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## **WORKING PAPER**

# **Improving campaign success rate by tailoring donation requests along the donor lifecycle**

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August 2010

2010/666

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# **IMPROVING CAMPAIGN SUCCESS RATE BY TAILORING DONATION REQUESTS ALONG THE DONOR LIFECYCLE**

## **ABSTRACT**

Since charitable fundraising relies heavily on direct mail, this paper studies how tailoring donation requests along the donor lifecycle could improve campaign success rate. Our field study provides a unique combination of three parameters whose combined interaction has not been studied to this date: donor segment, suggested personalized donation amount and social comparison, resulting in a 3 x 3 x 2 between-subjects design. Taking into account the donor's zone of acceptable prices, we show that for acquiring and reactivating donors the use of a recently suggested donation amount is most effective, whereas for retaining donors, it is preferred to use an average amount. Our results also demonstrate that social comparison is an excellent acquisition strategy, but that it could be harmful when reactivating lapsed donors. Social comparison was not found to have an effect on the donation behavior of current donors.

Key words: suggested donation amount, direct mail, social comparison, charitable fundraising, acquisition, retention, reactivation

## INTRODUCTION

Charities have a vested interest in improving their direct mail fundraising campaigns. These strategies mainly focus on optimizing the target selection (e.g., Malthouse & Derenthal, 2008), as well as on the content of the appeal (e.g., Berger & Smith, 1997). Target selection is traditionally approached by RFM models (i.e., recency, frequency and monetary value) aimed at predicting response behavior to determine whom to mail. Studying content is useful to determine what message to communicate to potential donors. Here, requesting a specific donation amount (SDA) has become a frequently used strategy in professional fundraising: direct mail for fundraising often proposes a specific donation amount, commonly an identical amount, at least per segment, for all potential donors. However, this approach ignores that each individual may have different decision criteria based on previous experience. Moreover, with very low additional costs, personalized donation suggestions are relatively easy to calculate as historical transactional data are stored in the database. In addition, the SDA could also be complemented with social comparison: referring to others who are donating.

With the increasing implementation of SDA in letters soliciting fundraising, the question now is to establish what type of donation request is best to suggest to each type of donor, based on their previous behavior. Options here are the choice of donation level (SDA) and the option to mention donations made by other donors. More specifically, we want to explore how these different types of donation requests possibly influence campaign success rate in terms of response rate, donation size, and overall revenue. For fundraising management, these three dependent measures are considered to achieve maximum effect for the specific campaign objective: in acquisition campaigns, for example, maximizing the response rate is more important than maximizing the size of the donations.

Research has demonstrated that SDA, social comparison or characteristics of the segment influence donation behavior. Yet, key aspects for understanding this interaction remain unexplored. First, previous studies have examined the influence of SDA on consumer behavior such as donation behavior, without accounting, however, for adaptation-level theory (Helson, 1964). As a result, we have little information on the effectiveness of different personalized suggested donations. Second, previous research on social comparison in fundraising has focused generally on referring to a specific donation amount of another donor (e.g., Croson & Shang, 2008). It remains unclear whether differences in campaign success rates are due to merely mentioning that others donate or to mentioning the specific level of the donation. To map these issues, this study clearly sets SDA and social comparison apart. Third, the type of segment that is targeted has not been consistently considered in the research design of previous studies. As a complicating factor, the effectiveness of communication types may be different across segments (e.g., De Wulf et al. 2001).

Most studies on recommended donations have focused on a single segment, either on a cold list (i.e., people who never donated to the charity before) or a warm list of current donors. Yet, Wolk and Spann (2008), borrowing from pricing literature, have found that the effect of reference prices is likely to differ among customer segments, and they suggest that further research has to consider these differences. Consequently, we aim to incorporate three segments into a single study by making a distinction between: prospects who never donated before (i.e., acquisition campaigns), active donors (i.e., retention campaigns), and donors who lapsed (i.e., reactivation campaigns). Additionally, this study is first to test the type of a personalized reference amount (i.e., average, recent or maximum) and social comparison (i.e., absent or present) across these three different segments. In sum, the main purpose of this

article is to examine the role of personalized SDAs, extracted from the charity's database, combined with social comparison across three relevant segments.

In a direct mail setting, this study presents theoretical background and data from a large-scale field experiment in Europe<sup>3</sup>, showing the need to adopt different donation requests along the donor lifecycle. We aim to extend the current literature on this issue and to provide advice for the practicing fundraising manager. Our findings have implications not only for professional managers, but also others. In general, direct marketers who want to optimize the price suggested may borrow from these results, for example for interactive pricing mechanisms. The remainder of this article proceeds as follows. The next section provides the theoretical background regarding reference prices and the use of social comparison in charitable appeals, leading to specific hypotheses. We then present results from a controlled field experiment testing these hypotheses. Next, the conclusions of our study are framed in the extant literature. Finally, we outline suggestions for future research and implications for fundraising managers.

## **CONCEPTUAL BACKGROUND AND FORMULATION OF HYPOTHESES**

### **Segments**

In this study, we consider three relevant segments because charities often distinguish between three types of direct mail fundraising campaigns based on three stages in the donor lifecycle. The first type is called the acquisition campaign and is meant to attract new contributors by sending the solicitation to people who have not contributed to the charity before. These

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<sup>3</sup> We analyzed monetary donation behavior in Euros. During our experiment, €1 corresponded to \$1.34.

addresses are rented or are obtained by exchange with other charities. The focus of acquisition campaigns is to maximize the response rate rather than to obtain a high average contribution. Retention campaigns are a second category in which the charity tries to preserve the current contributors and to upgrade their donation behavior. In third place, charities may try to reactivate donors who drop out and who have not given for extended periods of time. As in acquisition, the response rate is also of primordial importance in reactivation. Consequently, we want to incorporate three segments into one study by making a distinction between prospects who never donated before (i.e., acquisition campaigns), current contributors (i.e., retention campaigns), and donors who lapsed (i.e., reactivation campaigns).

### **Suggested Donation Amount: SDA**

In this section, we first provide an overview of the literature on a fixed donation amount that is the same for all potential donors. We then argue that differentiating the amount could be more effective when personalizing the amount to a person's donation history as well as to the segment of donors targeted.

*Fixed Donation Requests.* In direct marketing fundraising, it is generally accepted (Brockner, Guzzi, Kane, Levine, & Shaplen, 1984) that asking for a specific amount is better than not mentioning an amount. In practice, SDAs are regularly observed in fundraising campaigns for charitable and other public organizations. Over the last couple of decades, an increasing number of researchers have examined the effectiveness of this common practice. No uniform picture emerges, however, from the marketing and psychology literature examining recommended donations in a fundraising perspective.

A first stream of research investigated the use of an SDA by comparing the presence of an SDA with a control condition in which individuals were simply asked for a donation without

mentioning a specific amount. Weyant and Smith (1987), for example, found no difference in revenues between the presence of SDAs of \$5-25 or \$50-250, and the absence of a donation request in a direct mail acquisition campaign. In contrast, Fraser, Hite, and Sauer (1988) showed that, compared to not mentioning a specific donation amount, recommending a \$20 donation for the Capitol Area Humane Society increased the gift size in a door-to-door fundraising campaign targeted at the segment of prospects. Additionally, also in acquisition, Brockner et al. (1984) demonstrated that the probability of a donation increased when an SDA of \$1 or \$5 was mentioned in telephone fundraising, as well as in face-to-face fundraising. Based on a public goods game, Croson and Marks (2001) examined this effect of SDA more in depth. They found that the effectiveness of recommended donations depends on the valuations of the donors<sup>4</sup>. Homogeneous valuations means that contributors value the public good equally, whereas heterogeneous valuations of donors means that contributors value the public good differently. When valuations were heterogeneous, the recommended donations affected the revenues positively. Because in a fundraising context, a heterogeneous valuation environment is more realistic than a homogeneous environment, the authors interpret these results as support for the effectiveness of recommended donations in fundraising appeals. In sum, most previous studies on the use of SDA demonstrated the benefit of including a specific amount in the donation request. Nevertheless, it remains unclear whether the use of a suggestion level affects response rate, donation size or both. The size of SDA amounts differs across studies, making a comparison more difficult.

Professional fundraisers opting for a SDA then have to decide on the specific amount to ask. Consequently, a second stream of research focused on the level of the SDA by comparing different fixed SDAs or, in other words, identical SDAs for all individuals in one experimental group. In this context, Schwarzwald, Bizman, and Raz (1983) tested four types

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<sup>4</sup> Croson and Marks (2001) manipulated the valuations by equal or different bonus payments when the public good is met. This induced valuation reflected how the public good is evaluated by the donors (i.e., equally or differentially).

of anchor conditions: none, low (40 Israeli pounds or \$1.13), medium (50 Israeli pounds or \$1.42) and high (60 Israeli pounds or \$1.70) and did not find any difference in donations. Weyant and Smith (1987) tested small SDAs versus high SDAs in both a door-to-door and a mailing campaign toward prospects. They demonstrated that small anchors result in higher compliance without a decrease in gift size. They concluded that more money was raised by asking for lower SDAs than for higher SDAs. In contrast, Doob and McLaughlin (1989) found that, in a direct mail campaign toward previous donors, larger SDAs lead to larger donation revenues. At first sight, the findings from previous research for SDAs seem inconsistent. This may be attributed to differences in study context. First, as Doob and McLaughlin (1989) commented, the target segment of donors differed. These authors considered previous donors to the organization while many other studies investigated SDA for prospects who had never donated to the charity before. A second difference in study context is the medium used for the SDA. Although some studies investigated SDAs in a direct mail setting, most studies were conducted in a face-to-face context. Further research is needed to examine these differences in segment and medium as separate independent parameters. Next with respect to differences in context, previous studies used different absolute values for SDAs, which leads to mixed evidence. Relative notions, such as a 'higher' request are then difficult to compare over various studies. Moreover, also in line with the discussion of Doob and McLaughlin (1989), there is a need for SDAs to appear to be within a plausible range for donations. All of these studies investigated one general fixed SDA that was the same for all individuals in a certain segment or medium. In other words, these studies do not distinguish between different individuals. That is why it is interesting to learn how to optimize individual SDAs and to study their effect on revenues.

*Personalized Donation Requests.* To address the common shortcomings in previous studies on SDAs, we rely on the comprehensive literature on behavioral pricing. In general, scholars



agree that consumers make judgments and choices based on a comparison of the observed market price to the individual's internal reference price. Kalyanaram and Winer (1995) defined a reference price as a norm that serves as a neutral point for judging actual prices. The behavioral foundations for the concept of a mental reference price originates in psychology. adaptation-level theory (Helson, 1964) is the most used rationale for the reference price concept (Kalyanaram & Winer, 1995). According to this theory, the perceived magnitude and effect of a certain stimulus depend on the relation of that stimulus to prior stimuli. The preceding stimuli generate an adaptation level, and subsequent stimuli are evaluated in relation to this adaptation level. Consequently, the adaptation level is the stimulus value at which the judgment is centered or anchored. Helson's (1964) adaptation-level theory is frequently proposed to explain the influence of a reference price on consumer decisions by assuming that the judgment of a consumer consists of a comparison of the current stimulus to the adaptation level, which is based on exposure to past stimuli. Applied to behavioral pricing theory, adaptation-level theory suggests that the internal reference price reflects the adaptation level that depends on previous price experiences (e.g., the recent price paid). In marketing studies, some authors simply refer to 'reference price' instead of 'adaptation level' (e.g., Kalyanaram & Little, 1994). Next to adaptation-level theory, the assimilation-contrast theory (Sherif, Taub, & Hovland, 1958) support the reference price concept as well. Whereas Helson (1964) refers to an internal level, Sherif, Taub and Hovland (1958) refers to an internal range of acceptable prices: the latitude of acceptance. The assimilation-contrast theory states that individuals evaluate new stimuli using a reference scale that is based on previous experience. Several scholars applied assimilation-contrast theory to pricing, indicating that any price in the region is assimilated and any price outside the zone is contrasted (Monroe, 1971).

In marketing, the effect of reference prices has mostly been studied in a retail setting. In offline retailing, there are a large number of studies analyzing the influence of reference

prices in the context of the posted-price scenario, where consumers face a posted price and decide whether to accept this price as well as to purchase the product (Kalwani, Yim, Rinne, & Sugita, 1990; Rajendran & Tellis, 1994; Winer, 1986). The results show that consumers use a comparative price assessment to evaluate the current price of the product. Prices below their reference price are judged as relatively inexpensive whereas prices above their reference price are judged as relatively expensive. Whereas most studies investigated the reference price in the context of consumers being price takers, recently, the reference price concept is also applied in situations in which the consumer is a price maker. For example, Wolk and Spann (2008) investigated the effect of reference prices on consumer bidding behavior in interactive pricing mechanisms used in online retailing (e.g., auctions and name-your-own-price). More specifically, they distinguished between an internal (IRP), an external (ERP) and an advertised (ARP) reference price. The IRP corresponds to the adaptation level, the ERP refers to searches for other prices (i.e., prices at different retailers), and the ARP reflects the suggested price on the website. They also examined both plausible and exaggerated values of ARP and found that an exaggerated ARP increased the bid value among consumers who consider it to be believable. Jensen, Kees, Burton, and Turnipseed (2003) pointed to the fact that the ARP may be more effective in an offline setting compared to an online setting because, in an offline context, it is more difficult to compare prices of the same product at different retailers.

Beside the retail setting, the reference price concept is also applicable to fundraising (e.g., Schibrowsky & Peltier, 1995; De Bruyn & Prokopec, 2009). Asking for donations mostly takes place in the offline context of direct mail. Moreover, in fundraising, in line with the interactive pricing mechanisms (e.g., Wolk & Spann, 2008), donors have more control over the final price to pay. In direct mail fundraising, charities commonly suggest a specific donation amount in the solicitation. This SDA corresponds to the ARP. When we now apply

the reference price concept, with its roots in adaptation-level theory, to a direct mail fundraising setting, potential donors might use their previous donation behavior as the adaptation level, or internal reference, in their donation choice process. Consequently, individuals may compare the SDA with their previous donation behavior. Therefore, a match between the SDA in the direct mail letter and the individual's internal reference price could be more effective than using the same SDA for all individuals. Since every individual may have a different donation history and consequently may have different internal reference levels, we assume in the current study that a tailored pricing strategy, in terms of prices varying over consumers, could be advantageous for fundraising. More specifically, a higher SDA would be more appropriate for individuals who donated more than other donors in the past. Likewise, individuals who donated less than other donors may have a lower adaptation level and may react better if they receive a lower SDA. In practice, however, the SDA is often the same for all possible donors. In addition, as discussed above, we found the same trend for most prior studies investigating SDA. In other words, most of previous studies neglected the fact that donors have diverse internal reference prices which may cause the mixed results.

Only few studies acknowledge differences in internal reference prices by considering a differentiated pricing strategy. A first study that captured differences between groups of individuals was that of Schibrowsky and Peltier (1995). The authors found that, on an aggregated level, the matching of the direct marketer's presentation frame and the potential donor's internal decision frame results in a maximization of total donation levels. More specifically, in the group of high donors, they found that a high asking range increased donation size and that for low donors, a low asking range was more effective. Therefore, sending the same request to all potential donors does not maximize total campaign revenues. The study of Berger and Smith (1997) went one step further by considering historical donation data at the individual level. They tested personalized anchors that were

approximately 10 percent or 50 percent higher than the donor's most recent gift. Their results indicated that a 10 percent increase was more efficient than the 50 percent one, generating a higher response rate. The authors showed that a slight increase of the internal reference amount is more appropriate than a major increase. The authors used the most recent gift as a comparison level. We did not find any study examining what type of personalized calculated reference amount leads to the highest revenues. To address this issue, as we discussed above, it might be relevant to take into account that reference price is increasingly considered as a region rather than a point estimate (Sherif, Taub, & Hovland, 1958). As Kalyanaram and Little (1994) demonstrated the existence of a zone of price acceptability, an SDA should not exceed the donor's zone of acceptable donations. Therefore, based on the historical donation behavior for each donor, we want to explore an individual's zone of acceptable donations more in depth by considering different acceptable SDAs. To our knowledge, this specific issue has never been studied before in a charity context. Moreover, our study wants to approach the open research question that was formulated by Kalyanaram and Winer (1995), looking into what past prices are appropriate for reference pricing. First, as in Berger and Smith (1997), we want to investigate a personalized reference amount reflecting the most recent donation behavior. This is also in line with literature on reference pricing, which suggests that prices encountered on recent occasions have a greater effect on the internal reference price than older prices (Mazumdar, Raj, & Sinha, 2005). In addition, based on Kalyanaram and Little (1994), we want to explore an SDA that considers all previous payments and consequently reflects a donor's regular donation amount. This kind of average SDA may reflect a rather low donation amount that is still located in this zone of acceptance. Finally, we want to explore the upper threshold of the zone of price acceptability by considering a high but still tolerable SDA. To frame the central research question, we work in the context of personalized SDA in direct mail fundraising, considering the individual's zone

of acceptance. We will now investigate which past donation amounts are appropriate for reference pricing: the most recent payment, an average of prior payments or the upper threshold of an individual's range. In the following section we will formulate a number of specific hypotheses for this general research question.

*Hypotheses.* In general, previous studies have shown that differences in SDA may influence the campaign success rate, which is reflected in changes in response rate as well as in donation size. We found mixed results across individual studies, which may be explained by the diverse contexts approached by the authors, and which make comparisons more difficult. In our opinion, two important aspects may cause this inconsistency: the disregard for previous donation behavior and the limited focus on a single donor segment in each study. Moreover, Schibrowsky and Peltier (1995) and Wolk and Spann (2008) found that the influence of reference amounts is likely to differ among segments. We consequently expect that the effect of SDA on donation size and response rate may differ across donor segments leading to the following hypotheses.

***H1: The effect of the type of suggested donation amount (SDA) on donation size will differ by the donor segment. That is, there is an interaction effect on donation size between SDA and donor segment.***

***H2: The effect of the type of suggested donation amount (SDA) on response rate will differ by the donor segment. That is, there is an interaction effect on response rate between SDA and donor segment.***

More explicitly, De Bruyn and Prokopec (2009) found that certain characteristics of individual donors make them more or less sensitive to the influence of SDAs. In particular, infrequent, lapsed, or less generous donors have weaker internal reference points which make

them more easily influenced by SDAs. In contrast, frequent, recent, or high givers have stronger internal reference prices indicating that these donors will be less influenced by the donation grid, or a set of suggested amounts (i.e., donation grid: “Please donate:  15€  30€  50€  100€ Other\_\_\_\_\_”). In line with this, Desmet (1999) also investigated reference pricing by considering a scale of suggested donations rather than one specific donation amount. Taking into account the previous behavior of the donors, he showed that the results depend on the relation between the donation scale and the distribution of previous donations. Interestingly, measured by the recency and frequency of the donor, Desmet (1999) found that the SDA is more important if the donor is less highly involved. Less highly involved donors are more sensitive since they showed greater adaptation of their donation amount to the donation grid than more highly involved individuals. More specifically, Desmet (1999) found that regular donors, who are assumed to be more strongly involved, make less use of scale values. Applying this to the donor lifecycle, we assume that active donors are more involved in comparison with lapsed donors and prospects because lapsed donors have a high number of days since last donation (i.e., recency) and prospects have the lowest frequency because they did not donate to the charity before. Therefore, we expect that active donors will be not be influenced by the SDA, whereas prospects and lapsed donors will.

***H3: The type of suggested donation amount (SDA) will have an impact on donation size for prospects or lapsed individuals rather than for active donors.***

### **Social Comparison**

In general, consumers are often influenced by the behavior of others (e.g., Amaldoss & Jain, 2005). Theoretical grounds for this influence can be found in social comparison theory (Festinger, 1954), which indicates that individuals compare themselves to others when there is no objective standard available or when this standard is not considered relevant. In charitable

fundraising, objective standards are regularly not accessible. Social norms are closely related to social comparison. Recently, Goldstein, Cialdini and Griskevicius (2008) demonstrated that normative information can be very powerful to influence pro-social behavior. Moreover, these authors found that normative appeals were most effective when there is a close match to individuals' immediate situational circumstances. Consequently, information about the charitable behavior of similar others may influence a person's donation behavior. In this study, starting from the zone of acceptable donations, we want to investigate social influence as a compliance strategy to induce a person's willingness to respond to a donation request.

Most research examining this issue refers to this phenomenon as conditional cooperation, that is, individuals are more likely to donate when others donate. Research into conditional cooperation has mainly focused on experimental lab studies, rather than field studies, trying to explain the underlying reasons for this pro-social behavior. A first explanation offered is that people want to conform to social norms because of self-esteem considerations (Bernheim, 1994). In short, people want to feel good about themselves by conforming. Secondly, individuals may also have general fairness preferences such as those driven by reciprocity (Rabin, 1993). A third explanation proposed is that the cooperativeness of other donors signals the quality of the charity (Vesterlund, 2003). These lab-induced theories have been tested in field experiments in charitable real giving contexts. To our knowledge, the first study testing conditional cooperation in a field experiment was that of Frey and Meier (2004). In a call to pay the compulsory tuition fee, the University of Zurich also asked students to donate to two charitable funds, providing students information on the percentage of other students that had previously donated. The authors found behavioral evidence for conditional cooperation: the response rate increased when people knew that many others donated. Whereas Frey and Meier (2004) used the donation rate of other donors, further studies on conditional cooperation also focus on the size of previous donations. Martin and Randal (2005)

examined the content of transparent boxes in the foyer of an art gallery and found a significant influence of social information on donation composition, frequency and value. Specifically, they found that the propensity to donate was higher when transparent boxes contained donations (e.g., 50¢, \$5, or \$50) compared to empty boxes. In addition, the composition of the donations mirrored the composition of the initial contents. Alpizar, Carlsson, and Johansson-Stenman (2008) investigated conformity among visitors in a national park in Costa Rica by providing visitors information about typical previous donations of others (i.e., \$2, \$5 or \$10). These authors found that increasing the reference level decreases the likelihood of giving but increases the amount actually donated. Shang and Croson (2007) examined the influence of social comparison on donations in a fundraising campaign of a public radio station. They focused specifically on participants who had already decided to donate. They tested different SDAs based on the distribution of donations from the previous year's fund drives (i.e., the 50<sup>th</sup>, 85<sup>th</sup> and 90<sup>th</sup> percentile) and found that new members donated more when the highest donation suggestion was included. In a follow-up study, Croson and Shang (2008) compared the SDA with previous gifts of members and showed that respondents changed their donation in the direction of the SDA. When the SDA was higher than the previous gift, the donation amount increased whereas a lower SDA decreased the gift size.

In our opinion, the common shortcoming of these studies on social comparison is that they typically captured both the reference to another donor and the reference amount in a single condition by referring to a certain donation of another donor versus not referring to a donation at all. Hence, in the control condition there is no mention of a specific amount nor of a reference to another donor. Consequently, it is not clear whether simply asking any SDA and omitting the social aspect would lead to different results. It remains unclear what leads to differences in campaign success rate: the amount of the donation of others, or simply referring



to others donating. We want to investigate this issue more in depth by examining the role of each aspect separately. To do so, we include a simple SDA, starting from the donor's zone of acceptable donations, from the fundraiser without a referral to another donor. This approach allows us to examine which is the decisive factor in persuading individuals to donate: the social aspect or the reference amount. In other words, we reduce the social aspect by simply referring to someone else and therefore investigate the effect of two different sources of the recommendation: the fundraiser versus another donor. We want to remark that, as discussed above, regarding the SDA, we only considered acceptable donations in accordance with the individual's past donation behavior. Consequently, we do not consider unbelievable SDA's. Because conditional cooperation is initially considered as a compliance strategy indicating that individuals are more likely to donate when they know that others are contributing, we expect that social comparison as such (i.e., regardless of the amount of the suggested acceptable donation) will only have an influence on the likelihood to respond and thus not on the generosity of the donor. This is addressed in the following hypothesis.

***H4: Social comparison will have an impact on response rate rather than on gift size.***

Despite evidence of conditional cooperation in previous studies, social influence may vary depending on past donation behavior. In this context, Frey and Meier (2004) introduced an important concept: the heterogeneity in people's donation preferences. They showed that people with a consistency in giving are less likely to be significantly affected by social comparison. In contrast, people with an inconsistent pattern of giving are possibly more affected by social comparison. These findings may indicate that donors who are more active, and thus less indifferent, will be influenced less by information of other donors' behavior. In psychology, more specifically in the social influence literature, we found that social influence is more likely to occur when the situation is perceived as novel or ambiguous (Crutchfield,

1955; Griskevicius et al., 2006). Hence, other people may not influence the individual's decision when it is obvious for the individual what to do. In charitable fundraising, ambiguity may depend on the familiarity with the charity within the segment of donors. As prospects did not donate before, their experienced ambiguity is expected to be higher than for individuals who did donate to the charity before. Consequently, in a direct mail fundraising setting, we might hypothesize that ambiguity would moderate the impact of social influence on response rate. Both studies (Frey & Meier, 2004; Crutchfield, 1955) indicate that the influence of others might be different across segments. More specifically, we expect that previous donors (i.e., active and lapsed donors) will not be influenced by other donors' behavior, whereas the behavior of donors who never donated before will. This is also in accordance with King (1975), who states that individuals who experience uncertainty have a stronger inclination to seek clarifying information from others. As a result, we formulate the following hypothesis.

***H5: Social comparison will have a positive influence on response rate for individuals who never donated to the charity before (i.e., prospects) rather than for individuals who donated to the charity before (i.e., lapsed donors and active donors).***

Despite the valuable insights of previous studies on conditional cooperation, most studies have approached a single segment of donors: real prospects or people who donated before. In addition, these investigations mostly focused on donation on the spot (i.e., visibility) or interpersonal contact (i.e., face-to-face or by phone), highlighting a lack of studies investigating this issue in a direct mail setting with neither visibility nor interpersonal contact. Moreover, all of these studies were related to fundraising in a public goods context. To fill this gap, we want to test whether diverse segments of donors react differently to social comparison in direct mail campaigns for 'helping the needy' situations, than in public good situations. Furthermore, the focus of most previous studies was either on the participation rate

or on average gift size and did not consider both as separate dependent variable measures. That is why we will look both at response rate and average gift size.

## METHOD

### Experimental Design

*Context.* To address our research question and hypotheses, we set up a 3 x 3 x 2 between-subjects design in a real charitable direct mail context. We considered three relevant donor segments (3), in which we investigated the influence of three individual suggested donation amounts (3), in combination with the presence or absence of social comparison (2). The use of a field experiment, instead of a laboratory setting, is an additional contribution of our study to the investigation of consumer behavior and more specifically charitable giving. In our field setting, we have the benefit of implementing a controlled experiment in real fundraising campaigns of a European charitable organization. The charity gave us the opportunity to make variations in the sentence related to the donation request in the appeal letter of a direct mail campaign that was sent to prospects, current donors and lapsed donors. More specifically, the charity provided us with a dump of their database containing all historical transactions, and a list of the donor id's of all individuals that should be contacted in the next campaign. This enabled us to consider the previous donation behavior of each individual separately and the possibility to calculate a personalized donation suggestion in line with adaptation-level theory (Helson, 1964). In our experiment, we considered three factors. The first factor is related to the segment that we want to solicit. This factor cannot be manipulated because it depends on whether and when someone donated to the charity before (i.e., never, recently or a long time ago). The second factor is the type of suggested donation amount containing three levels (i.e.,

recent, average or maximum gift) and our third factor reflects two levels of social comparison (i.e., absent or present). Consequently, the latter two factors are related to the donation request in the appeal letter and therefore, based on the original persuasive appeal of the organization, we created six versions, each representing a combination of types of suggested donation amount and social comparison. As a result, within each of the three donor segments, the subjects were randomly assigned to receive one of these six versions. We will now describe the three factors more in depth.

*Independent measure variables.* The first factor, being the type of donor segment, was realized by selecting respondents beforehand and reflected the current stage in their donor lifecycle. Because we also wanted to investigate whether the six versions of donation requests are more or less effective for different donor segments, we examined three groups. With respect to our third and fifth hypothesis, these groups should reflect differences in involvement and ambiguity, consistency and uncertainty with regard to donation behavior. The groups were created following a distinction often made by charities, which reflects three types of direct mail fundraising campaigns along the donor lifecycle. The first type is called the acquisition campaign and is meant to attract new donors by sending the appeal to people who have not donated to the charity before. These addresses are rented or are obtained through exchange with other charities. The first group in our experiment thus contained prospects who never donated to the proposed charity before. Yet, this group of respondents had a history of charity donations, as the addresses were provided by 15 other European charities in an exchange program. Retention campaigns are a second category in which the charity tries to keep current donors and to upgrade their donation behavior. Hence, our second segment included current donors who donated more than €5 during the last two years. The charity used this rule of thumb for their selection of addresses for retention campaigns. In the third category, charities may try to reactivate donors who had dropped out and who have not

donated for extended periods of time. The last group contained donors who lapsed: their last gift occurred two or more years earlier. As a final point, by considering these three donor segments, involvement and consistency in donating is highest for current donors. As discussed in the previous section, individuals who never donated before to the charity in question experience the highest ambiguity and uncertainty.

The second factor was related to a specific type of SDA within each individual's zone of acceptable donations. For every donor, based on their previous donations, we calculated a personalized amount which was asked for in the appeal. We investigated three types. The first type was a person's recent donation amount. Second, we calculated the average gift size by considering all previous donations for each individual. In general, this was the lowest suggested donation amount of all three types. The third type approached the upper threshold of the zone of price acceptability by calculating the highest amount that a donor ever donated. Regarding these personalized reference amounts, we have three important remarks. First, in acquisition campaigns, and consequently for people who never donated to the announced charity before, we used the individual's charitable behavior across 15 other European charities to calculate the reference amounts. For the two other segments, we only considered the donation behavior toward the charity that sent out the campaign. Our second remark is that, for all donors, we increased the obtained reference amount by 10 percent to simulate a kind of up selling. This approach aimed to increase the donation, since higher SDAs mentioned, lead to higher donations (Croson & Shang, 2008), which is in line with results from Berger and Smith (1997), who indicate that a 10 percent increase is more appropriate than a 50 percent increase. We used rounded numbers in the final donation request because previous studies have shown that this is more appealing (e.g., Desmet 2003). Third, subjects with the same type of reference amount could still have a different SDA because the donation history differs for each individual. For example, suppose that two donors are asked for the maximum

reference amount and the first donor's maximum donation was €100 and for the second donor this was €200. Then, the SDA for the first donor should be €120 and for the second this is €220.

The third factor concerned the use of social comparison (i.e., absent or present). The absence of social comparison was reflected in a simple donation request formulated as follows: "Please help us by giving €x." In other words, the source of this kind of appeal was the fundraiser itself. In contrast, the presence of social comparison was implemented as follows: "Another donor like you donated €x. You can also help us". In both situations, to calculate the SDA, we used the donation history of the individual whom we wanted to solicit. The only difference was the announced source of the recommended gift. The combination of both factors previously discussed resulted thus in the six versions of the donation appeal. In sum, three independent measures were used to represent the kind of appeal: (a) segment (prospects, current donors, or donors who have lapsed), (b) type of the personalized SDA (average, recent or highest gift) and (c) source of the recommended donation (fundraiser or other donor).

### **Data Collection and Dependent Measure Variables**

As we mentioned before, response data were collected via charitable direct mail campaigns. We created six versions of the original campaign. The only difference between the versions was the sentence related to the donation request. In all other aspects, the versions were identical. The final campaign was sent to 57,513 European households in December 2008.

Two months later, the charities provided us with the latest dump of their database containing anonymous response data of our experiment. 114 individuals were removed from the initial sample.

To investigate the impact of the appeal on charitable behavior, we analyzed the campaign success rate. To that end, three dependent measures were obtained from the data. The first dependent measure is revenue per appeal. Because our groups were not perfectly balanced, we

compared revenue per appeal instead of the aggregated revenues. Campaign revenues are driven by two aspects: the decision to donate and the amount that was donated. As we want to identify whether the type of appeal affects response rate, gift size or both, we consider these two aspects as separate dependent measures. Specifically, for each segment, we examined the effectiveness of the different appeals on participation rate, gift size, and revenue per appeal. However, depending on the segment, one of these measures may become more or less crucial as the focus of acquisition campaigns is to maximize response rate rather than to obtain a high average donation. For retention purposes, overall revenue is of relevance. Finally, as in acquisition, response rate is also of prime importance in reactivation. As in Reingen (1982), regarding the analysis of the precise gifts as well as the revenue per appeal, a  $\log(X + 1)$  transformation was first performed on the data.

## RESULTS

To test our hypotheses, three three-way ANOVAs<sup>5</sup> were performed on revenue per appeal, average gift size and response rate. Each ANOVA enclosed three factors. The first factor, segment, contained three levels of segment type (prospects vs. current donors vs. lapsed donors). The second factor reflected the three different suggestions of donation amounts (recent gift vs. average donation amount vs. highest gift ever paid). The third factor had two levels: the absence or presence of social comparison. Table 1 gives an overview of the ANOVA for each dependent variable measure.

-- Please insert Table 1 about here --

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<sup>5</sup> We used the Tukey adjustment to the p-values for the many hypothesis tests.

Because of the wide range of donation sizes and the unbalance across the segments, we cannot assume that error variances are constant. This may violate the homoscedastic assumptions underlying ordinary least squares. The Levene's test of equality of error variances proved statistically significant ( $F_{\text{revenue}}(2, 57396) = 572.58, p < .0001$ ;  $F_{\text{gift size}}(2, 5234) = 9.67, p < .0001$ ) indicating that heteroscedasticity was associated with the log-transformed model. To correct for this, we applied the weighted least square method using standard deviation as weight (Jia & Rathi, 2008).

For the dependent measure of revenue per appeal, all individuals who received an appeal letter were included in the ANOVA ( $N = 57399$ ). As we discussed above, for each individual, we add 1 to the donation amount (because many individuals did not make a donation) and log transformed this final amount. The model was significant ( $F(18, 57381) = 304.96, p < .01$ ) and the ANOVA showed a main effect of segment type ( $F(2, 57381) = 1327.23, p < .01$ ). A significant interaction effect between segment type and suggested donation ( $F(4, 57381) = 2.76, p < .05$ ), as well as an interaction effect between segment type and social comparison ( $F(2, 57381) = 2.94, p = .05$ ) were found, indicating that donation requests in terms of SDA as well as social comparison should be adjusted to the segment. In the subsequent analyses we investigated the drivers behind these effects on revenue per appeal. For the dependent measure of gift size, we performed the same analysis as for revenue per appeal. The only difference was that this ANOVA ( $F(18, 5219) = 4246.10, p < .01$ ) was performed only on those people who did respond to the campaign ( $N = 5237$ ). Again, we found a main effect of segment type ( $F(2, 5219) = 9.18, p < .01$ ). In addition, we found a significant interaction effect between segment type and suggested donation level ( $F(4, 5219) = 2.71, p < .05$ ). The first hypothesis stating that the effect of the SDA on donation size depends on the donor segment is thus confirmed. For the dependent measure of response rate, we calculated the response rate of each cell in our  $3 \times 3 \times 2$  design ( $N = 18$ ) and assumed that the 3-factor



interaction is 0 to get an error term for testing all the main effects and 2-factor interactions. Again, this model was significant ( $F(14, 4) = 777.84, p < .01$ ). The results showed a significant main effect of segment type ( $F(2, 4) = 2325.79, p < .01$ ). Second, a significant interaction between segment type and suggested donation ( $F(4, 4) = 6.67, p < .05$ ) confirmed our second hypothesis, indicating that the effect of SDA on response rate depends on the donor segment. Finally, an interaction effect between segment type and the use of social comparison on response rate was found ( $F(2, 4) = 7.67, p < .05$ ). Hence, we demonstrate that social comparison has an impact on response rate rather than on gift size because we found an influence on response rate but not on donation size. Consequently, we showed evidence for our fourth hypothesis.

In general, the main effect of segment type is not surprising because it is well known that revenues are highest for retention campaigns mainly because of a higher response rate, and lowest for acquisition campaigns meant to recruit new donors. In each of the analyses, we found no main effect of SDA, nor of social comparison. However, the interaction effects between segment type and our manipulations regarding SDA and the use of social comparison indicate that the effectiveness of communication messages differs across donor segments. The absence of an interaction effect between SDA and social comparison indicates that the two effects are additive.

In the sections below, we will first provide an in-depth exploration of the interaction effect of segment type and SDA on the three dependent measures. Second, we describe the results of the interaction between segment type and social comparison on revenue per appeal and response rate. It is generally accepted that the success rate of direct mail campaigns has to be considered in accordance with the segment of the campaign. The effectiveness or total revenue of any fundraising campaign mainly relies on both the response rate and the magnitude of the gifts. Sometimes, depending on the type of campaign, one of these elements

is to be considered more relevant than the other, as is the case in a reactivation campaign in which maximizing response rate is of vital importance. For that reason, in the next two sections, the results are presented by discussing the effects of reference amount and social comparison on each type of campaign. For this, we used one-sided tests. In each section, we start by reporting the results of SDAs for acquisition campaigns, followed by an assessment for retention campaigns. We end with a discussion on the effects concerning reactivation appeals. Table 2 gives an overview of the three factors in our experimental design and the descriptive statistics on the three dependent measures

-- Please insert Table 2 about here --

### **What Amount is Most Appropriate to Recommend?**

Considering our research question related to the type of SDA within the zone of acceptable donations, we found that the optimal donation request differs across the different segments. We will now explore this more in depth.

-- Please insert Graph 1 and 2 about here --

*Acquisition Campaigns.* Regarding campaigns targeted at potential new donors, concerning gift size when donation behavior toward other charities is available, we found that the use of a recent request ( $M_{\text{recent}} = \text{€}3.32$ ) was highest compared to asking for the donor's average ( $M_{\text{average}} = \text{€}3.07$ ;  $t(117) = 1.86$ ,  $p < .10$ ) or maximum ( $M_{\text{maximum}} = \text{€}3.05$ ;  $t(105) = 1.92$ ,  $p < .10$ ) amount. We found no significant differences in response rate and revenue per appeal. In other words, the most recent gift to another charity acts as the best inducement to maximize the gift of new donors.

*Retention Campaigns.* In contrast, for current donors, we found that the average gift behavior acts as the best donation request for maximizing the response rate, as well as the revenue per appeal. The response rate was nearly one percentage point higher when suggesting the

average donation compared to the recent ( $M_{\text{average}} = 12.24\%$  vs.  $M_{\text{recent}} = 11.28\%$ ;  $t(2) = 3.39$ ,  $p < .05$ ) and maximum ( $M_{\text{maximum}} = 11.48\%$ ;  $t(2) = 2.69$ ,  $p < .10$ ) request type. Based on the revenue per appeal sent, we also conclude that the average gift is best to suggest in a retention setting. This type of request is superior compared to both the recent ( $M_{\text{average}} = \text{€}0.38$  vs.  $M_{\text{recent}} = \text{€}0.35$ ;  $t(28178) = 2.57$ ,  $p < .05$ ) and maximum suggestion ( $M_{\text{maximum}} = \text{€}0.36$ ;  $t(28197) = 1.89$ ,  $p < .10$ ). Therefore, our results clearly indicate that the common fundraising strategy of suggesting a recent request lowers both the response rate and revenue per appeal compared to the average suggestion. Finally, for retention campaigns, we found that the recent, average and maximum request lead to equal gift sizes. In other words, regarding donation size, active donors will not be sensitive towards the type of SDA.

*Reactivation Campaigns.* The results regarding inactive donors showed that for a maximum suggestion, the gift size was higher than the recent request ( $M_{\text{maximum}} = \text{€}3.50$  vs.  $M_{\text{recent}} = \text{€}3.18$ ;  $t(97) = 2.47$ ,  $p = .01$ ). Furthermore, with reactivation campaigns where the response rate is of prime importance, using the last gift before lapsing, compared to the average reference amount, increased the response rate from 3.25% to 5.01% ( $t(2) = 3.80$ ,  $p < .05$ ). We did not find a difference between the average reference amount and the maximum amount ( $t(2) = 2.00$ ,  $p > .10$ ). In other words, the last gift of a lapsed donor is most appropriate to win back as many donors as possible. Regarding revenue per appeal, we found no significant differences.

Combining an individual's range of acceptable donations and his/her stage in the donor life cycle has never been studied before, and therefore, extends previous research on reference amounts. Interestingly, the result for reactivation campaigns is in line with results for acquisition but differs from the results for motivating current donors, where the average reference amount is appropriate to increase response rate as well as campaign revenues. As we found that the type of SDA has an impact on donation amount for new and lapsed donors

and since this effect was omitted for active contributors (i.e., the group with the highest involvement), our third hypothesis was confirmed. In other words, regarding donation size, individuals with lower involvement will be more sensitive to the SDA than more highly involved individuals.

### **Referring to Another Donor?**

All three three-way ANOVAs showed the absence of a main effect of social comparison. However, we found a significant interaction between segment type and the use of social comparison on response rate and revenue per appeal, indicating the need for a differentiated approach along the donor segments. Our results demonstrate that referring to other donors is an excellent acquisition strategy, but is possibly harmful when reactivating lapsed donors. Finally, in line with our expectations, social comparison has no effect on the donation behavior of active donors.

-- Please insert Graph 3 about here --

*Acquisition Campaigns.* For acquisition purposes, we found evidence for conditional cooperation since revenue per appeal increased by 43% when referring to others compared to asking the same amount without social comparison ( $M_{\text{absent}} = \text{€}0.037$  vs.  $M_{\text{present}} = \text{€}0.053$ ;  $t(11869) = 2.17, p < .05$ ). This rise in revenue was driven by a higher response rate. The response rose from 1.21% to 1.63% ( $t(4) = 2.17, p < .10$ ), although this effect was marginally significant. We found no effect on gift size.

*Retention Campaigns.* In contrast to acquisition campaigns, for retention campaigns, it seems that current donors are quite insensitive to social comparison provided in the appeal, as we did not find any difference of social comparison on response rate ( $t(4) = 0.17, p > .10$ ), nor on revenue per appeal, nor on gift size.

*Reactivation Campaigns.* For reactivation purposes, referral to the behavior of others does not lead to differences in revenue per appeal nor in gift size. However, we did find that referring

to another donor lowers participation rate. More specifically, providing social comparison decreased the response rate from 4.76% to 3.53% ( $t(4) = -3.27, p < .05$ ). Therefore, we showed preliminary evidence for ‘reversed’ conditional cooperation since social comparison seems to inhibit an additional impulse for lapsed donors to reactivate. This interesting result was somewhat different from what we had expected and therefore our results provide support for a negative outcome when using social comparison.

In sum, as prospects experience the highest ambiguity and uncertainty compared to the other segments, they will rely more on the behavior of others. This superior performance of referring to others in campaigns targeted at people who never donated before supports our fifth hypothesis. For active donors, it seems that social comparison does not matter.

## **DISCUSSION**

This study extends previous research on the effectiveness of fundraising appeals by demonstrating a need for differentiation across donor segments and more specifically, in terms of suggested donation amount (SDA) and of social comparison. An important added value of our study is the benefit of measuring real donation behavior instead of intentions, by investigating charitable behavior outside the laboratory. Specifically, we tested whether adding a comparison to other donors has an effect, combined with the effect of a personalized SDA, on three segments of donors: prospects, current donors and donors who have lapsed. Whereas most previous studies only considered one of these donor segments, we captured the whole donor lifecycle. The results showed that for campaign success rate, a personalized SDA should be chosen carefully for each type of donor in terms of his/her donation lifecycle stage.

By considering adaptation-level theory (Helson, 1964) and assimilation-contrast theory (Sherif, Taub, & Hovland, 1958), we inspected the latitude of individuals' range of acceptable donations. Taking into account previous donation behavior, we explored three types of personalized donation amounts and found that the appropriate level, in terms of response rate as well as donation size, depends on the donor segment. As in Schibrowsky and Peltier (1995) and as in Wolk and Spann (2008), this was in line with our expectations. More specifically, for acquisition and reactivation purposes, the most recent gift is most appropriate. In other words, for potential new donors, the size of the most recent gift to another charity acts as the best anchor to recruit new donors. Regarding reactivation campaigns, the most recent donation before lapsing is optimal to win back donors. This issue has never been studied before and therefore extends previous academic research on reference pricing. In contrast, regarding active donors, suggesting the most recent gift may lead to lowered returns. The average donation is, however, most appropriate to increase response rate. This novel finding extends previous research since an average SDA has not been considered to date. Making a link to past donations, previous studies (Schibrowsky and Peltier, 1995) and professional fundraisers used the most recent gift as a reference amount for this segment. Our research demonstrates that this common approach could actually be counterproductive. In addition, we have shown that this more highly involved segment has a stronger internal reference amount than less highly involved donors because it was only for active donors that we found no effect of suggested donation level on gift size. In sum, our study highlights an essential benefit of tailoring the type of personalized amount.

In contrast to previous research on social information, our study clearly distinguished the SDA from social comparison. Starting from social comparison theory (Festinger, 1954), a second issue we investigated was referring to other donors in the donation request. By considering social comparison as a compliance strategy, and in line with our hypothesis,

social comparison did affect response rate, but not on donation size. However, the impact of social comparison varied across different donor segments. More specifically, we have demonstrated that social comparison is only an effective strategy for new donors, which was in line with our expectation that prospects experience more ambiguity and uncertainty compared to people who have donated before. We find that current donors are not influenced by the donations of other donors and revenues stay the same whether social comparison is added or not. Finally, our result shows similarities with the study of Frey and Meier (2004). In our experiment, lapsed donors are people who did not respond to direct mail advertisements of the charity for more than two years. Therefore, we could state that these subjects did not change their behavior in the past period and because of this behavioral stability they are not positively affected by social comparison.

### **MANAGERIAL IMPLICATIONS**

The findings offer practical implications for fundraisers aiming to improve their direct mail campaigns. We find that an optimal appeal, in terms of SDA and social comparison, depends on the donor lifecycle and that slight changes in the appeal can lead to a considerable increase in revenues. Our results clearly show that current rules of thumb may be seriously flawed and that there is room for improvement. In general, we have demonstrated that database marketing can be an important tool in direct mail fundraising campaigns. Based on previous donation behavior that is stored in the database of the charity, fundraisers can extract an appropriate amount to suggest, tailored to the individual donor. As for active donors, referring to their most recent gift may lead to suboptimal results. A better strategy compared to this traditional approach is suggesting the donor's average donation. Suggesting the donor's most recent gift

before lapsing is appropriate for recapturing lapsed donors. Furthermore, adding one characteristic to donor records, in particular the most recent donation, could be valuable to persuade people to donate, as charities commonly exchange donor records for acquisition purposes. However, cannibalization issues should be considered as well.

The findings regarding referring to other donors also indicate a need for differentiation in the communication strategy along the donor lifecycle. These results are in line with previous studies on social comparison and demonstrate that referring to other donors is an effective persuasive strategy in fundraising appeals targeted at prospects. We have demonstrated that adding one simple sentence to the appeal increased revenues by 43%. However, this effect was absent for the segment of current donors. Here, social comparison does not appear to play a role. Moreover, for reactivation campaigns, we have found that such social comparison may prevent donors from contributing and therefore may have negative consequences. In sum, these findings clearly show the benefits of using database information to tailor communication approaches.

## **LIMITATIONS AND FUTURE RESEARCH**

Although this study provides important insights in optimizing a donation request in direct mail fundraising, several limitations can be put forward. In our opinion, these limitations suggest opportunities for future research. First, we have restricted this study to direct mail. It would be interesting to investigate whether our findings hold for fundraising campaigns that use other channels like fundraising online, by phone or face-to-face. The second concern is that our findings should be evaluated for other contexts within and beyond fundraising. It might be of interest to investigate whether our results hold for other populations and for



appeals for different charitable purposes such as arts, health, education, poverty and the environment. Moreover, our findings could be used as a starting point for further research into online interactive pricing mechanisms in which consumers have more control over the pricing process and the final price to pay (Chandran & Morwitz, 2005). Third, it is also important to refine the personalized donation amount by taking the zone of acceptable donations into account. In our study we have increased the reference amount by 10%. Other reference amounts and other increases should be analyzed to further optimize this issue. In addition, content factors in the appeal different from the ones researched here may affect campaign success rates as well. As we have shown that the three donor segments react differently to both reference prices and social comparison, future research on these kinds of appeals should acknowledge the relevance of segment-specific strategies. Finally, we assumed that active donors are the most highly involved and consistent donors and that prospects experience the highest ambiguity and uncertainty. Further research need to investigate this issue more in depth by directly measuring these characteristics.

## **ACKNOWLEDGEMENTS**

We would like to thank the anonymous European charities for providing us with the data for testing our research question and hypotheses, (2) Ghent University for funding the PhD project of Griet Verhaert, (3) Arnaud De Bruyn for his fruitful comments on this research paper, and (4) Jia & Rathi for sharing their WLS method.

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## TABLES

**Table 1 ANOVA Results for the experiment**

	<i>df</i>	<i>Sum of squares</i>	<i>F-Statistic</i>	<i>Probability &gt; F</i>
<b>Revenue per solicitation</b>				
Segment	2	2655.15	1327.23	< .0001
SDA	2	.72	.36	.70
Social	1	.86	.85	.36
Segment * SDA	4	11.03	2.76	.03
SDA * Social	2	.36	.18	.83
Segment * Social	2	5.87	2.94	.05
Segment * SDA * Social	4	1.96	.49	.74
Model	18	5490.65	304.96	< .0001
Error	57381	57396.00		
<b>Average gift size</b>				
Segment	2	18.42	9.18	.0001
SDA	2	.49	.25	.78
Social	1	1.83	1.83	.18
Segment * SDA	4	10.89	2.71	.03
SDA * Social	2	1.43	.72	.49
Segment * Social	2	3.25	1.62	.20
Segment * SDA * Social	4	7.14	1.78	.13
Model	18	76649.40	4246.10	< .0001
Error	5219	5234.00		
<b>Response rate</b>				
Segment	2	13727.09	2325.79	< .0001
SDA	2	9.75	1.65	.30
Social	1	9.19	3.11	.15
Segment * SDA	4	78.72	6.67	.05
SDA * Social	2	1.53	.26	.78
Segment * Social	2	45.29	7.67	.04
Model	14	32136.44	777.84	< .0001
Error	4	11.80		

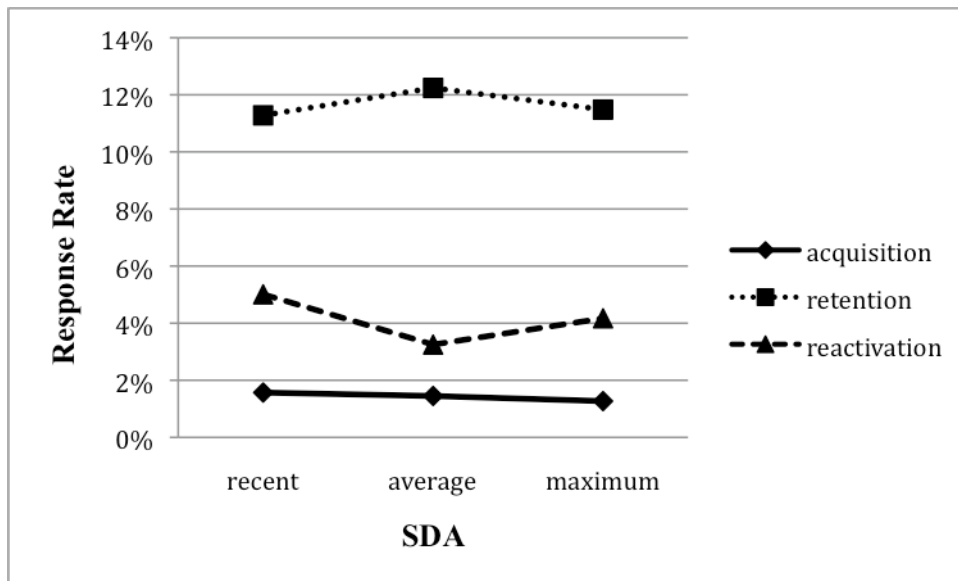
**Table 2 Experimental Design and Descriptive Statistics**

segment	social comparison	suggested amount	N	N (responders)	Response rate (%)	Average gift - Log transformation (€)	Revenue per appeal - Log transformation (€)
acquisition	absent	recent	1978	24	1.21 (0.11)	3.25 (0.64)	0.36 (0.04)
acquisition	absent	average	1977	27	1.37 (0.12)	2.84 (0.72)	0.34 (0.04)
acquisition	absent	maximum	1979	21	1.06 (0.1)	3.18 (0.83)	0.34 (0.03)
acquisition	present	recent	1979	38	1.92 (0.14)	3.39 (0.73)	0.48 (0.07)
acquisition	present	average	1979	30	1.52 (0.12)	3.3 (0.69)	0.41 (0.05)
acquisition	present	maximum	1979	29	1.47 (0.12)	2.92 (0.82)	0.36 (0.04)
retention	absent	recent	7066	801	11.34 (0.32)	3.13 (0.79)	1.03 (0.36)
retention	absent	average	7044	869	12.34 (0.33)	3.09 (0.83)	1.06 (0.38)
retention	absent	maximum	7063	804	11.38 (0.32)	3.11 (0.85)	1.03 (0.35)
retention	present	recent	7030	789	11.22 (0.32)	3.04 (0.84)	1 (0.34)
retention	present	average	7040	855	12.14 (0.33)	3.12 (0.8)	1.06 (0.38)

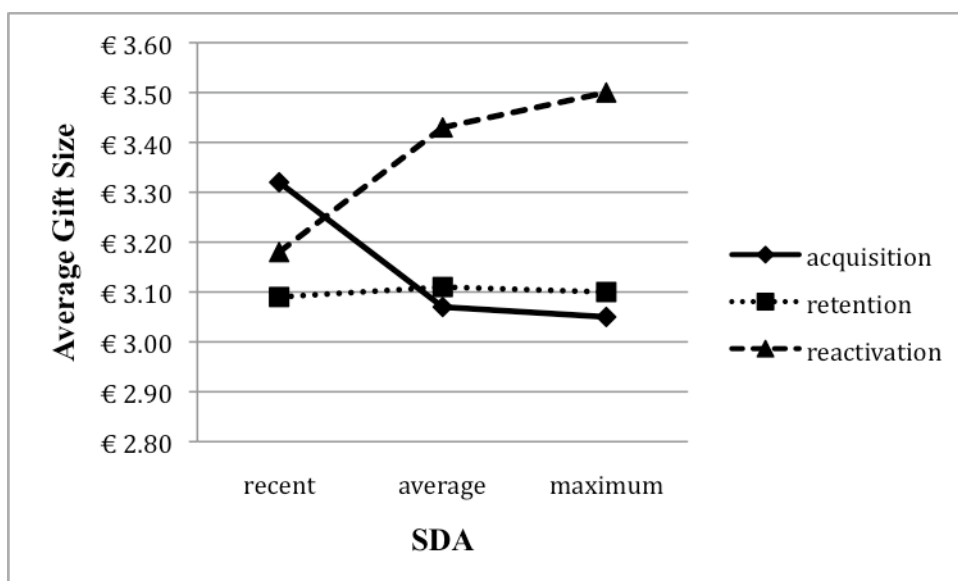
retention	present	maximum	7052	816	11.57 (0.32)	3.1 (0.83)	1.03 (0.36)
reactivation	absent	recent	539	30	5.57 (0.23)	3.11 (0.71)	0.73 (0.17)
reactivation	absent	average	539	19	3.53 (0.18)	3.34 (0.67)	0.63 (0.12)
reactivation	absent	maximum	539	28	5.19 (0.22)	3.37 (0.62)	0.76 (0.17)
reactivation	present	recent	539	24	4.45 (0.21)	3.25 (0.6)	0.68 (0.14)
reactivation	present	average	538	16	2.97 (0.17)	3.34 (0.63)	0.58 (0.1)
reactivation	present	maximum	539	17	3.15 (0.17)	3.63 (0.52)	0.64 (0.11)

## GRAPHS

**Graph 1: SDA & Response Rate**



**Graph 2: SDA and Average Gift Size**



**Graph 3: Social Comparison & Response Rate**

