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Conversion to Non-Remunerated Plasmapheresis Donation: Effects of Labeling and Donation Environment

Conversion au don de plasma non-rémunéré : Effets de l'étiquetage et de l'environnement de don

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Résumé

Introduction. Les études suggèrent que les stratégies de recrutement de donneurs de plasma devraient se focaliser à convertir les donneurs de sang total (DST) plutôt qu'à recruter directement les non-donneurs. *Objectif.* Cette étude mesurait l'effet de l'étiquetage et du type de collecte sur la conversion des DST au don de plasma. *Méthode.* Deux collectes destinées aux étudiants étaient tenues soit sur un campus universitaire (collecte mobile), soit en site fixe. À la fin de chaque don de sang, l'infirmier.e réalisait un étiquetage, réactivé quelques minutes plus tard par un second individu approchant le donneur pour lui demander s'il accepterait de se convertir au don de plasma. Si oui, un rendez-vous ou une promesse était collecté. Le nombre d'engagements dans le don de plasma (rdv/promesse) et le nombre de concrétisations de ces engagements mesurait l'effet de l'étiquetage. *Résultats.* Peu de différences significatives ont été observées entre l'étiquetage social et fonctionnel, comparé à une condition « sans étiquetage » en termes d'engagements et de concrétisations. La collecte en site fixe a obtenu trois fois plus d'engagements que la collecte mobile ($p < .001$). Les rendez-vous avaient de meilleures chances de se concrétiser que les promesses ($p < .001$). *Conclusion.* L'étiquetage, tel qu'il a été testé, a semblé inefficace pour améliorer la conversion du don de sang au don de plasma, mais plus d'études devraient s'attacher à répliquer ces résultats. Les centres de collecte devraient développer le don de sang et les approches pour le don de plasma en site fixe. Lors d'une approche auprès d'un potentiel donneur de plasma, les rendez-vous devraient être préférés aux promesses. Plus d'études sont nécessaires pour examiner les causes des différences observées.

Mots-clés : Don de plasma ; Don de sang total ; Conversion ; Etiquetage ; Pied-dans-la-Porte

Abstract

Introduction. Plasmapheresis donors' recruitment strategies should focus on asking whole-blood donors (WBDs) to convert to plasmapheresis. *Objective.* This study measured the effect of labeling on the conversion of WBDs to plasmapheresis donation and examined the relationship between the type of blood drive and conversion to plasmapheresis. *Methods.* Two blood drives destined towards students were held either on a university campus (mobile blood drive), or in a blood center. At the end of each whole-blood donation, the nurse performed a labeling, reactivated a few minutes later by a second individual asking the donor if he would agree to donate plasma. If so, an appointment for plasma donation was made or a promise was collected. The number of commitments to plasmapheresis (promise/appointment) and the number of achievements of these commitments measured the effect of labeling. *Results.* Few significant differences between social or functional labeling were found compared to a "no labeling" condition in terms of commitments and concretizations. The in-center blood drive achieved three times more engagements than the mobile blood drive ($p < .001$). Appointments had better chances to turn into a plasma donation than promises ($p < .001$). *Conclusion.* Labeling as it was tested seemed ineffective in conversion from whole blood donation to plasmapheresis, but further studies should be carried out to replicate these results. When only collected during in-center blood drives, blood collection agencies should try to develop in-center whole blood donations and promotional approaches towards plasma donation. When approaching potential plasmapheresis donors, appointments should be preferred to promises. Further research is needed to examine the causes of these results.

Key words: Plasma donation; Whole-blood donation; Conversion; Labeling; Foot-in-the-door

Introduction

Recruiting plasmapheresis donors in a voluntary non-remunerated system has become a crucial issue for Blood Collection Agencies (BCAs) such as the National French Blood Institute over the last years. Demand for plasma-derived products has been strongly increasing (Robert, 2009) and is expected to continue to grow in the next years (Transparency Market Research, 2018). For example, the growing need for plasma in France has led to an increase of 12.7% plasma donations in 2017¹. To meet the demand for plasma, and provide enough immunoglobulins and other plasma-derived products on the French territory, the National French Blood Institute must develop more effective ways to recruit and retain plasmapheresis donors in altruism-based, voluntary, non-remunerated environments. Traditionally in France, plasma donors (PDs) are recruited from the whole-blood donor's (WBDs) panel, and never from the non-donor's (NDs) panel. Thus, a plasma donor has always donated blood before converting to plasmapheresis, and is familiar with the donation process.

The National French Blood Institute already changed some of its habits to meet the recommendations of previous studies, and tries to ask donors to convert to plasmapheresis early in their donor career, while they are still inexperienced donors. Indeed, a study (Bagot, Bove, Masser, & White, 2014) showed better chance of success in converting WBDs to plasma donation among inexperienced donors than among experienced donors. Exposure to plasmapheresis may also help WBD's conversion to plasma donation (Bove, Bednall, Masser, & Buzza, 2011; B. Masser & Bagot, 2015; Pagliariccio, Guermendi, Marinozzi, & Piani, 2003). Therefore, some in-center blood drive have already been rearranged so that plasma and platelets donors (PPDs) would be in sight of WBDs while donating. As many studies reported that developing knowledge regarding plasma donation (what plasma is, what it is used for, what is the donation process, etc...) should help to recruit PPDs (Bagot, Bove, Masser,

¹ Data were collected from the 2017 Annual Report of the National French Blood Institute.

Bednall, & Buzza, 2013; Bagot, Masser, & White, 2015; Bagot, Masser, White, & Starfelt, 2015; Bove et al., 2011; B. Masser & Bagot, 2015; Veldhuizen & van Dongen, 2013), BCAs agents are now wearing badges encouraging donors to ask questions regarding plasma, informative posters have been displayed, etc... Yet, many other measures could be taken to recruit PPDs among the WBDs panel. The choice was made to explore the efficacy of the foot-in-the-door effect (Freedman & Fraser, 1966) coupled with labeling (Burger & Caldwell, 2003; Cornelissen, Dewitte, Warlop, & Yzerbyt, 2007; Fointiat, 2006; Kraut, 1973; Strenta & Dejong, 1981) on the conversion of WBDs to plasma donation. The foot-in-the-door (FITD) is one of the most famous techniques of compliance without pressure, originally studied by Freedman and Fraser in 1966, which consists of asking an individual to perform a low-cost behavior (*e.g.* to indicate the location of a monument) in order to ask a second behavior, more costly for the individual (*e.g.* to give money or time to a charity). Several factors can interfere with the FITD, such as the time-delay or the change of requester between the two requests (Chartrand, Pinckert, & Burger, 1999). Indeed, it appears difficult to obtain a FITD effect when the second request is performed immediately after the first one, by the same individual, while the FITD effect is strong when the second request is performed by another requester, or when there is a delay between the two requests. Also, the FITD efficacy is influenced by the cost of the first request, that musn't be too costly for the individual, but not too light either so that it effectively generate an engagement effect (Miller & Suls, 1977; Seligman, Bush, & Kirsch, 1976). Applied to the recruitment of whole-blood donors, the FITD shows a questionable efficacy, unstable from one study to another (Cialdini & Ascani, 1976; Foss & Dempsey, 1979). A study (Hayes, Dwyer, Greenwalt, & Coe, 1984) showed a FITD effect on NDs, active and inactive donors. However, these studies investigated WBDs recruitment, not their retention nor conversion from one type of donation to another. As suggested by Piliavin (1990), the FITD applied to blood donation would be more efficient among individuals whose

donor identity is strong, explaining that donors are more receptive to this effect than NDs. Coupled with labeling, the FITD effect has been known to be much more effective. Labeling consists in the attribution of either a value to the individuals who performed the first behavior (*i.e.* social labeling) or a utility to the first behavior (*i.e.* functional labeling). For example, highlighting the fact that the person who indicated you a direction is a good person would be a social labeling, while highlighting the fact that the information was clear and useful would be a functional labeling (Fointiat, Caillaud, & Martinie, 2004; Fointiat, 2006). Generally, studies on labeling showed that social labeling strongly increased the chances that the individual agreed to perform the second behavior while functional labeling appeared to be ineffective (Fointiat et al., 2004; Fointiat, 2006). However, regarding whole-blood donation, a study found that social and functional labeling were both effective in the retention of WBDs (Sénémeaud et al., 2014), while another study found no effect of social labeling, but a strong effect of functional labeling (Callé, Plainfossé, Georget, Sénémeaud, & Rasonglès, 2011). It should be noted that Sénémeaud et al. (2014) found no effect of labeling on young donors. However, since the existing data on the matter is actually unclear and lacks replications, we did not make any assumptions regarding a potential association between age and labeling effect. To our knowledge, the efficacy of labeling on the conversion of WBDs to plasma donation (with blood donation as the first behavior, and plasma donation as the target behavior) hasn't been tested yet.

Also, it should be taken into account that there are two types of blood drives (mobile and in-center) and that plasma donations are collected on the site only. Therefore, some differences between those two blood drives should be kept in mind because it may have a direct influence on the probability that a donor agrees, or not, to convert to plasmapheresis. For example, on mobile blood drive, WBDs aren't exposed to plasmapheresis donors and exposure to plasma donation promotional posters is sometimes limited because of the place in which the collect is

being held. Also, a mobile blood drive implies a certain distance from the nearest in-center blood drive, which means that a donor approached for plasmapheresis at a mobile blood drive might have a deterrent that donors who give directly on site won't have: the necessity to travel to the in-center blood drive for plasmapheresis.

Given this information, our study aimed to replicate a foot-in-the-door effect by engaging people who just donated blood (preparatory behavior) in plasma donation (target behavior). Four hypotheses were tested: 1) donors engage more in plasma donation in labeling conditions than in "no labeling" condition, 2) donors concretize more their engagement in plasma donation in labeling conditions than in "no labeling" condition, 3) donors engage more in plasma donation on "in-center" blood drive than on "mobile" blood drive, and 4) donors concretize more their engagement in plasma donation on "in-center" blood drive than on "mobile" blood drive.

Material and Methods

Population

553 students participated in this study. Participants who had donated their plasma before the two blood drives (N = 21) were excluded from the statistical analysis. In the end, 532 participants were kept in the statistical analysis. Participants were students who gave blood during two blood drives in Rennes. The first blood drive was mobile and held for three days, from the 17th to the 19th of January 2017 in the campus of a French University (N = 316). This drive was booked for students of this campus. The second blood drive was in-center, and held for three days, from the 7th to the 9th of February 2017 (N = 216). It was destined to students from another University, whose campus stands next to the in-center blood drive. The repartition of donors by gender was slightly uneven in the mobile blood drive, with 44.3% of male donors and 55.7% of female donors ($p < .05$), which is consistent with the general

repartition of blood donors by gender in France. The sample from the in-center blood drive was mainly composed of 74.5% of women and 25.5% of men ($p < .001$). This difference was expected because of an overrepresentation of women in the University that was associated with this blood drive.

Methods

During this study, students who donated blood were thanked by the nurse before getting a snack. Depending on the condition, the nurse also performed no labeling, a social labeling or a functional labeling on students. A few minutes later while they were eating, students were approached by an agent of the National French Blood Institute who gave a speech about plasma donation. Overall, three agents took shifts to collaborate in this study. The speech ended with the possibility for the donor to make an appointment for plasma donation or to make a “donation promise” (*i.e.* the donor gives his contacts so that the BCA will call him a few days later to schedule an appointment). The number of promises and appointments collected in each condition was recorded as two separate measures of engagement to compare each condition. A month later, the number of promises and appointments that actually ended with the donor giving plasma was recorded as a second measure to compare each condition in terms of effective engagement.

For both blood drives, the first day was a “no labeling” condition, during which no labeling was performed by the nurse. They just thanked the donor (*e.g.* “Thank you for your donation. Have a good day”) and invited him to eat a snack. This condition could be considered as a basic foot-in-the-door condition.

On the second day, nurses of both blood drives performed social labeling on donors. They thanked them, highlighted their altruistic values as donors (*e.g.* “Thank you for your donation, you’re helping to save lives”), and invited them to eat a snack.

Finally, on the third day, nurses realized a functional labeling by thanking donors, highlighting how important donation is (*e.g.* “Thank you for your donation, our need for blood products is very high”), and invited them to eat a snack.

The speech donors received during their snack gave in each condition basic information regarding plasma donation and donation procedures (what plasma is, and practical information related to donation), preceded by a recall of the labeling for the two labeling conditions.

Statistical analysis

Descriptive statistics were performed to evaluate the repartition of the population by gender, age, type of blood drive, labeling condition, and number of blood/plasma donations. Age and number of previous donations were extracted from the National French Blood Institute’s database. Chi Square analyses were performed comparing the number of “promises”, “appointment”, “concretized promises” and “concretized appointments” depending on the type of blood drive and the labeling condition. The probability of engagements’ concretization was also compared depending on the type of engagement. An ANOVA (analysis of variance) and post-hoc tests (Tukey tests) were performed for each blood drive to compare donors’ age and number of previous blood donation depending on labeling condition. Finally, a t-test evaluated the same variables depending on the blood drive. All analyses were performed on SPSS version 20.

Results

Repartition of the population

316 students donated blood during the mobile blood drive. Repartition of donors between the three conditions was balanced, with around a third of donors in the “no labeling” condition

(32.9%), in the social labeling condition (32.9%) and in the functional labeling condition (34.2%). The mean age was 22.25 (Standard Deviation \pm 6.1) and the mean number of whole-blood donations before the collect was 3.27 (S.D \pm 5.33). There were no variations of gender repartition between the three conditions. Donors' profile (age/number of previous blood donation) was similar in each condition with a mean age of 22.25 and a mean number of previous donations of 3.27. Out of 316 donations, 10 donation promises (3.2%) and 24 appointments (7.6%) were collected, for 1 out of 10 promises concretized (10%) and 16 out of 24 appointments concretized (66.7%). 5 participants (1.6%) donated plasma even though they refused to take an appointment or make a promise. (*See Table 1*).

During the in-center collection, 216 students donated blood, divided quite equally between the three conditions, with 30.6% of participants in the "no labeling" condition, 31.5% in the social labeling condition, and 38% in the functional labeling condition. The mean age was 21.72 (S.D \pm 6.83), the mean number of whole-blood donations before the collect was 1.7 (S.D \pm 2.87). There were important variations of gender repartition between the three conditions, but women were still overrepresented (more than 65% of the sample) in each condition. During this blood drive, donors' age was similar in each condition with a mean age of 21.72. However, a significant difference was observed for the number of previous blood donation, the "no labeling" and "functional labeling" conditions scoring on average 1.45 (S.D \pm 2.791) and 1.13 (S.D \pm 2.041) blood donations, and the "social labeling" condition scoring on average 2.59 (S.D \pm 3.55) blood donations, $F(2, 213) = 5.29, p = .006$. 36 promises (16.7%) and 34 appointments (15.7%) were collected for 6 out of 36 promises concretized (16.7%) and 29 out of 34 appointments concretized (85.3%). 3 participants (1.4%) donated plasma while they refused to take an appointment or make a promise. (*See Table 1*)

Tukey tests were performed to evaluate which scores varied significantly from the others. The difference between the "no labeling" and "social labeling" conditions was not significant ($p =$

.054), unlike the difference between “social” and “functional” conditions ($p = .005$). Yet, this difference of previous blood donations is light and shouldn't have an impact on the results of the experiment.

Effect of the collection site on donors' engagement in plasma donation

Statistical analysis showed that engagement in plasma donation, whether it was by making a promise or by taking a donation appointment, was significantly higher among WBDs from the in-center blood drive than among the donors from the mobile blood drive. 10 WBDs from the mobile blood drive (3.2%) promised to donate plasma, against 36 from the in-center collect (16.7%), $\chi^2(1, 532) = 29.612, p < .001$. Regarding appointments, 24 were taken on the mobile site (7.6%) while 34 were taken in-center (15.7%), $\chi^2(1, 532) = 8.764, p = .003$.

Overall, 34 engagements (10.8%) were made during the mobile blood drive compared to 70 (32.4%) during the in-center collect. The 2 x 2 Chi Square analysis showed a significant difference, $\chi^2(1, 532) = 38.23, p < .001$ (see Table 2).

Overall, half of the engagements turned into an actual plasma donation in both blood-drives (52/104). These results provide evidence of a relationship between the type of collection and the engagement of donors in plasma conversion, but do not support the hypothesis of a better concretization of engagements depending on the type of blood-drive.

Effect of the labeling condition on donors' engagement in plasma donation

During the mobile blood drive, significant differences were observed depending on the labeling condition. No promise was made during the “no labeling” condition, 7 (6.7%) during the social labeling condition, and 3 (2.8%) during the “functional labeling” condition. 50% of the table cells had theoretical effectives inferior to 5, thus Chi Square application rules were not respected, and Fisher's exact test was calculated (Fisher's exact test = 7.686, $p < .05$). The

number of appointments taken by participants didn't differ significantly depending on the labeling condition. The sample of concretized promises (1/10) was too small and didn't enable us to compare it depending on labeling conditions. Finally, a significant difference was observed in the number of concretized appointments by labeling conditions, with 4/10 (40%) appointments concretized in no labeling condition, 5/7 (71.4%) in social labeling condition, and 7/7 (100%) in functional labeling condition. Again, the rules of Chi Square analysis were not respected (Fisher's exact test = 6.549, $p < .05$).

During the in-center blood drive, 17 (25.8%) promises were collected in no labeling condition, 13 (19.1%) in social labeling condition, and 6 (7.3%) in functional labeling condition, $\chi^2(2, 213) = 9.382, p < .01$. 11 (16.7%) participants from the no labeling condition took an appointment, against 4 (5.9%) in the social labeling condition and 19 (23.2%) in the functional labeling condition, $\chi^2(2, 213) = 8.439, p < .05$. Regarding concretization of promises and appointments, no significant difference was found between the three conditions (see Table 3). Results didn't provide enough evidence to conclude to an effect of labeling on engagement in plasma donation. Despite a tendency to a better appointment concretization during the in-center blood drive, results didn't provide enough evidence to conclude on the labeling effect on concretization.

Concretizations depending on the type of engagement

Overall, 46 promises and 58 appointments were made/taken for a total of 104 engagements in plasma donation. 7 of the 46 promises actually turned into a plasma donation (15.2%) while 45 of the 58 appointments were concretized (77.6%). A 2 x 2 Chi Square analysis showed that donors who had taken an appointment had significantly greater chances of actually donating plasma than donors who only made a promise, $\chi^2(1,104) = 39.916, p < .001$.

Discussion

This study aimed to provide the first empirical evidence of the effectiveness of social or functional labeling on donors' conversion from whole-blood donation to plasma donation. However, results showed little significant differences between a neutral approach for plasma donation and an approach based on labeling. Even though there were some tendencies in the mobile blood drive conditions, the main effect of labeling seemed to appear during the in-center blood drive and only with the use of functional labeling to foster appointment taking. Further research is required to confirm those results. For example, when Sénémeaud and colleagues (2014) tested the efficacy of labeling on WBDs retention, they found that young donors weren't affected by labeling while older donors were, and that women were three times more likely to be affected by labeling than men. While the explanations for these differences remain unclear, our study seems consistent with them and studying the effect of labeling on conversion among a more general population of WBDs would enable us to try to replicate these results. It is also possible that the social label "you're helping to save lives" was not enough referring to the intrinsic value of our participants, and was too close to a functional label. However, it should also be noted that the labels we used in our study should have identified blood donation at a high level, which has been demonstrated to be a moderating variable of the FITD (Vallacher & Wegner, 1987; Wegner, Vallacher, Macomber, Wood, & Arps, 1984). Therefore, we can assume that we created a context that enhanced the likelihood of obtaining a behavioral change, unless the internalization of blood donation behavior prevents donors from engaging in plasma donation due to different representations between blood and plasma donation.

Also, if there was no difference between the concretizations of engagements on both collections, the in-center lead to three times more engagements than the mobile collection, providing evidence of a relation between engagement in donation and the donation

environment, as was suggested by some authors (Carey et al., 2012; Clowes & Masser, 2012; B. M. Masser, France, Himawan, Hyde, & Smith, 2016). Some hypotheses can be made on the causes of this interaction, such as the fact that in-center donors are exposed to PPDs while mobile donors aren't which could lead to an implicit development of their knowledge regarding the process of plasma donation. Such exposition could enable an informal development of knowledge regarding plasma donation procedure (Colardyn & Bjornavold, 2004), or enable a better identification of these donors, perceived as members of a same group. The hypothesis of DPs influence on the chances of conversion of WBDs could be tested by simply controlling their exposition to DPs and measuring their engagement in plasma donation. On the same idea, promotion for plasma donation is more "aggressive" in in-center blood drives than in mobile blood drives, which could be more effective to raise WBDs awareness to plasmapheresis.

Also, some BCAs in France now organize mobile blood drives only in places that are more than 20 minutes away from the in-center blood drive, which creates another deterrent that is not unimportant: the distance donors have to travel if they want to donate plasma. When they're giving blood in the in-center blood drive, it can be assumed that the distance isn't a deterrent, or at least not important enough to prevent them from donating blood. However, when they're donating blood in mobile sites, they may be reluctant to the idea of donating in a more distant place.

Finally, recent development of in-center blood drives that aimed to make them more comfortable and friendly could also play a role in this effect.

The higher rate of concretization of appointments compared to promises could be explained by the fact that taking an appointment may be a stronger engagement than making a promise. Donors who engaged by making an appointment could have been more sensitive to donation before they were approached, or the fact that they took an appointment could have been more

bounding to actually performing the behavior that simply promising to donate. Results suggest that BCAs should prioritize appointments, for example by proposing promises only in last resort. Studies are needed to develop a speech that will increase the number of appointments taken by donors.

Future research should focus on replicating these results among a more numerous and representative population, which would enable at the same time to verify the results of Sénémeaud and colleagues (2014) showing a weak sensitivity of young donors to labeling. The potential moderating role of the suggested factors in engagement towards plasma donation should also be tested.

References

- Bagot, K. L., Bove, L. L., Masser, B. M., Bednall, T. C., & Buzza, M. (2013). Perceived deterrents to being a plasmapheresis donor in a voluntary, nonremunerated environment. *Transfusion*, *53*(5), 1108–1119. <https://doi.org/10.1111/j.1537-2995.2012.03891.x>
- Bagot, K. L., Bove, L. L., Masser, B. M., & White, K. M. (2014). Asking for something different from our donors: factors influencing persuasion success. *Transfusion*, *54*(3pt2), 848–855. <https://doi.org/10.1111/trf.12500>
- Bagot, K. L., Masser, B. M., & White, K. M. (2015). A novel approach to increasing inventory with the current panel: increasing donation frequency by asking for a different blood product. *Transfusion*, *55*(6), 1294–1302. <https://doi.org/10.1111/trf.12990>
- Bagot, K. L., Masser, B. M., White, K. M., & Starfelt, L. C. (2015). Recruiting and retaining plasmapheresis donors: A critical belief analysis. *Transfusion and Apheresis Science*, *52*(3), 350–357. <https://doi.org/10.1016/j.transci.2015.03.005>

- Bove, L. L., Bednall, T., Masser, B., & Buzza, M. (2011). Understanding the plasmapheresis donor in a voluntary, nonremunerated environment. *Transfusion*, *51*(11), 2411–2424. <https://doi.org/10.1111/j.1537-2995.2011.03168.x>
- Burger, J., & Caldwell, D. (2003). The Effects of Monetary Incentives and Labeling on the Foot-in-the-Door Effect: Evidence for a Self-Perception Process. *Basic and Applied Social Psychology*, *25*(3), 235–241. https://doi.org/10.1207/S15324834BASP2503_06
- Callé, N., Plainfossé, C., Georget, P., Sénémeaud, C., & Rasonglès, P. (2011). La psychologie sociale de la persuasion au service de la fidélisation des donneurs : L'importance de donner du sens au dernier don [The contribution of persuasion social psychology to the retention of donors The impact of labelling the previous donation]. *Transfusion Clinique et Biologique*, *18*(5–6), 559–564. <https://doi.org/10.1016/j.tracli.2011.04.006>
- Carey, P. M., High, P. M., Schlumpf, K. S., Johnson, B. R., Mast, A. E., Rios, J. A., ... for the NHLBI Retrovirus Epidemiology Donor Study-II (REDS-II). (2012). Donation return time at fixed and mobile donation sites: DONATION LOCATION. *Transfusion*, *52*(1), 127–133. <https://doi.org/10.1111/j.1537-2995.2011.03235.x>
- Chartrand, T., Pinckert, S., & Burger, J. M. (1999). When Manipulation Backfires: The Effects of Time Delay and Requester on the Foot-in-the-Door Technique. *Journal of Applied Social Psychology*, *29*(1), 211–221. <https://doi.org/10.1111/j.1559-1816.1999.tb01382.x>
- Cialdini, R. B., & Ascani, K. (1976). Test of a concession procedure for inducing verbal, behavioral, and further compliance with a request to give blood. *Journal of Applied Psychology*, *61*(3), 295–300. <https://doi.org/10.1037/0021-9010.61.3.295>
- Clowes, R., & Masser, B. M. (2012). Right here, right now: the impact of the blood donation context on anxiety, attitudes, subjective norms, self-efficacy, and intention to donate

- blood. *Transfusion*, 52(7), 1560–1565. <https://doi.org/10.1111/j.1537-2995.2011.03486.x>
- Colardyn, D., & Bjornavold, J. (2004). Validation of Formal, Non-Formal and Informal Learning: policy and practices in EU Member States1. *European Journal of Education*, 39(1), 69–89. <https://doi.org/10.1111/j.0141-8211.2004.00167.x>
- Cornelissen, G., Dewitte, S., Warlop, L., & Yzerbyt, V. (2007). Whatever people say I am, that’s what I am: Social labeling as a social marketing tool. *International Journal of Research in Marketing*, 24(4), 278–288. <https://doi.org/10.1016/j.ijresmar.2007.05.001>
- Fointiat, V., Caillaud, J., & Martinie, M.-A. (2004). Étiquetage social vs étiquetage fonctionnel : quels effets sur le pied-dans-la-porte avec demande implicite ? [Social vs. functional labeling: The effects on the foot-in-the-door with implicit demand.] *European Review of Applied Psychology*, 54, 273-278. <https://doi.org/10.1016/j.erap.2004.03.004>
- Fointiat, V. (2006). “You’re helpful” versus “that’s clear”. Social versus functional label in the foot-in-the-door paradigm. *Social Behavior and Personality: An International Journal*, 34(5), 461–466. <https://doi.org/10.2224/sbp.2006.34.5.461>
- Foss, R. D., & Dempsey, C. B. (1979). Blood donation and the foot-in-the-door technique: A limiting case. *Journal of Personality and Social Psychology*, 37(4), 580–590. <https://doi.org/10.1037/0022-3514.37.4.580>
- Freedman, J. L., & Fraser, S. C. (1966). Compliance without pressure: The foot-in-the-door technique. *Journal of Personality and Social Psychology*, 4(2), 195–202. <https://doi.org/10.1037/h0023552>

- Hayes, T., Dwyer, F., Greenwalt, T., & Coe, N. (1984). A comparison of two behavioral influence techniques for improving blood donor recruitment. *Transfusion*, 24(5), 399–403. <https://doi.org/10.1046/j.1537-2995.1984.24585017828.x>
- Intravenous Immunoglobulin Market to reach US\$14,923 million in 2024. (n.d.). Retrieved July 23, 2018, from <https://www.transparencymarketresearch.com/pressrelease/intravenous-immunoglobulin-market.htm>
- Kraut, R. E. (1973). Effects of social labeling on giving to charity. *Journal of Experimental Social Psychology*, 9(6), 551–562. [https://doi.org/10.1016/0022-1031\(73\)90037-1](https://doi.org/10.1016/0022-1031(73)90037-1)
- Masser, B., & Bagot, K. (2015). Plasmapheresis: recruitment, retention and flexible donors. *ISBT Science Series*, 10(S1), 268–274. <https://doi.org/10.1111/voxs.12147>
- Masser, B. M., France, C. R., Himawan, L. K., Hyde, M. K., & Smith, G. (2016). The impact of the context and recruitment materials on nondonors' willingness to donate blood. *Transfusion*, 56(12), 2995–3003. <https://doi.org/10.1111/trf.13805>
- Miller, R. L., & Suls, J. (1977). Helping, Self-Attribution, and the Size of an Initial Request. *The Journal of Social Psychology*, 103(2), 203–208. <https://doi.org/10.1080/00224545.1977.9713318>
- Pagliariccio, A., Guermandi, G., Marinozzi, M., & Piani, M. (2003). Can better information increase hemapheresis? *Transfusion and Apheresis Science*, 28(2), 149–153. [https://doi.org/10.1016/S1473-0502\(03\)00015-6](https://doi.org/10.1016/S1473-0502(03)00015-6)
- Piliavin, J. (1990). Why do they give the gift of life? A review of research on blood donors since 1977. *Transfusion*, 30(5), 444–459. <https://doi.org/10.1046/j.1537-2995.1990.30590296381.x>
- Robert, P. (2009). Global plasma demand in 2015. *Pharmaceuticals, Policy and Law*, (4), 359–367. <https://doi.org/10.3233/PPL-2009-0250>

- Seligman, C., Bush, M., & Kirsch, K. (1976). Relationship between compliance in the foot-in-the-door paradigm and size of first request. *Journal of Personality and Social Psychology*, 33(5), 517–520. <https://doi.org/10.1037/0022-3514.33.5.517>
- Sénémeaud, C., Georget, P., Guéguen, N., Callé, N., Plainfossé, C., Touati, C., & Mange, J. (2014). Labeling of previous donation to encourage subsequent donation among experienced blood donors. *Health Psychology*, 33(7), 656–659. <https://doi.org/10.1037/a0033426>
- Strenta, A., & Dejong, W. (1981). The Effect of a Prosocial Label on Helping Behavior. *Social Psychology Quarterly*, 44(2), 142. <https://doi.org/10.2307/3033711>
- Vallacher, R. R., & Wegner, D. M. (1987). What do people think they're doing? Action identification and human behavior. *Psychological Review*, 94(1), 3.
- Veldhuizen, I., & van Dongen, A. (2013). Motivational differences between whole blood and plasma donors already exist before their first donation experience. *Transfusion*, 53(8), 1678–1686. <https://doi.org/10.1111/trf.12056>
- Wegner, D. M., Vallacher, R. R., Macomber, G., Wood, R., & Arps, K. (1984). The emergence of action. *Journal of Personality and Social Psychology*, 46(2), 269.

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Table 1. Descriptive statistics depending on the type of blood drive

	Mobile blood drive N = 316 (%)	In-center blood drive N = 216 (%)	Total N = 532 (%)
Condition			
No labeling	104 (32.9)	66 (30.6)	170 (32)
Social labeling	104 (32.9)	68 (31.5)	172 (32.3)
Functional labeling	108 (34.2)	82 (38)	190 (35.7)
Gender			
Male	140 (44.3)	55 (25.5)	195 (36.7)
Female	176 (55.7)	161 (74.5)	337 (63.3)
Donation promises			
Donation promises	10 (3.16)	36 (16.7)	46 (8.6)
Concretized promises	1/10 (10)	6/36 (16.7)	7/46 (15.2)
Appointments			
Appointments	24 (7.6)	34 (15.7)	58 (10.9)
Concretized appointments	16/24 (66.7)	29/34 (85.3)	45/58 (77.6)
Plasma donation without engagement			
Plasma donation without engagement	5 (1.6)	3 (1.4)	8 (1.5)

Table 2. Engagements and their concretization depending on the type of blood drive

	Mobile blood drive N = 316 (%)	In-center blood drive N = 216 (%)	χ^2	P value	Phi
Overall					
engagements (promises + appointments)	34 (10.8)	70 (32.4)	$\chi^2 (1,532) =$ 38.230	<.001	-.268
Promises	10 (3.2)	36 (16.7)	$\chi^2 (1,532) =$ 29.612	<.001	-.236
Concretized promises	1/10 (10)	6/36 (16.7)	\emptyset	\emptyset	
Appointments	24 (7.6)	34 (15.7)	$\chi^2 (1,532) =$ 8.764	.003	.128
Concretized appointments	16/24 (66.7)	29/34 (85.3)	$\chi^2 (1,58) = 2.807$.094	-.220

Table 3. Chi-square table of promises/appointments and concretized promises/appointments depending on labeling conditions during the mobile/in-center blood drive

Mobile blood drive (n = 316)	No labeling	Social labeling	Functional labeling	χ^2 or Fisher's exact test	P value
	N = 104 (%)	N = 104 (%)	N = 108 (%)		
Promises	0 (0)	7 (6.7)	3 (2.8)	Fisher = 7.768	.016
Concretized promises	0/0 (0)	1/7 (14.3)	0/3 (0)	\emptyset	\emptyset
Appointments	10 (9.6)	7 (6.7)	7 (6.5)	χ^2 (2,313) = .906	.696
Concretized appointments	4/10 (40)	5/7 (71.4)	7/7 (100)	Fisher = 6.549	.039
In-center blood drive (n = 216)	No labeling	Social labeling	Functional labeling	χ^2 or Fisher's exact test	P value
	N = 66 (%)	N = 68 (%)	N = 82 (%)		
Promises	17 (25.8)	13 (19.1)	6 (7.3)	χ^2 (2,213) = 9.382	.009
Concretized promises	4/17 (23.5)	2/13 (15.4)	0/6 (0)	Fisher = 1.367	.617
Appointments	11 (16.7)	4 (5.9)	19 (23.2)	χ^2 (2,213) = 8.439	.014
Concretized appointments	11/11 (100)	3/4 (75)	15/19 (78.9)	Fisher = 3.049	.265