

Journal of Economics Bibliography

econsciences.com

Volume 10

March-June 2023

Issue 1-2

Engaging communication and adherence to blood donation. An experiment on the impact of the preparatory act on the manifestation of retroactive behavioral intention in Cameroonian context

By Sabine Célestine ETA-FOUDA BIDZOA ^{af}
& Serge Clement MANY KONO ^b

Abstract. The derailment of the train linking Yaoundé to Douala on October 21, 2016 gave special emotional resonance to the need for blood donation. The high number of victims and the horror of experiencing the loss of a life due to lack of blood has accentuated this issue. The daily calls for blood donations in hospitals, however, do not enjoy the same empathy. As a result, equally moving tragedies unfortunately occur in complete anonymity. The aim of this project is to set up a communication protocol to encourage young adults in our high schools, colleges and universities to give blood. Engaging communication, combined with two types of preparatory acts, is our conceptual basis for addressing this problem. As a result, behavioral induction, employing both narrative and argumentative preparatory acts, leads to the manifestation of the intention to adhere to blood donation in the participants of this study.

Keywords. Intra-industry trade; Imperfect competition; Classical theories of trade.

JEL. F11; F12; F13.

1. Introduction

The shortage of blood donations is a global issue that mobilizes international authorities, with the World Health Organization (WHO) dedicating an entire day to it. However, the impact of this shortage is particularly dramatic in developing countries due to the scarcity of economic resources needed to establish an effective blood donation system. In Cameroon, a national blood transfusion program has been in place for over three decades, working with associations and non-governmental organizations to mobilize the population in favor of blood donation. Nevertheless, statistics from the Ministry of Health show that only 25% of donations are available each year in Cameroon. The medical community is confronted with this major public health problem and struggles to understand why such an urgent and important social cause does not receive widespread support from the population (Guéguen & Sire, 2016; Fonte, Blondé, & Girandola, 2017). However, certain social events have successfully mobilized a significant number of people around the issue of blood donation. For instance,

^{af} University of Douala, Psychology Department, Cameroon.

☎. 697796954 ✉. sabetazou1@yahoo.fr

^b University of Douala, Psychology Department, Cameroon.

☎. 697796954 ✉. sergemanykono@gmail.com

Journal of Economics Bibliography

one might recall the catastrophic train derailment on October 21, 2016, in Eséka, where there was an exceptional mobilization for blood donation. The emotional impact resulting from the high number of victims is undoubtedly a contributing factor. However, daily appeals for blood donation in hospitals do not enjoy the same level of mediation. As a result, equally poignant tragedies unfortunately occur in complete anonymity. Numerous barriers hinder blood donation in Cameroon, including psychological obstacles such as fear of needles or the sight of blood, as well as unfounded cultural beliefs related to fears of infertility, sexual impotence, and magical-religious practices associated with blood. In Cameroon, the equation of blood donation presents a dual challenge: insufficient demand for blood donations and a severely limited supply. Regarding the supply, recent statistics on blood donation paint a concerning picture: the annual demand for blood units is estimated at 400,000, but only 25% of this demand is met. For the past five years, the collection figures are as follows: 2016 (82,661 units collected); 2017 (91,047 units collected); 2018 (94,873 units collected); 2019 (103,359 units collected); and 2020 (100,000 units collected). These figures from the National Blood Transfusion Service (NBTS) show that recruitment efforts for donors are still far from sufficient, meaning that Cameroonians have very low participation in blood donation (Owona, 2017). However, the needs are enormous and justified by evident epidemiological factors: malaria and maternal-child morbidity are pathologies that often require transfusion-based treatment. To be more precise, according to a study.

The study conducted by the National Institute of Statistics (INS) in 2011 revealed that in terms of maternal mortality in Cameroon, the ratio is 782 deaths per 100,000 live births, with approximately 45.5% of maternal deaths directly related to hemorrhage. Regarding the fight against malaria, three out of every five children aged between 6 and 59 months in Cameroon suffer from anemia, with 27% in mild form, 31% in moderate form, and 2% in severe form. The prevalence of anemia decreases with the age of the child, ranging from 78% among children aged 6 to 8 months to 67% among those aged 18 to 23 months, and 49% among children aged 48 to 59 months. However, it is the children aged 9 to 11 months who are most affected by severe anemia (INS/EDS, 2011).

The context is therefore not particularly favorable for blood donation. However, with population growth and increasing healthcare needs, it has become necessary to seriously reconsider health policies in order to encourage more people to donate blood. In the literature on behavioral change, there are two possibilities to modify an individual's behavior: changing the context in which the individual acts or changing the individual's representation of the context. Changing the context involves rethinking the practices of institutional and associative actors involved in the management and promotion of blood donation in the country. This can include facilitating the reception and management of donors at blood transfusion centers and increasing the material and human resources for deploying mobile blood collection teams. The second option is to intervene on an individual's cognitions, motivations, attitudes (Kumkale, Albarracín, & Seignourel, 2010), and behaviors by engaging them in a process of change. In this regard, several techniques derived from theories and research in social psychology can be relevant. De Young (1993, cited by Bourg, 2011) proposes categorizing these

interventions aimed at modifying behaviors based on two criteria: the source of change and the type of intervention.

2. Hypothesis and study objectives

Referring to the theorization of Bernard & Joule (2005), who view engaging communication as an information transmission system aimed at shaping, modifying, or reinforcing both personal and social actions, as well as cognitive and social representations, we propose to investigate the effectiveness of different engaging communication strategies in promoting blood donation in Cameroon. Our research hypothesis is that engaging communication, combining powerful emotional elements with factual information, can have a significant impact on individuals' attitudes and behaviors regarding blood donation.

The specific objectives of our study are as follows:

1. Assess the impact of different engaging communication strategies on participants' attitudes and intentions toward blood donation.
2. Examine the underlying psychological mechanisms that can explain the effects of engaging communication on blood donation attitudes and behaviors.

Table 1. *Expérimental conditions*

Act Message	Without action	Engaging preparatory act	Narrative preparatory act
Without message	Control N=48	Simple engagement N=48	Narrative engagement N=48
Message	Simple persuasion N=48	Engaging argumentative communication N=48	Engaging narrative communication N=48

The dependent variable of this study is the acceptance of a signed blood donation pledge (APSDP).

3. Experimental procedure

For each experimental condition, participants are welcomed into the experimental room, and the experimenter reminds them that the study is conducted as part of a public health survey in a school setting. The experimenter emphasizes the importance of the topic and encourages participants to answer honestly based on their own convictions, without trying to please anyone. It is explained that there are no right or wrong answers, and their responses will be strictly confidential, only accessible to medical professionals. Each participant finds an envelope containing all the materials for the experiment on their table. The set includes a control condition and five experimental conditions.

Condition 1: Control Condition

For this condition, the following question is proposed: "Do you agree to sign a blood donation pledge for the blood donation campaign taking place next week?"

Please check the response that applies to you:

- Yes
- No

Journal of Economics Bibliography

Condition 2: Engaging Preparatory Act (Writing a Pro-Blood Donation Essay)

For this condition, the questionnaire is divided into two steps:

- The first step involves writing a short essay in favor of blood donation, with the following question: "Provide three arguments to encourage your best friend to donate blood for the sick during the upcoming World Blood Donor Day. Note: Do not worry about spelling or grammar; we are interested in the arguments you provide."

- In the second step, participants are presented with the dependent variable question, similar to the control condition.

Condition 3: Simple Persuasion (Reading a Message from the Ministry of Public Health)

For this condition, the questionnaire consists of three steps:

- The first step includes a fictional testimonial, narrating in about ten lines how a young man saved the life of a pregnant woman awaiting a twin cesarean section:

- The second step is a question phrased as follows: "Would you have done the same as Benjamin Minta?"

- Yes
- No

- In the third step, participants are presented with the dependent variable question, similar to the control condition.

Condition 4: Narrative Preparatory Act (Reading a Fictional Blood Donation Testimonial)

For this condition, the questionnaire consists of three steps:

- The first step includes a fictional testimonial, narrating in about ten lines how a young man saved the life of a pregnant woman awaiting a twin cesarean section:

- The second step is a question phrased as follows: "Would you have done the same as Benjamin Minta?"

- Yes
- No

- In the third step, participants are presented with the dependent variable question, similar to the control condition.

Condition 5: Engaging Communication with Argumentative Preparatory Act

- The first step involves writing a short essay in favor of blood donation, with the following question: "Provide three arguments to encourage your best friend to donate blood for the sick during the upcoming World Blood Donor Day. Note: Do not worry about spelling or grammar; we are interested in the arguments you provide."

- The second step involves reading a persuasive message that provides a set of reasons why blood donation is important. The message is signed by the Ministry of Public Health, which is the most credible source on the subject.

- In the third step, participants are presented with the dependent variable question, similar to the control condition.

Journal of Economics Bibliography

Condition 6: Engaging Communication with Narrative Preparatory Act

- The first step includes a fictional testimonial, narrating in about ten lines how a young man saved the life of a pregnant woman awaiting a twin cesarean section:

- The second step is a question phrased as follows: "Would you have done the same as Benjamin Minta?"

- Yes

- No

- The third step involves reading a persuasive message that provides a set of reasons why blood donation is important. The message is signed by the Ministry of Public Health, which is the most credible source on the subject.

- In the fourth step, participants are presented with the dependent variable question, similar to the control condition.

4. Administration condition

The experiments were conducted using a "paper-pencil" format, with a duration of approximately 15 minutes. On the day of the experiment, students were gathered in the computer room and seated in front of individual workstations, similar to the conditions of an official examination. To minimize the experimenter's intervention, along with all the instructions related to the manipulations, were written on the first page of the questionnaire. For each condition, here is what the experimenter said in the experimental room: "Please have a seat. I will explain what this is about. As I mentioned the other day, this is a public health survey. Each of you has received an envelope containing an individual and specific task for you. Therefore, you should respond with utmost sincerity. The first page of the document contains all the instructions that you must follow. I want to remind you that you are free to participate or not in the study, although your viewpoint is very important to us. Now, please open your envelope and carefully read all the instructions. Take your time, fill out all the forms, and respond with maximum sincerity. Your names and responses will be strictly confidential, meaning that only the physician will have access to them."

The participants completed their questionnaires and placed them in an opaque bag located at the back of the room. To conclude, the experimenter thanked each participant after their participation and conducted a general debriefing with all the study participants. None expressed any reservations about the publication of the study's results.

5. Results

Table 2. *Sample Composition*

Sex		Sex	Sex
		135 (46,3 %)	153 (53,8 %)
		Frequencies	Percentages
Ages	18 years old	106	39,2
	19 years old	72	25,0
	20 years old	62	20,8
	21 years old	48	15,0
	N	288	100,0
		Frequencies	Percentages
Groups	Control group	48	20,0
	Experimental group ₁	48	20,0

S.C.E.F. Bidzo & S.C.M. Kono, JEB, 10(1-2), 2023, p.13-23.

Journal of Economics Bibliography

Experimental group 2	48	20,0
Experimental group3	48	20,0
Experimental group 4	48	20,0
Experimental group 5	48	20,0
N	288	100,0

The overall composition of the sample across the 5 experimental conditions and the control condition shows the following breakdown: the total distribution by gender includes 129 girls and 111 boys; the most representative age group in this sample is 18 years old with $n = 106$. Additionally, each group in the study consists of 48 participants, resulting in a total sample size of 288.

Table 3. Summary of Results for the Control Group Compared to the Experimental Groups

	Experimental conditions:	Participation	F	P
Control group	Condition 1: Blood donation promise for the blood donation campaign without preparatory action	Yes	07	22.91
		No	31	77.09
		Total	48	100.0
Experimental group 1	Condition 2 : <i>Engaging preparatory act (writing a pro blood donation essay)</i>	Yes	20	41.66
		No	28	58.34
		Total	48	100.0
Experimental group 2	Condition 3 : <i>Simple persuasion (reading a message from the Ministry of Public Health)</i>	Yes	17	35.41
		No	31	64.59
		Total	48	100.0
Experimental group 3	Condition 4 : <i>Narrative preparatory act (reading a fictional blood donation testimonial)</i>	Yes	26	41.66
		No	28	58.34
		Total	48	100.0
Experimental group 4	Condition 5 : <i>Engaging communication with argumentative preparatory act</i>	Yes	31	64.58
		No	17	35.42
		Total	48	100.0
Experimental group 5	Condition 6 : <i>Engaging communication with narrative preparatory act.</i>	Yes	41	77.08
		No	7	22.92
		Total	48	100.0
<i>Summary of blood donation participation:</i>		Yes	41	77.08
		No	7	22.92
		Total	48	100.0

Notes: F = Frequency; P = Percentage

The control group, which did not receive the experimental treatment, consisted of the same number of individuals as the other experimental groups ($n = 48$). Only 7 individuals in the control group displayed a favorable behavior towards blood donation.

The "Engaging Preparatory Act" group is where participants wrote an argumentative essay in favor of blood donation. It also consisted of the same number of individuals as the other experimental groups ($N = 48$). The table above presents the main results, showing that 20 individuals in this group exhibited a favorable behavior towards blood donation.

The "Persuasive Message" group is where participants read a message from the Ministry of Health regarding blood donation. It also consisted of the same number of individuals as the other experimental groups ($N = 48$). The results indicated that only 17 individuals in this group displayed a favorable behavior towards blood donation.

The "Narrative Preparatory Act" group is where participants read a fictional testimonial about blood donation. It also consisted of the same number of individuals as the other experimental groups ($N = 48$). The results showed that

Journal of Economics Bibliography

26 individuals in this group exhibited a favorable behavior towards blood donation.

The "Engaging Communication with Engaging Preparatory Act" group is where participants first wrote an argumentative essay before reading a persuasive message in favor of blood donation. It also consisted of the same number of individuals as the other experimental groups (N = 48). Based on the results, 31 individuals in this group displayed a favorable behavior towards blood donation.

Results by Research Hypothesis and Experimental Condition

Research Hypothesis 1: The persuasive message improves adherence to blood donation. The results are as follows: $\chi^2_{cal} = 21.442$ and $\chi^2_{lu} = 3.84$ with a contingency coefficient of 0.253. Conclusion: The persuasive message significantly improves adherence to blood donation. Hypothesis 1 is confirmed.

Research Hypothesis 2: The argumentative preparatory act improves adherence to blood donation. $\chi^2_{cal} = 24.564$ and $\chi^2_{lu} = 5.991$ with a contingency coefficient of 0.353. Thus, the argumentative preparatory act significantly improves adherence to blood donation, confirming Research Hypothesis 2.

Research Hypothesis 3: The engaging narrative preparatory act improves blood donation behavior. $\chi^2_{cal} = 22.464$ and $\chi^2_{lu} = 5.991$ with a contingency coefficient of 0.415. Thus, the engaging narrative preparatory act significantly improves blood donation behavior. Therefore, Research Hypothesis 3 is confirmed.

Research Hypothesis 4: Engaging communication with argumentative preparatory act improves adherence to blood donation. $\chi^2_{cal} = 30.564$ and $\chi^2_{lu} = 11.07$ with a contingency coefficient of 0.355. Therefore, engaging communication with argumentative preparatory act significantly improves adherence to blood donation. Consequently, Research Hypothesis 4 is confirmed.

And finally, for Research Hypothesis 5: Engaging communication with narrative preparatory act improves adherence to blood donation. $\chi^2_{cal} = 28.37$ and $\chi^2_{lu} = 11.07$ with a contingency coefficient of 0.374. Engaging communication with narrative preparatory act significantly improves adherence to blood donation. Thus, Research Hypothesis 5 is confirmed.

The engaging communication with narrative preparatory act significantly improves adherence to blood donation. Thus, HR5 is confirmed.

All these results are significant at a significance level of $P \leq 0.05$, and with degrees of freedom (df) distributed as follows: HR1: $\alpha = 0.05$, $df = 1$; HR2: $\alpha = 0.05$, $df = 2$; HR3: $\alpha = 0.05$, $df = 3$; HR4: $\alpha = 0.05$, $df = 5$; HR5: $\alpha = 0.05$, $df = 5$.

5. Interpretation

The engaging communication with narrative induction group is where participants first read a fictional testimonial from a blood donor before reading a persuasive message in favor of blood donation. It consisted of the same number of individuals as the other experimental groups (n = 48). According to the results, 31 individuals exhibited a predominantly favorable behavior towards blood donation.

Journal of Economics Bibliography

The overall results from the 5 experimental conditions and the control condition show that 41 individuals displayed a predominantly favorable behavior towards blood donation. The engaging communication group surpassed all other groups in adherence to blood donation.

In addition to the experimental results, a chi-square test was conducted to assess the impact of each induced modality on blood donation behavior among students. Thus, Table 3 presents the strength of the link between blood donation behavior and engaging communication through its different modalities.

The results clearly demonstrate that the persuasive message has an impact on adherence to blood donation ($\chi^2 = (1, n = 48) = 21.442, p \leq 0.000$). This link is supported by the association between the persuasive message and adherence to blood donation ($C = 0.253, p \leq 0.05$). We can infer that the persuasive message improves adherence to blood donation.

We also observe that the argumentative preparatory act improves adherence to blood donation ($\chi^2 = (2, n = 48) = 24.564, p \leq 0.307$). This link is supported by the association between the argumentative preparatory act and adherence to blood donation ($C = 0.353, p \leq 0.05$). We can infer that the argumentative preparatory act improves adherence to blood donation.

It is evident that the engaging narrative preparatory act enhances blood donation behavior ($\chi^2 = (2, n = 48) = 22.464, p \leq 0.487$). This link is supported by the association between the engaging narrative preparatory act and adherence to blood donation ($C = 0.415, p \leq 0.05$). We can infer that the engaging narrative preparatory act improves adherence to blood donation.

The engaging narrative preparatory act significantly improves blood donation behavior.

We find that the engaging communication with argumentative preparatory act enhances adherence to blood donation ($\chi^2 = (5, n = 48) = 30.564, p \leq 0.487$). This link is supported by the association between the engaging narrative preparatory act and adherence to blood donation ($C = 0.355, p \leq 0.05$). We can infer that engaging communication with argumentative preparatory act significantly improves blood donation behavior.

For the last modality, it is evident that the engaging communication with narrative preparatory act improves adherence to blood donation ($\chi^2 = (5, n = 48) = 28.379, p \leq 0.307$). This link is supported by the association between engaging communication with narrative preparatory act and adherence to blood donation ($C = 0.374, p \leq 0.05$). We can infer that engaging communication with narrative preparatory act significantly improves blood donation behavior.

6. Discussion

In the engaging preparatory act experimental condition, participants were required to write an argumentative essay presenting three reasons in favor of blood donation. The results showed that participants in this condition were not significantly more numerous than those in the persuasive message condition ($n = 17$ vs $n = 20$). This mixed result of the engaging act can be explained by the level of identification with the act. Indeed, students are accustomed to writing essays in the context of classroom exercises. Asking them to write one does not constitute, from the perspective of the theory of identification with the action, an act with a high level of identification. In

Journal of Economics Bibliography

other words, the argumentative essay was not sufficiently engaging. This result recalls the findings of Joule (2010), who showed that students tend to assimilate engaging acts in the school context at low levels of identification.

Participants in the argumentative essay condition are comparatively more likely to adhere to blood donation than participants in the control condition. These results can be related to those of Eyssartier, Joule, & Guimelli (2007), who demonstrated that an essay in favor of organ donation significantly increased the likelihood that its author would accept an organ donor card. In reality, the writing of this essay, a relatively engaging act, may have triggered a cognitive and emotional involvement in the topic of blood donation, thereby positively influencing adherence to blood donation behavior.

In the context of minors in a school setting, the act of writing an essay can be seen as a foot-in-the-door technique since it is immediately followed by a more significant request, which is the acceptance of becoming a blood donor. In this case, the participant attributes their blood donation behavior to the act of writing an essay in favor of blood donation, without necessarily accessing their internal cognitions and emotional states. Additionally, Cialdini, Martin, & Goldstein (2015) note that when individuals struggle to make the right decision or choose the best behavioral path, they seek reassurance in their perceptions. They use decision heuristics such as social proof, expert recommendations, and precise statistical data. In this case, a testimonial from an anonymous individual becomes a triggering element for blood donation. While these external elements can have an influence on behavior, it can also be argued that the self-perception induced by writing a prosocial essay can be another form of motivation for accuracy; the individual uses it to convince themselves.

Furthermore, the level of involvement of the participant in the writing task may have seemed high. For them, it would be an important social task to persuade another person, especially a friend with whom they share a certain social closeness. The higher these social values, the higher the level of identification with the action (Wegener & Vallacher, 1984). This first level of discussion can be summarized by mentioning that the effect of an argumentative essay on a deferred blood donation request is explained by the combination of three factors: the prosocial nature of the request, the strength of self-influence through self-perception, and the level of identification with the writing action.

The narrative act has a positive effect on adherence to blood donation compared to the control condition. The results obtained support this hypothesis ($n = 29$ vs. $n = 11$). Firstly, the effect of narrative transportation is explained by the emotional experience that takes place during the narrative; storytelling generates various emotions through the words used in the text. Oatley (1999) identified three types of narrative emotions, and in our experimental narrative, we can identify two: sympathy and identification. When the events described and the actions of the characters resemble those encountered by the subjects in their daily lives, they stimulate sensory and vivid impressions that trigger emotion of sympathy. Cognitively, this means that subjects may already have long-term memories that are activated by the linguistic cues of the narrative. The narrative then serves as an extension of social memory, an external storage of memories shared by members of a community.

Journal of Economics Bibliography

Engaging communication with narration has an effect on adherence to blood donation behavior. The level of cognitive capacity used to process a narrative is so high that individuals have very little capacity to generate counter-arguments. Indeed, constant interruptions that could occur would reduce immersion in the narrative and inhibit the persuasion process (Morgan, Movius, & Cody, 2009). The theoretical consequence of this interpretation is that narrative transportation requires the suspension of critical judgment, which in turn reduces counter-argumentation while facilitating engagement with the narrative and its characters. In conclusion, adherence to blood donation in the context of engaging communication with narrative preparatory act is explained by the mental imagery involved in decoding narrative information; it is this imagery that activates corresponding sensory representations of the actions in the narrative.

References

- Bernard, F., & Joule, R.V. (2005). Methodological pluralism in information and communication sciences tested by engaging communication. *Questions de communication*, 7, 185-208. doi. [10.4000.questionsdecommunication.4647](https://doi.org/10.4000/questionsdecommunication.4647)
- Bourg, G. (2011). The contribution of engaging communication and social representations in the promotion of eco-mobility (2001). Master's thesis, University of Burgundy. [Retrieved from].
- Cialdini, R.B., Martin, S.J., & Goldstein, N.J. (2015). Small behavioral science-informed changes can produce large policy-relevant effects. *Behavioral Science & Policy*, 1(1), 21-27.
- De Young, R., Duncan, A., Frank, J., Gill, N., Rothman, S., et al. (1993). Promoting source reduction behavior: The role of motivational information. *Environment and Behavior*, 25(1), 70-85.
- Decree No. 2019/067 of February 12, 2013, on the organization and functioning of the National Blood Transfusion Center. [Retrieved from].
- Eyssartier, C., Joule, R.-V., & Guimelli, C. (2007). Behavioral and cognitive effects of engagement in a preparatory act activating a central versus peripheral element of organ donation representation. *Psychologie Française*, 52, 499-517. doi. [10.1016/j.psfr.2007.01.004](https://doi.org/10.1016/j.psfr.2007.01.004)
- Fonte, D., Blondé, J., & Girandola, F. (2017). How to encourage non-donors to be more willing to donate blood? Testing of binding communication based interventions. *Journal of British Blood Transfusion Society*. <https://hal.archives-ouvertes.fr>
- Girandola, F. (2003). *Psychologie de l'engagement et de la persuasion*. PUF.
- Guéguen, N & Sire, V. (2016). Effet d'une sollicitation en face à face et d'un contact tactile sur l'acceptation du don du sang : une évaluation lors d'une collecte en milieu universitaire. *European scientific journal*, January, vol.12, no.2. doi. [10.19044/esj.2016.v12n2p51](https://doi.org/10.19044/esj.2016.v12n2p51)
- Joule R.-V. & Beauvois J.-L. (1998). *La Soumission librement consentie*. PUF.
- Joule, R V & Beauvois, J L (2002). *Petit traité de manipulation à l'usage des gens honnêtes*. P.U.G.
- Kumkale, G.T., Albarracín, D. & Seignourel, P.J. (2010) The effects of source credibility in the presence or absence of prior attitudes: implications for the design of persuasive communication campaigns. *Journal of Applied Social Psychology*, 40, 1325-1356.
- Laurens, S. et Moscovici, S. (2005). The confederate's and others' self-conversion: a neglected phenomenon. *The journal of social psychology*, 145(2), 191-207.
- Loi n°2003/014 du 22 Décembre 2003 régissant la transfusion sanguine au Cameroun.
- Michelik, F. (2011). Engaging communication: Effects on cognitive and behavioral dimensions. Doctoral thesis, University of Franche-Comté.
- Morgan, S.E., Movius, L., & Cody, M.J. (2009). The power of narratives: The effect of entertainment television organ donation storylines on the attitudes, knowledge, and behaviors of donors and non-donors. *Journal of Communication*, 59(1), 135-151. doi. [10.1111/j.1460-2466.2008.01408.x](https://doi.org/10.1111/j.1460-2466.2008.01408.x)
- Oatley, K. (1999). Why fiction may be twice as true as fact: Fiction as cognitive and emotional simulation. *Review of General Psychology*, 3(2), 101-117. doi. [10.1037/1089-2680.3.2.101](https://doi.org/10.1037/1089-2680.3.2.101)
- Wegener, D. M., Vallacher, R. R. (1986). Action identification in Sorrentino (Eds). *Handbook of motivation and cognition: Foundations of social behavior* (pp.550-582). New York: Guilford.



Copyrights

Copyright for this article is retained by the author(s), with first publication rights granted to the journal. This is an open-access article distributed under the terms and conditions of the Creative Commons Attribution license (<http://creativecommons.org/licenses/by-nc/4.0>).

