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**When a Refusal Turns into Donation: The Moderating Effect of the Initial Position
towards Blood Donation in the Door-in-the-face Effectiveness.**

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Abstract

This research aimed to test the moderating effect of people's initial position to blood donation on the actual acceptance to donate blood in a door-in-the-face situation. This position (attitude, self-importance, normative beliefs) was measured one month prior to the request (Study 1, N = 99) or immediately before (Study 2, N = 80). The results revealed that the door-in-the-face effect is moderated by the importance of blood donation to the self, all the more so when the position is made salient. This highlights the specific character of blood donation in France and the centrality of the importance of donating for the self at the heart of the DITF technique. These results offer new insights into the conditions that must be met to achieve acceptance to donate blood after an initial refusal.

Keywords

Door-in-the-face technique, Attitude, Self-concept, Normative beliefs, Cognitive dissonance, Blood donation

When a Refusal Turns into Donation: The Moderating Effect of the Initial Position towards Blood Donation in the Door-in-the-face Effectiveness.

Although prevention campaigns have emphasized the public health necessity of blood donation for many years, the proportion of people who donate blood in Western countries remains very low (5% of blood donors in the United States, Carey et al., 2012; 3% in Australia, Reid & Wood, 2008; and approximately 6% for European countries, Beerli-Palacio & Martín-Santana, 2009; Lemmens et al., 2009; McVittie et al., 2006). According to the latest WHO report (2016), these statistics have not changed. France is no exception, as there are less than 4% of donors among the French population eligible for blood donation (annual activity report of the French Blood Institute, 2019a). Psychological research carried out in this field has mainly focused on the determinants and strategies to attract new donors and particularly to encourage current donors to donate more regularly (Schlumpf et al., 2008). One of the major concerns is indeed to understand why a first acceptance to give blood can lead (or not) to other donations. Yet, another major question could be to examine how a first refusal to donate could lead to an acceptance later on. Indeed, considering together that almost everyone has been exposed at least once in their life to a request from the French Blood Institute, we can consider that 96% of people eligible for blood donation in France have already refused to give blood. Therefore, understanding under what conditions a refusal to donate can lead to acceptance afterwards constitutes a major issue to increase blood donations. We suggest that a refusal may not have the same consequences according to the individual's position towards blood donation, inferred from the attitude, the importance of blood donation to the self, or the perception of what is socially expected. The present paper aims to address this issue using a traditional social influence technique that requires a refusal as a prerequisite for acceptance, namely the Door-In-The-Face effect (DITF, Cialdini et al., 1975).

The Door-In-The-Face Effect and the Position toward the Object of the Requests: a Neglected Association

Whereas classic influence techniques are based on the acceptance of an attractive first proposal to favor the acceptance of a target request (cf. the Low-Ball technique, Cialdini et al., 1978; or the Foot-In-The-Door technique, Freedman & Fraser, 1966), the DITF technique effectively requires the refusal of a first one, in order to encourage the acceptance of a second one. More specifically, its principle is based on the formulation of two requests, a first request which is too large to be accepted and a smaller one, which is the desired target request. It is therefore traditional to observe that a refusal occurring at the initial request increases the probability of acceptance to the second request (Cialdini et al., 1975). In one of the pioneering studies, Cialdini and Ascani (1976) report that one in two people agree to donate blood after an initial refusal to do so immediately before, whereas only one in three people accept the proposal to donate blood when asked directly (see also Guéguen, 2014; Hayes et al., 1984; Sénémeaud et al., 2008 for the rare applications of DITF technique to blood donation). The DITF effect has thus become a traditional effect of social influence and a significant number of moderators of this technique have been identified¹ (see the four DITF meta-analyses - Dillard et al., 1984; Feeley et al., 2012; Fern et al., 1986; O’Keefe & Hale, 1998). However, none of them refer either to the attitude of the target persons or to the importance they might attach to the underlying issue of the request, more generally none of them explores the possible moderating effect of a general position towards the issue in the DITF process. Two reasons for this lack of interest may be underlined. The first one refers to the general lack of attention paid to the people’s profiles in this paradigm (Bell et al., 1996). Indeed, only four studies address the moderators associated with the targets of influence, and furthermore, they solely focus on

¹ For example, one of the moderating elements refers to the length of time between the formulation of the two queries. It is recommended to propose the target query directly after the rejection of the extreme query to increase the efficiency of the DITF technique.

individual characteristics (Bell et al., 1996; Cantarero et al., 2016; Gamian-Wilk & Lachowicz-Tabaczek, 2009; Sénémeaud et al., 2008). The second reason has to do with one of the most paradigmatic aspects of the DITF technique, namely the prosocial nature of the issue (e.g., Feeley et al., 2012; O’Keefe & Hale, 1998). In most cases, it is a noble and laudable cause (e.g., Burger, 1999; Goldman et al., 1984), involving collective advocacy (e.g., Dillard et al., 1984; O’Keefe & Hale, 1998, 2001) and “entailed donations, volunteer opportunities, or behaviors that would benefit society at-large” (Feeley et al., 2012, p. 327). Since these cases are characterized by the fact that we can hardly be against them, a general confusion would have arisen between the prosociality of the requests and the fact of being favorable to the issue (cf. Hale & Laliker, 1999). However, the prosocial nature of the cause would not necessarily, in our view, imply that the positions taken towards it are homogeneous. To put it another way, what counts as prosocial would not necessarily be proattitudinal (Dillard & Hale, 1992) or at least requires a systematic and fundamental attention. Blood donation is an obvious example. For many authors, it is a major example of a prosocial and altruistic act in our western society (e.g., Healy, 2000; Masser et al., 2008), the strategies that recall the humanitarian character and community values associated with donation are among the most effective to increase the percentage of donors (e.g., Godin et al., 2012). Yet, the literature shows that blood donation arouses both physical and psychological resistance (see for review Oswald, 1977; Piliavin, 1990), which means that the attitudes expressed towards donation are far from being exclusively favorable. There is a certain inter-individual variability that distinguishes between those who have a rather moderate attitude towards donation and those who have a favorable or very favorable attitude (e.g., Giles et al., 2004; Masser et al., 2009; Robinson et al., 2008; Terry et al., 1999). Such inter-individual differences related to blood donation are also found in other psychological constructs. For example, the importance of blood donation for self-identity (e.g., Wevers et al., 2014) or role identity (e.g., White et al., 2017) varies depending on the individual

(e.g., Masser et al., 2008). Similarly, not everyone will give the same importance to other people's opinions or behavior about donating blood and this difference underlines the variations in normative beliefs (Conner et al., 2013; Masser et al., 2009). And interestingly, all of these inter-individual differences are characteristic predictors of the intention to donate blood (Bednall et al., 2013; Masser et al., 2012).

Hence, in view of these elements, we suggest that this inter-individual variability in the general position regarding a social issue, whether it be through attitude, importance to the self and/or normative beliefs, should moderate the willingness to donate in a DITF situation because it would determine the inconsistency felt following the refusal of the first request that is too costly.

Is the DITF phenomenon a matter of inconsistency?

If the inconsistency between the successive decisions (refusal then acceptance) of the individuals is frequently evoked in describing the DITF paradigm (e.g., Feeley et al., 2016), the inconsistency possibly caused by the refusal of the first request has almost never been explored (Sénémeaud et al., 2008). Yet, when a request is made to someone who is supposedly in favor of the cause, then one might expect an acceptance on his or her part. However, the cost of the first request in a DITF situation forces the person to refuse it, i.e. to ultimately refuse to perform a behavior yet in line with their initial attitude or with the importance they attach to the cause. By refusing, some people would then be led to implement a first act that could be described as “problematic” because it is in contradiction with their initial position regarding the issue. In this perspective, the DITF technique may be considered as a paradigm that characterizes the study of the inconsistency that is typical of cognitive dissonance situations. According to cognitive dissonance theory (Festinger, 1957) and its more recent reformulations (Aronson, 1992; Cooper & Fazio, 1984; Steele, 1988), when there is inconsistency, i.e. when the circumstances lead someone to act in disagreement with his or her own attitude, self-concept or the moral norms

to which they adhere, this individual will be in a state of psychological discomfort, called a state of dissonance (Vaidis & Bran, 2019). This individual will then have to implement strategies to reduce dissonance, such as changing their attitudes or behaviors towards the act performed, or restoring a positive and coherent concept of the self (Aronson & Carlsmith, 1962; Thibodeau & Aronson, 1992) to regain a state of cognitive balance (Cooper, 1999).

To sum up, the main hypothesis of this research is that the extent of the inconsistency arising from the refusal of the initial larger request would determine the acceptance of the final target request in a DITF situation. More specifically, the individuals whose initial position is in favor of blood donation, i.e. individuals whose attitude, importance of blood donation to the self and normative beliefs are strong, should not easily accept their own refusal of the initial request. This perceived inconsistency would then lead them to more readily accept the target request, i.e. to commit to donate blood in order to regain a certain cognitive balance. On the other hand, people having a less favorable position towards blood donation will feel less inconsistency and therefore will not need to accept to donate blood after the refusal of multiple platelet donations. This hypothesis has been tested in two studies. The first one aims to test the moderating effect of the initial position towards blood donation when measured a few weeks before being exposed to the requests. The second study was designed to reinforce the effect of this position by making it salient, i.e. immediately available in memory, prior to the DITF situation.

Study 1

Participants

The number of participants required for a statistical power of 80% was calculated with G*Power (Faul et al., 2009). According to the study carried out by Sénémeaud et al. (2008; *OR*

= 3.49), the power analysis requires a sample size of 88 participants². Given the potential attrition rate between measurement times, one hundred and sixty-two first-year students at the University of Caen were asked to complete the initial questionnaire. One month later, appointments were proposed with the same people with the aim of participating in another study; 47 of them did not wish to register. Among the students who agreed to participate, 16 were not selected (12 were not eligible to be donors and 4 accepted the extreme request). The final sample consisted of 99 people, among which 47 women and 52 men aged 18 to 23 years ($m = 18.84$, $s = 1.04$).

Procedure

The experiment consisted of two phases.

In the *first phase*, the participants were asked to fill in a questionnaire during a lecture course. After they have given their consent, their attitude, self-importance and normative beliefs on different subjects (nutritional balance, physical activities, alcohol consumption, university life, social networks and blood donation) were measured. Only data concerning blood donation were processed. In addition, the participants were asked to code the questionnaire in order to link the two phases of the study. The *second phase* took place one month later. The participants were invited by a second experimenter to take part in a study on students' lives and habits. Upon arrival, the participants were randomly assigned to one of the two experimental conditions (DITF vs. “target request only”).

For the 49 participants placed in a DITF condition, the experimenter, who presented himself as working in collaboration with the French Blood Institute, began with explanations and the formulation of the extreme request: “There is a severe lack of platelets at the moment. Platelets are cellular components of blood that are used for coagulation and are transfused in

² The latest meta-analysis points to some heterogeneity in the observed effect sizes due to the manipulation of moderators (Feeley et al., 2012). As the experiment described here is based exactly on the requests of the experiment carried out by Sénémeaud et al. (2008), we used the same effect size as they did to calculate our statistical power.

cases of several bleeding episodes for example. Here is how it works: when you donate platelets, it takes about 2 hours. Blood is taken from one arm and passed through a sort of centrifuge to separate the different components. The platelets are collected and the other components are continuously returned to the other arm. In fact, it is like giving blood, except that only one of its components is extracted and kept. I am telling you this to find out if you would be willing to be a platelet donor for a year knowing that you can give an average of five platelets a year". If the participant accepted the extreme request, they completed a document to be contacted later on by the French Blood Institute.

After the massive refusal of this request, the experimenter then proposed the target request: "If I may, there are also blood drives on the university campus. Blood donation itself only takes 5 minutes, would you be interested in donating blood?" In case of acceptance, the participants filled in a commitment form with their first name, last name, date of birth, telephone number and the date they would donate blood.

For the 50 other participants, those placed in the "target request only" condition, the experimenter directly talked about blood donation and handed out the commitment form. Finally, the experimenter debriefed the participants. He also obtained their consent to establish the link between the data from the questionnaire they had completed one month earlier (phase 1) with the data obtained during this second phase of the experiment.

Measures

Measurement of the Initial Position with Respect to Blood Donation

Unless otherwise indicated, each question had 7-item Likert-type scales from 1 = disagree to 7 = agree. The composite scores were calculated for each variable. Details of all measures described below are available at OSF (Open Science Framework: https://osf.io/7c92w/?view_only=39b61ea5f49d43e4ae5f330bfe921fd6).

Attitude. The attitudinal variable was assessed on the basis of the participants' feelings and beliefs about donating blood (Giles et al., 2004) using four bipolar scales (“bad vs. good”, “unpleasant vs. pleasant”, “repulsive vs. attractive”, and “sad vs. happy”, $\alpha = .77$).

Importance of blood donation to the self. The importance of blood donation to the self (Callero et al., 1987; Zuwerink & Devine, 1996) has been measured on four scales: “I am the kind of person who donates blood”, “The idea of giving blood is very important to me”, “I don't personally care about donating blood” (reverse scored), “I am personally very concerned about donating blood” ($\alpha = .72$).

Normative beliefs. We measured normative beliefs on the basis of the injunctive, descriptive and moral norm. The first one concerns the perception of social pressure to donate or not to donate blood: “Most people who are important to me would recommend that I donate blood” (Godin et al., 2007). The second one reflects the behavior in the immediate environment of the participants ranging from 0 to 5: “Among the 5 people you know best, how many have already donated blood?” (Godin et al., 2007). The last one refers to the feeling of personal responsibility to donate blood: “I feel a moral obligation to donate blood”, “I feel a personal responsibility to donate blood” and “It is a social obligation to donate blood” (France et al., 2007, 2008). Since the Likert scales are not all identical, we standardized the responses to these items to produce a composite score ($\alpha = .76$).

Dependent Variable.

Acceptation of giving blood was stated on the basis of the acceptance of the participants to fill in a commitment form with their first name, last name, date of birth, telephone number and the date they would donate blood.

Data analyses

Given that our dependent variable is dichotomous, it was planned beforehand that the data would be analyzed via a logistic regression. However, it turned out that this model was

completely inappropriate to fit the data from Study 2, where we had to turn to Firth logistic regression (see more details in section Study 2 – Data analyses). For the sake of consistency, we therefore use this model here in Study 1 as well. Although the power analysis was made on the basis of classical logistic regression, it remains valid as the two models have comparable power in general (Chen et al., 2021).

Results

Descriptive statistics and correlation matrices of attitude, importance to the self, normative beliefs, donation experience and the commitment to donate blood for study 1 are presented within each condition in Tables 1 and 2. In both conditions, all variables are positively correlated with the commitment to donate blood. These correlations are higher in the DITF condition ($r = .32, p = .023, r = .47, p < .001$ and $r = .30, p = .033$, respectively for attitude, importance to the self and normative beliefs) except for the donation experience ($r = .17, ns$). The strong relationship between these three variables and the commitment to donate blood is consistent with our expectation that the inconsistency between a favorable initial position and the refusal of the initial request would increase the probability of commitment in the DITF condition.

[Table 1 near here]

[Table 2 near here]

To test the moderating effect of the initial position towards blood donation on DITF effectiveness, a Firth logistic regression with intercept correction was performed (Table 3). The request type categorical variable is entered as a factor, the covariates are mean-centered for the interaction and the dependent variable is coded 0 for those who refused to commit to donate blood and 1 for those who accepted.

[Table 3 near here]

In step 1, the result shows that people placed in the DITF condition (27/49, i.e. 55.10%) are more willing to donate blood than those placed in the “target request only” condition (12/50, i.e. 24%), in conformity with the results classically obtained with the DITF technique ($b = 1.32$, $\chi^2(1) = 10.00$, $p = .001$, $OR = 3.76$, 95% Confidence Interval [CI] [1.64, 9.01]). In step 2, the three covariates, i.e. attitude, importance of blood donation to the self and normative beliefs were included. They do not have a significant effect on the willingness to donate (respectively $b = 0.32$, $\chi^2(1) = 1.62$, *ns*; $b = 0.23$, $\chi^2(1) = 0.57$, *ns*; $b = 0.41$, $\chi^2(1) = 0.91$, *ns*). Finally, three interactions were included in step 3, namely between the request type and each of the three covariates. On the one hand, the results show a significant interaction between the request type and the importance of blood donation to the self, $b = 1.43$, $\chi^2(1) = 5.01$, $p = .025$, $OR = 4.16$, 95% CI [1.19, 16.48]. To understand this interaction, we calculated the acceptance probability of commitment to donate blood for participants with high (+1 SD) and low (-1 SD) importance to the self scores by request type conditions. Figure 1 shows that after having refused to donate platelets, the participants are more willing to commit to donating blood, especially when the importance of blood donation to the self is high. On the other hand, the request type does not appear to interact significantly with attitude ($b = -0.39$, $\chi^2(1) = 0.51$, *ns*) or normative beliefs ($b = -1.17$, $\chi^2(1) = 1.70$, *ns*).

[Figure 1 near here]

Discussion

We conducted this first experiment with the aim of testing the effect of the initial position towards blood donation, measured in terms of attitude, importance to the self and normative beliefs, on the acceptance of a blood donation after the refusal of multiple platelet donations. First of all, these results confirm that the DITF technique is an effective technique to increase the intention to donate blood, as has previously been observed by Cialdini and Ascani (1976), Hayes et al. (1984), Guéguen (2014) or Sénémeaud et al. (2008). Second, we

observed that the importance of blood donation to the self moderates the classical DITF effect, a moderation that is not found, however, by attitudes or normative beliefs.

The goal of the next study will be to replicate and deepen the results we have obtained in order to better understand the effect of the position. Indeed, correlations of attitude, importance to the self and normative beliefs with the commitment to donate blood are not very high in the “target request only” condition, which may seem surprising in view of the literature on the determinants of the intention to donate (Callero et al., 1987; France et al., 2007, 2008; Giles et al., 2004; Godin et al., 2007). One explanation may be related to their poor cognitive accessibility when the requests were proposed to the participants. Indeed, it must be noted that most of the time, the potential determinants of blood donation are measured at the same moment as the intention to donate, i.e. at the moment of completing the questionnaire (Giles et al., 2004; Terry et al., 1999). In our study, however, the position of the participants was measured one month before they were confronted with the requests. As the salience of attitude is considered as crucial in “coloring the perception of the object” and in generating behaviors that are consistent with the attitude in question (Fazio, 1986; Shavitt & Fazio, 1991), this point has to be cleared. Moreover, this lack of correlation may partly explain the lack of effect of the attitude and normative beliefs in the DITF condition. The low accessibility of the position is may be the reason for which we did not find any interaction between the request type and the attitude or the normative beliefs. This is why we decided, in a second study, to make all dimensions of position, and especially attitudes and normative beliefs, more readily available in memory in order to reinforce their potential effect on the acceptance of donating blood in a DITF situation.

Study 2

The objective of this second study is to test the moderating effect of the participants' position on the intention to donate blood in a DITF situation when this position is made salient. Attitude, importance to the self and normative beliefs were therefore activated immediately

before the formulation of the request by filling in the questionnaire to measure them. It has been shown that administering questionnaires to measure certain individual characteristics, such as self-esteem (Steele et al., 1993) or consistency preference (e.g., Sénémeaud et al., 2014), makes these traits salient and reinforces their effects on attitudes and behaviors. In this line of reasoning, we thought that responding to items regarding attitudes towards blood donation, the importance given to this cause for the self, and regarding normative beliefs related to donation would allow these constructs to be primed when participants were confronted with the requests.

Participants

Based on the previous results ($OR = 3.89$), the power analysis performed with G*Power (Faul et al., 2009) suggests a sample of 83 participants for a statistical power of 80%. Ninety-six students from the University of Caen were solicited for this experiment. Among these participants, 16 were not retained because they were not eligible to be donors. The final sample was composed of 80 participants, including 30 women and 50 men aged 18 to 33 ($m = 20.21$, $s = 2.38$). There are 40 participants for each of the experimental conditions.

Procedure

During a first phase, the participants were approached individually in the corridors of the university and were then taken to the experimental room to complete the same questionnaire as in Study 1 (attitude, importance to the self and normative beliefs on nutritional balance, physical activities, alcohol consumption, university life, social networks and blood donation were measured). The experimenter said he had to leave and let the participant alone to finish filling in the questionnaire. A few minutes later (long enough to make sure that the participant had completed the questionnaire), a second experimenter entered the room pretending he was looking for his colleague: “Excuse me, is Aurélien here? [No] Damn! Since you are by yourself, can I talk to you for a moment while I wait for him to come back?” If yes, the second experimenter took the opportunity to introduce himself as working in collaboration with the

French Blood Institute and then formulated the request(s), depending on whether the participants were placed under the target request only or DITF condition, in the same way as in Study 1.

Finally, the experimenter debriefed the participants. He explained that the first experimenter was not going to come back and they are both working with the French Blood Institute. Then he makes sure that the procedure has not aroused any doubts in the participant. Only one of our participants expressed suspicion and as he/she did not meet the French Blood Institute criteria for donating blood, so we removed him/her from our sample.

Measures

Measurement of the initial position with respect to blood donation.

The questionnaire is identical to that of Study 1 and includes items that measure attitude ($\alpha = .77$), importance of blood donation to the self ($\alpha = .78$) and normative beliefs ($\alpha = .79$).

Dependent variable.

As in Study 1, the acceptance of giving blood was stated, based on the acceptance of participants to fill in a commitment form, containing their first name, last name, date of birth, telephone number and the date they would donate blood.

Data analyses

As mentioned in Study 1 – Data analyses, it was originally planned to analyse the data via a logistic regression. However, the data of Study 2 include a case of perfect separation (namely, a 100% acceptance rate among people with self-importance above average and placed in the DITF situation), which is known to cause a huge bias in classical logistic regression. We therefore used intercept-corrected Firth logistic regression (flic from the logistf R package), which relies upon a penalized likelihood function designed to reduce the bias that can occur due to small samples (Firth, 1993) or separation issues (Heinze & Schemper, 2002). Note that the intercept correction yields more accurate probability predictions but does not change the

effects or their statistical significance compared to Firth's original model (Puhr et al., 2017). Although the power analysis was made on the basis of classical logistic regression, it remains valid as Firth regression has an increased power in case of separated data, where it removes an upward bias in the p-values (Heinze, 2006).

Results

As in Study 1, we analysed the correlations within each condition (Tables 4 and 5). In both conditions, commitment to donate blood is weakly associated with donation experience ($r = .27, ns$ and $r = .18, ns$). In the DITF condition, commitment to donate blood is strongly associated with attitude and importance to the self ($r = .65, p < .001$ and $r = .75, p < .001$) and moderately with normative beliefs ($r = .45, p = .003$). The correlations are lower in the "target request only" condition ($r = .41, p = .007, r = .24, ns$ and $r = .26, ns$). Overall, we observe that correlations in the DITF and "target request only" conditions are higher than in Study 1, which can be explained by the increased salience of the initial position in this second study compared to the first one.

[Table 4 near here]

[Table 5 near here]

A Firth logistic regression analysis was conducted as in study 1 (see Table 6). In step 1, the result shows that people placed in the DITF condition (26/40, i.e. 65%) were more willing to donate blood than those in the "target request only" condition (6/40, i.e. 15%; $b = 2.27, \chi^2 (1) = 21.41, p < .001, OR = 9.70, 95\% CI [3.55, 29.85]$). In Step 2, the three covariates were added and we observe the main effect of attitude in the sense that the participants with the most favorable attitude towards donating blood are those who more readily accept to commit to donating blood, $b = 1.08, \chi^2 (1) = 9.01, p = .003, OR = 2.96, 95\% CI [1.41, 7.65]$. The importance of blood donation to the self and the degree of normative beliefs have no main effect on the willingness to donate blood (respectively, $b = 0.48, \chi^2 (1) = 1.42, ns; b = 0.51, \chi^2 (1) =$

0.70, *ns*). In step 3, we tested the moderating effect of the initial position by adding three interactions. The interactions between request type and attitude ($b = -0.65, \chi^2(1) = 0.63, ns$) and between request type and normative beliefs ($b = 1.53, \chi^2(1) = 1.14, ns$) are still not significant. The interaction between request type and the importance of blood donation to the self is again significant, as in Study 1, with a higher effect size and a better significance level: $b = 3.30, \chi^2(1) = 6.62, p = .01, OR = 27.11, 95\% CI [1.84, 33889.98]$. To understand this interaction, we decomposed it as we did in study 1. Figure 2 illustrates the moderating effect of the importance to the self on the DITF effectiveness. The acceptance probability increases as the level of importance of the blood donation to the self increases too while the low acceptance obtained in the “target request only” condition is similar for both low and high levels of importance to the self. Compared to study 1, this graphical representation shows us a larger interaction effect, which is consistent with the effect size obtained specifically when the importance to the self is made salient.

[Table 6 near here]

[Figure 2 near here]

Discussion

In this second study, we made salient the initial position to reinforce its effect on the acceptance of donating blood in a DITF situation. The first important result refers to correlations. Making the attitude, the importance to the self and the normative beliefs salient has increased the correlations of these three variables with the commitment to donate blood in both the DITF condition and the target request only condition. In contrast to study 1, these correlations are more similar to those observed in the literature on the determinants of the intention to donate (e.g., Godin et al., 2007). This first result means that among the usual procedures that are used to study the determinants of blood donation, completing a

questionnaire concerning these determinants at the same time as the intention makes them accessible.

Second, in addition to replicating the DITF effect applied to blood donation as in the prior study, a main effect of attitude was also observed in the sense that the participants who show the most favorable attitude towards blood donation are more likely to donate, a medium effect that was not evidenced in Study 1 when the position was not made salient.

Third, we replicated the moderating effects of the importance to the self with the position made salient, and this effect is strengthened compared to study 1. This result demonstrates the interest of considering people's initial position because after an initial refusal only people for whom blood donation is important to the self are willing to donate blood. On the contrary, the accessibility of attitude and normative beliefs does not seem to moderate further the DITF effects, suggesting that if there was no interaction between request type and attitudes or normative beliefs in Study 1, it would not be due to their low accessibility as we previously thought. Instead, it could be understood by looking at the specificity of blood donation, or the DITF situation itself. These elements will be discussed below.

General Discussion

The objective of this research was to test the moderating effect of a person's initial position with respect to blood donation on the acceptance to donate blood in a DITF situation. The hypothesis was that the inconsistency between the refusal of a first platelet donation (too costly) and the initial individuals' position, is a key element in understanding and predicting the subsequent acceptance of a blood donation.

To test this hypothesis of the moderating role of this position, three classical determinants of blood donation were considered: attitude, the importance of blood donation to the self, and normative beliefs.

First of all, both studies carried out in the scope of this research confirm that the DITF technique is effective in increasing the commitment to donate blood. In other words, a donation refusal, under specific conditions, does increase the probability of subsequent acceptance and the DITF constitutes a relevant paradigm for trying to understand the processes involved in this type of situation. Second, the results obtained show the interest of taking into account (study 1) and activating (study 2) the initial position of people in a DITF situation, at least in terms of the importance to the self. In this section, we will develop the moderating effects of importance of blood donation to the self on the commitment to donate by focusing on the particular characteristics of blood donation in France. Secondly, we will discuss the theoretical advances made possible by this research in the modeling of the DITF effect.

A first fundamental characteristic of our results is that they reveal the importance of taking into account the degree of involvement of the self in blood donation to predict acceptance to donate after a previous refusal. In the first experiment, people for whom blood donation is an important part of their identity are more committed to donating in DITF than those for whom blood donation is not a central issue. But after activation of the importance to the self in the second experiment, this effect becomes so great that only those participants for whom importance to the self is above average commit themselves to giving, and so without exception. Symmetrically, in the case of people for whom donation is of little importance, the activation also leads them, without exception, to refuse to donate blood. We do not find such a partition when we contrast donors with a strong attitude towards donation to those with a moderate one, nor when opposing donors for whom the perception of what is socially expected about donation is important to those for whom it is not. Thus, everything happens as if the acceptance to give blood after a first refusal was exclusively determined by the identity dimension associated to the social object.

If the threat to self-image caused by the first refusal in the DITF paradigm itself, widely highlighted in the literature (Millar, 2002; Pendleton & Batson, 1979), could partly explain this result, it can also be understood in the light of the very representation of blood donation in France, which is intrinsically linked to the self and to self-image. The literature on blood donation shows that role identity, linked to the importance of the donation to the self, is a central aspect of blood donation (Biddle et al., 1987; Rise et al., 2010; Sparks & Shepherd, 1992). The more blood donation is an important part of a person's identity, the more they intend to donate or the more frequently they donate (Terry et al., 1999; Wevers et al., 2014; White et al., 2017). But beyond the international scientific literature, blood donation is based on particular ethical values in France (EFS, 2021). Blood donation collection procedures differ from one country to another. To meet the demand, the United States or certain European countries such as Switzerland pay their donors (especially for plasma). In others, such as Poland, both situations are possible, i.e. unpaid and paid or coupled with a token of appreciation (a small gift) in exchange for the blood donation. In contrast, blood donation, as practiced in France, is only based on voluntary work (no payment in any form whatsoever) but also on anonymity, voluntary work and non-profit (blood cannot be sold in France). These values govern all of the legislative regulations concerning blood donations³ as well as the donation promotion campaigns carried out by the French Blood Institute. Blood donation is considered a gesture for which there isn't any compensation, allowing citizen sharing and based on the generosity and solidarity of the donor. The benefit to "donate blood" is thus symbolic and almost exclusively linked to the valorization of the self. In other words, in the French transfusion model, free donation weakens any extrinsic motivation to donate and focuses the donor on the importance of the self-image through donation. This context would then explain the powerful moderating

³ These values have inspired the French Blood Institute laws since the first law of 1952, which lays down the principle of non-profit-making and the law of 1993, which lays down the principle of anonymity and voluntary work.

effect of the importance of the self on donation in our study suggesting that the identity aspects at stake completely override the more cognitive or normative aspects of blood donation. It is thus the conception of the self, or at least more than of the attitudes or normative beliefs towards donation, that would probably be at stake when one accepts to donate blood in France but also when one refuses it. Future studies may confirm and extend these findings to other countries, and in particular in those whose donors are remunerated. It could be expected that an extrinsic variable such as remuneration will likely alter the importance of donation to the self and its consequences among donors.

Secondly, measuring the position towards the issue of the requests allows the introduction of new parameters to be taken into account in a DITF situation and to progress, by this way, in the understanding of the explanatory psychological mechanisms at stake in the DITF situation. One has to recall that the DITF technique is different from the influence techniques developed during the same period (cf. the Low-Ball technique, Cialdini et al., 1978; or the Foot-In-The-Door technique, Freedman & Fraser, 1966) because they all imply the acceptance and not the refusal, of a first behavior to favor the realization of a second one. This specificity has led Cialdini (1975) to consider DITF as opposed to a classic psychological process, namely the need for consistency (e.g., Festinger, 1957; Heider, 1946, 1958). According to this principle, if individuals refuse the first request, they should also refuse the second one in order to stay consistent. The DITF being a perfect illustration of the opposite process, the reference to a possible need for consistency to explain it was then discarded since the first writing of its author (Cialdini et al., 1975). Theoretical models of the DITF effect were then successively based on the reciprocity of concessions between the requester and the target person (Cialdini et al., 1975), on the perceptual contrast related to the difference in cost between the two requests (Miller, 1974) or on the repercussions of the refusal of the extreme request in terms of the self-presentation (Pendleton & Batson, 1979), of aroused emotions (Millar, 2002; Terrier

& Joule, 2008) or of social responsibility (Tusing & Dillard, 2000). A few rare studies have shown that the need for consistency may not be totally independent of the effect produced by the DITF technique (e.g., Cantarero et al., 2016; Gamian-Wilk & Lachowicz-Tabaczek, 2009; Sénémeaud et al., 2008). Yet, this research is the first to argue in favor of restoring the interest in the need for consistency in a DITF situation, but not because of the inconsistency between the decisions taken (refusal and then acceptance) but because of the inconsistency, depending on the position of the person towards whom the influence is directed, that arises when the first request is refused. We have indeed observed that while the importance of blood donation to the self is higher, more people are willing to make a blood donation after a refusal. It is therefore as if the moderating effects of this variable in a DITF situation depended on the discrepancy between the refusal behavior and the level of importance to the self. Measuring the discomfort likely to be aroused by a refusal behavior in the DITF condition could be a way of verifying whether the acceptance of the following target request is well motivated by a need to regain a state of cognitive balance (Vaidis & Bran, 2019). We can then make the link with the theoretical approach that addresses the DITF effect from the angle of an emotional arousal (e.g. Millar, 2002; O'Keefe & Figgé, 1997, 1999), in particular that of guilt. It should be remembered that the moderating nature of guilt in the production of the DITF effect has been confirmed by meta-analyses (Dillard, 1991; O'Keefe & Hale, 1998, 2001). Indeed, pro-social requests would increase the DITF effect and O'Keefe & Figgé (1997, 1999) argued that people who refuse a pro-social request would feel more guilt than those who refuse a request that is not a pro-social one. In the same vein, the results obtained by Terrier (2007), show an arousal of negative self-directed emotions that include guilt in people who refuse the extreme request. Our research, by showing the moderating role of the participants' position, suggests that guilt arousal would depend primarily on the initial position towards the cause of the requests. Future studies will be needed to deepen on the one hand the link between the need for consistency related to self-

image and the acceptance of the target request after the rejection of a costly first request, and on the other hand to investigate the type of emotions elicited by the rejection of an initial costly request among people giving more (*vs.* less) prominence to blood donation in order to advance further in the understanding of the process underlying the DITF influence technique.

Limitations and Perspectives

Since Cialdini's first study (1975), different moderating variables of the DITF technique have been studied both to improve its effectiveness and to explain it. However, few studies have been devoted to the characteristics of the targets of influence (e.g., Sénémeaud et al., 2008). Our results demonstrate the interest of considering the individual's position, and more precisely the importance of an issue to the self as a decisive variable. Further research is nevertheless needed to better understand the implication of this result. First, we cannot rule out the possibility that the theme of blood donation itself might be partly responsible for the moderating effects of importance to the self on the acceptance of the target request in the DITF condition. It shall be necessary to check whether the effects of the inconsistency that occurs in the DITF paradigm could originate from the attitudes or social norms. As a consequence, the need for consistency would stay at the heart of the DITF process and the reason for that need would depend on the object of the requests. Second, another limitation involves the sample of our study made up exclusively of students. It is assumed that this type of sample is quite appropriate when it comes to testing theoretical hypotheses. More central to our purpose, since a third of blood donors are less than 30 years old (EFS, 2019b), a direct contact with young adults can be considered by the French Blood Institute. Nonetheless, a similar study conducted on a wider age sample and mixed socio-professional categories would reinforce our findings and facilitate a generalization of our results. Third, since platelet donation is not well known among students, we provided some information about the function of platelets in blood and the time required to donate platelets when submitting the extreme request, in order to emphasize the costly nature of this

request and also to reinforce its nature. However, this additional information may provide a better knowledge of platelet donation and facilitate the DITF effect. Fourth, like many studies carried out on the DITF technique, we did not measure actual donation, as the dependent variables in our two studies only concerned a promise to donate blood. Although it is known that promising to donate significantly increases the probability of a subsequent donation (e.g. Calle et al., 2015; Georget et al., 2011) it will be essential to measure the percentage of actual donation in future studies.

Despite these limitations, this research shed light on the importance of understanding and accompanying refusals in the field of blood donation. Every person, between 18 and 70 years old, will be exposed in his or her life to successive and repeated requests from the French Blood Institute in order to encourage them to donate, and to give blood again. The effects of the refusal to donate on the disengagement of individuals when this refusal is the responsibility of the French Blood Institute, are widely documented in the literature (Custer et al., 2011). On the contrary, this is not the case when the (potential) future donor refuses on his or her own initiative. The DITF technique is an effective strategy to ultimately promote the blood donation and to serve the strategic objectives of the French Blood Institute to increase the number of donors. Also, this technique applied in the context of blood donation and according to the donor's importance of blood donation to the self, seems to be an effective strategy to better understand, following a voluntary refusal, the acceptance of a blood donation request. Our results demonstrate the interest to (1) examine the conditions of refusal of a first donation to optimise future acceptances, (2) take into account the importance of donation for the self thanks to communication campaigns in favour of blood donation and (3) take into account the profile of people to adapt influence techniques such as the DIFT. Future studies will have to be conducted to better identify and refine the links between the characteristics of refusal situations

and the consequences of these situations according to the profile of potential donors so as to encourage acceptance of future blood donations.

Finally, each year the French Blood Institute communicates its needs through posters and advertisements on the radio or television. This article suggests that the French Blood Institute should focus future donation promotion campaigns on the self and the value of donation to the self rather than on reinforcing attitudes or normative beliefs related to blood donation.

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Declaration of Interest Statement

None.

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Tables and Figures

Table 1.

Descriptive Statistics and Variable Intercorrelations for target request only condition (study

1)

	Attitude	Importance to the self	Normative beliefs	Donation experience
Attitude				
Importance to the self	.658***			
Normative beliefs	.350*	.675***		
Donation experience	.336*	.534***	.464***	
Commitment to donate blood	.172	.081	.203	.190
<i>M</i>	5.05	4.50	3.82	
<i>SD</i>	1.00	1.16	1.29	

Note. Donation experience: yes = 1, no = 0; Commitment: yes = 1, no = 0; * $p < .05$, *** $p < .001$.

Table 2.*Descriptive Statistics and Variable Intercorrelations for DITF condition*

	Attitude	Importance to the self	Normative beliefs	Donation experience
Attitude				
Importance to the self	.538***			
Normative beliefs	.274	.692***		
Donation experience	.116	.464***	.446***	
Commitment to donate blood	.324*	.474***	.304*	.177
<i>M</i>	4.84	4.10	3.68	
<i>SD</i>	1.24	1.26	1.33	

Note. Donation experience: yes = 1, no = 0; Commitment: yes = 1, no = 0; * $p < .05$, *** $p < .001$.

Table 3.*Firth logistic regression on the commitment to donate blood (study 1)*

	Estimate	SE	OR	95% CI	<i>p</i>
Step 1					
Constant	-1.134				
Request type	1.325	0.437	3.76	[1.64, 9.01]	.001
Step 2					
Constant	-1.322				
Request type	1.592	0.479	4.91	[2.01, 12.97]	<.001
Attitude	0.321	0.261	1.37	[0.84, 2.31]	.203
Importance to the self	0.228	0.313	1.25	[0.69, 2.35]	.449
Normative beliefs	0.415	0.446	1.51	[0.64, 3.64]	.340
Step 3					
Constant	-1.227				
Request type	1.526	0.487	4.60	[1.87, 12.29]	<.001
Attitude	0.969	0.471	1.81	[0.76, 4.72]	.175
Importance to the self	0.596	0.492	0.56	[0.21, 1.41]	.218
Normative beliefs	-0.568	0.657	2.63	[0.79, 9.82]	.113
Request type* Attitude	-0.390	0.571	0.67	[0.22, 1.96]	.473
Request type* Importance to the self	1.426	0.684	4.16	[1.19, 16.48]	.025
Request type* Normative belief	-1.168	0.933	0.31	[0.04, 1.79]	.192

Note. Request type reference level = Target request only; CI = confidence interval.

Table 4.*Descriptive Statistics and Variable Intercorrelations for target request only condition*

	Attitude	Importance to the self	Normative beliefs	Donation experience
Attitude				
Importance to the self	.536 ^{***}			
Normative beliefs	.463 ^{**}	.756 ^{***}		
Donation experience	.338 [*]	.437 ^{**}	.397 [*]	
Commitment to donate blood	.417 ^{**}	.247	.267	.272
<i>M</i>	5.10	3.99	3.55	
<i>SD</i>	1.00	1.44	1.66	

Note. Donation experience: yes = 1, no = 0; Commitment: yes = 1, no = 0; * $p < .05$, ** $p < .01$, *** $p < .001$.

Table 5.*Descriptive Statistics and Variable Intercorrelations for DITF condition*

	Attitude	Importance to the self	Normative beliefs	Donation experience
Attitude				
Importance to the self	.648***			
Normative beliefs	.166	.462**		
Donation experience	.365*	.274	-.029	
Commitment to donate blood	.651***	.758***	.457**	.181
<i>M</i>	4.99	4.03	3.54	
<i>SD</i>	1.37	1.27	1.32	

Note. Donation experience: yes = 1, no = 0; Commitment: yes = 1, no = 0; * $p < .05$, ** $p < .01$, *** $p < .001$.

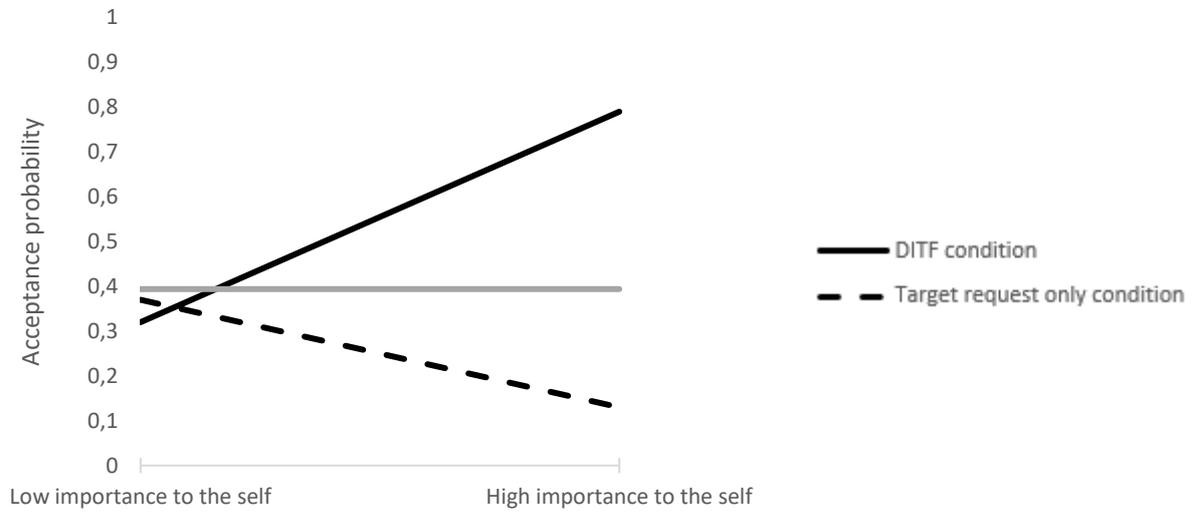
Table 6.*Firth logistic regression on the commitment to donate blood (study 2)*

	Estimate	SE	OR	95% CI	<i>p</i>
Step 1					
Constant	-1.682				
Request type	2.272	0.545	9.70	[3.54, 29.84]	<.001
Step 2					
Constant	-2.627				
Request type	3.491	0.827	32.83	[7.67, 216.72]	<.001
Attitude	1.083	0.412	2.95	[1.41, 7.64]	.002
Importance to the self	0.476	0.404	1.61	[0.74, 3.80]	.232
Normative beliefs	0.509	0.620	1.66	[0.51, 6.21]	.401
Step 3					
Constant	-2.254				
Request type	3.982	1.086	53.66	[7.96, 1927.17]	<.001
Attitude	1.308	0.673	3.70	[1.13, 17.01]	.028
Importance to the self	-0.093	0.520	0.91	[0.34, 2.50]	.846
Normative beliefs	0.329	0.922	1.38	[0.26, 9.54]	.700
Request type* Attitude	-0.647	0.859	0.52	[0.09, 2.63]	.426
Request type* Importance to the self	3.300	1.640	27.11	[1.84, 33889.98]	.010
Request type* Normative belief	1.526	1.490	4.60	[0.28, 250.75]	.286

Note. Request type reference level = Target request only; CI = confidence interval.

Figure 1.

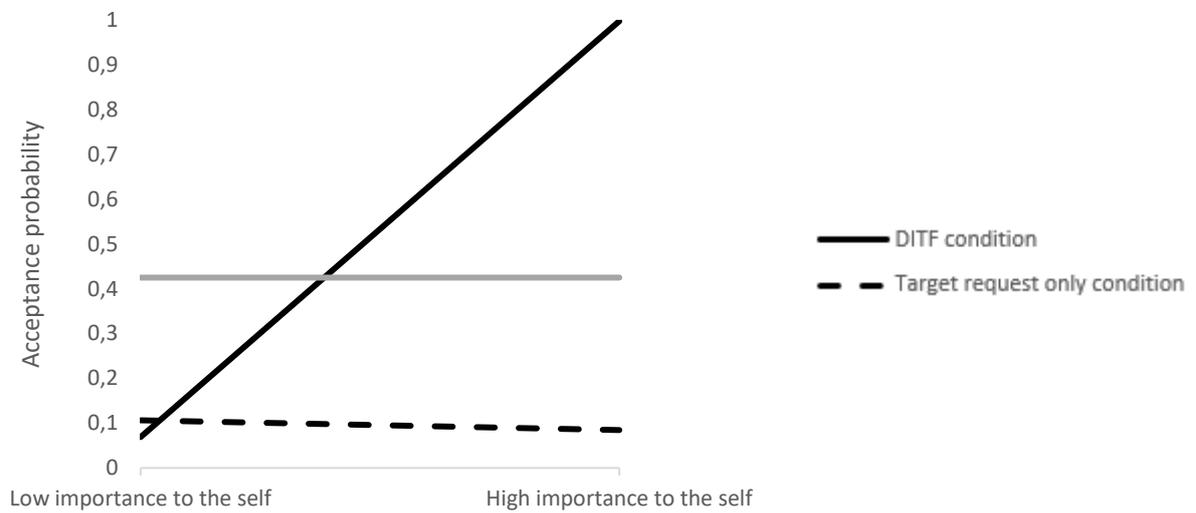
Acceptance probability of commitment to donate blood based on the request type and the importance to the self.



Note. The horizontal line represents the average donation probability. Low and high importance to the self correspond to -1SD and +1SD on the importance to the self score.

Figure 2.

Acceptance probability of commitment to donate blood based on the request type and the Importance to the self.



Note. The horizontal line represents the average donation probability. Low and high importance to the self correspond to -1SD and +1SD on the importance to the self score.