Abstract

This study examined the effects of exemplars (anecdotal narratives of individuals) in public information brochures about people who live with HIV/AIDS (PLHAs) in South Africa. Three groups of readers who varied in ethnicity and gender participated (N=212). Participants read brochures in which the main character could either be blamed or not blamed for contracting AIDS. The exemplar that was presented on readers’ belief did not have a statistically significant effect on the readers’ belief about the responsibility of PLHAs for their disease. However, a statistically significant effect was found of the exemplar on willingness to support PLHAs: participants who read the story in which it was suggested that the main character could be blamed were less inclined to support PLHAs than were participants who read the story in which no such suggestion was made. White participants proved to have a stronger conviction that PLHAs in general are responsible for their own infection than were coloured and black participants. Where having contact with PLHAs is concerned, white and coloured participants were found to have a less positive attitude than did black participants. Significant negative correlations were found between readers’ belief about the responsibility of PLHAs in general, and their attitudes towards having contact with PLHAs and towards supporting them: an indication that the so-called desert heuristic was applied. This heuristic says that ‘if people are to blame themselves, they don’t deserve support’. Finally, significant effects on all dependent variables were found of the readers’ perceptions of perceived realism, suggesting that when exemplars are included in public health documents, they should be designed as realistically as possible.
1. Introduction

The AIDS pandemic is a stark reality in South Africa, as many reports on the issue clearly indicate. These very same reports also indicate that different campaigns seem to meet with limited success, suggesting that research on the effectiveness of these campaigns and the different kinds of intervention that make up the campaigns is vitally important.

The written word (in public information brochures and other types of documentation) is one type of intervention deployed on a large scale to prevent further spreading of HIV/AIDS in South Africa, and to fight misunderstandings and prejudice related to this disease. These documents are often distributed in the context of a campaign where other interventions, such as radio and television messages and billboards, are also included. For a number of years now, research has been undertaken into possibilities to improve the effects of HIV/AIDS public information campaigns, not only in South Africa but in many other countries that are affected by HIV/AIDS. Remarkably little attention, however, has been paid to the evaluation of the brochures used in these campaigns, or to the text variables that might contribute to their possible success or failure (see Swanepoel, 2003).

This study forms part of a larger project focusing on the effectiveness of public information documents on HIV/AIDS in South Africa. The project is entitled Effectiveness of Public Information Documents on AIDS in South Africa: EPIDASA. The current contribution addresses the issue of the effectiveness of persuasion strategies. It focuses specifically on the use of anecdotal information about individuals who are affected by the AIDS pandemic (from here on, ‘exemplars’) in a context where the reader is persuaded to support people living with HIV/AIDS (PLHAs). It seeks to contribute to insights about possible effects of text manipulations of these exemplars, in this case the effect of an exemplar where it is suggested that the protagonist is to blame for his or her situation or not.

Previous research on the effects of exemplars

The starting point for this study was a series of four experiments conducted by Hoeken and Hustinx (2003) that investigated the effects of exemplars in fundraising letters (among others, for the Dutch AIDS fund) in the Netherlands, and in one case also in Belgium. The findings made it clear that the exemplars Hoeken and Hustinx used persistently influenced the beliefs of the subjects regarding the group to which the protagonist in the exemplar belonged. In all four experiments it could be shown that when the protagonists in the exemplars could be held responsible for their situation, general perceptions of responsibility were significantly higher compared to cases where these...
protagonists could not be considered responsible, or were considered responsible to a much lesser extent (Hoeken & Hustinx, 2003, p. 20).

This outcome is consonant with findings reported in studies concerning the effects of exemplars in journalism (cf. Zillmann & Brosius, 2000). Gibson and Zillmann (1994), for instance, confronted readers with news stories on carjacking including base rate information about the prevalence of various types of incidents, and also exemplars that varied in distortion (minimally, mildly, substantially, and extremely) of the general picture presented in the base rate information. They found that readers of news items that featured extreme exemplar distortion (where it was told that the protagonist had died) considered carjacking to be a more serious national problem than did readers of news items including other exemplars. Furthermore, readers presented with exemplars of people killed during carjackings grossly overestimated the incidence of such an outcome (Gibson & Zillmann, 1994, p. 603). Given the use that can be made, and often is made, of exemplars in brochures on public health issues, for instance on HIV/AIDS in South Africa, it was decided to investigate if the effects found in news stories and in fundraising letters would also hold in this type of document.

Hoeken and Hustinx (2003) examined two dimensions of the impact of exemplars. They explored whether the way in which protagonists are presented would influence readers’ ideas about the responsibility of the group to which the protagonist belonged. They also investigated the impact of exemplars on readers’ attitudes about this group, and the likely behaviour of readers based on what they have read. More specifically, they wanted to find out how willing readers of texts with differing exemplars would be to donate money to an organization serving the interests of the group to which the protagonist belonged.

*Exemplars and the desert heuristic*

As is carefully reasoned by Hoeken and Hustinx, in a fundraising context like the one created in their experiments, the so-called desert heuristic may be applied by many readers. This heuristic, introduced in Sniderman, Brody and Tetlock (1991), implies that people who are responsible for their own disadvantageous situation would not deserve as much help as people who cannot be blamed for their hardship. To show that this desert heuristic may indeed play an important role when people have to decide whether or not to help someone in trouble, Hoeken and Hustinx refer to experiments carried out by Weiner, Perry and Magnusson (1988) where it was demonstrated that subjects were more inclined to help someone suffering from a disease for which he or she was not held responsible, compared to someone who was considered to be responsible himself or herself for what had happened. As Hoeken and Hustinx point out, however, the focus in these experiments was
on the willingness to help individuals who could or could not be blamed, and not on helping groups to which these individuals belong. Given the focus in Hoeken and Hustinx on letters aimed at receiving contributions for organizations, and not for individuals, an important question arose: Would the desert heuristic also apply to whole groups of victims of a disease to which individuals – in this case the protagonists in the exemplars – would belong? The results showed that the desert heuristic was indeed applied if the problem sketched in the exemplar (obesity, for instance) was not considered as very serious.

The results of the Hoeken and Hustinx study, however, did not support the expectation that readers would also apply the desert heuristic when confronted with an exemplar telling the tale of someone suffering from a disease that was regarded as particularly serious, such as HIV/AIDS. In such a case the subjects were inclined to support the organization asking for money, regardless of who was considered to be responsible for the trouble the victims were in (Hoeken and Hustinx, 2003, p. 20). It seems that when people who are regarded as responsible for their own misfortune end up in a situation that is regarded as really serious, compassion overrides possible feelings of justice.

Hoeken and Hustinx also addressed the role of gender, following a line of reasoning supported by results found in Brunel and Nelson (2000) on the effects of gender on preference for charity advertising appeals where either the interest of the reader or the interest of other people was stressed (see below). Hoeken and Hustinx hypothesise that the ceiling effect they found of severity on willingness to help might be gender specific. That might be the case especially in typically masculine countries, where gender differences play an important role. In such countries men tend to be more justice-oriented and women more caring-oriented, which might lead to a higher percentage of men compared to women applying the desert heuristic.

According to Hofstede (1984, 2001), who carried out a large-scale study in the early seventies into differences between national cultures, it would be possible to rank countries according to their scores on a masculinity–femininity index. In Hofstede’s ranking of masculinity–femininity, a country like Belgium, for instance, scores considerably higher (position 22 in a list of 53) than the Netherlands (position 51) does. For this reason Hoeken and Hustinx expected that the male participants from Belgium would be more inclined to apply the desert heuristic, while both their female fellow citizens and the participants from the Netherlands would refrain from applying this heuristic. However, such an effect was not found. An explanation presented by Hoeken and Hustinx (2003, p. 19) is that countries in Western Europe might be relatively homogeneous from a cultural perspective, as is claimed by Smith and Schwartz (1997).
Aims of our study

First of all we wanted to find out if the effects reported in other studies of exemplars on beliefs about the group to which the protagonist belongs, would be replicated when exemplars are used in public information brochures on health issues in South Africa. More specifically, we were interested if results similar to those of Hoeken and Hustinx (2003) for fundraising letters would be found in experiments with public information documents promoting support for people living with HIV/AIDS (from here on, PLHAs) in South Africa.

Furthermore, our study aimed to investigate to what extent the desert heuristic would be applied to PLHAs in South Africa. The high level of stigmatisation of PLHAs (see, for instance, Van Dyk & Van Dyk, 2003) might lead to results concerning the application of the desert heuristic that differ from what was found in the experiments by Hoeken and Hustinx on HIV/AIDS. According to their studies, if in a Western country a fundraising letter refers to a disease that is considered as severe (like HIV/AIDS, or a heart disease) the attitude of the subjects to donate money is more positive than if the problem that the letter refers to is considered as less severe (such as obesity). In the case of obesity the mean score on the seven-point attitude scale that Hoeken and Hustinx used was 4.45. In the case of HIV/AIDS and heart disease, the mean scores were 5.50 and 5.58 respectively (p. 11), which would indicate a possible ceiling effect in the case of severe diseases.

An important question seems to be whether in a society where PLHAs run a serious risk of being rejected by their family and their community, similar ceiling effects occur in the attitudes towards PLHAs. In a survey with 1,422 South Africans, Van Dyk and Van Dyk (2003) found that 11.7 % of the participants who believed that it is not advisable for everyone to know his or her HIV status, reasoned that ‘to know your status is to be rejected by loved ones and the community’. (p. 120). This fear, often expressed by female participants, is underpinned by statements such as: ‘My husband will kill me’, ‘He will kick me out and take another woman’, and ‘If he gets sick with AIDS, his family will say that I have bewitched him, and they will take away my children’ (p. 122). If in a society such as South Africa expressions like these do indeed reflect common reactions to PLHAs, then attitudes towards PLHAs might be, on average, less positive than in European countries, and ceiling effects such as those found by Hoeken and Hustinx might not be present in the case of HIV/AIDS in South Africa.

Finally, we investigated if in South Africa a possible application of the desert heuristic concerning PLHAs would be related to the gender of the subjects who were confronted with an exemplar and/or to the ethnic group to which they belong. Research into the effects of these variables on willingness to help has been advocated by Brunel and Nelson (2000). They investigated the
gendered responses of a relatively homogeneous sample of US undergraduates' willingness to give money to an international cancer society by using appeals that embodied either self-oriented or altruistic values. The findings established systematic differences in how men and women evaluate charitable advertising appeals: men tended to choose the help-self appeals; women preferred the help-others appeals. Brunel and Nelson (2000, p. 20–23) also demonstrate how moral world-views mediate the effect of gender on preferences for different appeals. However, the researchers stress the importance of cross-cultural research examining gendered differences in moral orientations and in responses to charitable advertising appeals. The South African context seems to lend itself to such an investigation. In view of the substantial cultural differences in this country (see, for example, Van Niekerk, 1992; 1997 and Van Dyk, 2001) it might be that in particular ethnic groups role patterns for men and women are so much more distinct compared to those found in Western Europe that the hypothesis which had to be rejected in the Hoeken and Hustinx study (in a society considered to be relatively masculine, male participants are more inclined to apply the desert heuristic than female participants) would find support in the South African situation.

According to Hofstede (1984, 2001) South Africa ranks 13/14 on masculinity–femininity in the list of 53 countries. However, in view of the economic and political situation of South Africa during the period of the research – apartheid strongly dominated the structure of the South African society in the early seventies – there is reason to believe that white South Africans were heavily over-represented in Hofstede’s sample, while other ethnic groups, such as black and coloured South Africans were heavily under-represented (cf. Jansen, 1999). This would explain the similarities between Hofstede’s outcomes concerning South Africa and countries such as Great Britain, Australia and New Zealand on the one hand, and the differences between the scores for South Africa and other African countries on the other hand. If our reasoning holds that Hofstede’s characterisation of South Africa as a country may mainly have applied (and would still apply) to the white ethnic group in this country, then an equally defendable position might be that Hofstede’s characterisation of countries in sub-Sahara Africa may also have applied (and still would apply) to black South Africans.

It might be expected then that for white South Africans, masculinity would be more typical than it would be for black South Africans (West Africa and East Africa rank 30/31 and 39 respectively, on Hofstede’s masculinity–femininity index). The group of coloured South Africans, who for a long time have taken and still predominantly take a societal and cultural position between white and black South Africans, could be expected to take a position between these two groups on the masculinity–femininity scale: less masculinity-oriented than white South Africans but more masculinity-oriented than black South Africans. For our study this would imply that the desert heuristic might be more clearly identifiable in the attitudes of white subjects than in the attitudes of
coloured and black subjects. Both male and female representatives of especially the latter group might be expected to have a positive attitude towards caring for severely ill people anyhow, while white men in South Africa in particular might be more inclined to give priority to feelings of justice over feelings of compassion.

Research questions

An experiment was carried out to answer the following questions:

- Will the exemplar that participants read influence their belief about the responsibility of PLHAs in general?
- Will the exemplar that participants read influence their attitudes towards PLHAs?
- Will there be a relation between participants’ belief about the responsibility of PLHAs in general, and their attitudes towards PLHAs?
- Will there be any interaction effects or main effects due to the gender of the participant or the ethnic group to which they belong?

2. Method

Pre-test

First of all we carried out a pre-test to assess whether the different ways in which someone could contract AIDS would have implications for the perception of responsibility. A total of eighteen participants, all South African students (six black South Africans, six coloureds and six whites, equally divided between the genders; ages varying from 18 to 24 years) took part in this pre-test. The participants received descriptions of fourteen ways in which one could get AIDS. For each description, the subjects had to indicate the extent to which in their view the patient could be held responsible for getting AIDS. A seven-point scale was used ranging from ‘fully to blame’ to ‘fully blameless’. Two possible ways to get infected were selected that differed significantly with respect to perceived responsibility for contracting AIDS (t-test and Wilcoxon Signed-Ranks Test: p’s <.01). PLHAs who got the disease because their partner was having a secret affair were generally held less responsible (M=5.89, SD=1.53) than PLHAs who had been infected as a consequence of unsafe sex with multiple partners (M=1.78, SD=1.52). Hoeken and Hustinx (2003) found similar results regarding people who were likely to lean towards blame (when participants read that a secret affair of someone’s partner caused HIV/AIDS: M=6.67, SD=0.59; when they thought the disease was the result of ‘sleeping around’: M=1.44, SD=0.78).
Participants

There were 212 participants, all of them students at Stellenbosch University. The profile of the sample is presented in Table 1.

Table 1. Number of participants by ethnic group, gender, and mean age

<table>
<thead>
<tr>
<th>Ethnic group</th>
<th>Gender</th>
<th>N</th>
<th>Age</th>
</tr>
</thead>
<tbody>
<tr>
<td>Black</td>
<td>Male</td>
<td>34</td>
<td>M=21.42 (SD=3.99)</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>36</td>
<td>M=20.97 (SD=3.89)</td>
</tr>
<tr>
<td>Coloured</td>
<td>Male</td>
<td>35</td>
<td>M=19.03 (SD=1.17)</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>38</td>
<td>M=19.76 (SD=1.64)</td>
</tr>
<tr>
<td>White</td>
<td>Male</td>
<td>34</td>
<td>M=20.32 (SD=2.03)</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>35</td>
<td>M=19.63 (SD=1.16)</td>
</tr>
</tbody>
</table>

Design

A between-subjects design was used. About half of each ethnic group/gender combination (white/male, white/female, coloured/male, etc.) received the version of the brochure with the exemplar where the protagonist would be regarded as responsible (Resp), the other participants received the version of the brochure with the exemplar where the protagonist would not be regarded as responsible (Nonresp). See Table 2.
Table 2. Subgroups by version of the brochure (protagonist in exemplar responsible or not-responsible)

<table>
<thead>
<tr>
<th>Ethnic group</th>
<th>Gender</th>
<th>Text version</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Black</td>
<td>Male</td>
<td>Nonresp</td>
<td>18</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Resp</td>
<td>16</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>Nonresp</td>
<td>17</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Resp</td>
<td>19</td>
</tr>
<tr>
<td>Coloured</td>
<td>Male</td>
<td>Nonresp</td>
<td>16</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Resp</td>
<td>19</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>Nonresp</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Resp</td>
<td>18</td>
</tr>
<tr>
<td>White</td>
<td>Male</td>
<td>Nonresp</td>
<td>18</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Resp</td>
<td>16</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>Nonresp</td>
<td>18</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Resp</td>
<td>17</td>
</tr>
</tbody>
</table>

The brochure

Two versions of a text for a brochure were written (see the Appendix). The content was inspired by several South African brochures aimed at fighting stigmatisation of PLHAs. The structure of the brochure was inspired by the material (i.e. the fundraising letter) used in the first and in the second experiment by Hoeken and Hustinx (2003). The first paragraph of the first section states that HIV/AIDS is becoming more and more common in South Africa. In the second paragraph of this section it is explained that we should not judge PLHAs, but care for them. The second section, the exemplar paragraph, tells the story of John, who suffers from AIDS. The next section, stresses that HIV cannot be passed on by everyday casual contact between individuals and objects. The text then continues to explain how HIV can and cannot be passed on. Finally, the reader is asked to support PLHAs. The brochure was written in English.
The two versions of the brochure were identical, except for the description of the way in which John got AIDS. In the first version, the ‘John is not responsible’ version (from here on: Nonresp), the following information was shared with the reader:

*Take the example of John, age 34, who has AIDS. He was contaminated by his wife. She had an affair with a colleague, which she hadn’t told John about.*

In the second version, the ‘John is responsible’ version (from here on: Resp), the exemplar went like this:

*Take the example of John, age 34, who has AIDS. He was contaminated by a girlfriend. John had quite a lot of different girlfriends, with whom he did not always have safe sex.*

As in Hoeken and Hustinx (2003), gender and sexual preference of the protagonist were identical (male heterosexual) in the text versions. The name John was chosen because in South Africa this name is not related to a specific ethnic background.

*The questionnaire*

The first part of the questionnaire included general instructions on the tasks participants were asked to complete. Subsequently, instructions were given on how to answer the questions that followed later on in the questionnaire, using semantic differentials and Likert-scales. The next page included questions pertaining to the dependent variables in the experiment; followed by personal questions about the participant.

In order to collect data on the dependent variables, questions were asked in the following categories.

*Manipulation check*

The subjects were asked to indicate on seven-point scales the extent to which they agreed with three statements regarding the extent to which in their view John could be held responsible for contracting AIDS. The first two statements in the questionnaire were the following: ‘I find the person in this brochure – Fully blameless … Fully to blame’, ‘I think the person in this brochure is responsible for the trouble he is in – Totally disagree … Totally agree’. After 10 other questions,
the following manipulation check question was asked: ‘To which extent do you think John can be held responsible for contracting AIDS? – Fully blameless … Fully to blame’. The reliability of the scale resulting from these three items proved to be good: Cronbach’s $\alpha = .90$).

**Check of text’s realism**

The standard of realism of the brochure was measured by confronting the subjects with the statement ‘I find the content of the brochure’, followed by two seven-point semantic differentials (realistic/unrealistic, common/uncommon). The standard of realism of the exemplar was measured in the same way, by confronting the readers with the statement ‘I find the example of John in the brochure realistic/unrealistic, common/uncommon’. In earlier studies into the effects of exemplars in documents, comparable checks on the realism of the text or the exemplar used are not reported. The reliability of the scale resulting from these four items was considered to be adequate (Cronbach’s $\alpha = .71$).

**Feelings towards the protagonist in the exemplar**

We also asked the participants how they felt towards John, the protagonist in the exemplar. The following statement were presented ‘I pity John – Totally agree … Totally disagree’ and ‘I am angry with John – Totally disagree … Totally agree’. The reliability of the scale resulting from these two items proved not to be sufficient to calculate a mean score for feelings towards the protagonist in the exemplar (Cronbach’s $\alpha = .47$). Hence it was decided to make separate analyses with each of these two items.

**Belief about the responsibility of PLHAs in general**

The participants were asked to indicate on a seven-point Likert-scale the extent to which they agreed with the statement: ‘People suffering from HIV/AIDS usually have to blame themselves’.

**Attitude towards having contact with PLHAs**

To measure the attitude towards having contact with people with HIV/AIDS, the following statement was presented ‘I believe that having a close relationship* to people infected with HIV/AIDS is (*This relationship can be a relationship with a family member, a friend, a colleague, etc.)’, followed by four seven-point semantic differentials (unwise/wise, bad/good, smart/stupid, useless/useful). The reliability of scale resulting from these two items was considered to be good (Cronbach’s $\alpha = .83$).
Attitude towards supporting PLHAs

To measure the attitude towards supporting people with HIV/AIDS two items were used. The participants were asked to indicate on seven-point Likert-scales the extent to which they agreed with the following statements: ‘People with HIV/AIDS need moral support’ and ‘People who care for people with HIV/AIDS do something good’. The reliability of the scale resulting from these two items was considered to be adequate (Cronbach’s $\alpha = .79$).

Finally we asked if the participant knew one or more PLHAs personally (yes/no).

Procedure

Participants were personally invited to participate in the experiment, on payment of a small sum (ZAR 10). Not every person who was approached agreed to participate, for example because of a lack of time, so some self-selection took place. The first group of participants ($N=125$), comprising students from all six subgroups, participated in 2003; the second group ($N=87$), also comprising students from all six subgroups, participated in 2005. Participants filled in the questionnaire individually or in small groups. They were informed that the Unit for Document Design of the Stellenbosch University Language Centre was conducting research on brochures on HIV/AIDS and that the experiment was part of this research. Both written and oral instructions were given on how to complete in the questionnaire. There was also a comprehensive explanation on how to use semantic differentials and Likert-scales. It was stressed that anonymity was guaranteed. All in all, an experimental session took 10 to 15 minutes.

3. Results

Manipulation check

To assess whether the manipulation of the exemplar influenced the extent to which the participant held the protagonist responsible for his own fate, a univariate analysis of variance was carried out. The statistical power was .81 to detect a small to medium effect size ($f=.20$) with alpha set at .05 (Cohen, 1977, p. 312). The ANOVA showed a statistically significant effect: $F(1,210)=95.147; \ p<.01; \ \eta^2=.312$: the protagonist in the Resp-version ($M=5.00, \ SD=1.91$) was considered to be more responsible than the protagonist in the Nonresp-version ($M=2.48, \ SD=1.85$), indicating that the manipulation had been successful.
**Perceived realism of brochure and exemplar**

To examine if the answers on the questionnaire in the different text conditions might be influenced by a difference in the perceived realism of the brochure and the exemplar, an ANOVA was carried out (statistical power .81 to detect a small to medium effect size ($f=.20$) with alpha set at .05; Cohen, 1977, p. 312), which revealed a statistically significant effect of brochure version on its perceived realism: $F(1,210)=7.876; p<.01; \eta^2=.036$. The Resp-version of the brochure ($M=6.23$, $SD=1.01$) was considered to be more realistic than the Nonresp-version ($M=5.81$, $SD=1.13$). Therefore it was decided to take the variable perceived realism of brochure and exemplar as a covariant in further analyses of variance where version of the brochure would be one of the independent variables.

**Feelings towards the protagonist in the exemplar**

To assess whether the manipulation of the exemplar influenced the feelings of the participant towards the protagonist, two $2 \times 2 \times 3$ (version of the brochure) * 2 (gender) * 3 (ethnic group) ANOVAs were conducted with the scores for the three items measuring feelings towards the protagonist (evoked pity, evoked anger), as dependent variables, and perceived realism of brochure and exemplar as covariant. In this case, and also in the $2 \times 2 \times 3$ ANOVAs to follow, statistical power was .76 to detect a medium to large effect size ($f<.40$) with alpha set at .05 (Cohen, 1977, p. 313). The manipulation of the exemplar proved to affect each of the dependent variables: evoked pity ($F(1,198)=77.148, p<.01; \eta^2=.090$) and evoked anger ($F(1,199)=31.043, p<.01; \eta^2=.129$). There were no other statistically significant main effects or interactions of the independent variables and/or the covariant. The results in Table 3 show to what extent the exemplar that told the story of John being infected by his wife evoked feelings of pity and anger in the participants, compared with the exemplar in which John was infected by a girlfriend.

Table 3. **Effects of manipulation of exemplar on feelings towards the protagonist**

<table>
<thead>
<tr>
<th>Item</th>
<th>Scores per version</th>
</tr>
</thead>
</table>
| Evoked pity              | Nonresp: $M=2.34$ (SD=1.81)  
                           | Resp: $M=3.55$ (SD=2.06)     |
| (the higher the score, the more anger) |                     |
| Evoked anger             | Nonresp: $M=2.14$ (SD=1.76)  
                           | Resp: $M=3.69$ (SD=2.17)     |
General beliefs and attitudes towards PLHAs

An important goal of this study was to investigate if a story told in an exemplar in a public information brochure about a specific PLHA, would influence the readers’ beliefs about the responsibility of PLHAs in general, and consequently the readers’ willingness to support PLHAs. We also wanted to investigate if such possible effects would depend on the ethnic group or the gender of the participants.

Table 4 shows the results of three 2 (version of the brochure) * 2 (gender) * 3 (ethnic group) ANOVAs, again with perceived realism of brochure and exemplar as covariant. In the second column the mean scores and the standard deviations are presented for the extent to which participants proved to believe that PLHAs in general are responsible for their own fate. In the third column the participants’ attitudes towards having contact with PLHAs can be found. The fourth column presents the scores on willingness to support PLHAs.
Table 4. Approval of the statement that PLHAs usually have to blame themselves (1=totally disagree, 7=totally agree), and attitude towards having contact with, and supporting PLHA’s (1=very negative, 7=very positive).

<table>
<thead>
<tr>
<th>Version of the brochure</th>
<th>Belief that PLHAs in general are responsible for being infected</th>
<th>Attitude towards having contact with PLHAs</th>
<th>Attitude towards supporting PLHAs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nonresp</td>
<td>M=3.34 (SD=1.63)</td>
<td>M=5.70 (SD=1.39)</td>
<td>M=6.56 (SD=1.17)</td>
</tr>
<tr>
<td>Resp</td>
<td>M=3.56 (SD=1.91)</td>
<td>M=5.73 (SD=1.32)</td>
<td>M=6.29 (SD=1.52)</td>
</tr>
<tr>
<td>**Version of the brochure ***</td>
<td><strong>ethnical group</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nonresp–Black</td>
<td>M=2.80 (SD=1.79)</td>
<td>M=6.16 (SD=1.11)</td>
<td>M=6.67 (SD=1.16)</td>
</tr>
<tr>
<td>Resp–Black</td>
<td>M=3.09 (SD=2.03)</td>
<td>M=6.11 (SD=1.36)</td>
<td>M=6.51 (SD=1.32)</td>
</tr>
<tr>
<td>Nonresp–Coloured</td>
<td>M=3.19 (SD=1.55)</td>
<td>M=5.61 (SD=1.61)</td>
<td>M=6.44 (SD=1.26)</td>
</tr>
<tr>
<td>Resp–Coloured</td>
<td>M=3.14 (M=1.75)</td>
<td>M=5.78 (SD=1.25)</td>
<td>M=6.27 (SD=1.60)</td>
</tr>
<tr>
<td>Nonresp–White</td>
<td>M=4.00 (SD=1.33)</td>
<td>M=5.36 (SD=1.30)</td>
<td>M=6.55 (SD=1.09)</td>
</tr>
<tr>
<td>Resp–White</td>
<td>M=4.55 (SD=1.60)</td>
<td>M=5.31 (SD=1.25)</td>
<td>M=6.09 (SD=1.65)</td>
</tr>
<tr>
<td>**Version of the brochure ***</td>
<td><strong>gender</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nonresp–Male</td>
<td>M=3.35 (SD=1.56)</td>
<td>M=5.61(SD=1.40)</td>
<td>M=6.53 (SD=1.07)</td>
</tr>
<tr>
<td>Resp–Male</td>
<td>M=3.63 (SD=1.97)</td>
<td>M=5.76 (SD=1.20)</td>
<td>M=6.41 (SD=1.42)</td>
</tr>
<tr>
<td>Nonresp–Female</td>
<td>M=3.33 (SD=1.71)</td>
<td>M=5.79 (SD=1.39)</td>
<td>M=6.58 (SD=1.26)</td>
</tr>
<tr>
<td>Resp–Female</td>
<td>M=3.50 (SD=1.87)</td>
<td>M=5.73 (SD=1.43)</td>
<td>M=6.18 (SD=1.62)</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>M=3.45 (SD=1.77)</td>
<td>5.72 (SD=1.35)</td>
<td>M=6.43 (SD=1.36)</td>
</tr>
</tbody>
</table>
Belief that PLHAs in general are responsible for being infected

An ANOVA was performed to find possible main effects and interaction effects of the independent text variable exemplar that was presented and the other independent variables (ethnic background of the participant, and gender of the participant) on the dependent variable belief that PLHAs in general are responsible for being infected, with perceived reality of brochure and exemplar as covariant. There proved to be no statistically significant main effects of the text variable, nor any interaction effects of this variable and the other independent variables. There was, however, a statistically significant main effect of the covariant perceived realism on the dependent variable: $F(1,199)=8.172; \ p<.01; \ \eta^2=.039$. A correlation test was carried out (here, and in the following cases in which correlations were tested for statistical significance, power was .81 to detect a small to medium effect size ($r=.20$) with alpha set at .05; Cohen, 1977, p. 93). The relation was assessed between belief that PLHA’s in general are responsible for being infected and perceived realism. A statistically significant negative correlation was found: $r=-.22; \ p<.01$, indicating that reading an exemplar that is felt as realistic may contribute to a stronger belief that PLHAs themselves are not to blame for their fate. This is especially the case when the protagonist is portrayed as not being responsible for his infection (Nonresp: $r=-.31; \ p<.01$), and less so in the case when the protagonist is portrayed as being responsible himself for his infection (Resp: $r=-.16; \ p=.11$).

Another statistically significant main effect on belief that PLHAs in general are responsible for being infected that was found, pertained to the variable ethnic background: $F(2,199)=10.836; \ p<.01; \ \eta^2=.098$. Since a covariant was used in the analysis of variance, statistical post hoc comparisons were deemed to be inappropriate. Looking at the figures in Table 4, however, it appears that white participants in this study had a considerably stronger conviction that PLHAs in general are responsible for their own infection than coloured and black participants.

Attitude towards having contact with PLHAs

Again, an ANOVA was performed to find possible main effects and interaction effects of the independent text variable, ethnic background of the participant, and gender of the participant, this time on the dependent variable attitude towards having contact with PLHAs, and with perceived reality of brochure and exemplar as covariant. Again, there proved to be no statistically significant main effects of the text variable, nor any interaction effects of this variable and the other independent variables. And again, there was a statistically significant main effect of the covariant perceived realism on the dependent variable: $F(1,198)=11.975; \ p<.01; \ \eta^2=.057$. A statistically significant positive correlation was found between attitude towards having contact with PLHAs and perceived realism: $r=.27; \ p<.01$, indicating that reading an exemplar that is felt as realistic may contribute to a more positive attitudes toward being in contact with PLHAs. This is
especially the case when the protagonist is portrayed as not being responsible for his infection (Nonresp: $r=.32; p<.01$), and less so in the case when the protagonist is portrayed as being responsible himself for his infection (Resp: $r=.21; p=.03$).

Again, a statistically significant main effect was found for the variable ethnic background, this time on attitude towards having contact with PLHAs: $F(2,198)=4.409; p=.01; \eta^2=.043$. Since a covariant was used in the analysis of variance, statistical post hoc comparisons were deemed to be inappropriate. From the figures in Table 4, however, it appears that white and coloured participants in this study had a considerably less positive attitude towards having contact with PLHAs than did black participants.

**Attitude towards supporting PLHAs**

The analysis of variance revealed a statistically significant main effect of the responsibility manipulation in the exemplar on the attitude towards supporting PLHAs’s: $F(1,199)=3.713; p=.05; \eta^2=.018$. Participants who were presented with the Nonresp–version were more inclined to support PLHA’s than were participants who were presented with the Resp–version.

Furthermore, there was a statistically significant main effect of the covariant perceived realism: $F(1,199)=8.840; p<.01; \eta^2=.043$. The correlation between attitude towards supporting PLHAs and perceived realism proved to be positive and significant ($r=.19; p<.01$), indicating that reading an exemplar that is felt as realistic may contribute to more willingness to support PLHAs. Again, this proved to be especially the case when the protagonist is portrayed as not being responsible for his infection (Nonresp: $r=.34; p<.01$), and less so in the case when the protagonist is portrayed as being responsible himself for his infection (Resp: $r=.11; p=.28$).

None of the main effects of the other independent variables were statistically significant, nor were any of the interaction effects of the independent variables and/or the covariant. The overall high positive scores on attitude towards supporting PLHAs are remarkable. On the seven-point scale that was constructed for this purpose, the mean scores of a subgroup was never lower than 5.89, and the mean score for the sample as a whole was 6.43.$^8$

**Belief and attitudes**

Correlation coefficients were calculated to investigate if there were any relations between the strength of the participants’ belief that in general PLHAs are responsible for being infected, and
participants’ attitudes towards having contact with PLHAs and towards supporting PLHAs. See Table 5, where the correlations are presented for the complete group of participants and also for the subgroups of male and the female participants separately.

Table 5  Correlations between belief that PLHAs in general are responsible for being infected, attitude towards having contact with PLHAs, and attitude towards supporting PLHAs

<table>
<thead>
<tr>
<th>Attitude towards having contact with PLHAs</th>
<th>Belief that PLHAs are responsible for being infected</th>
<th>Attitude towards having contact with PLHAs</th>
</tr>
</thead>
<tbody>
<tr>
<td>complete group:</td>
<td>r=-.23 ; p&lt;.01</td>
<td>r=.20 ; p&lt;.01</td>
</tr>
<tr>
<td>men:</td>
<td>r=-.27 ; p&lt;.01</td>
<td>men:</td>
</tr>
<tr>
<td>women:</td>
<td>r=-.19; p=.05</td>
<td>women:</td>
</tr>
<tr>
<td>r=-.14; p=.04</td>
<td></td>
<td>r=.30 ; p&lt;.01</td>
</tr>
<tr>
<td>men:</td>
<td>r=-.20 ; p=.04</td>
<td>men:</td>
</tr>
<tr>
<td>women:</td>
<td>r=-.09; p=.31</td>
<td>women:</td>
</tr>
<tr>
<td>r=-.14; p=.14</td>
<td></td>
<td>r=.14; p=.14</td>
</tr>
</tbody>
</table>

For the group as a whole, significant negative correlations were found between belief that PLHAs in general are responsible for their own condition on the one hand, and attitude towards having contact with PLHAs and attitude towards supporting PLHAs on the other hand. Apparently, the stronger the belief is that PLHAs are to blame themselves for their own fate, the less willing one is to be in contact with such persons, and to help and support them. That a significant positive correlation emerged between attitude towards having contact with PLHAs and attitude towards supporting PLHAs, is not surprising. It is hardly to be expected that people would want to support PLHAs, but would not be willing to be in contact with them.
When analysing the correlations between the three variables in Table 5 separately for the female and the male participants, an interesting difference was found in the correlations between belief that PLHAs in general are responsible for their own condition and attitude towards supporting PLHA’s. While the significant negative correlation that was found for the male participants ($r=-.20$, $p=.05$) indicates the application of the desert heuristic in this subgroup, no significant correlation between these variables, and hence no such indication was found for the female subgroup ($r=-.10$, $p=.31$). Further analysis of the correlations between male and female participants for the various ethnic subgroups in this respect revealed no clear differences.

**Knowing a PLHA personally**

Finally a possible influence of knowing a PLHA personally on the other results was assessed. Three $2 \times 2$ (knowing a PLHA personally * version of the brochure) ANOVAs were carried out (statistical power .87 to detect a medium to large effect size ($f=.30$) with alpha set at .05; Cohen, 1977, p. 312) with general responsibility perception, attitude towards having contact with PLHAs and attitude towards supporting PLHAs as dependent variables, and perceived realism of brochure and exemplar as covariant. For general responsibility perception and attitude towards supporting PLHAs, the analyses revealed no main effects of knowing someone with AIDS, neither were there any significant interaction effects. For attitude towards having contact with PLHAs, there was no interaction effect either. However, in this case there proved to be a significant main effect of knowing a PLHA personally: $F(1,202)=11.200; p<.01; \eta^2=.053$. Participants who indicated that they knew one or more PLHAs personally were more positive towards being in contact with PLHAs ($M=6.13$, $SD=1.08$) than were participants who did not know any PLHAs personally ($M=5.52$, $SD=1.38$).

Chi-square tests were carried out to investigate possible relations between knowing a PLHA personally and belonging to a certain subgroup in our sample. No significant relation was found between knowing a PLHA personally and gender. A significant relation was found, however, between knowing a PLHA personally and ethnic group. Table 6 shows the results in this respect.
Table 6  Number of subjects conveying that they knew a PLHA personally * ethnic group

<table>
<thead>
<tr>
<th></th>
<th>Knowing a PLHA personally</th>
<th>Not knowing a PLHA personally</th>
</tr>
</thead>
<tbody>
<tr>
<td>Black</td>
<td>63.2%</td>
<td>36.8%</td>
</tr>
<tr>
<td>Coloured</td>
<td>26.8%</td>
<td>73.2%</td>
</tr>
<tr>
<td>White</td>
<td>15.9%</td>
<td>84.1%</td>
</tr>
<tr>
<td>Total</td>
<td>35.1%</td>
<td>64.9%</td>
</tr>
</tbody>
</table>

The clear differences in Table 6 between the percentages of black participants who indicated that they knew one or more PLHAs personally (63.2%), and the respective percentages of coloured participants (26.8%) and white participants (15.9%), seem to be more or less in line with the HIV/AIDS prevalence rates between the ethnic groups in South Africa reported in the Nelson Mandela Foundation/HSRC study of HIV/AIDS (2002).9

4. Discussion

In contrast to what was expected from literature, in this study the story that was told in an exemplar about the cause of infection for one particular PLHA did not prove to influence the perception of PLHAs in general being responsible for their getting AIDS. Reading a text where the protagonist himself could be regarded as responsible for his disease did not lead to significantly higher scores on perceived general responsibility than did reading a text where the protagonist could not be blamed for what had happened to him. A remarkable finding, however, was that white participants in this study had a considerably stronger conviction that PLHAs in general are responsible for their own infection than had coloured and black participants.

A statistically significant effect was found of the exemplar that was presented to the participants on their willingness to support PLHAs. Participants who read the story in which John was infected by his wife were more inclined to support PLHAs than were participants who read the story in which John was infected by his girlfriend. Information about just one person proved to influence readers’ attitudes towards the whole group to which this person belongs.
When having contact with PLHAs is concerned, it was found that black participants had a considerably more positive attitude than white and coloured participants. This result might, at least partly, be explained by the differences between the ethnic groups in South Africa in HIV/AIDS prevalence rates, and hence in familiarity with PLHAs. This explanation seems to be supported by the outcome that the percentage of black participants who knew one or more PLHAs personally was much higher than the respective percentages of coloured and white participants, combined with the outcome that participants who knew one or more PLHAs personally were more positive towards being in contact with PLHAs than were participants who did not know any PLHAs personally.

Evidence was found for the application of the desert heuristic. There were significant negative correlations between readers' belief about the responsibility of PLHAs in general, and their attitudes towards having contact with PLHAs and towards supporting PLHAs. Although the average score for attitude towards supporting PLHAs was high (M=6.43, on a seven-point scale), indicating a more positive attitude in this respect than Hoeken and Hustinx (2003) report for Dutch participants, in our study no ceiling effects in attitudes towards PLHAs were found. Perhaps this outcome can partly be explained by the difference in dependent variables used in the Hoeken and Hustinx study and our experiment. While Hoeken and Hustinx asked participants to what extent they would be prepared to donate money to a fundraising organisation (the Dutch AIDS Fund, for instance) we asked participants how they felt about being in contact with and supporting AIDS victims. Possibly in a relatively rich country, such as the Netherlands, it is not much to ask for willingness to donate money for a fundraising organisation if the people supported by such an organisation, regardless of responsibility concerns, are known to be in very serious problems. In a country such as South Africa, on the other hand, where stigmatisation of PLHAs is heavy, being prepared to have personal contact with PLHAs and lending them support is less typical, and may hence be more open to influence from persuasion efforts.

Specifically where the relation is concerned between the participants' assumption that PLHAs generally are to blame themselves on the one hand, and their willingness to support them on the other hand, a gender related difference emerged that was not specific for certain ethnic groups. The inclination to apply the desert heuristic in this respect was more clearly observable for male than for female participants.

Perhaps the most surprising finding in this study is that both the belief that PLHAs are responsible themselves for their infection and the willingness to support PLHAs proved to be clearly related to the perceived realism of the brochure and the exemplar used. A story that is felt as unrealistic
seems to contribute to the belief that PLHAs in general are to blame themselves (especially when the protagonist in the exemplar is portrayed as not being responsible for his infection) and to the attitude that PLHAs do not deserve full support.

This study suggests that health communication professionals should take differences into account between the various ethnical groups in South Africa where beliefs about responsibility for HIV/AIDS contamination and attitudes towards PLHAs are concerned. Furthermore, this study suggests that the use of exemplars can be an effective strategy in health communication, but these exemplars should be written and tested carefully to make sure that they are as realistic as possible.
Acknowledgements

We sincerely thank Dr. Karen Schriver for her helpful comments on an earlier version of this manuscript. We are also grateful to Liezl van Rensburg and Philip du Plessis for helping us in collecting the data in 2005.

Notes

1. See, for example, the nationwide Nelson Mandela Foundation/HSRC study of HIV/AIDS (2002), which shows that 11.4% of the population older than one year are infected. In this study (8,428 participants) it was found that 11.4% of the population older than one year are infected (p. 44). Prevalence rates found differ per ethnic group: 12.9% of the black South Africans are reported to be HIV-positive, 6.2% of the whites living in South Africa, 6.1% of the coloured people and 1.6% of the Indian/Asian group (p. 46).

2. The figures on condom use in the Nelson Mandela Foundation/HSRC study of HIV/AIDS (2002) show that this is not a general practice in South Africa. To give a few examples: 67.4% of the participants between 25 and 49 and single reported not to have used a condom during the most recent sexual intercourse, and only 2.9% of the participants older than 49 who said they had more than one current sexual partner reported that they did use a condom during the most recent sexual intercourse (p. 76). As far as knowledge and beliefs about HIV/AIDS are concerned, the study shows, among other things, that 20.7% of the participants are not sure whether or not HIV causes AIDS, that 15.0% of the participants are not sure about a possible causal relation between witchcraft and HIV/AIDS, and that 11.3% do not know whether or not AIDS can be cured by sex with a virgin (p. 82).

3. The EPIDASA project, which is partly funded by the South African/Dutch research organization SANPAD, is carried out by a group of researchers and students from three South African universities (Pretoria, Stellenbosch and Unisa) and three Dutch universities (Nijmegen, Tilburg and Twente). For more information, see www.epidasa.org.

4. In another study, Hoeken and Geurts (2003), the influence is investigated of different exemplars (in this case: telling a tale about an Internet addict) on three of the determinants of successful fear appeal messages: perceived severity, perceived susceptibility and
perceived self-efficacy. Participants were found to hold a more positive view on their own ability to perform the desired behaviour and were more inclined to do so after reading the text version in which the protagonist succeeded in performing this behaviour, than after reading the text version in which the protagonist did not succeed in performing the desired behaviour (p. 64).

5. In South Africa, it is usual to distinguish four ethnic groups: black South Africans (sometimes referred to as African South Africans), white South Africans (an English-speaking and an Afrikaans-speaking group), Asian South Africans (predominantly of Indian origin), and coloured South Africans. This last-mentioned mixed-race group is, culturally speaking, much closer to white South Africans, especially Afrikaans speakers, whose language and religious beliefs they share, than it is to black South Africans.
6. Positions of South Africa, Great Britain, Australia, New Zealand, West Africa and East Africa on four Hofstede’s dimensions (no scores or provided for South Africa on short term versus long term orientation, the fifth Hofstede dimension):

<table>
<thead>
<tr>
<th>Dimension</th>
<th>South Africa</th>
<th>Great Britain</th>
<th>Australia</th>
<th>New Zealand</th>
<th>West Africa</th>
<th>East Africa</th>
</tr>
</thead>
<tbody>
<tr>
<td>masculinity – femininity</td>
<td>13/14</td>
<td>9/10</td>
<td>16</td>
<td>17</td>
<td>30/31</td>
<td>39</td>
</tr>
<tr>
<td>uncertainty avoidance</td>
<td>39/40</td>
<td>47/48</td>
<td>37</td>
<td>39/40</td>
<td>34</td>
<td>36</td>
</tr>
<tr>
<td>power distance</td>
<td>35/36</td>
<td>42/44</td>
<td>41</td>
<td>50</td>
<td>10/11</td>
<td>21/22/23</td>
</tr>
<tr>
<td>individualism – collectivism</td>
<td>16</td>
<td>3</td>
<td>2</td>
<td>6</td>
<td>39/40/41</td>
<td>33/34/35</td>
</tr>
</tbody>
</table>

7. The titles of the brochures were: ‘I’m not dirty or bad, I’m HIV-positive’ (Wellness Project Management), ‘Caring for people with HIV/AIDS’ and ‘HIV/AIDS in the workplace’ (Beyond Awareness Campaign).

8. It is hard to estimate to what extent these high scores may be explained by answers reflecting social desirability of the behaviour involved.

References


Appendix I

The experimental texts

[The texts were identical, except for part of the second paragraph following the first sentence. Below the two versions of this fragment have been italicised. This was not the case, for obvious reasons, in the texts the subjects were confronted with.]

As HIV/AIDS becomes more common in our country, more and more of our friends and family will be infected. Even you yourself may be infected.

Our role is to stop judging ourselves, our family members and our friends. Instead we must face the challenge of caring for people living with HIV and AIDS and not condemn them.

Take the example of John, age 34, who has AIDS. He was contaminated by his wife. She had an affair with a colleague, which she hadn't told John about. He was contaminated by a girlfriend. John had quite a lot of different girlfriends, with whom he did not always have safe sex. He has told his family, who are treating him really badly. They never want to touch anything that he has touched to the extent that they keep on locking things away. A separate plate, cup, saucer and spoon are kept for his use. His friends don't see him anymore. He feels rejected.

Friends and family members sometimes worry that they might be infected when caring for a person with HIV.

HIV is not spread by everyday casual contact between individuals and objects. HIV cannot be passed on by touching, hugging, coughing, or sharing eating utensils. HIV can only be passed on:

- by having unprotected sex with an infected person,
- through contact with infected blood,
- from an infected mother to her unborn or newborn baby (but only some babies born to infected mothers become infected with HIV).

It is possible for people who are infected with HIV to live long healthy lives. You can help those who are infected by showing love, respect and support.
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