Ecological Economics 151 (2018) 106–113

Contents lists available at ScienceDirect

Ecological Economics

journal homepage: www.elsevier.com/locate/ecolecon

Analysis

Does the Identifiable Victim Effect Matter for Plants? Results From a Quasi-experimental Survey of French Farmers☆

Claire Pellegrin[a,*], Gilles Grolleau[b,c], Naoufel Mzoughi[a], Claude Napoleone[a]

[a] ECODEVELOPPEMENT, INRA, 84000 Avignon, France
[b] Univ. Bourgogne Franche-Comté, Burgundy School of Business-CEREN, France
[c] CEE-M, Montpellier SupAgro, INRA, CNRS, Univ. Montpellier, France

ARTICLE INFO

JEL Classification:
Q19
Q28
Q38
Q57

Keywords:
Environmental policy
Farmers
Identifiable victim effect
Nudge
Plant blindness

ABSTRACT

Numerous studies showed that people respond more generously to individual identified victims than to equivalent statistical victims, which is referred to as the "identifiable victim effect" (IVE). While the previous literature examined the IVE for human and animal victims, we focus on vegetal entities that can be threatened. Thanks to a between design allowing to increase the degree of plants' identifiability, we test whether IVE is likely to enhance farmers' participation in a conservation program, using mail survey data among a sample of French farmers located in the Vaucluse area. Unlike humans and animals, we found that IVE does not matter regarding plants, as farmer willingness to participate in the compensation measures was found to decrease as the (plant) victim(s) become more identifiable. Moreover, this figure is even stronger with respect to organic farmers compared to their conventional counterparts.

"*A single death is a tragedy; a million deaths is a statistic.*"
Joseph Stalin

1. Introduction

One of the major limits of the scope and efficacy of environmental programs is the lack of farmer participation (Carey et al., 2005). The conventional prescription to low enrolment provided by economists is generally the introduction of monetary incentives for participation. Given that farmers are considered to be rational agents who seek to maximize their profits, payments that are likely to increase net profits are expected to be effective in encouraging them to adopt environmentally-friendly practices. Nevertheless, despite the role of monetary incentives in changing farmer behavior, several scholars point out the limitations of such strategies (Kleijn et al., 2001; Pattanayak et al., 2010). Indeed, several policies based on monetary incentives have been found to be less effective than expected. The European agri-environmental schemes, for example, were faced with a low rate of farmer participation that ultimately reduced the effectiveness of the program (Hanley et al., 1999).

Based on research in behavioral economics (Kahneman, 2003), an increasing number of studies show that focusing on behavioral capital, defined as "*the latent potential of behavioral change to affect improvement in environmental quality*", may constitute a fruitful approach (Beretti et al., 2013). In particular, the use of nudges (Thaler and Sunstein, 2008) is being increasingly presented as a powerful tool to push farmers to take part in environmental programs (de Snoo et al., 2013; Kuhfuss et al., 2014). A nudge is "*any aspect of the choice architecture (…) that alters people's behavior in a predictable way without forbidding any options or significantly changing their economic incentives. To count as a mere nudge, the intervention must be easy and cheap to avoid*" (Thaler and Sunstein, 2008). Nudges could be used, for example, to increase farmer participation in such programs, to ensure a change in agricultural practices or to encourage farmers to continue newly adopted practices beyond the requirements stipulated by a formal commitment. Notably, these types of interventions have the capacity to increase the effectiveness of a program with little or no need for additional funding. For example, (Duflo et al., 2011) demonstrated that strategic timing of incentive implementation reduces farmer procrastination and can

☆ The authors are grateful to Sophie Clot, Katherine Farrow, Lisette Ibanez, Estelle Midler and three anonymous reviewers for their useful comments and suggestions. This research was financially supported by the European Commission under grant agreement 652615 and conducted in the context of the ERA-Net FACCE SURPLUS project VITAL, with the national funders NWO (Netherlands), BMBF (Germany), INIA (Spain), ANR (France). This study is also a part of CompAg program supported by INRA Ecoserv (P10664) and ANR PRCE 2017 (ANR-17-CE32-0014).

* Corresponding author.
E-mail addresses: claire.pellegrin@inra.fr (C. Pellegrin), grolleau@supagro.inra.fr (G. Grolleau), naoufel.mzoughi@inra.fr (N. Mzoughi), claude.napoleone@inra.fr (C. Napoleone).

https://doi.org/10.1016/j.ecolecon.2018.05.001
Received 20 December 2017; Received in revised form 16 April 2018; Accepted 2 May 2018

increase the effectiveness of a policy. At the same time, nudge approaches are not 'catch-all' solutions, given that they have their own limits and drawbacks (Loewenstein and Nick, 2017).

In this paper, we explore the potential of a nudge as a means to encourage farmers to realize compensation measures on their lands, namely the identifiable victim effect (IVE).[1] The IVE refers to an individual's greater willingness to offer a support to single, identifiable victims than to anonymous or statistical victims (Jenni and Loewenstein, 1997). It has been notably argued that affect elicited by identifiable stimuli can lead people to give more to identifiable individuals relative to statistical victims (Genevsky et al., 2013). A famous example of the IVE in the real world is the story of a baby named Jessica who fell into a well in Texas in 1987 and received over $700,000 in donations from the public in one month (Lee and Feeley, 2017). During the last decade, several studies have shown the benefits for charities of describing a single needy beneficiary rather than explaining the impact of their actions at a large scale, to raise funds (Kogut and Ritov, 2005; Small et al., 2007). For instance, across several experimental settings, Kogut and Ritov (2005) found that participants were willing to give significantly more money when a single person in need of medical help was described compared to when a group was presented.

The originality of our paper is to test whether the IVE also applies to living beings that are non-human and non-animal such as plants. This extension is important for several reasons. Testing the robustness of the IVE to various contexts is a valuable pursuit, since environmental threats in many situations mainly concern plants that are almost immobile and even inanimate objects. With more than 20% of the world's plants species threatened with extinction, global and local losses of plant diversity are often ignored (Cires et al., 2013). Moreover, individuals are sometimes directly solicited to help save these threatened species. In 2013, for instance, a group trying to preserve the centuries-old Angel Oak near Charleston, South Carolina raised almost $700,000 from more than 9000 donors in less than two months (Brodeur, 2017; see also McLeod, 2013). This generosity was notably explained by the '*amazing*' and '*passionate*' '*connection people have to this tree*'. In France, a recent fundraising initiative has been launched to save the plane trees of the *Canal du Midi* in Southern France. Last year, about 7500 donors gave an average amount of €60 each in order to save these trees (Caravagna, 2017). In some schemes, it is also common to emphasize a single species (e.g., a flagship or an umbrella species) as a conservation strategy to encourage policy support. Consequently, it is useful to understand whether the IVE also applies to these almost immobile beings.

The remainder of the paper is organized as follows: Section 2 overviews the related literature, which allows us to formulate testable hypotheses. Section 3 describes the experimental design. Section 4 presents the main results and discussion. Section 5 concludes and provides several policy implications.

2. Related Literature and Hypotheses

A classical assumption in behavioral economics is that individuals' decisions generally depend more than traditionally expected on affect than on pure rational considerations (Slovic et al., 2002). Several non-mutually exclusive mechanisms (Hsu, 2014; Jenni and Loewenstein, 1997) have been proposed to explain the IVE, notably (*i*) the *vividness* of an identification that is activated through an emotional story, visual images, and real-time unfolding, (*ii*) the *certainty effect*, which states that people overweight certain outcomes (e.g., helping an identifiable victim) relative to uncertain ones (e.g., helping statistical victims characterized by a probabilistic threat), (*iii*) the *reference group effect*, or the tendency of individuals to overweight similar expected risks that are faced by smaller groups (e.g. a single identified victim) compared to those faced by bigger groups (e.g. statistical victims), and, (*iv*) the *contrast* between evaluating the harm before it occurs (ex ante) in the case of statistical victim versus after (ex post) in the case of identified victims, which can lead to feeling a greater impetus to help in the latter case relative to the former. Although we may not be able to completely rule out other explanations, emotional reactions have been highly implicated in the impacts associated with the IVE (Genevsky et al., 2013; Erlandsson et al., 2017). Identified victims seem to evoke more powerful emotional responses than do statistical victims, and these responses lead to a greater likelihood of providing help (Small and Loewenstein, 2003). The fact that helping intentions are significantly predicted by helpers' emotions also suggests that individual victims may induce stronger sympathy and distress responses than do statistical victims. In short, feelings about the identified victims are likely to be a critical mechanism behind the IVE (Kogut and Ritov, 2005; Ritov and Kogut, 2011; Cryder and Loewenstein, 2012).

Another potential trigger of the IVE is the entitativity dimension, which refers to "the degree to which a collection of individuals comprises a single coherent entity" (Campbell, 1958). A clear beneficiary entity may increase the perceived proportion of the reference group that is being helped. Since donors are sensitive to this proportion, they tend to be more generous when the reference group to which victims belong is smaller (Bartels and Burnett, 2011). In the case of the IVE, the rationale behind such a statement is that "*the unit of reference for a single identified victim may be the victim herself* […] *while donations to statistical victims may be seen as mere drops-in-the-bucket*" (Bartels and Burnett, 2011; Jenni and Loewenstein, 1997).

Moreover, while the beneficiaries of the situations described in the studies exploring the IVE were mostly human, some studies have provided clues regarding the possibility to apply this behavioral phenomenon to animal species. In the experiment conducted by Desvousges et al. (1993), for instance, willingness to pay to support the protection of migratory birds from exposure to oil ponds increased only slightly when the number of affected birds was increased from 2000 to 200,000. Similarly, the protection of turtles inhabiting the Mexican coast received more support from participants in a study carried out by Kahneman and Ritov (1994) than the protection of all reptiles in the same region. Nevertheless, these studies did not explicitly consider single identified individuals. Exploring this particular dimension, other studies have found significant effects. One example is the rescue of a dog stranded on a ship adrift on the Pacific Ocean near Hawaii that received more than $48,000 in donations (Song, 2002 quoted in Small et al., 2007). Markowitz et al. (2013) also found a significant increase in support for polar bears (*Ursus maritimus*) when the identification of specific beneficiaries was made more salient. In another study, Thomas-Walters and Raihani (2016) found, in a WWF fundraising context, that while the IVE was not effective in increasing donations, flagship species increased donation amounts, compared to non-flagship species. Interestingly, the entitativity effect has also been explored for animals (Smith et al., 2013). Indeed, by presenting the recipient of a donation as a herd of 200 gazelles instead of 200 gazelles, the authors found that the support of the participants increased significantly.[2]

As far as we know, there is no study devoted to plant species. Lewinsohn-Zamir et al., (2017, p8) state that "*no one has yet tested whether an identifiability effect exists with regard to inanimate objects.*" Using a between-subjects design that allows us to increase the degree of identifiability with respect to a single plant species, we test whether the IVE is likely to enhance farmer participation in an environmental

[1] The identifiable victim effect can be considered as a potential nudge given the definition of a nudge provided by Thaler and Sunstein (2008, p. 6). Indeed, as we will see, the IVE is not constraining with respect to individual choice. It is a simple and inexpensive tool that can be used to motivate prosocial behaviors as contributing to charitable works or adopting green behaviors.

[2] Even if this issue is beyond the scope of our paper, examining the IVE for an entity like a well-identified forest such as the Amazon rainforest could constitute an insightful extension.