Psychological and Behavioural Science

Identifying a victim in nature: How psychological and behavioural interventions can help increase environmental donations.

Maria Cantuarias
Kevin O'Hara
Nour Rmeih
Farah Sheibani

London School of Economics and Political Science
PB403 Psychology of Economic Life
Summative coursework
December 2018

Course convenors: Dr. Fred Basso & Prof. Saadi Lahlou
Other teachers: Dr. Kate Laffan, Mr. Maxi Heitmayer

Table of Contents

Background

Healthy natural systems are fundamental to sustain modern society. According to the World Wildlife Fund's ("WWF") Living Planet Report (2018), natural systems provide services worth around $125 trillion per year. Nevertheless, there is an alarming level of biodiversity decline because of overexploitation of species, agriculture, and land conversion. In fact, the WWF Report showed that only a quarter of land on Earth is substantively free of the impacts of human activities and this number is projected to decline to just one tenth by 2050. The report further revealed that land degradation seriously impacts 75% of terrestrial ecosystems and reduces the welfare of more than 3 billion people. Perhaps most striking was the report's claim that there was overall decline of 60% in species population sizes between 1970 and 2014.

Despite the importance of a thriving biosphere, the UN's Protected Planet Report (2018) showed that only 15% of land is formally protected. Especially relevant for our purposes, only a small percentage of donations support environmental efforts. For example, according to the Annual Report on Philanthropy (2018) of Giving USA, of $410 billion in charitable giving in 2017, Americans gave only $11.83 billion (3% of all donations) to charities that focus on the environment.

Pro-environmental charities depend on individual donations to properly tackle conservation initiatives. The WWF, for example, received a total of $98 million as a result of individual donations in 2015, 34% of their revenue. They then spent $29 million on fundraising (Thomas-Walter & Raihani, 2016). It is clear that the WWF and similar conservation efforts require effective solicitation strategies. Thus, it is vital for charities to understand the factors that motivate people's donation decisions.

When individuals donate to charity, they sacrifice personal possessions to support others and often very little direct reciprocity is expected. Although this is interesting from an economic perspective (Persky, 1995), these behaviours can be investigated in relation to psychological and behavioural theories. There is a large variation in donation behaviour which is not understood (Thomas-Walters & Raihani, 2016) and thus these theories can help explain and perhaps promote charitable behaviour by recognising the situations in which donors are most likely to donate.

Besides the psychological factors, it is as important to understand the more 'tactical' factors to reach and engage the targeted audience. For example, the 2018 Global Trends in Giving Report produced by Nonprofit Tech for Good showed that, from a survey of donors worldwide: (1) 54%

prefer to give online with a credit or debit card; (2) the tool that most inspires giving is social media (29%); (3) the social media that most inspires is Facebook (56%); (4) and 18% of the donors have given through Facebook fundraising tools and of those, 88% say they are likely to give through Facebook fundraising tools in the future.

Quite simply, charities should not underestimate the power social media platforms, as demonstrated by 2014 'ice bucket challenge' campaign for ALS. This massive engagement produced 2.4 million videos on Facebook (Townsend, 2014) and represented $98.2 million in donations.

Introduction

The goal of this paper is limited to exploring the psychological and behavioural motivators and inhibitors that affect donation behavior to environmental causes. We are particularly concerned with how emotions weigh into a decision to donate.

Lack of emotion can be very problematic in decision making (Loewenstein, 2010). Motivation and action are often driven by emotion, and research has shown that inefficiency of action is often associated with a lack of emotion (Slovic, 2007). Our research is focused on emotional, cognitive, and social barriers to environmental donations. These barriers are often related to our inability to connect with things we do not see, cannot predict, and do not share (Zhu, Wong & Huang, 2019).

We first examine the theoretical foundation and experimental applications of these barriers. We then incorporate selected psychological concepts to propose a new platform structure grounded in part in 'nudge' theory (Thaler & Sunstein, 2009) to encourage environmental donations. We further apply these concepts to frame an environmental message as a powerful emotional message. Finally, a new kind of environmentally focused social group is proposed, incorporating findings from the fields of social expectations and comparison theory. To narrow our research question, the main environmental causes considered will be those of conservation, and donations will be in the form of monetary 'gifts' (Cappellari, Ghinetti, & Turati, 2011).

Emotional Barriers

Identifiable Victim Effect

Although individuals often struggle to emotionally connect to the environment, emotional involvement is an important driver of environmental donations (Clayton & Opotow, 2003). Research has demonstrated people tend to donate larger amounts of money to charity when single identifiable victims, rather than statistical beneficiaries are involved, irrespective of scale (Thomas-Walters & Raihani, 2016). This is known as the Identifiable Victim Effect (IVE). Kogut and Ritov (2005) suggested the detail and vividness of the information used to describe a single victim could elicit an empathetic reaction and lead to an increase in donations due to elevated emotional involvement.

Despite extensive research into the IVE, few have investigated whether it applies to non-human species. Markowitz et al. (2013) found participants who identified as environmentalists were prepared to donate comparable amounts to both statistical and identifiable beneficiaries of polar bears, while non-environmentalists stated less willingness to donate to the statistical beneficiaries. This study suggests differences in donating behaviours to non-human causes. A possible explanation for the discrepancy in these findings is the extent to which participants identified with the polar bears. For example, it is possible environmentalists who form a sense of connectivity using emotional attachment to certain parts of the environment (Clayton & Opotow, 2003) identified with the animals more. This in turn may have influenced their affective and behavioral response to donate. Consequently, a significant barrier to donating may be the lack of emotional response and familiarity people experience. This perhaps could be avoided by using the IVE when promoting environmental donations.

It has further been demonstrated that people's willingness to donate depends on who the beneficiary is, regardless of whether it is an identifiable victim. This has been found to apply to conservation campaigns where researchers have revealed a preference toward flagship species (FS) (Ducarme, Luque & Courchamp, 2013). These species are vertebrates which tend to be more popular and charismatic, thus commonly used as a campaign's focal point (Xiang et al. 2011). A focus on such an identifiable victim may help generate revenue for conservation. FS are often familiar to the public and may create interest leading to an increase in funds (Smith & Sutton, 2008; Skibins, Powell & Hallo, 2013).

However, Thomas-Walter and Raihani (2016) investigated how non-human identifiable beneficiaries and FS affected donations to a conservation charity. Their results indicated people did not donate more to conservation appeals for identifiable beneficiaries than statistical ones. Yet

people were influenced by FS in conservation appeals, which emphasises the need for familiar species to serve as the focus for conservation appeals to promote pro-environmental donations. These results may be explained by a struggle to identify and emotionally connect with the environment in general, whereas the connection with animals can lead us to empathise and break the emotional barrier (Markowitz et al., 2013). This effect was demonstrated in Iceland's recent campaign (Iceland Foods, 2018) in which an orangutan was used as a FS to raise awareness of deforestation for palm oil and habitat loss. The campaign has over 30 million views across social media platforms (Horton, 2018). This suggests FS can elicit a significant emotional response to environmental campaigns.

While it is clear the IVE elicits emotions which result in an increased willingness to help and donate (Jenni & Loewenstein, 1997), research has also shown when the victim is a pair or group, compassion begins to dampen, leading to a decrease in helping behaviour and support (Vastfjall, Peters & Slovic, 2012). This phenomenon, known as compassion fade (CF), poses a threat to our shared capability to effectively react to current environmental crises, considering large numbers of victims are generally involved (Markotitz et al., 2013). Future research should measure the effect CF has on the IVE and whether donors may experience CF if the same FS are repeatedly highlighted in conservation appeals. However, it is important to note the effects of CF can be reduced by changing people's perceptions that several individuals belong to one group (Smith, Faro & Burson., 2013) or by using narratives and storytelling to highlight environmentalist thoughts and attitudes (Slovic & Slovic, 2005).

Storytelling

Storytelling is a tool used to convey ideas more effectively than facts alone (Merchant, Ford, & Sargeant, 2010). This is significant in the context of the environment as stories can communicate ideas more effectively than stating various facts related to a host of environmental issues. Stories told by charitable organisations are usually designed to provide the consumer with an experience of varying emotional stages. Merchant et al (2010) found problem statements in charity appeals led to negative emotions which can be gradually reduced when an individual is eventually presented with the opportunity to donate. At this stage, the consumer may experience more positive emotions after donating to help solve the problem in the story. In this way, the individual is offered a chance to help and join in, which can be enjoyable and encourage giving (Woodside, Sood & Miller, 2008). Thus, because storytelling can promote donating behaviours to

charities, we predict the same would apply with environmental and conservation charities, as the emphasis on a story would elevate emotional response.

Because negative emotions can be used in storytelling to elicit emotional reactions, spillovers must be considered. In one study, negative emotions were used to induce guilt and fear in the individual. This led to initial but temporary pro-environmental behaviour, presumably to decrease the negative feelings, however it was hypothesised that it may be followed by negative spillovers in the form of subsequent non-environmental behaviours. In contrast, when positive emotions were used in campaign messages, it resulted in an initial and overall higher willingness to act in subsequent pro-environmental ways in the form of positive spillovers (Chatelain et al., 2018).

Further, Merchant et al (2010) explained a crucial aspect of donation which is often neglected is feedback from the charity to the donors. This can be in the form of knowing where their money is going and knowing the result of the 'story', thus comforting the individual and completing their experience. The researchers asserted that feedback strengthens the emotional attachment to the charity's cause and increases intentions to donate in the future. Thus feedback prevents neglect of the outcome of a given donation and should confirm the impact the individual's donation made. Accordingly, a small giver could become an important donor over time.

Cognitive Barriers

Basic economic theory suggests consumption is worth more now than later: people 'discount' future events. Descriptive models of the rate at which people discount long-term environmental problems may well inform environmental policy but are outside the scope of the present analysis (Karp, 2005). However, discounting often makes environmental issues feel small as of today.

A separate question is how people make environmental decisions in settings in which decision makers face ambiguous probabilities and outcomes (Onay, La-Ornual & Öncüler, 2013). Descriptive models of decision making, such as prospect theory, assess how psychological principles affect the perception of gains and losses (Kahneman & Tversky, 1979; Tversky & Kahneman, 1981). Construal level theory (CLT) has also been applied to explain how psychological distance affects the components of a decision problem (Liberman & Trope, 2008). Concepts derived under each theory suggest concerns related to environmental issues as well as

potential strategies to align favorable risk preferences (Trautmann & van de Kuilen, 2011). Emotions are incorporated in the concepts of both theories (Lowenstein & Lerner, 2003; Trope & Liberman, 2010).

We seek to frame the environmental donation decision to predict risk aversion to the environmental outcome. Under such a scenario, the decision to donate should be preferred, as it increases investment in reducing the risk of the negative environmental outcome (Onay, et al., 2013).

Prospect Theory

Individual understanding of the risks associated with environmental problems is limited in part because these problems often involve ambiguous probabilities and outcomes for which no conceptual framework is clearly applicable (Slovic, Kunreuther & White, 1974). Prospect theory thus may be a useful tool for understanding the risk preferences of those faced with an environmental dilemma (Rosenman, et al., 1988). Importantly, prospect theory replaces objective probability with the perceived likelihood of risky outcomes, subject to bias, and incorporates risk attitudes to predict decisions (Kahneman & Tversky, 1979). If we can frame the components of the decision problem to predict risk aversion, we should be able to encourage donations to environmental causes.

Analyzing environmental risks in prospect theory requires specifying a reference point before determining risk preference (Brekke & Johansson-Stenman, 2008). From a given reference point, losses are generally felt more severely than gains (Tversky & Kahneman, 1981). People also tend to overweight small probabilities, meaning they tend to be risk averse when faced with the prospect of an improbable but large loss (Kahneman & Tversky, 1979; Trautmann & van de Kuilen, 2011). Highly emotional situations concerning improbable environmental crises may be accordingly overweighted and insured against (i.e., by contributing donations) (Rosenman, et al., 1988).

Construal Level Theory

CLT describes different levels of construals of a decision problem characterised by either abstract features (high-level) or concrete features (low-level) depending on psychological distance from an egocentric reference point (Trope & Liberman, 2010). Researchers applying CLT have provided experimental evidence that individuals are less averse toward delayed imprecise

prospects, which may explain underinvestment (e.g., low donations) in reducing the risks associated with environmental disasters (Onay et al., 2013).

Despite concerns related to a reduction in risk aversion to far-off environmental events, outcomes are more influential than probabilities between distant-future prospects (Onay et al., 2013). CLT asserts that the desirability of an event's end state is a high-level construal, while the probability of its occurrence is a low-level construal (Liberman & Trope, 1998). Moreover, there is evidence that the values associated with high-level construals, such as future benefit to others, are overweighted when considered in the distant future (Choi, Park & Oh, 2012).

Psychological distance is automatically related to the environment and individuals are more likely to donate for environmental causes in a distance mindset (Lucke & Koenigstorfer, 2018). CLT predicts that a distant perspective produces high-level construals, under which decision makers overweight outcomes and are more willing to donate to environmental causes (Trope & Liberman, 2010; Lucke & Koenigstorfer, 2018). CLT's predictions for high-level construals (e.g., the impact of an environmental catastrophe) are thus in accordance with prospect theory: low probability of a large loss leads to risk aversion (Sagristano, Trope & Liberman, 2002).

Framing and Emotions

Environmental donations are like insurance: people tend to prefer buying insurance over risking a large loss, even if the expected value of the large loss is objectively less than the insurance to cover it. Framing environmental donations under both prospect theory and CLT therefore should focus on the magnitude of abstract prospective environmental losses (Chang & Lee, 2009). While both theories suggest risk aversion for such losses due to overweighting of small probabilities, this holds under CLT only for high-level construals (Trautmann & van de Kuilen, 2011). The values reflected in high-level construals include altruism, morality, and benefit to others (Choi, et al., 2012), and should automatically associate with the environment (Lucke & Koenigstorfer, 2018). Emotions that involve taking a distant perspective, such as guilt, shame, and anxiety, ensue from a high-level construal of the event (Trope & Liberman, 2010; Liberman & Trope, 1998).

Evidence often appears to contradict this strategy. Campaigns that target animals (a concrete concept), for example, receive larger donations relative to abstract environmental concerns like climate change and conservation (Kollmuss & Agyeman, 2002). Environmental outcomes are also often limited to geographical areas and thus less perceivable (Lucke & Koenigstorfer, 2018). But, studies have explored the psychological effects of abstract low

probability events with corresponding large outcomes. For example, a recent study looked at the risk that the earth will be pushed over a threshold that could prevent stabilization of the climate even as human emissions are reduced (Steffen et al., 2018). Choi et al. (2012) demonstrated that blood donations compare to environmental donations because they are associated with high-level construals.

Abstract values and emotions may be employed to encourage donation behavior. These concepts may be combined to create a message for environmental solicitations that takes advantage of these findings.

Social Barriers

An individual's attitude is often influenced and shaped by beliefs, social norms and values shared in their society. If the dominant lifestyle does not encourage sustainable behaviour, donations and sustained environmental behaviours are less likely to occur. (Kollmuss & Agyeman, 2002). Although some may view the environment as relatively important and feel they should act in a pro-environmental way, if these behaviours are absent in society they may refrain from engaging in pro-environmental behaviours. This in turn can reveal a sense of fatalism where an individual may feel it is not worth making an effort if no one else does (Lorenzoni, Cole & Whitm, 2007).

Social norms have therefore presented relevant implications in a wide range of human behaviours (Nyborg et al., 2016), including those towards environmental conservation (Goldstein & Cialdini, 2009). Consequently, studies suggest social incentives should be used as an important tool to promote pro-environmental behaviour (Thogersen, 2013). Indeed, charities are currently using social comparison nudges in their solicitations to increase donations. This increase in attention to social norms or attempts to predict other people's behaviour may also have a positive effect on donations and charity design (Bartke et al., 2017).

Social expectations

Individuals care about what is expected from them and therefore behave according to the demands of a social situation (Hogan, 1982). This is referred to as the theory of social expectations. Behaviour consistent with this theory may be explained by expectations that others will respond in a positive way when behaviour obeys the norm, and negatively when it does not. Indeed, studies

show people that contribute to a greater good are treated more positively compared to those who do not (Coleman, 1990), and individuals give social rewards and trust those who are more altruistic and giving (Albert et al., 2007).

For example, in one study individuals reported more concern about carbon emissions when they realised there was a possibility their profiles and results were observed and judged by others (Horne & Kennedy, 2017). Although this experiment explored the power of social norms specifically in the household energy consumption context, we may infer the same results will be found for donations to environmental conservation causes. It has been demonstrated that a prosocial reputation can be built by engaging in environmental conservation (Semmann, Krambeck & Milinski, 2005) and, for donations specifically, when individuals know that others participate in charitable giving, they may do the same (Cialdini, Reno & Kallgren, 1990). As explained above, people tend to behave how they assume is appropriate given the situation.

Individuals are in a constant search for social approval which is why social expectation norms tend to be effective. Failing to do what is expected provokes social disapproval (Cialdini, Reno & Kallgren, 1990) and leads to a negative emotional response.

Social comparison

An individual's awareness and sensitivity to issues regarding environmental problems tends to increase as they compare themselves to others (Hynes & Wilson, 2016). This is because individuals frequently assess themselves by contrasting themselves with others—particularly to others with whom they share comparable individual characteristics (Festinger, 1954). Evaluation in comparison to others triggers competition and 'status seeking' between individuals. Indeed, there is evidence that individuals compete for status by trying to be seen as more altruistic than others (Barclay& Willer, 2007).

Social influence has been used by charities to encourage donation behaviours. Social influence provides several types of information to individuals in complex public settings, including people's interactions (Wei, 2015). For example, in the context of a public radio campaign, Croson and Shang (2009) asked current donors the amount they would like to donate after being informed of the last donation amount. Donations significantly increased as higher reference amounts were announced. Further, in a public goods game, it was demonstrated people were more likely to give money to preserve the environment when the action was public and reputation could be influenced (Milinski et al., 2006). Though it must be noted this study's sample size was small and participants

were not contributing their own money, so its applicability to environmental donations is somewhat limited. Regardless, these findings could be relevant as the benefit of investing in the study's preservation pool is akin to donating to environmental causes that concern the distant future.

In some instances, however, certain social norms may not be well-defined due to weak or conflicting messages used in the campaigns. In one study related to food purchasing behaviour, overwhelming consumers with food purchasing and environmental concern messages resulted in a weak understanding of the social norm and subsequent confusion regarding appropriate behaviour (Hynes & Wilson, 2016). Environmental charities that tend to load their messages with too much information may thus result in weaker individual contributions. To increase environmental donations, well-defined social norms and clear messages should be used.

Stakeholders Analysis

Four stakeholders have been identified, and their contributions and motivations needed to truly promote pro-environmental donations. These are introduced in Table 1. The stakeholders mentioned have an influence, either directly or indirectly, on promoting environmental donations.

Stakeholder	Contribution to project	Motivations
Pro environmental charities	• Use funds to develop pro environmental (conservation) projects. • Provide real information about the development and impact of the project at each state	• Funding • Impact • Exposure • Networking
Social Platform: Facebook	• Attract the attention of the majority of people towards the cause • Serve as a platform to encourage social proof and comparison • Give information about the individuals data and preferences with their consent	• "Green reputation" • Community building • User loyalty
Commercial Platform: • Amazon • Banks	• Make possible the exchange between individuals and charities • Make the donation system easier for donors • Use personal data to recommend pro environmental projects of interest	• "Green reputation" • Increase in users • User loyalty
Individuals	• Contribute with monetary donations to pro environmental charities	• Personal satisfaction • Social proof • Social desirability (status) • Sense of belonging (community)

Table 1.0: Stakeholder Overview

Proposed Solutions

Along with the substantive implications for an environmental message as explained in terms of emotional, cognitive, and social barriers above, the structural component of our proposed solution seeks, in part, to apply concepts of libertarian paternalism (or 'nudge' theory) (Appendix A). Nudge theory may be used to lower economic and psychological costs associated with donating to environmental causes (Thaler & Sunstein, 2009; O'Donoghue & Rabin, 2003). The guiding concept underlying our proposal is succinctly described by the UK Behavioural Insights Team's first principle of encouraging behaviour: 'Make it Easy' (Service et al., 2015). Tasks that require more effort, such as donations, even on the margin, increase 'friction costs' and thus reduce the likelihood of completion. One established strategy to offset some adverse effects of these costs is with 'default options' (Thaler & Sunstein, 2009; Samuelson & Zeckhauser, 1988).

Online platforms are rapidly becoming widespread methods for donation. However, some online platforms discourage donors due to their lack of clarity and inconvenience of usage.

Environmental charities have the least user-friendly donating websites as they often discouraged donors due to lack of accessibility and payment options (Anonymous, 2014).

From a practical standpoint, we are mindful of implementation feasibility and ensuring critical mass of users under our proposed platform. Accordingly, we propose a hybrid platform by incorporating the web-based functionality of Amazon, the world's second largest retailer (Carbonara, 2018), and Facebook, the world's largest social network as part of their Corporate Social Responsibility (CSR) Projects. CSR has been defined as "a concept whereby companies integrate social and environmental concerns in their business operations and in their interaction with their stakeholders on a voluntary basis" (European Commission, 2011, p.3).

At the individual-donor level, Amazon's existing platform design minimises friction costs by streamlining transactions executed on its website. At the institutional-partner level, Facebook already has a well-established procedure for marketing charitable causes on its platform (Saxton & Wang, 2013). Both companies use advanced algorithms that incorporate user-data to effectively target advertisements on their platforms. This proposal focuses on using these platforms to encourage environmental donations to conservation charities.

Amazon Green

The first piece of our proposal is to increase environmental donations through a platform we call Amazon Green (AG). AG would be a platform similar to Amazon Smile concerning default donations to a charity of choice. However, rather than incorporating generic charities, AG would only incorporate environmental charities. AG would also use a different default percentage and implement new features. Currently, 0.5% of purchasing amounts on Amazon Smile go to the selected charity and there is no feedback after donation. In contrast, AG's default percentage would be 1%, as we believe incorporating feedback and the features described below justify a higher rate. Donors would also have the option to choose suggested projects to donate to, while receiving feedback on donations for current and future projects. This will be available through an opt-in option on AG that allows the charity to send monthly reports and surveys, thus engaging the donor more closely than Amazon Smile. This is important because presenting how donations are being spent and assuring donors that their contributions reach the relevant charity increases the attractiveness of charitable causes (Merchant et al., 2010).

On the social media front, the first step is related to Facebook (Figure 1). As the prospective donor scrolls through his or her newsfeed, an AG campaign will appear. Campaigns should use

the IVE, storytelling, and a FS to elicit emotions which promote donating behaviours. As mentioned, the negative emotions in a sad story followed by the option to donate would encourage an individual to donate in order to feel involved and positive (Merchant et al, 2010). Campaigns should also use the concepts drawn from prospect theory and CLT by emphasising the impacts of environmental catastrophe to create risk aversion (Kahneman & Tversky, 1979; Sagristano, et al., 2002). These impacts should elicit emotions such as guilt and shame which are associated with high-level construals in CLT. (Trope & Liberman, 2010). Matching campaigns with values such as altruism and benefit to others should similarly encourage high-level construals and increase donations (Lucke & Koenigstorfer, 2018). The explicit donate button which Facebook recently introduced makes it easier for individuals to donate, and decreases the complexity of donations in general. When this button is clicked the individual is directed to the AG website.

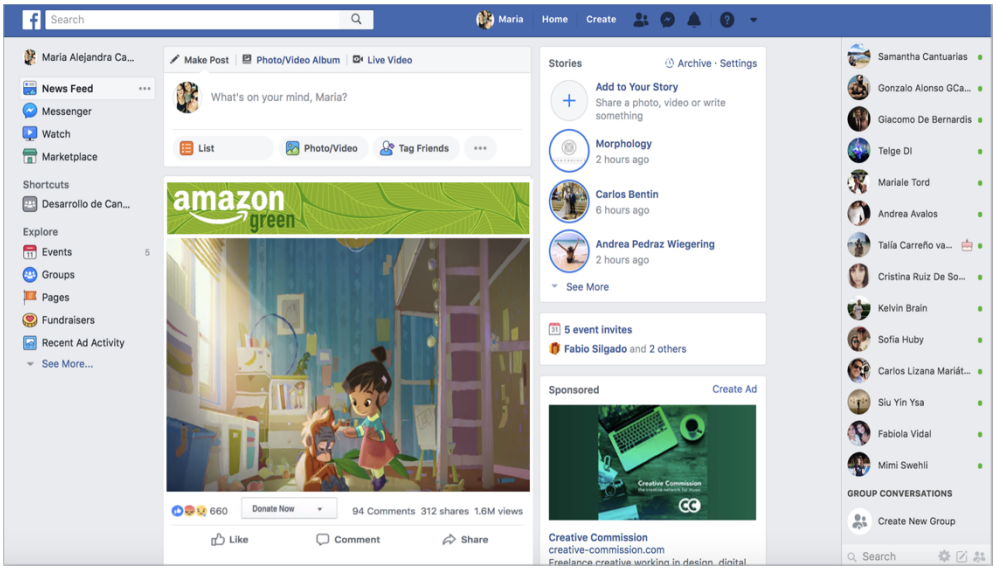


Figure 1

The second step involves the main AG page. Amazon's massive user-base ensures many people will have saved payment details which would be readily available to simplify the donating procedure. Here, AG would suggest two or three main charities to donate to (Figure 2), which would be tailored to the donor based on their location, interests and past experiences. Additionally, donors can read more about the cause (Appendix B). A drop-down list would also show the many other charities. The donor would choose an amount to donate or pay the suggested amount.

Figure 2

Anchoring concepts have been applied to charitable donations to measure the effect of different default options on both donation rates and amounts (Goswami & Urminsky, 2016). Designing default donation options requires trade-offs as excessive values may lower donation rates while low values may lower average donation amounts (Figure 3) (Prokopec & De Bruyn 2010). Because evidence suggests defaults can increase donation amounts if designed correctly, we recommend measuring the effects of different default options and making adjustments to maximise donation volume.

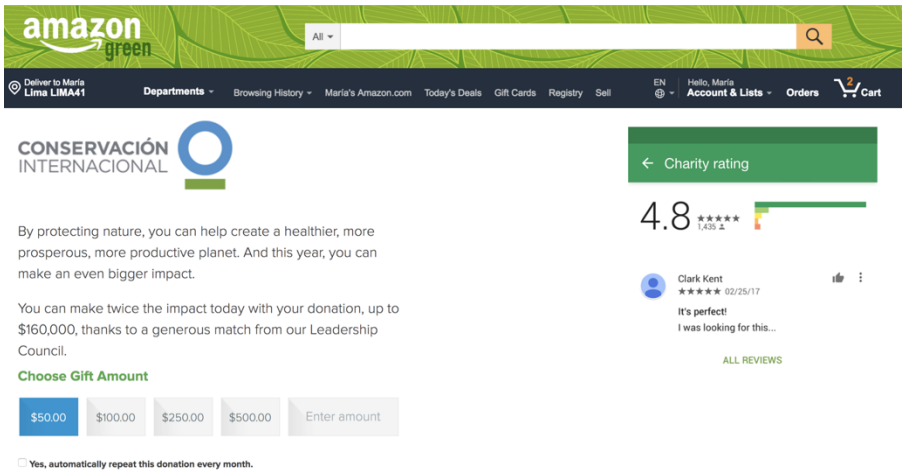


Figure 3

The third step of the process directs the donor back to Facebook. After donating on AG, an option to share on Facebook will be presented. Individuals can share by posting on their newsfeeds, sending notifications to friends, or both. This should encourage donations to that particular charity (Herzorg & Yang, 2018). By sharing, the donor will play the role of the messenger in the solution, as more importance is often given to information provided by a trustable and reliable source (Figure 4) (Dolan et al., 2012). Sharing on Facebook will further encourage potential donors because as people see their friends donating on AG, they can be reassured that it is a safe platform. In addition, social desirability is encouraged, as people desire to join their Facebook friends by donating (Meer, 2011) (Appendix B).

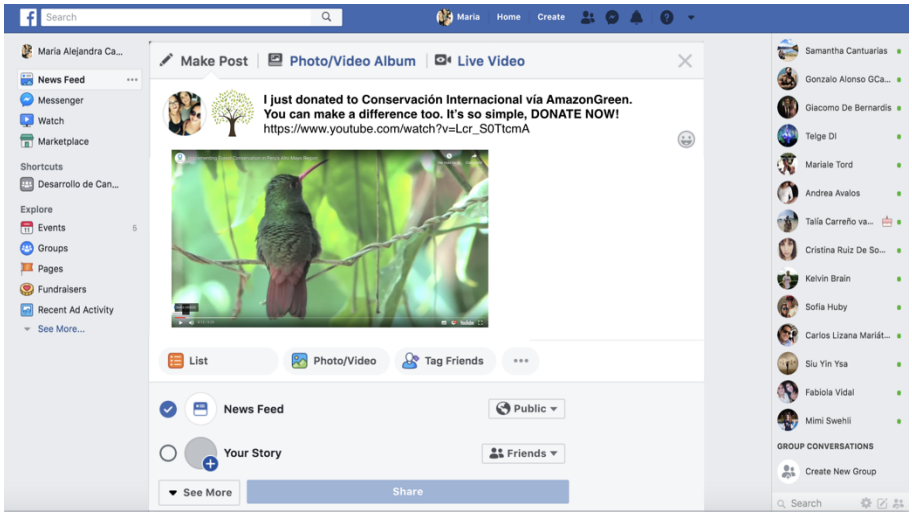


Figure 4

Additionally, our proposal requires Facebook to introduce a new feature in the form of a tree icon (See Figure 4) for individuals who donate to environmental charities. The idea here is that the tree would be considered a social-status symbol and a privilege of sorts. The tree would initially appear with few leaves, and as the individual donates, more green leaves would appear in the tree until it fills-in healthy. This is based on the theory of pseudo-sets which arguably stimulate individual desires for completeness and drive people to finish a seemingly incomplete set (Barasz et al., 2017). Using pseudo-set framing in the form of incomplete trees could encourage the desired behaviour of environmental donations, as individuals gradually fill the tree. We predict the tree will encourage donating behaviour because as donations decrease, leaves would turn brown and eventually 'fall' if donation frequency and volume falls below certain levels.

The tree is important in our proposed solution for different reasons. It can act as a signaling tool for other users and used as a sign of prestige. Prestige has been defined as the utility generated from sharing an individual's donation publicly, thus reinforcing social status (Harbaugh, 1998). Hence, the tree can act as a reputational motivator, signaling to other Facebook users that this individual is contributing and supporting environmental causes. It may also encourage others to start donating to receive a tree and reduce any feelings of exclusion. It should be thought of as a tool to compare environmental contributions and drive competition to complete the tree (Barclay & Willer, 2007).

Finally, it would serve as a reminder for people to stay committed to the environment, a person with a tree would feel part of this green community. This sense of community or 'membership' could engender an emotional and environmental connection with other donors. It could also be used as a tool to maintain adherence to this new community's social norms and increase participants' motives for donations (Saxton & Wang, 2012). This community should encourage a more continuous behaviour of environmental donation.

Micro-donations

In the age of social media , spreading awareness across the world is easier. However, more must be done to increase donations. Consumption is a large part of most lifestyles, and one of the main causes of environmental destruction (Jorgenson, 2003). Consumption itself, therefore, can be used to accumulate donations through default or round-up options when making purchases.

Donations will not only be collected from campaigns seen on Facebook. AG will be a platform that sells products which are fair trade, ethical, environmentally friendly and recycled, in

addition to the usual products sold (Figure 5). However, using 'choice architecture' people could be nudged to consume more environmental goods, by AG giving more attention and priority to these products (Thaler & Sunstein, 2009). Additionally, through the 1% default donation on AG, individuals could share their contribution in the form of more leaves on their Facebook tree. Micro-donations are a crucial method to increase donations and to reach a wider audience (Anonymous, 2012). They should increase donations by making them discrete and convenient (Lovell, 2015).

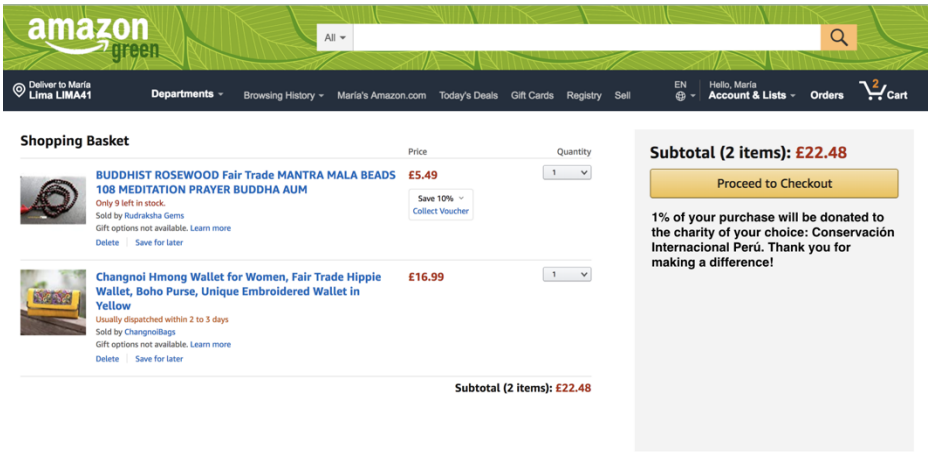


Figure 5

However, another way to increase donations is using micro-donations in bank transactions. For example, through electronic banking, banks can implement an option that allows people to engage in micro-donating behaviour every time a transaction is made. Individuals could be given the option to customise their micro-donation plan. They could choose to limit donations on transactions in certain stores, pick the environmental charity, and check their monthly donations contribution. This has been applied previously to non-environmental charities (Caixabank, 2014). This solution could be linked to the Facebook tree using an intermediate platform, providing bank details are not exposed.

Limitations

Data collection and use by large social media platforms is viewed as a threat to privacy and as arguably unlawful mishandling of private property (Mahmoodi et al., 2018). The choice of Facebook and Amazon under this proposal is pragmatically based on market share and power. Both platforms are used by millions every day, and such traffic can increase donations by orders of magnitude by reaching as many people as possible. It may enable charities to implement crowdfunding strategies that will help accumulate small amounts of donations and spread the word through globally dispersed users (Flannery, Harris & Rhine, 2009). However, the looming issue of data privacy is a serious and constant concern as the influence of these platforms continues to grow.

Another concern is that by using large profit-driven corporations like Amazon with environmental charities, any initial positive effects could backfire due to anti-profit attitudes (Bhattacharjee et al, 2017). People may suspect profit-driven organisations have disingenuous pro-environmental attitudes. Our proposal provides Amazon the opportunity to ameliorate its questionable environmental reputation. While there is a small probability it could become a positive example to other corporations and perhaps attract environmentalist consumers (Makov & Newman, 2016), there is undoubtedly concern that companies like Amazon and Facebook will simply use environmental initiatives to further their own interests and drive shareholder value.

More specifically, the proposed tree icon may drive individuals to donate for self-image and reputational purposes, rather than intrinsic or altruistic ones. This in turn could result in a crowding-out effect of intrinsic incentives, due to an increase in visibility of extrinsic ones. This may be problematic as the altruistic features of donating may be dampened as good behaviour becomes visible and associated with image-seeking (Benabou & Tirole, 2010). However, an individual's desire to be approved by society is closely related to meriting that approval (Smith, 1759). Consequently, any overjustification may not necessarily crowd-out pro-environmental behavior and donations, as approving of oneself and being socially approved are interconnected.

Not all emotional, cognitive and social barriers were considered (Appendix C). In addition, as the analysis and suggested proposals were derived from a western perspective, perhaps other solutions to promote environmental donations may be applied to different parts of the world. In the future, these proposals could be replicated using other companies in their CSR projects, thus reaching a wider audience and promoting environmental donations through psychological and behavioural interventions.

In the future, research may also focus on the role of the government in promoting environmental donations and suggest ways in which it could become normalised and sustained. Finally, while monetary donations are crucial, the government may encourage environmentalist behaviours in general, which could in turn influence donating behaviours.

Conclusion

Psychological and behavioural interventions can be used to help increase environmental donations. By exploring the emotional, cognitive, and social barriers associated with donating behaviours, we identify various obstacles organisations should consider when designing an environmental campaign. We also propose a new platform that incorporates concepts from the psychological and behavioural literature to provide an effective model for future testing and implementation.

References

Albert, M., Güth, W., Kirchler, E., & Maciejovsky, B. (2007). Are we nice(r) to nice(r) people?—An experimental analysis. *Experimental Economics*, *10*(1), 53-69. doi: 10.1007/s10683-006-9131-3

Anonymous. (2012). UN Petit Don, Cher Client? Quand le micro-don d'argent s'invite à la caisse des supermarchés. Décisions Marketing, (66), 85-88.

Anonymous. (2014). Good Practice: Fundraising - Analysis - Charities will soon live or die by the user experience. Third Sector, 46.

Barasz, K., John, L., Keenan, E., Norton, M., Gauthier, Isabel, & Cowan, Nelson. (2017). Pseudo-Set Framing. Journal of Experimental Psychology: General, 146(10), 1460-1477.

Barclay, P., & Willer, R. (2007). Partner choice creates competitive altruism in humans. *Proceedings Of The Royal Society B: Biological Sciences*, *274*(1610), 749-753. doi: 10.1098/rspb.2006.0209

Bartke, Friedl, Gelhaar, & Reh. (2017). Social comparison nudges—Guessing the norm increases charitable giving. Economics Letters, 152, 73-75.

BBC website. (2007). [online] Available at: http://news.bbc.co.uk/1/hi/sci/tech/6343447.stm

Bhattacharjee, A., Dana, J., Baron, J., & Smith, Eliot R. (2017). Anti-Profit Beliefs: How People Neglect the Societal Benefits of Profit. Journal of Personality and Social Psychology, 113(5), 671-696.

Brekke, K.A., & Johansson-Stenman, O. (2008). The Behavioural Economics of Climate Change. *Oxford Review of Economic Policy*, 24(2), 280-297.

CaixaBank launches programme of charity micro-donations for customers. (2014). Banking Newslink, p. Banking Newslink, Jan 21, 2014.

Cappellari, Ghinetti, & Turati. (2011). On time and money donations. Journal of Socio-Economics, 40(6), 853-867.

Carbonara, P. (2018). Walmart, Amazon Top World's Largest Retail Companies. *Forbes*. Retrieved from https://www.forbes.com/sites/petercarbonara/2018/06/06/worlds-largest-retail-companies-2018/#62c8465b13e6

Chang, C., & Lee, Y. (2009). Framing Charity Advertising: Influences of Message Framing, Image Valence, and Temporal Framing on a Charitable Appeal. *Journal of Applied Social Psychology*, 39(12), 2910-2935.

Chatelain, G., Hille, S., Sander, D., Patel, M., Hahnel, U. and Brosch, T. (2018). Feel good, stay green: Positive affect promotes pro-environmental behaviors and mitigates compensatory "mental bookkeeping" effects. *Journal of Environmental Psychology*, 56, pp.3-11.

Choi, S.Y., Park, H.S., & Oh, J.Y. (2012). Temporal distance and blood donation intention. *Journal of Health Psychology*, 17(4), 590-599.

Cialdini, R., Reno, R., & Kallgren, C. (1990). A focus theory of normative conduct: Recycling the concept of norms to reduce littering in public places. *Journal Of Personality And Social Psychology*, *58*(6), 1015-1026. doi: 10.1037//0022-3514.58.6.1015

Clayton, S. and Opotow, S. (2003). *Identity and the Natural Environment: The Psychological Significance of Nature*. Cambridge, Mass: The MIT Press, pp.45-46.

Coleman, J. (1994). Foundations of Social Theory. Cambridge, Mass: Belknap Press of Harvard University Press.

Dolan, P., Hallsworth, M., Halpern, D., King, D., Metcalfe, R. and Vlaev, I. (2012). Influencing behaviour: The mindspace way. *Journal of Economic Psychology*, 33(1), pp.264-277.

Ducarme, F., Luque, G., & Courchamp, F. (2013). What are "charismatic species" for conservation biologists?. *Biosci. Mas. Rev*, *10*, 1-8.

Festinger, L. (1954). A Theory of Social Comparison Processes. *Human Relations*, *7*(2), 117-140. doi: 10.1177/001872675400700202

Flannery, H., Harris, R., & Rhine, C. (2009). 2008 DonorCentrics Internet giving benchmarking analysis. Charleston, SC: Target Analytic

Fried, C. and Aronson, E. (1995). Hypocrisy, Misattribution, and Dissonance Reduction. *Personality and Social Psychology Bulletin*, 21(9), pp.925-933.

European Commission (2011). *Communication from the commission to the European parliament, the council, the European economic and social committee and the committee of the regions. A renewed EU strategy 2011-14 for Corporate Social Responsibility*. Brussels, p.3.

Giving USA (2018). [online] Available at: https://givingusa.org/tag/giving-usa-2018/

Global Trends in Giving Report. (2018). [online] Available at: http://rocklandcce.org/resources/2018-global-trends-in-giving-report

Goldstein, N. and Cialdini, R. (2009). Normative influences on consumption and conservation behaviors. *Social psychology of consumer behavior*, pp.273-296.

Goswami, I., & Urminsky, O. (2016). When Should the Ask Be a Nudge? The Effect of Default Amounts on Charitable Donations. *Journal of Marketing Research* (forthcoming), 53(5), 829-846.

Harbaugh, W. (1998). What do donations buy?. *Journal of Public Economics*, 67(2), pp.269-284.

Herzog, P. and Yang, S. (2017). Social Networks and Charitable Giving: Trusting, Doing, Asking, and Alter Primacy. *Nonprofit and Voluntary Sector Quarterly*, 47(2), pp.376-394.

Hogan, R. (1982). A socioanalytic theory of personality. *Nebraska Symposium on Motivation,* 55-89.

Horne, C., & Kennedy, E. (2017). The power of social norms for reducing and shifting electricity use. *Energy Policy*, *107*, 43-52. doi: 10.1016/j.enpol.2017.04.029

Horton, H. (2018). Iceland's 'banned' advert could become most popular ever on social media by Christmas as clearance agency warns of copycats exploiting 'emotive' loophole. *The Telegraph*. Retrieved from https://www.telegraph.co.uk/news/2018/11/13/icelands-banned-advert-could-become-popular-ever-social-media/

Hynes, N. and Wilson, J. (2016). I do it, but don't tell anyone! Personal values, personal and social norms: Can social media play a role in changing pro-environmental behaviours?. *Technological Forecasting and Social Change*, 111, pp.349-359.

Iceland Foods. (2018). *Iceland's Banned TV Christmas Advert... Say hello to Rang-tan. #NoPalmOilChristmas* [Video]. Retrieved from https://www.youtube.com/watch?v=JdpspllWI2o

Jenni, & Loewenstein. (1997). Explaining the "Identifiable Victim Effect". *Journal Of Risk And Uncertainty*, *14*(3), 235-257.

Jorgenson, A. (2003). Consumption and Environmental Degradation: A Cross-National Analysis of the Ecological Footprint. Social Problems, 50(3), 374-394.

Kahneman, D., Knetsch, J.L., & Thaler, R.H. (1990) Experimental Tests of the Endowment Effect and the Coase Theorem. *Journal of Political Economy*, 98(6), 1325-1348.

Kahneman, D., & Tversky, A. (1979). Prospect Theory: An Analysis of Decision Under Risk. *Econometrica*, 47(2), 263-292.

Karp, L. (2005). Global warming and hyperbolic discounting. *Journal of Public Economics*, 89(2-3), 261-282.

Kogut, T., & Ritov, I. (2005). The "identified victim" effect: an identified group, or just a single individual?. *Journal Of Behavioral Decision Making*, *18*(3), 157-167. doi: 10.1002/bdm.492

Liberman, N., & Trope, Y. (2008). The Psychology of transcending the here and now. *Science*, 322, 1201–1205.

Liberman, N., & Trope, Y. (1998). The role of feasibility and desirability considerations in near and distant future decisions: A test of temporal construal theory. *Journal of Personality and Social Psychology*, 75, 5–18.

Loewenstein, G. (2010). Insufficient Emotion: Soul-searching by a Former Indicter of Strong Emotions. *Emotion Review*, *2*(3), 234-239. doi: 10.1177/1754073910362598

Lowenstein, G. & Lerner, J. (2003). The role of affect in decision making. *Handbook of Affective Sciences*. Oxford University Press, 619-642.

Lorenzoni, I., Nicholson-Cole, S. and Whitmarsh, L. (2007). Barriers perceived to engaging with climate change among the UK public and their policy implications. *Global Environmental Change*, 17(3-4), pp.445-459.

Lovell, P. (2015). The future of giving: The rise of micro-donation is revolutionising charity. City A.M, p. 21.

Lucke, S. & Koenigstorfer. (2018). Construal-level perspective on consumers' donation preferences in relation to the environment and health. *Marketing: ZFP – Journal of Research and Management*, 40, 21-34.

Kollmuss, A., & Agyeman, J. (2002). Mind the Gap: Why do people act environmentally and what are the barriers to pro-environmental behavior? Environmental Education Research, 8(3), 239-260.

Mahmoodi, J., Čurdová, J., Henking, C., Kunz, M., Matić, K., Mohr, P., & Vovko, M. (2018). Internet Users' Valuation of Enhanced Data Protection on Social Media: Which Aspects of Privacy Are Worth the Most?. *Frontiers In Psychology*, *9*. doi: 10.3389/fpsyg.2018.01516

Makov, T. and Newman, G. (2016). Economic gains stimulate negative evaluations of corporate sustainability initiatives. *Nature Climate Change*, 6(9), pp.844-846.

Markowitz, E., Slovic, P., Va¨stfja¨ll, D., & Hodges, S. (2013). Compassion fade and the challenge of environmental conservation. *Judg. Dec. Mak.*, *8*(4), 397-406.

Meer, J. (2011). Brother, can you spare a dime? Peer pressure in charitable solicitation. *Journal of Public Economics*, 95(7-8), pp.926-941

Merchant, A., Ford, J., & Sargeant, A. (2010). Charitable organizations' storytelling influence on donors' emotions and intentions. *Journal Of Business Research*, *63*(7), 754-762. doi: 10.1016/j.jbusres.2009.05.013

Milinski, M., Semmann, D., Krambeck, H., & Marotzke, J. (2006). Stabilizing the Earth's climate is not a losing game: Supporting evidence from public goods experiments. *Proceedings Of The National Academy Of Sciences*, *103*(11), 3994-3998. doi: 10.1073/pnas.0504902103

Nyborg, K., Anderies, J., Dannenberg, A., Lindahl, T., Schill, C., & Schluter, M. et al. (2016). Social norms as solutions. *Science*, *354*(6308), 42-43. doi: 10.1126/science.aaf8317

Onay, S., La-Ornual, D., & Onculer, A. (2012). The Effect of Temporal Distance on Attitudes toward Imprecise Probabilities and Imprecise Outcomes. *J. Behav. Dec. Making*, 26, 362-374.

Persky, J. (1995). Retrospectives: The Ethology ofHomo Economicus. *Journal of Economic Perspectives*, 9(2), pp.221-231.

Prokopec, S., & De Bruyn, A. (2010). The Impact of Anchors on Donors' Behavior: A Field Experiment. *Advances in Consumer Research*, 37, 524-525.

Rosenman, R., Fort, R., & Budd W. (1988). Perceptions, fear, and economic loss: an application of prospect theory to environmental decision making. *Policy Sciences*, 21, 327-350.

Sagristano, M., Trope, Y., & Liberman, N. (2002). Time-dependent gambling: odds now, money later. *Journal of Experimental Psychology: General*, 131, 364-376.

Samuelson, W., & Zeckhauser, R. (1988). Status Quo Bias in Decision Making. *Journal of Risk and Uncertainty*, (1), 7-59.

Saxton, G. & Wang, L. (2013). The Social Network Effect. *Nonprofit and Voluntary Sector Quarterly*, 43(5), pp.850-868.

Semmann, D., Krambeck, H., & Milinski, M. (2005). Reputation is valuable within and outside one?s own social group. *Behavioral Ecology And Sociobiology*, *57*(6), 611-616. doi: 10.1007/s00265-004-0885-3

Service, O., *et al.* (2015). EAST: Four simple ways to apply behavioral insights. *The Behavioural Insights Team Publication*.

Shang, J., & Croson, R. (2009). A Field Experiment in Charitable Contribution: The Impact of Social Information on the Voluntary Provision of Public Goods. *The Economic Journal*, *119*(540), 1422-1439. doi: 10.1111/j.1468-0297.2009.02267.x

Skibins, J., Powell, R., & Hallo, J. (2013). Charisma and conservation: charismatic megafauna's influence on safari and zoo tourists' pro-conservation behaviors. *Biodiversity And Conservation*, *22*(4), 959-982. doi: 10.1007/s10531-013-0462-z

Slovic, P. (2007). "If I Look at the Mass I Will Never Act"': Psychic Numbing and Genocide,. *Judgment And Decision Making*, *2*(2), 79-95.

Slovic, P., Kunreuther, H., & White, G. (1974). Decision processes, rationality, and adjustment to natural hazards. *Natural Hazards. Local, national, global*. New York: Oxford University Press, 187-205.

Slovic, S., & Slovic, P. (2005). Numbers and nerves: Toward an affective apprehension of environmental risk. *Whole Terrain*, *13*, 14-18.

Smith, A. (1759). *The theory of moral sentiments*. London: Printed for A. Millar, and A. Kincaid and J. Bell.

Smith, A., & Sutton, S. (2008). The Role of a Flagship Species in the Formation of Conservation Intentions. *Human Dimensions Of Wildlife*, *13*(2), 127-140. doi: 10.1080/10871200701883408

Smith, R., Faro, D., & Burson, K. (2013). More for the Many: The Influence of Entitativity on Charitable Giving. *Journal Of Consumer Research*, *39*(5), 961-976. doi: 10.1086/666470

Steffen, W., *et al.* (2018). Trajectories of the Earth System in the Anthropocene. *National Academy of Sciences of the United States of America.* 115(33), 8252-8259.

Thaler, R. (1994). Psychology and Savings Policies. *American Economic Review*, 84(2), 186-192.

Thaler, R., & Sunstein, C. (2009). Nudge. Penguin Books: New York.

Thøgersen, J. (2013). Inducing green behaviour. *Nature Climate Change*, *3*(2), 100-101. doi: 10.1038/nclimate1808

Thomas-Walters, L., & J Raihani, N. (2016). Supporting Conservation: The Roles of Flagship Species and Identifiable Victims. *Conservation Letters*, *10*(5), 581-587. doi: 10.1111/conl.12319

Townsend, J. (2014, September). How much has the ice bucket challenge achieved? *BBC News Magazine*, Retrieved June 30, 2015, from http://www.bbc.com/news/magazine-29013707

Trautmann, S., & van de Kuilen, G. (2011). Prospect theory or construal level theory? Diminishing sensitivity vs. psychological distance in risky decisions. *Acta Psychologica*, 139, 254-260.

Trope, Y., & Liberman, N. (2010). Construal-Level Theory of Psychological Distance. *Psychological Review*, 117(2), 440-463.

Tversky, A., & Kahneman, D. (1974). Judgment under Uncertainty: Heuristics and Biases. *Science*, 185(4157), 1124-1131.

Tversky, A., & Kahneman, D. (1981). The Framing of Decisions and the Psychology of Choice. *Science*, 211(4481), 453-458.

UNEP-WCMC, IUCN and NGS (2018). Protected Planet Report 2018. UNEP-WCMC, IUCN and NGS: Cambridge UK; Gland, Switzerland; and Washington, D.C., USA. [online] Available at: https://livereport.protectedplanet.net/pdf/Protected_Planet_Report_2018.pdf

Västfjäll, D., Slovic, P., Mayorga, M., & Peters, E. (2014). Compassion Fade: Affect and Charity Are Greatest for a Single Child in Need. *Plos ONE*, *9*(6). doi: 10.1371/journal.pone.0100115

Wei, S. (2015). *Social Influence in Charitable Giving*. University of Canterbury.

Woodside, A., Sood, S., & Miller, K. (2008). When consumers and brands talk: Storytelling theory and research in psychology and marketing. *Psychology And Marketing*, *25*(2), 97-145. doi: 10.1002/mar.20203

WWF (2018). Living Planet Report - 2018: Aiming Higher. Grooten, M. and Almond, R.E.A.(Eds). WWF, Gland, Switzerland. [online] Available at: https://livereport.protectedplanet.net/pdf/Protected_Planet_Report_2018.pdf

Xiang, Z., Yu, Y., Yang, M., Yang, J., Niao, M., & Li, M. (2011). Does flagship species tourism benefit conservation? A case study of the golden snub-nosed monkey in Shennongjia National Nature Reserve. *Chinese Science Bulletin*, *56*(24), 2553-2558. doi: 10.1007/s11434-011-4613-x

Zhu, Wong, & Huang. (2019). Does relationship matter? How social distance influences perceptions of responsibility on anthropomorphized environmental objects and conservation intentions. *Journal of Business Research*, 95, 62-70.

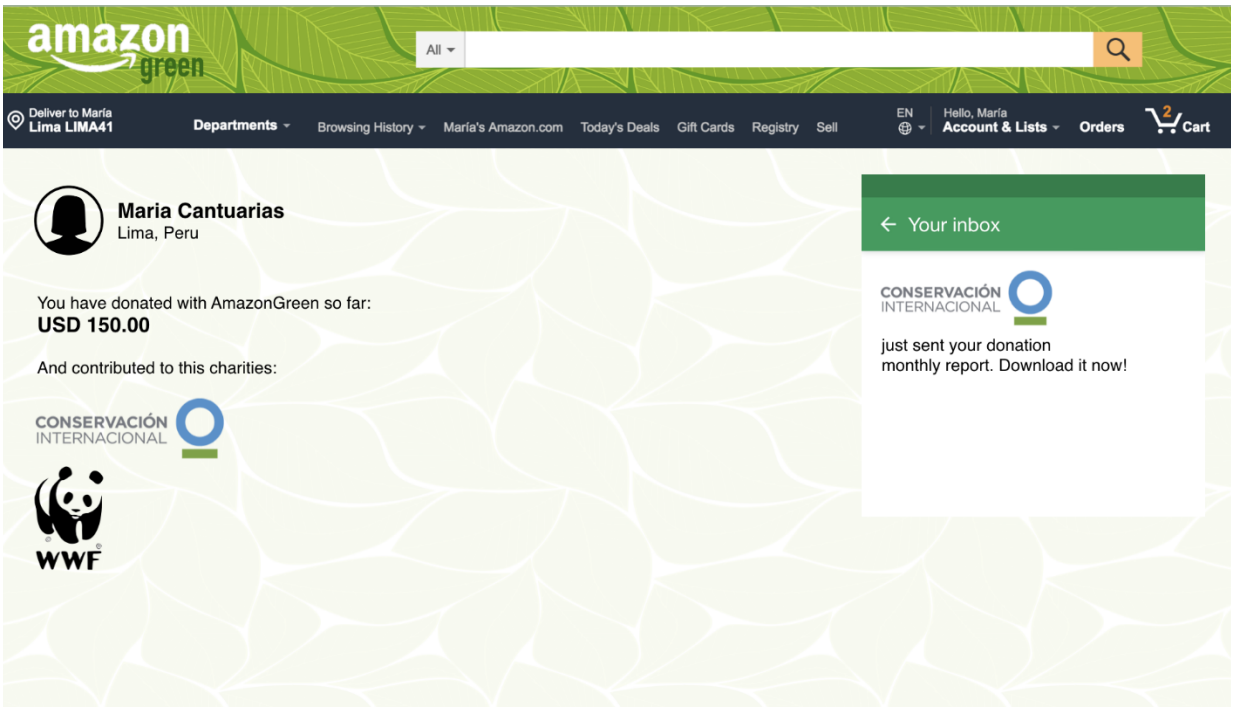
Appendix A

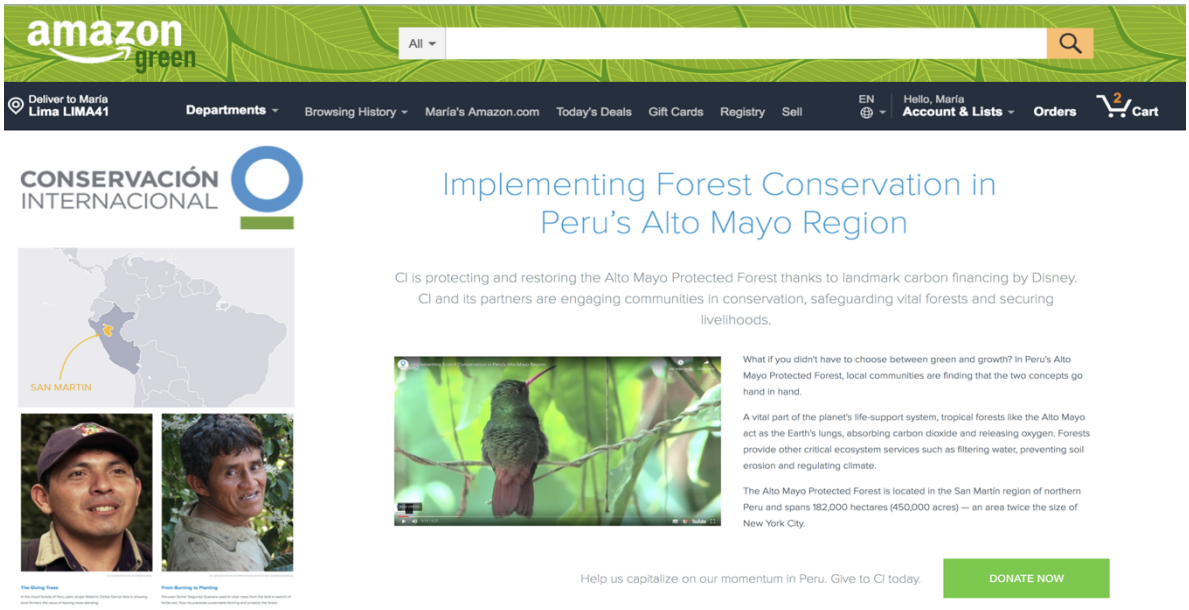
	Barriers	Solution	Theories
Emotional	Absence of emotional Connectivity	- Using campaigns - Providing feedback	- Identifiable victim effect - Storytelling
Cognitive	Discounting the future	- Simplifying donations mechanism - Default option	- Nudging Theory - Prospect Theory - Construal Level theory - Framing

Social	Resisting Non-Conforming Information	- Embracing a Green community.	- Social Norms - Social Comparison - Social Expectation

Appendix B

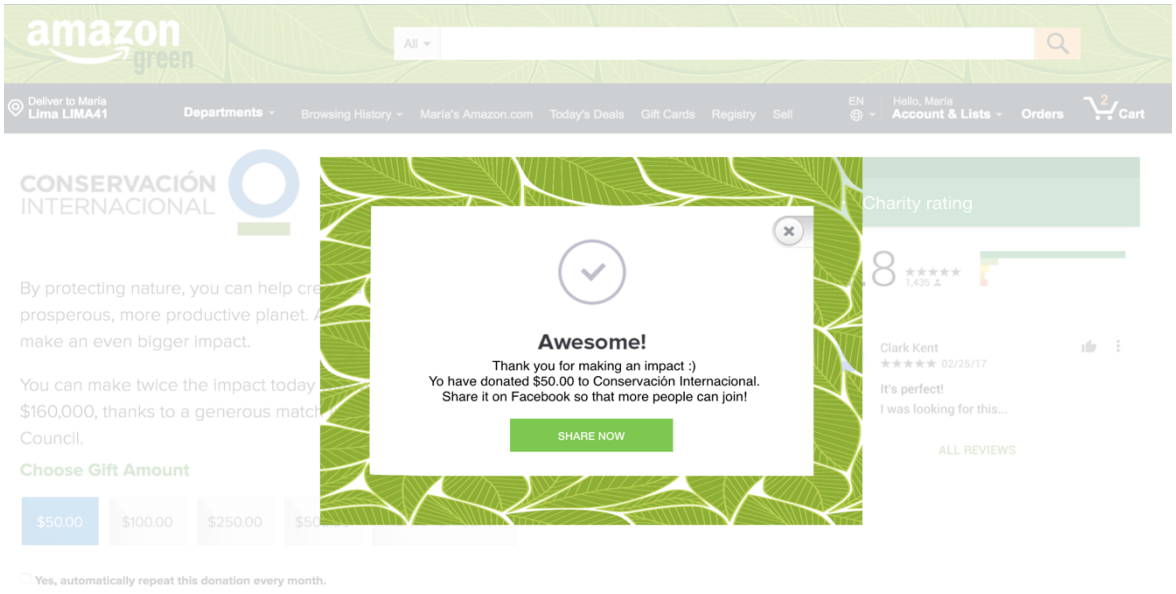
AMAZON GREEN PROFILE

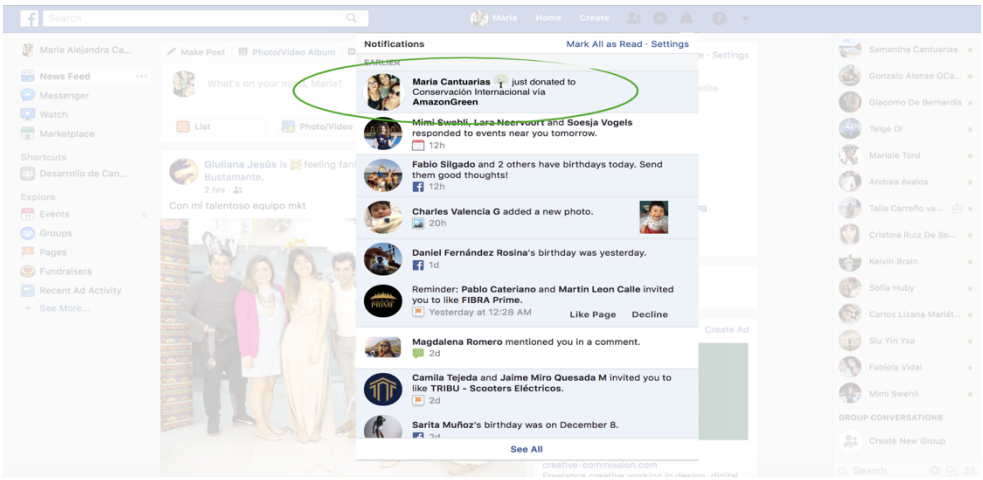




AMAZON GREEN FACEBOOK GROUP


Maria
Home
Create
Amazon Green
Public group
About
Discussion
Chats
Members
Events
Videos
Photos
Files
Recommendations
Search this group
Shortcuts
Desarrollo de Canales
amazon green
Where to Donate? 10 High-Impact Environmental Charities with Integrity
DECEMBER 4,
WRITTEN BY GREG SEAMAN
Create a Group Chat
Create group chats to have conversations in real time with just the members you want.
Joined
Notifications
Share
More
Videos
together possible
6.6K
188
ADD MEMBERS
Enter name or email address...
MEMBERS
69,651 Members
SUGGESTED MEMBERS
Hide
Friends
Telge DI
Cabeto Parodi
Mariale Tord
Raul Briceño Brignole
Rosella Camere Cola...
Alvaro Bellido
Daniella Fiocco
Ariana Ferrer
Irene Chambi
Katia Fernandez-Stoll
Joaquín de Aubeyzon
Ale Conde
Paola Vecco
7h
Claudia Figueroa
Nicole CA
6h
Andra Oprisan
10m
GROUP CONVERSATIONS
Create New Group
Search


amazon green
All
Deliver to Maria
Lima LIMA41
Departments
Browsing History
Maria's Amazon.com
Today's Deals
Gift Cards
Registry
Sell
EN
Hello, Maria
Account & Lists
Orders
Cart
CONSERVACIÓN INTERNACIONAL
By protecting nature, you can help cre
prosperous, more productive planet.
make an even bigger impact.
You can make twice the impact today
$160,000, thanks to a generous match
Council.
Choose Gift Amount
$50.00
$100.00
$250.00
Yes, automatically repeat this donation every month.
Awesome!
Thank you for making an impact :)
Yo have donated $50.00 to Conservación Internacional.
Share it on Facebook so that more people can join!
SHARE NOW
Charity rating
8
1,435
Clark Kent
02/25/17
It's perfect!
I was looking for this...
ALL REVIEWS


Notifications
Mark All as Read · Settings
EARLIER
Maria Cantuarias just donated to Conservación Internacional via AmazonGreen
Mimi Svehli, Lara Neervoort and Soesja Vogels responded to events near you tomorrow.
12h
Fabio Silgado and 2 others have birthdays today. Send them good thoughts!
12h
Charles Valencia G added a new photo.
20h
Daniel Fernández Rosina's birthday was yesterday.
1d
Reminder: Pablo Cateriano and Martin Leon Calle invited you to like FIBRA Prime.
Yesterday at 12:28 AM
Like Page
Decline
Magdalena Romero mentioned you in a comment.
2d
Camila Tejeda and Jaime Miro Quesada M invited you to like TRIBU - Scooters Eléctricos.
2d
Sarita Muñoz's birthday was on December 8.
See All

Appendix C

emotional barriers	Cognitive Barriers	Social Barriers
- Insufficiency of knowledge and information resources, lack of understanding. - Uncertainty and scepticism - Distrust in the sources of information (biases, framing methods... manipulated by certain medias) - Egocentricism. Externalising blame and responsibility (lead should be taken by industries and government) - unwillingness of lifestyle changes (Threat to standard of living. Monetary and time costs) - Fatalism (the belief that it's not worth it) - Feeling of helplessness (related to the massive scale of the issue) - Absence of emotional connectivity	- Discounting the future (distant threat in space and time of environmental issues) - Positive illusions (unrealistic optimism of the future, belief that one's future will be better than others) - Reading events in a self-serving manner - cognitive dissonance - giving more importance to other things (immediate priorities)	- Lack and Distrust in governments actions. - Lack of action taken by industries and businesses ("Fat cat" syndrome: overriding desire for power and position) - Refraining from taking action when no one else is. (Free-rider effect) - Social norms, social expectations. - Absence of enabling initiatives. Inconvenientand inefficient infrastructure