription of responsibility to oneself as fully as the items suggested by previous literature. However, it can be argued that if an individual is prone to prioritizing environmental protection over the creation of jobs and economic growth, the same individual has ascribed responsibility for the health of the environment to him- or herself. As such, it will be used as a proxy for AR in this thesis.

In order to operationalize personal norm previous literature asks the respondents questions concerning the if the person feels guilty if not acting proenvironmentally and feel morally or personally obligated to behave in a certain proenvironmental way (Harring & Jagers, 2013, Steg et al, 2005). In this study the two questions used to measure personal norm concern if the respondents would be willing to sacrifice part of their income to prevent environmental pollution or if they would be willing to pay higher taxes if they knew that the money went to battling environmental pollution. This is potentially problematic since it does not tap into the moral dimension of the personal norm, but rather the willingness to pay which in itself, is a behavior that is usually included as an outcome in studies aimed at predicting proenvironmental behavior. However as shown by the previous literature, questions used to measure personal norm include those on the *personal* feeling of obligation to behave proenvironmentally (Steg et al, 2005: 419). The willingness to sacrifice part of one's pay or paying higher taxes could, albeit with difficulty, be argued to signify a personal obligation to behave in proenvironmentally. Thus the two items were turned into a scale and included in the analysis. The scale received a Cronbach's alpha value of 0,780. The two original items had 4 response options; 1: Strongly agree, 2: Agree, 3: Disagree, 4: Strongly disagree.

3.1.3. Control variables

Since this thesis aims to study what in the previous literature has been called a costly behavior, it intuitively seems appropriate to include a control for income. The previous literature has established that what resources that an individual has greatly influences his or her capacity to act proenvironmentally (Harring & Jagers, 2013, Steg et al, 2005, Stern, 2000) In this study the question posed to ascertain income level asks the respondent which income decile of the country their household belong to considering all manner of p e.g. pensions, wages and other incomes. I chose to recode the variable so that there would three distinct categories i.e. one low income, one middle income and one high income. Below, in Table 1, descriptive statistics of my variables are presented.

Table 1. Descriptive statistics

	Mean	**Std.Dev**	**Min.**	**Max.**	**N**
Membership in Environmental organization	1,13	,339	1	2	44314
Level of Reputation	2,64	,823	1	4	44314
Altruistic Values	22,94	4,345	5	30	44314
Egoistic Values	18,35	4,742	5	30	44314
NEP	10,50	1,802	3	12	44314
Awareness of Consequences	8,82	3,093	3	12	44314
Ascription of Responsibility	1,57	,494	1	2	44314
Personal Norm	5,41	1,554	2	8	44314
Income	1,82	,626	1	3	44314

None of the variables included in this thesis are operationalized fully as the measures have been in previous literature. But since the WVS is the only dataset that I have found that includes the question used to operationalize reputation, it was decided this had to be tolerated. Nonetheless, in this thesis the aim is not to test the mediational power of the VBN theory, instead, the focus lies on the explanatory power of reputation and how this variable affects the explanatory power of the other measures and the model. Therefore, it was decided to move forward with the analysis of the proposed hypotheses. First, however, I will explain the chosen statistical method.

3.2 Statistical method

The statistical method chosen for this thesis is binary logistic regression. The reason for this is because my outcome variable is dichotomous. There are, generally speaking, two major traditions within quantitative analysis, one is to conduct logistic regressions and the other is to conduct ordinary least squares regressions (OLS). In OLS there is an assumption that there is a linear relationship between the variables in your analysis. However, this assumption requires that the variables included are on a continuous level. Therefore, since my dependent variable is dichotomous, I cannot have a linear assumption in my analysis. The linear assumption further creates the possibility in the analysis to predict the value of the outcome variable based on the value on the predictor. Logistic regression casts the linear assumption aside, and instead of focusing on predicting the value of the outcome variable, it aims to predict the probability of an event occurring in relation to your outcome variable (Field, 2013). In the case of my analysis, logistic regression will, through calculation of the known values on my independent variables, predict the probability of someone being a member in an environmental organization or not.

Additionally, the interpretation of the output differs in logistic regression from that of OLS. In OLS one interprets the B-coefficient as an effect change in the value of the outcome variable, i.e. a one step increase in the predictor indicates an increase in the outcome variable corresponding to the value of the B-coefficient. In logistic regression the only things of interest in the B-coefficient is the sign, positive or negative, and the statistical significance value. What is of particular interest in a logistic regression is the *odds ratio*. The odds ratio illustrates the effect size of your predictors and is calculated by using the exponential value of the B-coefficient. For example, the odds ratio demonstrates the change in the odds, from a one step increase in the predictors, of a respondent being a member or not. The odds ratio can be fairly hard to interpret. There is, however, a general rule of thumb to help with this. If the value of the odds ratio is greater than 1 it means that the odds of an even occurring becomes greater as the predictor's value increases, and vice versa, if the value of the odds ratio is below 1 it means that

the odds of the event occurring decreases as the predictors value increases (Field, 2013: 762, 767). Finally, the last part of the output that is important to interpret concerns the fit of the model and explained variance. In OLS the R-squared is used to interpret how much of the variance is explained by the model, and how good the fit of the model is. In logistic regression a Pseudo-R measure is used instead, namely; Nagelkerkes R^2. Both R-squared and Nagelkerkes R^2 measure the substantive significance of your model, and also how much of the variance in the phenomena that is explained by your model (Field, 2013: 764-767).

3.3. Limitations of the research

The choice of conducting a cross-sectional logistic regression analysis to investigate the effect of reputation on proenvironmental behavior, is not an obvious one. Given that my variables are somewhat lacking in their operationalizations as well, questions concerning whether or not this thesis should have utilized other methodological techniques are warranted. In previous literature concerning reputation experimental studiers are highly predominant. This would have been a good way to conduct my study as well. In an experimental study it is possible to test the effect of different stimuli on the outcome variable within a, relatively, controlled context. Experimental studies also make it easier to draw conclusions regarding causality (Esaiasson et al, 2012). In the case of this study a survey experiment could have been performed, in which the respondents would have answered questions on values, beliefs and norms. Furthermore, they would have been subjected to a stimuli in which the variable reputation would have been manipulated to see how this subsequently affected the outcome variable, membership in an organization. Additionally, in the case of an experimental study, the dependent variable could have been specified to designate membership in a specific organization which would have made it easier to draw conclusions regarding the effect of reputation.

However, experimental studies raise questions of ethical concerns. The manipulation of respondents for the simple reason of academic research is something that should not be taken lightly. Furthermore, to test whether a low or high reputation garners more or less members, would entail experimenting with organizations' reputation levels, albeit hypothetically through e.g. fake news articles or reports. This too should not be done lightly, since it is nigh on impossible to know whether the stimuli continue to affect respondents after the research is done. Moreover, since this study is highly tentative, and is aiming to explain a certain relationship for the first time, there is reason to be careful in research design as well. If this thesis should find evidence of the relationship, subsequent future research should put more time and effort into conducting experimental studies and quantitative analyses.

4. Results

In this section the empirical results will be presented. In Table 2 the results for all of my models are presented. In Model 1 the focus is on the first hypothesis (H1), which states that it is expected that a strong personal norm should lead to a higher probability of membership in an organization. In model 2, the second (H2) and third (H3) hypothesis is tested, which means that its expected that individuals who accord a higher reputation to the environmental movement will be more likely to be members than individuals who hold the environmental movement in lesser regard. Furthermore, in line with hypothesis 3, in this model it is also expected that individuals who have more egoistic value sets will be as likely or more likely than altruistic individuals to be members in an environmental organization. In the third model, I have included my control variable income, to see how this affects my relationships. I will present the results and analyze how they relate to my hypotheses in chronological order, starting with model 1, then model 2 and so forth. Before I start however, it is worth mentioning that my dependent variable was automatically recoded when entered into the regression. Being a member is now coded as 1 instead of 2, and not being a member is now coded as 0 instead of 1.

4.1. Model 1

In model 1, the VBN model is tested to see how it affects the outcome variable; membership in an environmental organization. H1 states that we should expect that a stronger personal norm leads to a higher probability of the respondent being a member. The Nagelkerke R^2 value is 0,046, which tells us that the model explains very little of the phenomenon. All the variables included in the model are statistically significant on the highest level (0,000), except for Altruism which is not significant at all. Altruism will therefore be excluded from further analysis in relation to model 1.

All other variables behave as expected, except for Egoism that surprisingly show a positive b-coefficient (0,050) without the influence of reputation. Which indicates that self-enhancement values may lead to a higher degree of membership in environmental organization. The odds ratio value for egoism, however, is only 1,052 which, while positive, indicates very small odds of membership. Additionally, NEP surprisingly shows a statistically significant, negative value of -0,091 and an odds ratio of 0,931, indicating that as individuals become more aware of the state of the global environmental degradation and the far-reaching effects of their behavior, the less likely they are to join an environmental organization. AC, however behaves as expected, showing a positive value on the b-coefficient, 0,33 and an odds ratio of 1,034, indicating that as AC increases, as does membership in organizations.

Table 2 – Logistic Regression Analysis. The effects of Reputation on the VBN-model and membership in environmental organizations.

	Model 1		Model 2		Model 3	
	B-coeff.	Odds ratio	B-coeff.	Odds ratio	B-coeff.	Odds ratio
Altruism	-,001 (,004)	,999	-,008* (,004)	,992	-,004 (,004)	,996
Egoism	,050*** (,003)	1,052	,047*** (,003)	1,049	,045*** (,003)	1,046
NEP	-,091*** (,008)	,913	-,104*** (,008)	,901	-,106*** (,008)	,899
Awareness of Consequences	,033*** (,005)	1,034	,038*** (,005)	1,039	,042*** (,005)	1,043
Ascription of Responsibility (Ref. category – Economic growth)						
Ascription of Responsibility (Environmental Protection)	,180*** (,030)	1,197	,144*** (,030)	1,154	,139*** (,030)	1,149
Personal Norm	,227*** (,010)	1,255	,203*** (,010)	1,225	,199*** (,010)	1,220
Reputation			,318*** (,018)	1,374	,317*** (,018)	1,372
Income (Ref. catgory – low income)						
Income - Medium					,187*** (,034)	1,206
Income - High					,397*** (,047)	1,488
Constant	-3,528		-3,949		-4,253	
Nagelkerke 2	,046		,058		,061	
N	44314		44314		44314	

Comment: Dependent variable: Membership in Environmental Organization (Values 0-not a member, 1-member). Models estimated using logistic regression with a dichotomous dependent variable. Significant levels at: *** p≤.001, **p≤.01, *p≤.05. Values express B-coefficients and Odds ratio, standard error in parentheses. See Appendix 1 for coding of variables. Source: WVS Data Wave 5 – 2005-2009

Since AR was operationalized using a dichotomous variable I had to include it in the analysis as a dummy variable. For this analysis it means that instead of being analyzed in relation to the other variables in the regression, this variable is instead compared to itself. For this analysis this means that those who answered that they would prioritize environmental protection are analyzed in relation to the ones who answered they would prioritize economic growth and creating job opportunities. Thus, we can state that people who prioritize environmental protection are more like to be members in environmental organizations. The variable shows a significant, positive value on the b-coefficient, 0,180 and a relatively high odds ratio value of 1,149. In line with hypothesis 1, a higher strength of personal norm indicates a higher probability of being a member in an environmental organization. The b-coefficient shows a positive value, and the odds ratio is 1,255, indicating that of all the variables in model 1, personal norm has the strongest probability of leading to membership. In order to better visualize the relationship between personal norms and membership in an environmental organization, the predictive probabilities has been plotted below. There we can clearly see that the stronger the personal norm, the higher the probability of membership, which validates H1.

Figure 1 Predicted probabilities to be a Member in an Environmental Organization under different strengths of Personal Norm
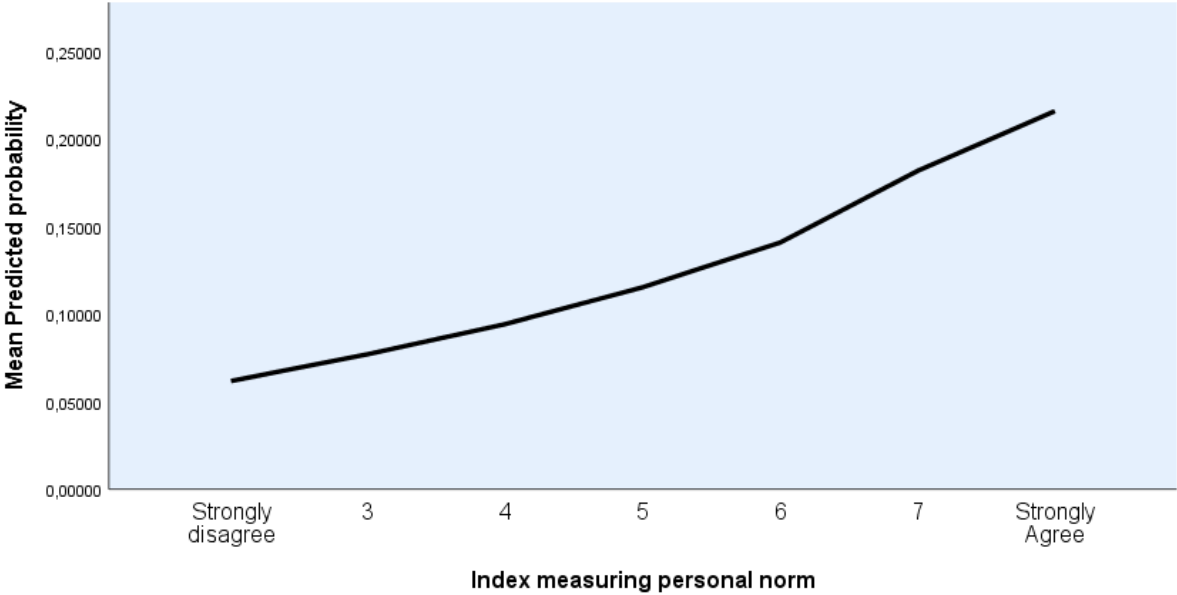
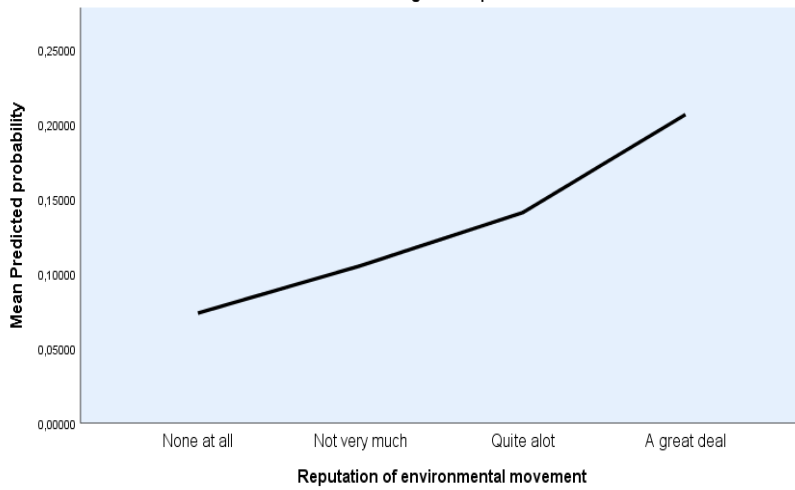Comment: Predicted probability based on Model 1

4.2. Model 2

In Model 2 both H2 and H3 are tested. Thus, it is expected that respondents who accord a higher reputation to the environmental movement will be to a higher extent be members of an environmental organization. Furthermore, it is expected that respondents who exhibit more egoistic values to be as likely as, or more likely, to be members in environmental organizations. First off, we can see that the Nagelkerke R^2 has increased to 0,058, which indicates that the model explains more of the variance in the phenomenon. It is still a very low value, but since it increases, it suggests that including reputation made the model fit a little better.

Moreover, in this model Altruism has gained a statistically significant value, albeit on the lowest level. It is still a negative value, -0,008, with an odds ratio of 0,992. Which, counter to the previous literature that claim that traditional "self-transcendent" values promote proenvironmental behavior, indicates that as an individual becomes more altruistic the less inclined he or she is to become a member in an environmental organization. The same goes for NEP, which values also decrease (0,901). Egoism retains its positive value, albeit with a small decrease, on the b-coefficient, 0,047, and its odds ratio, 1,049. This is in line with H3, that respondents that exhibit more egoistic values will be as likely as, or more likely than, individuals exhibiting altruistic values, to be members in an environmental organization. Reputation has the largest effect size with a positive sign on the b-coefficient, 0,318, and an odds ratio of 1,374. The small decrease in the odds ratio, of egoism, can be explained by the introduction of reputation to the model. Some of the effect of egoism is now mediated through the effect of reputation. The same can be said for the decreases in AR and PN, (1,154 and 1,225). Interestingly, AC's odds ratio increases (1,039), suggesting that when reputation is included in the model, AC becomes more important for membership in an environmental behavior. So far the results in this model show support for both H2 and H3. Reputation has a highly positive effect on membership in environmental organizations, and also seems to mediate some effect from other variables in the model. In order to visualize the relationship between reputation and membership in an environmental organization, as well as that between altruism, and egoism, membership, the predicted probabilities have been plotted below.

The plots clearly show support for both H2 and H3. In line with H2 there is a much higher probability for respondents who have a higher opinion of environmental organization to subsequently be members. In line with H3 there is a higher probability that people with egoistic values are members of environmental organizations than altruistic respondents.

Figure 2 Predicted probabilities to be a Member in an environmental organization under different strengths of reputation
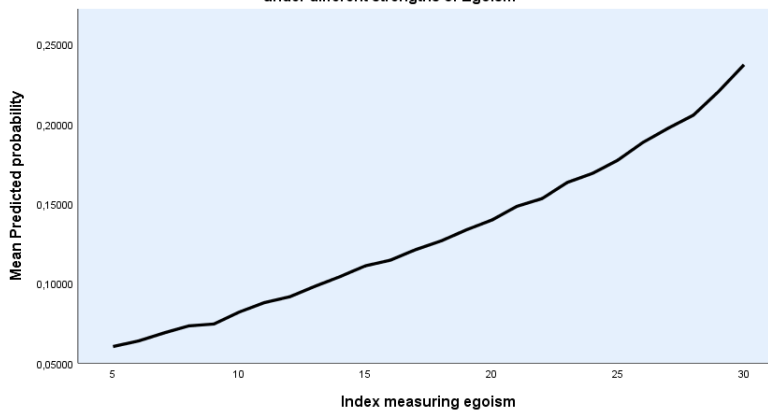
Comment: Predicted probability based on model 2

Figure 3 Predicted probabilities to be a Member in an Environmental Organization under different strengths of Altruism
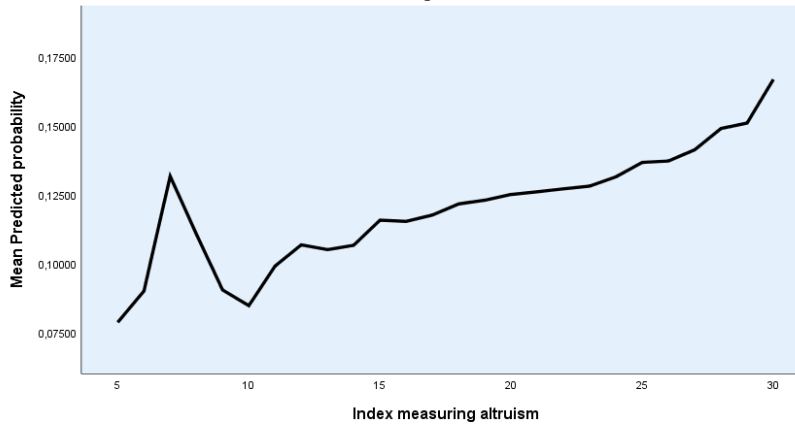
Comment: Predicted probabilities based on Model 2

Figure 4 Predicted Probabilities of being a Member in an Environmental Organization under different strengths of Egoism

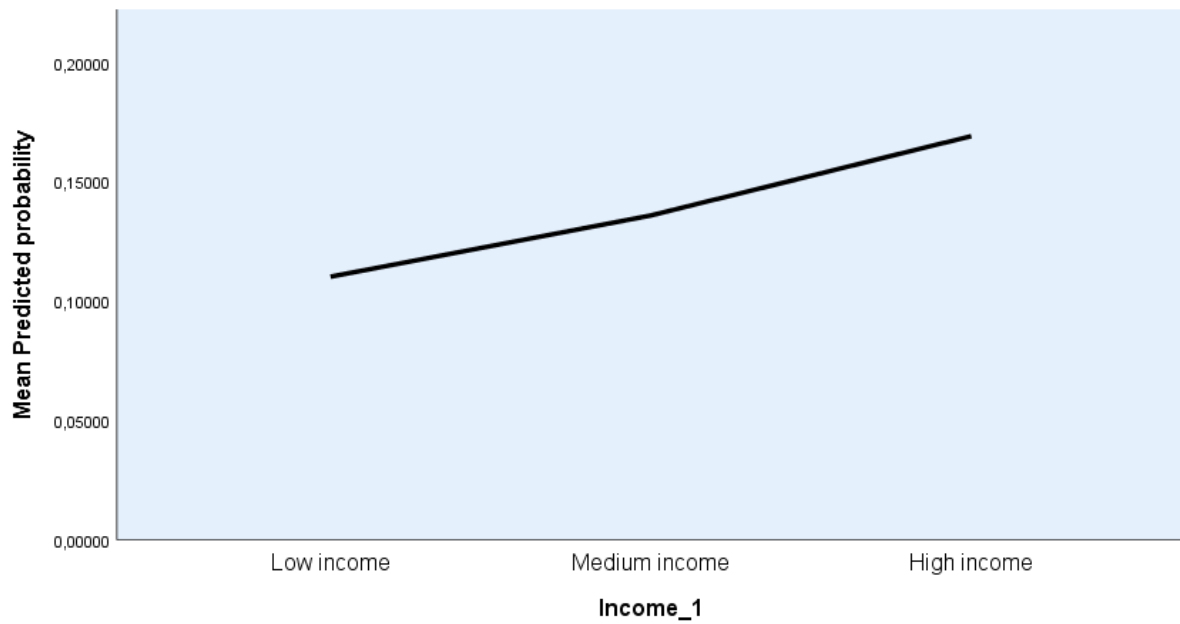Comment: Predicted Probabilities based on model 2

The fact that in the model, some of the effect of egoism seems to be mediated through reputation suggests that other motivations than proenvironmental motivations lie at the root of proenvironmental behavior. Since egoism lies before AC in the mediational model of VBN, the rise in AC suggests that some of the effect of egoism is mediated through AC as well. Moreover, AC in this thesis has been operationalized as awareness of consequences of environmental degradation in the respondents' communities. This suggests that egoistic individuals motivate joining environmental organizations based on knowledge of the current state of environmental degradation in the communities. This in turn proposes that other motivations than proenvironmental motivations, e.g. motivations concerning health or economical motivations, are the drivers of membership in environmental organizations.

4.3. Model 3

In Model 3 I included my control variable; Income. Since the aim of the paper is to investigate a costly behavior I would have been remiss if I had not included a variable on income. In the previous literature personal resources has been shown to effect individuals' capacity to act proenvironmentally, this should be even more true when it comes to costly behavior. Since my income variable was categorical, the regression turned it into a dummy variable. Thus, it will be interpreted in the same way as AR. The reference category is the low-income group. The first thing to note is that the Nagelkerke R^2 has increased to 0,061, again indicating that the model fit has become better, and that including the income variable explains more of the variance in the phenomenon. Additionally, Altruism once again loses statistical significance, and will thus not be further analyzed in relation to this model.

Egoism, PN and Reputation experience miniscule decreases when income is included in the model. This suggests that income levels mediate some of the effect of these variables. The only previous variable that increases its effect size is AC (1,043). The fact that almost all variables experience a decrease in their odds ratio when income is included in the model, lends credence to the previous literature's claim that income affects individuals' capacity to act proenvironmentally. In relation to the low-income group, both the medium-income and the high-income show higher probability of membership in an environmental organization (1,206 and 1,408 respectively). I have included a plot of the predicted probabilities of the effect of income on membership in environmental organizations below.

Figure 5 Predicted probabilities of Membership in an Environmental Organizations under different levels of income

Comment: Predicted probabilities based on Model 3

The plot shows that the probability of membership in an environmental organization clearly rises as income levels become higher. This proposes that income levels provide capacity and resources for individuals to become members in environmental organizations. The previous literature states that costly behavior is costly not only in money, but also in e.g. time and effort. The income variable only captures the monetary dimension, but this entices further research into other dimensions of resources in relation to costly behavior.

To summarize, there is a strong statistically significant relationship between my proposed predictors and membership in an environmental organization. It was found that PN has a weak but statistically significant relationship to membership in an environmental organization. Additionally, respondents who accorded the environmental movement with a high reputation were found to be more likely to become members of environmental organization. Moreover, Egoistic individuals were found to be more likely than Altruistic individuals to become members of environmental organizations. Thus H1, H2 and H3 were all supported. Taken together this shows that there is a strong statistically significant relationship between reputation and costly proenvironmental behavior. However, it should be noted that the Nagelkerke R^2 is very low throughout the models, even though it increased by quite a large margin, indicating that my proposed variables explain very little of the variance in the phenomenon.

5. Concluding discussion

This thesis found its point of departure in the conundrum of why people join environmental organizations. Environmental organizations work to influence policy-makers and channel public opinion in order to promote collective action. To find what factors can predict membership in environmental organizations is becoming increasingly important as climate change worsens, and collective action seems out of reach. In LSCA, cooperation becomes even harder to ensure than in SSCA, due to the fact that accountability is harder to ensure. The VBN theory argues that when individuals harbor the right values, beliefs and norms, proenvironmental behavior will ensue and thus alleviate the collective action problems. To some extent, this has been shown to be the case.

However, The VBN theory has struggled with explaining costlier proenvironmental behavior, of which membership in an environmental organization is one. There have been efforts to expand the theory to be able to predict costly behaviors as well. Through mechanisms of e.g. interpersonal and political trust (Harring & Jagers, 2013) authors have been able to explain more environmental behaviors, but the theory still lacks explanatory power. Reputation has long been seen as a facilitator of cooperator in small scale collective action. But there are arguments that it should work in similar way in LSCA as well. Therefore, the overarching aim for this thesis was to investigate the role of reputation in the VBN theory, to see if this could account for a *specific* costly behavior i.e. membership in an environmental organization and thereby add to the literature. By merging two literatures, VBN theory and Reputation, the thesis aimed to add to the literature by examining what has caused the gap between environmental concern and proenvironmental behavior i.e. that some individuals express concern, and harbor all the right values, beliefs and norms, but still do not engage in costly proenvironmental behavior. Furthermore, this thesis aimed to add to the literature by studying a specific behavior rather than aggregated measure of many behaviors. As such, this thesis postulated three hypotheses in relation to the VBN theory, reputation and membership in environmental organizations. First it was hypothesized that a stronger personal norm would lead to higher levels of membership in environmental organizations (H1). Although it was expected this relationship would be rather weak. Secondly, that higher levels of reputation would lead to higher levels of membership (H2). And thirdly that egoistic respondents would be as likely as, or more likely than, altruistic individuals to join environmental organizations (H3).

In the results, through quantitative analysis and deploying logistic regression, the thesis found support for the hypothesis that a stronger personal norm would lead to higher levels of

organizational membership. While it was rather weak, it showed that the VBN theory is on the right track. This relationship was expected to be strengthened in the next model where reputation was included. Instead it was found that reputation mediated some of the effect of personal norm. In the second model the thesis found support for H2, i.e. it showed that people who deemed the environmental movements as of high reputation, were more likely to become members. In this model the thesis also found support for H3, namely that egoistic individuals seem to be more likely to join environmental organizations. The effect of egoism was mediated through AC, operationalized as awareness of environmental degradation in the respondents' communities, and reputation.

This suggests that egoistic individuals have other motivations for acting proenvironmentally than proenvironmentalism as is proposed by (Jagers et al, 2016). Since AC was operationalized using items dealing with local environmental degradation, it further suggests that these motivations might be economical or health related. Poor air or water quality potentially brings expensive costs for the respondents. This also begs the question that since AC was the only variable that consistently increased its odds ratio value, maybe the dependent variable was judged on a local dimension as well. It makes logical sense that egoistic respondents would be more willing to join an environmental organization if the organization targets local issues if the motivations are economical or health related. This is not something I tested for, but it is something that future research should focus on. Testing this relationship, while also taking into account different motivations could prove fruitful. Furthermore, future research should disaggregate the "environmental movement" and focus on differences in reputation and aim of national and local organizations, big and small, while simultaneously testing for different motivations. Furthermore, this thesis tested if income had an effect on membership. The assumption was made that higher levels of income should lead to higher levels of membership. This was supported, while it did not affect the other variables more than marginally. Income does have an independent and separate effect in relation to most variables in the model.

However, it should be noted that, the variables I used to operationalize my concepts were not optimal. I deviated substantially from the procedures and operationalizations used in the previous literature. The reason behind choosing the WVS to study the relationship is because it was the only survey I found that included a question on the reputation of environmental organizations. While my operationalizations are not optimal, they all capture at least part of the dimensions proposed by the previous literature. This is to be viewed as a tentative theory-

developing study, the intended effect of one such is to show that there is merit in the proposed relationship, and that it therefore should be of interest for future research.

Since this thesis found support for all of its hypotheses, I feel reasonably assured that reputation does provide some answers in regard to costly proenvironmental behavior. Part of the research gap in explaining costly proenvironmental behaviors has been filled. And with this thesis a greater understanding for why and how people join environmental organizations has been achieved. However, since my operationalizations are flawed, this thesis should be viewed as a tentative test of the relationship, this phenomenon warrants further research in the future.

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7. Appendix

Appendix 1.

Membership in environmental organization

(V29) *Now I am going to read off a list of voluntary organizations. For each one, could you tell me whether you are an active member, an inactive member or don't belong to that type of organization*? 0: Not a member 1: Passive member 2: Active member. Was recoded so that no distinction was made between active or passive membership. New code 1: Don't belong, 2: Member

Reputation of environmental organization

(V143) *I am going to name a number of organizations. For each one, could you tell me how much confidence you have in them: is it a great deal of confidence, quite a lot of confidence, not very much confidence or none at all? Environmental organizations* 1: A great deal, 2: Quite a lot, 3: Not very much, 4: None at all. Was reverse code in order to for positive answers to have positive values. The original coding was replaced by; 1: None at all, 2: Not very much, 3: Quite a lot, 4: A great deal.

Schwartz value sets

Now I will briefly describe some people. Using this card, would you please indicate for each description whether that person is very much like you, like you, somewhat like you, not like you, or not at all like you? 1: Very much like me, 2: Like me, 3: Somewhat like me, 4: A little like me, 5: Not like me, 6: Not at all like me. Was reverse coded so that 1: Not at all like me and 6: Very much like me. The other response options were recoded accordingly.

Altruism: (V82) *Living in secure surroundings is important to this person; to avoid anything that might be dangerous.* (V84) *It is important to this person to help the people nearby; to care for their well-being.* (V87) *It is important to this person to always behave properly; to avoid doing anything people would say is wrong.* (V88) *Looking after the environment is important to this person; to care for nature.* (V89) *Tradition is important to this person; to follow the customs handed down by one's religion or family*. Variables were turned into a scale, Cronbach's alpha was 0,713. Scale ranges from 5 to 30.

Egoism: (V80) *It is important to this person to think up new ideas and be creative; to do things one's own way* (V81) *It is important to this person to be rich; to have a lot of money and expensive things.* (V83) *It is important to this person to have a good time; to "spoil" oneself.* (V85) *Being very successful is important to this person; to have people recognize one's achievements*. (V86) *Adventure and taking risks are important to this person; to have an exciting life.* Variables turned into a scale, Cronbach's alpha was 0,672. Scale ranges from 5 to 30

NEP

Now let's consider environmental problems in the world as a whole. Please, tell me how serious you consider each of the following to be for the world as a whole. Is it very serious, somewhat

serious, not very serious or not serious at all? 1: Very serious, 2: Somewhat serious, 3: Not very serious, 4: Not serious at all. Response options were reverse coded so that 1: Not serious at all, 4, Very serious, and the others accordingly to make sense.

(V111) *Global warming or the greenhouse effect.* (V112) *Loss of plant or animal species or biodiversity* (V113) *Pollution of rivers, lakes and oceans.* Variables turned into an index, Cronbach's alpha 0,811. Scale ranges from 3 to 12.

Awareness of consequences

I am going to read out a list of environmental problems facing many communities. Please, tell me how serious you consider each one to be here in your own community. Is it very serious, somewhat serious, not very serious or not serious at all? 1: Very serious, 2: Somewhat serious, 3: Not very serious, 4: Not serious at all. Response options were reverse coded so that 1: Not serious at all, 4, Very serious, and the others accordingly to make sense.

(V108) *Poor water quality* (V109) *Poor air quality* (V110) *Poor sewage and sanitation.* Variables turned into an index, Cronbach's alpha 0,899. Scale ranges from 3 to 12.

Ascription of responsibility

(V104) *Here are two statements people sometimes make when discussing the environment and economic growth. Which of them comes closer to your own point of view?* 1: Protecting the environment should be given priority, even if it causes slower economic growth and some loss of jobs. 2: Economic growth and creating jobs should be the top priority, even if the environment suffers to some extent. Was recoded so that the response options traded place with each other. In order for economic growth to be the ref category in the analysis.

Personal norm

I am going to read out some statements about the environment. For each one, can you tell me whether you strongly agree, agree, disagree or strongly disagree? 1: Strongly agree, 2: Agree, 3: Disagree, 4: Strongly disagree. The response options were reverse coded so that 1: Strongly disagree and 4: Strongly agree. The others were recoded accordingly.

(V105) *I would give part of my income if I were certain that the money would be used to prevent environmental pollution*. (V106) *I would agree to an increase in taxes if the extra money were used to prevent environmental pollution.*

Income

On this card is a scale of incomes on which 1 indicates the "lowest income decile" and 10 the "highest income decile" in your country. We would like to know in what group your household is. Please, specify the appropriate number, counting all wages, salaries, pensions and other incomes that come in. 1: Lowest decile to 10 – Highest Decile. Was recoded into 3 categories, values 1-3 became 1, values 4-7 became 2, and values 8-10 became 3.