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On the behavioural relevance of optional and mandatory impure public goods

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A B S T R A C T

Impure public goods combine a private good with a public good. Often, impure public goods have a charitable or ethical dimension, giving ethically motivated consumers a convenient option to contribute to public goods through the marketplace (in addition to direct donations). Impure public goods could potentially promote ethical giving or alternatively hinder charitable behaviour. We implement an economics experiment with a between-subject design to test the behavioural relevance of impure public goods with only a token (i.e. small) contribution to a public good. Contributions to the public good are negatively affected by the presence of impure public goods with token contributions. We explore one mechanism to offset this negative impact by making the token impure public good mandatory. We observe higher average contributions and several positive impacts on charitable behaviour, which supports the claim that this mechanism can potentially offset the negative impact of impure public goods.

1. Introduction

Impure public goods are characterized by the joint provision of a private good and a public good (Cornes & Sandler, 1984, 1994; Kotchen, 2006). They are often used by firms as a strategy to differentiate their goods and effectively enhance their sales and reputation (Elfenbein, Fisman, & McManus, 2012). Several types of impure public goods are available in markets for conventional private goods, such as ethical and green goods. The public good component can simply correspond to a charitable contribution which is embedded in a private good, as is the case with charity Christmas postcards or the range

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of (RED)[1] consumer goods whose price includes a contribution to a charitable fund. Alternatively, the public good component may be intrinsic to the production, distribution or use of the private good, as in the case of goods produced with less environmentally damaging processes than existing alternatives.

Some authors have criticized the trend of ethical branding or cause-related marketing. Einstein (2012) argues that "shopping is not philanthropy" and that this type of marketing can actually desensitize individuals in relation to problems which require charitable intervention. Nickel and Eikenberry (2009) and Eikenberry (2009) argue that when people engage in cause-related purchases they are then less likely to support a cause directly.

In fact, in the case of the embedded and the intrinsic public good component, it is common for the public good to represent a small percentage of the retail price, as is the case of many charity Christmas postcards in the UK.[2] We wish to explore experimentally what is the impact of impure public goods with token charity contributions for individual charitable behaviour (in the sense that the public good contribution is "symbolic" in relation to the price of the good or, in the case of the experiment, in relation to the potential private earnings). Based on insights from experimental economics and social psychology, we hypothesize that they will in fact hamper contributions, as they provide a cheap means to buy positive self-image. One possibility to offset this negative impact is to have a minimum public good component for all goods in the market, making the token contribution binding for all consumers. The risk of such a possibility is that fewer consumers will buy the good in the first place. We design an incentivized controlled experiment to explore these issues.

Our experiment focuses on individual decision-making, by extending a dictator game played with a charity recipient to a context of a market purchase. Consumers can individually purchase a good and make contributions to a public good (which in our setting is a charitable contribution). Specifically, participants receive an endowment that they can use to buy chocolates (at subsidized prices) and also to make a contribution to the charity Oxfam. Our baseline treatment corresponds to a conventional market with a private good and the possibility of making public good contributions via a direct donation (Pure treatment). Our second treatment offers the *additional* option of an impure public good (Impure-Optional treatment), which couples the purchase of the private good with a small (i.e. token) contribution to the public good. In our third treatment we have no purely private good option and thus make the impure public good mandatory (Impure-Mandatory treatment) for any subject who wishes to purchase the private good.

To summarize our results, we find evidence for a negative impact of impure public goods with paltry contributions and observe less widespread generosity in the Impure-Optional treatment than Pure treatment. When the impure public good is mandatory, as in the Impure-Mandatory treatment, subjects are overall more generous and contributions are more widespread. Thus, our results suggest that raising the minimum public good content of goods in markets can potentially offset the negative effect of impure public goods.

In the next section, we review the literature on impacts of impure public goods that is related to our experiment. The experimental design is presented in Section 3. In Section 4 we analyse the results, which are then discussed in the final section.

2. The impact of introducing impure public goods in markets

Ethical goods have been praised as well as criticized regarding their ability to promote private contributions to public goods, both in terms of compliance rates (i.e., share of contributors to the public good relative to all potential contributors) and response magnitude (i.e., average individual contributions). In this section, we discuss the possible impacts of their presence in a market setting from different perspectives.

A theoretical treatment of impure public goods as a bundle of public and private characteristics suggests people should be at least as altruistic as when impure alternatives are not available, since in the standard economic model individuals demand characteristics rather than goods (Cornes & Sandler, 1984, 1994; Kotchen, 2006). If the relative share of public and private characteristics in the impure public good can be equally achieved by a direct contribution to the public good, then the presence or absence of an impure public good is in theory behaviourally irrelevant for contributions whenever the underlying choice set is unchanged. From this perspective, a behavioural irrelevance hypothesis follows concerning the private provision of public goods.

While the behavioural irrelevance hypothesis stems from standard economic analysis, casual observation and empirical formal evidence suggests that it might not always hold. In fact, we observe several types of impure public goods being demanded, often at a price premium (as surveyed for example by Andorfer & Liebe, 2012 for Fairtrade goods). Experimental studies show that impure public goods may be effective in raising contributions. Frackenpohl and Pönitzsch (2013) observe a higher willingness to pay for a private good bundled with a charity contribution, relative to the willingness to pay for the goods separately. Also, Koppel and Schulze (2013) find in a field experiment on Fairtrade coffee that contributions to the associated charity are higher when the contribution is embedded in the price, i.e. the good is presented bundled with a contribution, rather than only through a direct donation. Holmes, Miller, and Lerner (2002) and Briers, Pandelaere, and Warlop (2007) argue and illustrate how placing donations within an exchange framework promotes charitable behaviour.

1 (RED) goods are part of a campaign to raise funds for the Global Fund to Fight AIDS, Tuberculosis and Malaria (more details in http://www.joinred.com).

2 For example, in 2006, "Harrods offers 35 designs with only 3% going to charity and 73 where less than 5% went to charity" (Charities Advisory Trust UK, 2006) and in 2012, Debenhams's "cards sold in aid of the NSPCC give only 8.33% to charity" (Charities Advisory Trust UK, 2012).