


# Toward a More Nuanced Perception of Alzheimer's Disease: Designing and Testing a Campaign Advertisement

Baldwin Van Gorp, PhD<sup>1</sup>, Tom Vercruyse, MSc<sup>1,2</sup> and Jan Van den Bulck, PhD<sup>3</sup>

American Journal of Alzheimer's Disease & Other Dementias®  
27(6) 388-396  
© The Author(s) 2012  
Reprints and permission:  
sagepub.com/journalsPermissions.nav  
DOI: 10.1177/1533317512454707  
http://aja.sagepub.com  


## Abstract

Starting point of this study was the assumption that Alzheimer's disease is made worse for the person who has the disease by the negative regard in which the illness is held by society. The aim was to test by means of a campaign advertisement whether more nuanced counterframes could have an impact while remaining credible and comprehensible to the public. A sample of thousand people living in Belgium evaluated the campaign in an experimental design. This revealed that all the versions tested achieved a high average evaluation. The ad in which the heading referred to the fear of death and degeneration was judged to be most attention-grabbing, easier to understand, and more credible than the alternative heading with the idea that someone with Alzheimer's could still enjoy playing cards. Together, these findings provided a basis for the use of counterframes to generating a more nuanced image of Alzheimer's disease.

## Keywords

framing, campaigning, advertisement, Belgium, media, Alzheimer's disease

## Introduction

The world's population is becoming greyer, with the number of people older than 65 years rising to 1.4 billion by 2040.<sup>1</sup> This is also the main explanation for a considerable increase in the number of people with Alzheimer's disease and related neurological conditions (henceforth Alzheimer's) that is predicted in numerous studies.<sup>2,3</sup> This increase, combined with a fall in fecundity, the burden on health care that must be provided for those with the disease and the relatively long period of treating the illness, presents society with a huge challenge.<sup>4</sup>

Alzheimer's disease represents one of human's biggest fears, along with cancer, traffic accidents, and cardiac problems.<sup>5</sup> People perceive Alzheimer's as an aggressive and merciless illness, which has variously been described as a "never-ending funeral,"<sup>6</sup> "a total loss of self,"<sup>7</sup> and "the plague of the 21st century."<sup>8,9</sup>

Alongside this negative image lies the taboo attached to Alzheimer's disease and the stigmatization of old age, which have an influence on the family of the sufferer too.<sup>10,11</sup> However, some of the consequences, such as stigmatization, the taboos, isolation, or the frustration that comes from a feeling of incomprehension, are not only physical symptoms of Alzheimer's disease but they are also reinforced by the prevailing negative representations and perceptions of the condition.<sup>12-15</sup> If this is true, taking care of a person with dementia becomes difficult to bear than it is in reality. Also, one is reasonably led to think that Alzheimer's disease is seen with much greater fear in the West, where death and old age

represent an important taboo and where the care for aging parents is less evident, compared with other cultures.<sup>16-18</sup>

Recent research<sup>19</sup> showed that the number of TV news reports about Alzheimer's disease has increased. As such, the mass media may help to break the taboos surrounding Alzheimer's. However, the media in general tend to systematically emphasize the negative framing of the disease, which may facilitate a cultivation effect.<sup>20</sup> The media clearly focus on the terminal stage of the illness, which then seems to become representative of the entire degenerative process.<sup>21-23</sup> Furthermore, the person who has the condition is rarely given the opportunity of speaking for himself or herself; as a general rule, someone speaks on their behalf.<sup>22,24</sup> Finally, strong emphasis is placed upon the burden that the illness exerts on the family.<sup>25,26</sup>

## Purpose of the Study

If one could speak about those with Alzheimer's disease with greater respect, people with Alzheimer's might also see

<sup>1</sup> KU Leuven, Institute for Media Studies, Leuven, Belgium

<sup>2</sup> Research Foundation - Flanders (FWO)

<sup>3</sup> KU Leuven, School for Mass Communication Research, Leuven, Belgium

## Corresponding Author:

Baldwin Van Gorp, PhD, KU Leuven, Institute for Media Studies, Parkstraat 45 bus 3603, 3000 Leuven, Belgium

Email: baldwin.vangorp@soc.kuleuven.be

themselves, and be perceived by others, as people in their own right and reintegrate into the social field.<sup>27-29</sup> While it is difficult to change a perception, particularly as this is a long cultivation process that implies that alternative images also become dominant, the study wanted to assess whether a possible campaign inspired by “counterframing” could affect the public. Therefore, the aim of this study is to test by means of a campaign advertisement whether alternative and more nuanced counterframes could have an impact while remaining credible and comprehensible to the public.

## Framing Public's Perceptions

The study used the concept of framing from a social-constructionist approach.<sup>30-32</sup> Framing is a fast-developing concept, as much in media studies as in other disciplines. Frames are socially shared “organizing principles.” They are used symbolically to structure social reality and to give it a meaning, which they sometimes do with obstinacy and over a long period of time.<sup>33</sup> Frames offer a perspective, a view of reality, but at the expense of other possible angles, which disappear from the field of vision.

Frames form an integral part of culture; everybody has become familiar with frames during socialization, from the very earliest bedtime stories. Given that frames form part of every culture, many of them are common to both the sender and the recipient of a given message. This is why the process of framing generally goes unnoticed, even though the impact of such cultural and shared frames is all the greater because they seem too obvious to be questioned.<sup>34</sup> It is thus possible that communicators who transmit the dominant message regarding Alzheimer's disease are not really conscious of the long-term effect that they create by constantly returning to the same mental images. By compiling a list of dominant and alternative frames and drawing attention to them, one can help to evaluate and even modify their communication strategy. In fact, framing implies the existence of alternative counterframes and other angles of view that may offer a surprising perspective to an identical issue.<sup>32</sup> Based on a preliminary analysis of media content, 2 dominant frames (“Dualism” and “Death and degeneration”) and 2 opposite counterframes (“Body and mind unity” and “Carpe diem”) were defined.<sup>35</sup> The purpose of the study is to find out whether these frames could be used to open up a new perspective of communication.

The first and by far the most dominant frame that is used in the context of Alzheimer's disease is based on a fundamental image of a human being in western culture, notably that of dualism. The Dualism frame postulates that a person is composed of 2 distinct parts, a material body and an immaterial spirit or mind. The latter is the active principle, controlling and rational, while the body is a mere passive envelope or a simple instrument of reason. This distinction can also be conceived in a normative fashion, given that a body without a mind is no longer considered a human being. If this dualistic image of a person is used as a frame to define Alzheimer's disease, it is likened to a pathology that, little by little, deprives a human

being of his mind. Beard et al<sup>36</sup> spoke in this regard of a “discourse of loss.” Since, in this conception, it is the mind that defines personality and human identity, the person ends up no longer knowing who he or she is.

The counterframe opposed to the dominant conception of the separation of body and mind has as its essential characteristic that of renouncing the normative aspect of dualism and putting the body and the mind on equal footing. Someone with Alzheimer's can thus progressively lose his or her rational functions, while still retaining the physical dimension and, notably, the emotional life related to it. In other words, in the Body and mind unity frame the accent is placed not on what has been lost but rather on what remains, a rich emotional life thanks to which the illness never becomes greater than the person.<sup>37,38</sup> This means that the sufferers never become objects, they remain human beings, each with an individual identity, personality, and personal history.

In the second dominant frame, the Death and degeneration frame, the vocabulary used in this frame is somber and sinister and provides a response to the anxiety of a person faced with death and gradual degeneration. Unlike the frame of body–mind dualism, it is not the idea of a loss of personality (a living death) that is frightening, but rather death itself, whose unavoidable nature leaves us with no solution or perspective other than simple resignation. At the individual level, the diagnosis of Alzheimer's disease means nothing more than a “fatal prognosis,” a “new catastrophe” or purely and simply “being condemned to death,” after which the “ordeal” begins.

The second feasible alternative counterframe draws the attention away from the end of life and the process of physical degradation. In this Carpe diem frame the accent is no longer placed on the catastrophe that follows “the death sentence,” but rather on the time still left to live. The idea here is that people with Alzheimer's still have many more moments to enjoy and so they hang on to the beauty of life and refuse to see its sad side. The message transmitted is to look for happiness and comfort in the smaller things of life. This frame has its own vocabulary, which refers to happiness, joy, love, and the simple and essential pleasures of life. It often takes the form of testimonies from those with Alzheimer's and their families. Little, everyday joys are occasions to be happy.

## Method

### Research Design

To find out whether the defined counterframes could make a positive contribution to a more nuanced image of Alzheimer's disease, an online, single-factor, posttest only, between-participants experiment was conducted. The legal department of the authors' institution and the local faculty board approved the study. At all times, it was made possible for participants to “opt out.” Their privacy was guaranteed and there was no attempt to collect any personal identifiable information.

At the start of the questionnaire, respondents were informed that the researchers wished to have their opinions as part of a



**Figure 1.** Experimental manipulations.

Note. All pictures used with permission from the Belgian photographer Laura Baudoux, the persons depicted and their relatives.

study concerning an advertising campaign project. After having been exposed to one variant of the campaign, they were asked to give their spontaneous evaluation of the campaign, based on a scale of 1 to 10, and to evaluate the concept in more detail. To check whether the respondents had understood the message, these questions were followed by a series of statements about Alzheimer's disease. Furthermore, respondents were asked to judge their self-efficacy, that is, to say whether they thought that they were capable of helping someone with Alzheimer's to continue to get the most out of life. Next, the respondent's own assessment of the usefulness of campaigning was measured. Finally, there was a question to find out whether the respondent's experience of Alzheimer's disease could be qualified as "direct (eg, having someone with Alzheimer's in the family, as a friend, . . .) or indirect (eg, on basis of hearsay, media exposure, . . .)." The demographic variables used in the research were region (Wallonia, Brussels, and Flanders), sex, age (grouped into  $\leq 29$ , 30-49, or  $\geq 50$ ), and level of education (junior high school, high school, or college or university).

### Experimental Manipulations

The stimulus material was presented as a professional-looking advertisement that was part of a public awareness campaign. Various conditions of the advertisement were developed, in which the counterframes Body and mind unity and Carpe diem were implicitly applied. The main image was a black and white close-up photo of a person with Alzheimer's disease. The photographer, Laura Baudoux, as well as the persons depicted and their relatives gave formal permission to use the images in this study.

The decision to use a photo of someone who really does have the illness was taken after a test demonstrated that a campaign with a photo had more impact than a version without a photo or where a drawing was used. In this way, those without any direct experience of being in contact with someone with Alzheimer's could put a real face to the illness. However, since a person in the flesh might give rise to certain feelings and influence the results, it was decided to use in each condition the photos of 3 different people with Alzheimer's: a woman wearing glasses (Figure 1A), a woman without glasses (Figure 1B), and a man (Figure 1C).

A slogan "Behind every person with Alzheimer's, is a living person," which was included as a baseline (lower right or left), and the explanatory body copy beneath the photo integrate the counterframe Body and mind unity. The body copy began with a short explanation of the illness and then went to the heart of the Body and mind unity frame: "despite the deterioration in their memory, people with Alzheimer's remain sensitive to emotions and the quality of their relationships." The body copy also contained a reference to the Carpe diem frame so as to give the observer a precise perspective of activity: "Help them to find happiness in the little things of life." The body copy ended with the address of a fictional Internet Web site where further information could be obtained ([www.alzheimer.org](http://www.alzheimer.org)).

To know which of the versions would be most effective in communicating to the public the principal message formulated in the slogan and body copy, 3 conditions with a manipulated headline were conceived.

The first condition involved using the dominant frame Death and degeneration in the headline on the photo: "Helga, already buried by her friends and family, and yet she's still alive." The hypothesis here was that by referring to a dominant frame and by formulating it in a particularly blunt manner, the

observer would be given a sort of slap in the face and be persuaded to read the rest of the copy, where exactly the opposite idea was put forward. This contrast would then have the effect of strengthening the message.

The second condition tested referred to the *Carpe diem* frame. The person in the photo was given a proper name (Helga, Maria, and Louis) and it was suggested that, despite the person's illness, he or she was still capable of finding pleasure in the small things in life (such as playing cards) and that deep down his or her humanity remained intact: "Helga is losing her memory and her memories little by little, but she still cheats at whist." It was assumed that this light and surprising touch given to the illness would be rather striking and attracted the reader to read the body copy and slogan. An additional advantage of this version is that it could provoke discussion, is someone with Alzheimer's disease still capable of playing cards? If it seems more evident in the short term to opt for the frame *Death and degeneration*, because it relates more closely with the already existing negative representations of this disease in society, it also risks on the long term to be the less judicious choice because the message refers to this dominant frame and reinforces it as a result (cf Lakoff's book title: *Don't Think of an Elephant*).<sup>39</sup>

In addition to these 2 alternative versions using framing, a third condition, without a headline and just body copy and the slogan, was used as a control condition so as to be able to measure the effect of the headline.

To sum up, the only experimental manipulation was the use of the headline: one condition with the counterframe *Carpe diem*, another with the dominant frame *Death and degeneration*, and the third condition as a control (without headline). For each condition, the 3 different photos were used, not to evaluate the effect of the choice of photo but rather to eliminate its influence. Note that this study did not aim at modifying public attitude but only at testing fictive campaign images on their credibility and comprehensibility.

### Data Collection

The experiment was conducted in October 2010 by research facilitator *iVox*. A representative sample of 1000 Belgians was drawn from an online panel: 502 men and 498 women. Of all, 12% of the respondents were aged younger than 30 years, 53% were aged between 30 and 49 years and 35% were older than or equal to 50 years. In all, 36% had completed secondary education and 39% had completed higher education. Just more than half of the sample (57%) filled out the questionnaire in Dutch and among the French-speaking respondents, 29% were Walloons and 14% from Brussels.

Although Web-based surveys have advantages related to speed and cost of data collection, not all Belgian citizens can be reached through the Internet because only 73% of the Belgian households have Internet access.<sup>40</sup> However, studies indicated, on the one hand, that Web survey participants are more likely to respond than mail survey participants<sup>41</sup> and that Web surveys deliver more reliable data than telephone

surveys.<sup>42</sup> On the other hand, Heiervang and Goodman<sup>43</sup> argued that the rate of full response will be lower for Web-based surveys.

Several measures were taken to compensate for the disadvantages of Web-based surveys. First, for each respondent, the newly obtained sociodemographic data were compared with the data provided upon joining the panel. This was one way to assure the reliability of the demographic data. Further, the "sincerity" of the participants was examined by the insertion of an item, at the end of the survey, which asked the respondents to select the utmost right radio button. As such, respondents who did not fill in the Web-based survey attentively could be detected (12.6% of the initial sample) and replaced. Finally, data were weighted in order to achieve a representative sample of the Belgian population.

Respondents were randomly allotted one of the concepts in the campaign: the dominant frame *Death and degeneration*, the counterframe *Carpe diem*, or the concept without a frame. Within each of these 3 conditions, one-third of the respondents saw the condition with the picture of Helga, one-third that with the picture of Maria, and one-third that with the picture of Louis.

### Measures

**Campaign evaluation.** The respondents were invited to evaluate the advertisement according to 3 criteria, using a 5-point Likert scale: from *very little impact* to *very impactful*; from *very difficult to understand* to *very easy to understand*; and from *not at all credible* to *very credible*. For each respondent, an average evaluation score was calculated, based on his or her opinion about the impact of the campaign, its credibility, and ease of comprehension (Cronbach's  $\alpha = .80$ ).

**Comprehension.** To assess how respondents understood the message, they were asked to evaluate a number of statements on a 5-point Likert scale, from *certainly not* to *certainly*. These statements were formulated as follows: "Someone with Alzheimer's remains a human being in his/her own right"; "Those with Alzheimer's can be helped to continue to enjoy life to the full"; "There's not much point in looking after those with Alzheimer's"; "Someone with Alzheimer's could still experience a relationship with other people"; and "Those with Alzheimer's can be left to make autonomous decisions."

**Attitude to campaigning.** To measure their attitude toward campaigning, respondents were asked to indicate their judgment of 3 items using a 5-point Likert scale from *certainly not* to *certainly*. The items were formulated as follows: "campaigning is useless because it has no effect," "campaigning is useful, because Alzheimer's is an important topic," and "campaigning is important to make Alzheimer's a subject of discussion," each on a 6-point Likert scale, from *totally disagree* to *totally agree*. The 3 summed items formed a scale on the usefulness of conducting campaigns (Cronbach's  $\alpha = .83$ ).

**Experience with Alzheimer's.** To qualify the respondent's experience of Alzheimer's as direct or indirect a 5-point Likert scale going from *above all indirect* to *above all direct* was used. The responses were grouped into 3 categories: mainly direct (29%), both direct and indirect (22%), and mainly indirect (49%).

**Photo version.** Three questions were asked to assess the respondent's feelings about the person shown: the extent to which the person "looked sympathetic," "repelled me," "intrigued me," and "left me indifferent," in each case on a 4-point Likert scale, from *absent* to *strong*. To remove the effect of the 3 different pictures within each experimental condition, the version of applied photo was included as a covariate in the analyses.

### Data Analyses

Analyses of the 1000 assessments of the campaign ads were carried out using descriptive statistics and one-way independent analyses of covariance (ANCOVA), followed by a post hoc Bonferroni test to determine whether the results were statistically significant. The level of significance was set at 5% ( $P < .05$ ). The evaluation of the campaign was used as the independent variable in the first analysis, the respondents' self-efficacy in the second analysis. By including the photo (Helga, Maria, or Louis) as covariate in the analysis, statistical controls were used to remove any effect the photo may have had on the differences between the 3 versions. Age, sex, educational level, and the experience with Alzheimer's were included as interaction terms.

## Results

### Control of the Risk of Distortion in the Choice of Photos

As explained above, respondents were split equally and randomly between the 3 variants of each condition, each with a close-up of an elderly person with Alzheimer's. Therefore, any possible bias that might have been caused by the face on the test advertisement exposed to each respondent was countered as much as possible.

This control analysis showed that none of the 3 portraits engendered a greater or lesser degree of indifference or rejection among respondents. The results confirmed that the choice of photo had no effect. Nevertheless, there was a slight difference between the 3 photos regarding positive connotations, first, regarding the extent to which the person in the photo was thought of as looking friendly or intriguing. The woman wearing glasses (Figure 1A;  $M = 2.81$ ) and the man (Figure 1C;  $M = 2.69$ ) were judged to be significantly more friendly than the woman without glasses (Figure 1B;  $M = 2.51$ ;  $F_{2,997} = 14.06$ ,  $P < .001$ ). However, the latter ( $M = 2.39$ ) intrigued respondents more than the woman with glasses ( $M = 2.14$ ),  $F_{2,997} = 6.93$ ,  $P < .001$ . On the other hand, respondents thought that it was likely that the woman without glasses had Alzheimer's,

while they thought it less likely for the woman with glasses and the man,  $F_{2,997} = 4.55$ ,  $P < .05$ .

### The Evaluation of the Campaign and Its Variants

Respondents gave the campaign an average rating of 7.63 of 10 (standard deviation [SD] = 1.62). The overall and spontaneous scores for the 3 versions showed no significant differences. Further analysis showed that the advertisement containing a reference to the Death and degeneration frame achieved a higher score than the other 2, with significantly greater impact ( $M = 3.94$ ,  $SD = 0.7$ ) than that with the Carpe diem frame ( $M = 3.76$ ,  $SD = 0.82$ ) and the advertisement without a headline ( $M = 3.65$ ,  $SD = 0.82$ ),  $F_{2,997} = 11.331$ ,  $P < .01$ , and  $\omega = 0.17$ . In other words, the choice of frame used for the headline did have an influence. Moreover, respondents found this version easier to understand ( $M = 4.18$ ,  $SD = 0.7$ ) than the version with the Carpe diem frame ( $M = 4.04$ ,  $SD = 0.75$ ) and the one with no framed heading ( $M = 3.97$ ,  $SD = 0.82$ ),  $F_{2,997} = 7.12$ ,  $P < .001$ ,  $\omega = 0.13$ . The version with the "Fear of death" frame was also the one that appeared most credible in the test ( $M = 4.09$ ,  $SD = 0.67$ ). It should be noted that, for this comparison criterion, it was not the version without a framed heading that was considered as less credible ( $M = 4.06$ ,  $SD = 0.67$ ), but rather that with the Carpe diem frame ( $M = 3.96$ ,  $SD = 0.75$ ). For respondents, this meant that the idea that people with Alzheimer's are still capable of playing cards—or more precisely of cheating at cards—was considered as significantly less credible than the message in which the family and friends had already given up on someone who is still full of life,  $F_{2,997} = 3.18$ ,  $P < .05$ , and  $\omega = 0.08$ . In short, the version with the Death and degeneration frame appeared to be the one with the greatest impact and more credible than that with the Carpe diem frame and the one without a headline.

There was a next indication that enabled us to believe that the message was rather well received. At the end of the questionnaire, respondents were asked to indicate to what extent they were in agreement with a series of general statements about Alzheimer's disease. Even if the desire for social conformity had some influence, the answers were in line with the campaign that was presented. Of all, 90.6% of those taking part in the online research claimed to be in complete or partial agreement with the statement that someone with Alzheimer's remains a human being in his or her own right. A similar proportion (90.1%) was in complete or partial agreement with the idea that those with Alzheimer's can be helped to continue to enjoy life to the full. These affirmations referred directly to the alternative frames used for the campaign. For respondents who were less explicitly in agreement with the campaign the percentages were lower, but they were nevertheless still high: 87.9% of respondents disagreed completely or partially with the statement "There's not much point in looking after those with Alzheimer's." Almost 3 of 4 Belgians (73.6%) who saw the campaign thought that someone with Alzheimer's could still experience a relationship with other people. In contrast, however, one noted a greater disparity of reactions in some of the

**Table 1.** Analysis of Covariance for the Campaign Evaluation (Impact, Credibility, and Comprehension)<sup>a</sup>

Source	df	F	$\eta^2$	P
Region	1	0.03	0.00	.872
Sex	1	8.82	0.01	.003
Age	2	10.30	0.02	.000
Educational level	2	0.72	0.00	.489
Experience of Alzheimer's	2	1.90	0.00	.150
Attitude to campaigning	1	264.09	0.21	.000
Photo version	2	0.53	0.00	.590
Frame	2	6.20	0.01	.002
Age $\times$ sex	2	0.35	0.00	.708
Age $\times$ educational level	4	3.28	0.01	.011
Age $\times$ experience	4	2.27	0.01	.060
Sex $\times$ experience	2	3.85	0.01	.022
Sex $\times$ educational level	2	0.81	0.00	.444
Educational level $\times$ experience	4	0.90	0.00	.463
Error	1003	(2.79)		

Abbreviation: df, degrees of freedom.

<sup>a</sup> The values within parentheses indicate the mean squared error (MSE).

statements that were less directly related to the campaign. Thus, the statement "Those with Alzheimer's can be left to make autonomous decisions" provoked very different reactions: 44.2% replied "certainly not" or "probably not," and only 13.5% answered "probably yes" or "certainly," with the remaining 42.3% replying "more or less." These results suggest that the campaign highlighted the help that one can give to people with Alzheimer's, but that the latter were not sufficiently presented as autonomous people.

### Differences Between Subsamples

Table 1 shows the results of the first ANCOVA.

This analysis confirmed the effect used in the formulation of the headline: the version referring to the burial of the person in the visual had as an effect that the campaign was judged to have greater impact, was more credible and easier to understand. However, the main predictive element of evaluation was respondents' attitude toward campaigns such as this in general. There was a strong correlation between the evaluation of this specific campaign project and general attitudes on the usefulness of conducting campaigns, Pearson's correlation coefficient  $r = .44$ ,  $P < .01$ .

In none of the analyses carried out an effect related to region was observed, there was no difference of appreciation of the campaign between Dutch-speaking Flanders, bilingual Brussels, and French-speaking Wallonia. Also, no major difference was noticed in function of whether the respondents had had more or less direct experience of the illness.

One of the demographic variables that did have a significant albeit smaller effect was sex. Women were significantly more likely ( $M = 11.84$ ,  $SD = 0.10$ ) to find the campaign impactful, easy to understand and credible than the men ( $M = 12.18$ ,  $SD = 0.10$ ). Age was another demographic variable that showed a significant but small difference: the campaign was judged to be

significantly more easy to understand, more impactful and credible among respondents under the age of 30 ( $M = 12.48$ ,  $SD = 0.15$ ) than by those in the 30 to 49 age group ( $M = 11.92$ ,  $SD = 0.08$ ) and much more than those in the 50+ group ( $M = 11.63$ ,  $SD = 0.11$ ).

Young people did not have a more positive attitude to the idea of conducting such campaigns: on the contrary, such campaigns were judged to be more useful (in terms of cost/benefits) by the oldest group ( $M = 10.7$ ,  $SD = 1.62$ ) than by the youngest group ( $M = 9.8$ ,  $SD = 1.86$ ) and the intermediate age group ( $M = 10.3$ ,  $SD = 1.70$ ),  $F_{2,997} = 13.07$ ,  $P < .001$ .

Other interactions, weaker but still significant, were also observed. First, for men direct experience of Alzheimer's disease was translated by a more positive evaluation of the campaign ( $M = 11.97$ ) than for those who had only indirect experience or both direct and indirect experience or no experience ( $M = 11.57$ ,  $SD = 1.93$  and  $M = 11.37$ ,  $SD = 1.98$ , respectively). Women generally reacted more positively than men, whether their experience was direct or indirect, but those with direct experience also gave a less favorable evaluation. It were, therefore, women with indirect experience who reacted most favorably ( $M = 12.23$ ,  $SD = 1.72$ ), compared with those with direct and indirect experience ( $M = 12.09$ ,  $SD = 1.78$ ) and those with mostly direct experience ( $M = 12.01$ ,  $SD = 2.14$ ). In other words, direct experience had the effect of bringing together men's and women's scores.

Finally, there was also a slight effect of interaction between age and educational level. The most positive evaluations were given by the youngest group of respondents who had only reached lower secondary educational level ( $M = 12.78$ , standard error [SE] = 0.24). For each level of education, the score tended to be lower with age, the lowest score being that for those over 50 with an upper secondary school certificate ( $M = 11.46$ ,  $SE = 0.18$ ). Among those with a higher educational qualification, it was also those in the 50+ group that gave the campaign the least positive evaluation ( $M = 11.62$ ,  $SE = 0.21$ ) and those in the 30 to 49 age group that gave it the most positive ( $M = 12.33$ ,  $SE = 0.13$ ).

### Self-efficacy

Table 2 gives the results of the second ANCOVA.

The analysis showed that the frame formulated in the headline did not exert a significant effect on respondents' evaluation of their self-efficacy. On the other hand their attitudes toward campaigns in general had a clear influence, as did having direct or indirect experience of Alzheimer's. Respondents with mostly direct experience of Alzheimer's disease ( $M = 4.02$ ,  $SE = 0.06$ ) were more inclined to believe they could help those with the disease to continue to enjoy life than those with only indirect experience ( $M = 3.56$ ,  $SE = 0.04$ ). Moreover, women also believed they were more able to do so ( $M = 3.88$ ,  $SE = 0.05$ ) than men ( $M = 3.69$ ,  $SE = 0.05$ ). It was striking to observe the interaction between age and sex: women aged under 30 ( $M = 4.06$ ,  $SE = 0.11$ ) made the most positive evaluation of their self-efficacy while the groups that believed



**Table 2.** ANCOVA for Respondents' Evaluation of Self-efficacy<sup>a</sup>

Source	df	F	$\eta^2$	P
Region	1	0.95	0.00	.329
Sex	1	9.01	0.01	.003
Age	2	1.70	0.00	.184
Educational level	2	0.65	0.00	.346
Experience of Alzheimer's	2	21.35	0.04	.000
Attitude to campaigning	1	116.02	0.10	.000
Photo version	2	1.40	0.00	.248
Frame	2	0.09	0.00	.915
Age $\times$ sex	2	3.12	0.01	.045
Age $\times$ educational level	4	0.17	0.00	.951
Age $\times$ experience	4	0.68	0.00	.604
Sex $\times$ experience	2	0.77	0.00	.465
Sex $\times$ educational level	2	0.04	0.00	.962
Educational level $\times$ experience	4	2.77	0.01	.062
Error	1003	(0.61)		

Abbreviation: df, degrees of freedom.

<sup>a</sup> The values within parentheses indicate the mean squared error (MSE).

themselves the least capable of helping those with Alzheimer's to still enjoy life were men under the age of 30 ( $M = 3.63$ ,  $SE = 0.1$ ) and those over 50 ( $M = 3.66$ ,  $SE = 0.06$ ). Regarding the interaction between educational level and experience, it were respondents with the highest educational level and with direct experience ( $M = 4.12$ ,  $SE = 0.11$ ) that gave the most positive evaluation of their self-efficacy. On the other hand, the lowest score came from those with the lowest educational level and essentially indirect experience of the disease ( $M = 3.43$ ,  $SE = 0.06$ ).

## Discussion

The starting point of this research was the assumption that the problem of Alzheimer's is made worse by the negative regard in which the illness is held by society and which favors long-term stigmatization. The results provide a basis that is likely to contribute to generating a more nuanced image of Alzheimer's disease. The alternative counterframes that were formulated (Body and mind unity and Carpe diem) might act as counterweights.

A communication strategy was developed, using counterframes, but without embellishing the reality of the illness, and experimented with 2 different basic executions to see which achieved the most efficient communication. In one condition, the headline suggested that, even if the person represented in the visual suffered from gaps in her memory, she was still capable of cheating at cards. This form of light humor fell into the Carpe diem counterframe: small character traits such as this suggest that people with Alzheimer's remain essentially the people they have always been. In the second version, the dominant frame, which appealed to the fear of death and degeneration, suggested that the family and friends had already "buried" the person in the visual, even though she or he was still alive. This somewhat shocking message aimed to capture

the reader's attention and, in contrast, rendered the message delivered in the body copy and slogan even more convincing.

The campaign, evaluated online by a representative sample of 1000 Belgians, revealed that the second approach had the greater impact, this version was judged to be more attention-grabbing, easier to understand and more credible than the idea that someone with Alzheimer's could cheat at cards.

By contrast, the various formulations of the headline did not have the same effect regarding the extent to which respondents claimed to be willing to contribute to the happiness of those with Alzheimer's. Since the main objective of the campaign was to incite a response to the call for action formulated in the body copy, the choice of the Carpe diem frame in the headline could be equally justified. "Helga is losing her memory and her memories bit by bit, but continues to cheat at whist": respondents doubted the credibility of this statement. However, the headline did clearly suggest that it was possible to enjoy the contacts one has with someone with Alzheimer's, play cards with them and even realize that one's adversary was still going strong. Probably, it was also a factor that people consider cheating as morally wrong, regardless of the context in which it is presented. This is not examined in the study, indicating a limitation of the research.

The desired effect given by the change of headline obviously depends on the impact of the baseline and the body copy of the 2 counterframes ("Unity of body and mind" and "Carpe diem"). Their precise effect could not be measured because all the respondents received the same baseline (Behind every person with Alzheimer's, is a living person) and body copy. However, the subtle difference in the effects produced by the 2 formulations of the headline left aside, all of the versions tested were well-received by respondents and achieved a high average evaluation of over 7.5 of 10. If the Postbus 51 campaigns, the Dutch public information service, are taken as a benchmark, this is a fairly good result. The average scores of the Dutch campaigns (in print, radio, and TV) were 6.8 in 2009, 6.7 in 2008, and 6.6 in 2007.<sup>44</sup>

The main message was contained in the baseline and in the body copy: "Behind each person with Alzheimer's is a living person." There was also a call to act: help those with Alzheimer's to enjoy the little things in life. This is something that is possible now. The objective was not to make people feel guilty or to persuade them to assume alone the care of someone with Alzheimer's. Living with Alzheimer's does not imply the disappearance of all the joys of one's existence. This is the message that was judged to be credible, comprehensible and impactful by the sample. It is up to other studies to show whether it is the headline or the baseline that is most memorable for respondents.

Elsewhere, subtle but significant differences were observed, between men and women according to their educational level, age, and experience of Alzheimer's disease. Among men, direct experience of the illness was translated by a more favorable evaluation of the campaign. Women still reacted more favorably than men, but among women, direct experience of

Alzheimer's disease was translated by a less favorable judgment. In other words, experience of the illness brought men and women closer together, at least insofar as their opinion of the campaign was concerned. To explain this difference between men and women, one might suppose that women would feel more concerned by the problem, given that they have a longer life expectancy or that more of them have to look after people with Alzheimer's.

It is more difficult to think of an explanation for the more positive evaluation among young people. After all, the younger people in the study appeared most in favor of the idea of a campaign, maybe because it is a means of communication that appeals to them. Probably, older people were a little more skeptical about the campaign message and they compared this with their own direct experience. Even if they were convinced of the good cost/benefit of such campaigns, they perhaps dared more than the younger people to ask themselves about the impact, comprehension, and credibility of what they were presented. Another hypothesis might be that younger people are more likely to have an indirect experience of Alzheimer's but no significant interaction between the age parameter and that of direct or indirect experience was observed. In fact, the data indicated that the experience of those aged 30 to 49 and that of those aged 50+ showed no significant difference. Most of those aged less than 30 had experience of the illness that was essentially indirect (61.3%) compared with 47.2% of those aged 30 or older. However, there were no appreciable differences regarding direct experience: even among the youngest age group, 23.5% of respondents had above all a direct experience of Alzheimer's disease, as against 29.3% of those over 30. The difference lied, therefore, in the group of those who had mainly or only indirect experience of the illness.

The choice of using a print campaign to communicate this message rather than an article for the media for instance, nevertheless has a drawback, as the results of this study indicated: the reactions may depend strongly on the conviction of respondents that a campaign such as this can be of real use. If they believe that campaigns are a waste of money, their evaluation may reflect this.

The sample size ( $n = 1000$ ) might be reason why the research yielded relatively clear answers about the designed campaign ads. Further, the utmost care was taken to make sure that the images looked professional, as would be the case in a real campaign. Further research could be conducted on more alternative executions of the campaign. One possibility would be to visualize the call to action by providing a concrete example of someone who, for instance, is enjoying playing cards with someone who has Alzheimer's. A second possibility would be to have a testimonial by someone with Alzheimer's himself or herself. The campaign showed a real and named person, but the body copy was written in the third person. An alternative formulation could be, for example, "My name is Louis and I have Alzheimer's. But I still enjoy playing cards every week and some people even say that I still cheat."

The research was limited to realistic objectives, namely a campaign and a message that was likely at least to be

understood and valued. The intention was not to modify people's attitudes and even less their behavior regarding people with Alzheimer's disease after seeing a campaign just once. Only with a pre- and posttest design it would be possible to detect an attitude change. However, measuring the pretest attitude toward dementia would activate certain schemata among the respondents, which in its turn might bias the interpretation of the campaign. This is an aspect that we wanted to avoid, given the aim of the study. The purpose was to find out whether the public considers counterframes, which contradict dominant ideas about Alzheimer's, as credible and understandable. Probably, such a "counter advertisement" must be part of a wider campaign designed to reach the public on a more frequent basis with a similar message. The campaign could also have certain repercussions that might encourage more people to speak publicly about the subject and fuel public debate. It is at that moment that its impact would be clearly visible if, as an effect, the campaign resulted in alternative frames being effectively mobilized and gradually assuming a dominant position.

### Acknowledgment

The authors wish to thank all people who contributed to this study, especially Madeleine Leclercq and Marco Calant from Tramway 21 and science journalist Karin Rondia.

### Declaration of Conflicting Interests

The authors declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

### Funding

The authors disclosed receipt of the following financial support for the research, authorship, and/or publication of this article: The study was funded with a grant from the King Baudouin Foundation, Brussels, Belgium.

### References

1. Kinsella K, He W. *An Aging World: International Population Reports, P95/09-1*. Washington, DC: US Census Bureau; 2009.
2. Alzheimer's Disease International. *The Prevalence of Dementia Worldwide*. <http://www.alz.co.uk/>. Accessed August 25, 2010.
3. Mura T, Dartigues JF, Berr C. How many dementia cases in France and Europe? Alternative projections and scenarios 2010-2050. *Eur J Neurol*. 2010;17(2):252-259.
4. Luengo-Fernandez R, Leal J, Gray A. *Dementia 2010: The Economic Burden of Dementia and Associated Research Funding in the United Kingdom*. [www.dementia2010.org](http://www.dementia2010.org). Accessed August 25, 2010.
5. Pin S, Bodard J, Richard JB. *Regards Croisés sur la Maladie d'Alzheimer: Grand Public, Aidants Proches et Aidants Professionnels* (Report). 2010. <http://www.inpes.sante.fr/70000/dp/10/dp100922-2.pdf>. Accessed March 15, 2012.
6. Wolfson J. Alzheimer's disease 'never-ending funeral'. *Ottawa Citizen*. June 29, 1984:13.
7. Basting AD. Looking back from loss: views of the self in Alzheimer's disease. *J Aging Stud*. 2003;17(1):87-99.



8. Alzheimer: La "peste du XXI<sup>e</sup> siècle". *Télé Moustique*. September 17, 2008:4-5.
9. Fox P. From senility to Alzheimer's disease: the rise of the Alzheimer's disease movement. *Milbank Q*. 1989;67(1):58-102.
10. Werner P, Goldstein D, Buchbinder E. Subjective experience of family stigma as reported by children of Alzheimer's disease patients. *Qual Health Res*. 2010;20(2):159-169.
11. Werner P, Heinik J. Stigma by association and Alzheimer's disease. *Ageing Ment Health*. 2008;12(1):92-99.
12. Clare L. Managing threats to self: awareness in early stage Alzheimer's disease. *Soc Sci Med*. 2003;57(6):1017-1029.
13. Clare L, Goater T, Woods B. Illness representations in early-stage dementia: a preliminary investigation. *Int J Geriatr Psychiatry*. 2006;21(8):761-767.
14. Jolley DJ, Benbow SM. Stigma and Alzheimer's disease: causes, consequences and a constructive approach. *Int J Clin Pract*. 2000;54(2):117-119.
15. Sayce L. Stigma, discrimination and social exclusion: what's in a word? *J Ment Health*. 1998;7(4):331-343.
16. Ferreira M, Makoni S. Narratives and the construction of elderliness: towards a cultural and linguistic construction of late-life dementia in an urban African population. *Int Psychogeriatr*. 2009;21:793-795.
17. Leibing A. Flexible hips? On Alzheimer's disease and aging in Brazil. *J Cross Cult Gerontol*. 2002;17(1):213-232.
18. Traphagan JW. *Taming Oblivion: Aging Bodies and the Fear of Senility in Japan*. Albany, NY: State University of New York Press; 2000.
19. Kang S, Gearhoart S, Bae H-S. Coverage of Alzheimer's disease from 1984 to 2008 in television news and information talk shows in the United States: an analysis of news framing. *Am J Alzheimer's Dis Other Dement*. 2010;25(8):687-697.
20. Diefenbach DL, West MD. Television and attitudes toward mental health issues: cultivation analysis and the third-person effect. *J Community Psychol*. 2007;35(2):181-185.
21. Carbonnelle S, Casini A, Klein O. *Les Représentations Sociales de la Démence: De l'Alarmisme vers une Image Plus Nuancée. Une Perspective Socio-anthropologique et Psychosociale*. Bruxelles, Belgium: Fondation Roi Baudouin; 2009.
22. Clarke JN. The case of the missing person: Alzheimer's disease in mass print magazines 1991-2001. *J Health Commun*. 2006;19(3):269-276.
23. Institut national de prévention et d'éducation pour la santé [INPES]. *Les Représentations Sociales de la Maladie d'Alzheimer: Synthèse de la Littérature*. Saint Denis, France: INPES; 2008.
24. Kirkman AM. Dementia in the news: the media coverage of Alzheimer's disease. *Australas J Ageing*. 2006;25(2):74-79.
25. Institut national de prévention et d'éducation pour la santé [INPES]. *Dispositif d'enquêtes d'opinion sur la maladie d'Alzheimer (DEOMA): Le regard porté sur la maladie d'Alzheimer par les personnes malades et leurs aidants familiaux*. Saint Denis, France: INPES; 2009.
26. Pin le Corre S, Benchiker S, David M, Deroche C, Louassarn S, Scodellaro C. Perception de la maladie d'Alzheimer: les multiples facettes de l'oubli. *Gérontologie et Société*. 2009;128-129:75-88.
27. Girard R, Ross N. 'Impact of Words'. Lectures from the Alzheimer's Disease International Conference; Istanbul, Turkey; September-October 2005.
28. Raeymaekers P, Rondia K. *Apprivoiser la Maladie d'Alzheimer (et les Maladies Apparentées): Recommandations et Pistes D'action*. Bruxelles, Belgium: Fondation Roi Baudouin; 2009.
29. Sabat SR. Voices of Alzheimer's disease sufferers: a call for treatment based on personhood. *J Clin Ethics*. 1998;9(1):35-48.
30. Gamson WA. *Talking Politics*. Cambridge, UK: Cambridge University Press; 1992.
31. Gamson WA, Modigliani A. Media discourse and public opinion on nuclear power: a constructionist approach. *Annu Rev Sociol*. 1992;18:373-393.
32. Van Gorp B. The constructionist approach to framing: bringing culture back in. *J Commun*. 2007;57:60-78.
33. Reese SD. Introduction. In: Reese SD, Gandy OH, Grant AE, eds. *Framing Public Life: Perspectives on Media and our Understanding of the Social World*. 1st ed. Mahwah, NJ: Erlbaum; 2001:1-31.
34. Gamson WA, Croteau D, Hoynes W, Sasson T. Media images and the social construction of reality. *Annu Rev Sociol*. 1992;18:373-393.
35. Van Gorp B, Vercruyssen T. Frames and counter-frames giving meaning to dementia: a framing analysis of media content. *Soc Sci Med*. 2012;7(4):1274-1281.
36. Beard RL, Fetterman DJ, Wu B, Bryant L. The two voices of Alzheimer's: attitudes toward brain health by diagnosed individuals and support persons. *Gerontologist*. 2009;49(1):40-49.
37. Fazio S. Persistence of Self in individuals with Alzheimer's disease: evidence from language and visual recognition. *Dementia*. 2009;8:39-59.
38. Vittoria AK. 'Our own little language': naming and the social construction of Alzheimer's disease. *Symbolic Interaction*. 2009;22(4):361-384.
39. Lakoff G. *Don't Think of an Elephant!: Know Your Values and Frame the Debate: The Essential Guide for Progressives*. White River Junction, VT: Chelsea Green; 2004.
40. FOD Economie. Digitale (r)evolutie in België - Anno 2010 [press release Belgian government]. Brussels, Belgium: FOD Economie - Algemene directie statistiek en economische informatie; 2010.
41. Kiernan NE, Kiernan M, Oyler MA, Gilles C. Is a web survey as effective as a mail survey? A field experiment among computer users. *Am J Evaluation*. 2005;26(2):245-252.
42. Braunsberger K, Wybenga H, Gates R. A comparison of reliability between telephone and web-based surveys. *J Bus Res*. 2007;60:758-764.
43. Heiervang E, Goodman R. Advantages and limitations of web-based surveys: evidence from a child mental health survey. *Soc Psychiatry Psychiatr Epidemiol*. 2011;46(1):69-76.
44. Van den Berg P, Borkus B, Burggraaf B, et al. *Jaarevaluatie Postbus 51 - Campagnes 2009*. Den Haag, The Netherlands: Rijksvoorlichtingsdienst, DPC; 2009.