Social Representations of Organ Donors and Non-donors

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Abstract

This paper illustrates the empirical investigation of social representations by means of photographs as stimulus material and the technique of correspondence analysis to study the resulting data. The research was part of a campaign carried out to promote organ donation in Malta. The study tries to find out whether a public communication campaign could change perceptions. Five focus groups were held before the campaign and another five, two months after the campaign. Part of the data collected through these focus groups was analysed using correspondence analysis. The results showed that before the campaign, donors were generally perceived to be either young persons, important people or public personalities. After the campaign, donors were perceived more to be ordinary family people, educated, generous and religious. On the other hand, non-donors, before the campaign, were seen as conservative people, uncouth and uncaring persons whereas after the campaign non-donors were generally perceived to be older people, uninformed and uneducated.

Keywords

Social representations, organ donors, correspondence analysis, public communication campaigns.
Social Representations of Organ Donors and Non-donors

Many researchers working in the area of attitude and behaviour change through public communication campaigns have argued that the first step in bringing about a change in social ideas and behaviour should be the understanding of the widespread beliefs, attitudes and values of the target audience, for example, Manoff (1985), Dervin (1989) and Kotler and Andreason (1996). Members of a community do not form and change their opinions suddenly or independently of each other. Changes in perceptions are the result of a gradual interplay between a change of personal beliefs and a change in social representations. This is important for campaigners and change agents to understand when they are engineering a change in how members of a society or a particular community perceive an issue. This paper analysis the change in perceptions which focus group participants experienced after an intensive national campaign aimed at promoting organ donation.

Farr (1990, 1993) points out that the theory of social representations is highly relevant to the study of social change, including changes in public opinion. He explains, for example, how Herzlich’s (1973) study on health and illness sheds light on why campaigns designed to increase the fluoride levels in local water supplies had failed when the issue was put to vote on a community level. The campaign designers were not aware of the cognitive dissonance in the minds of the public. On one hand, scientists claimed that an excess of fluoride was bad for one’s health, while on the other hand, the campaigners were proposing an increase in the fluoride level of water as a measure to reduce the incidence of dental caries. The public could not understand why one should add a ‘bad’ chemical to water which was considered ‘pure’ and ‘natural’. Thus they voted against the initiative. Farr concludes that health professionals ought to have taken into account people’s conceptions of health and illness before planning their campaign.

One of the first steps in designing a campaign should therefore be the understanding of the perceptions and beliefs which the target audience has of the issue being promoted. It is thus important that anybody embarking on a campaign must carry out formative research in order to find out as much as possible about the target audience. In this case study, the campaign was aimed at increasing the number of donor card holders in Malta. For this aim to be reached it was
important to understand how the public perceived organ donation and their beliefs about people who give their organs after their death. A similar study carried out in Australia found that the social representation of organ donation and transplantation could be understood best as a representational field organized around two diametrically ‘opposed’ images – the gift of life and the mechanistic removal and replacement of body parts (Maloney and Walker, 2002). Similar results were found in our study which investigated the representations people had of donors and non-donors and how this changed after a national campaign.

**Discovering social representations**

Different authors have used different methods to study social representations. Some have used qualitative tools and methods to collect data, for example, ethnographic studies (eg. Jodolet, 1991), focus groups (eg. Jovchelovitch and Gervais, 1999) and interviews (eg. Molinari and Emiliani, 1990). Others have used quantitative data collecting tools like questionnaires (eg. Agostinos, 1990) and even experiments (Abric, 1984). In their book “Empirical Approaches to Social representations”, Breakwell and Canter (1993) have argued that virtually every method known to social science has been used at some point in order to study social representations. Moreover, different researchers use different tools to analyse the data. Multidimensional scaling (Uzzell and Blud, 1993), correspondence analysis (Hammond, 1993), cluster analysis (Fife-Shaw, 1993) and discriminant analysis (Zani, 1993) carried out on both quantitative as well as qualitative data are just four examples. Although traditionally such kind of analysis was most often used with data elicited by quantitative methods, yet it has been shown that these empirical approaches can also be used with methods which yield qualitative data such those obtained through free association techniques (eg. Di Giacomo, 1980).

In this paper, correspondence analysis was used in a novel way by analysing word associations elicited by photographs. Di Giacomo (1980) observed that, in the study of social representations, procedures of this type involving “free associations” have the advantage over a structured questionnaire of “leaving the choice of significant categories to the subject” (p. 333). Such projective techniques for studying social representations were also adopted by other researchers, for example, Zani (1993).
Implementing these ideas within a photolanguage exercise, as was done in this study, had two added advantages. The first advantage was the fact that the stimulus material was a set of photographs rather than, as in previous studies, presenting subjects only with key-words. This made it easier for participants to assign freely personality traits to donors and non-donors. The second very important advantage, from the point of view of an investigation of social representations, was the context in which this exercise took place. Since it was carried out in a group setting and at the end of a long discussion, the choice of photographs and the reasons given for choosing them would have been influenced by both ‘personal’ and ‘group’ beliefs aired in the focus groups. Hence the personal attitudes and beliefs of each focus group participant would have been confronted with those of the group. This interplay between personal beliefs and the beliefs of the group mirrors the process that happens in everyday life in a community.

The findings presented in this paper are part of a wider research project on an organ donation campaign carried out in Malta (Lauri, 2001). The formative research carried out before the campaign involved the use of surveys, interviews, focus groups and analysis of the media. The research reported here analyses part of the data collected through focus groups.

**Method**

The aim of this research was to elicit the representations Maltese people had of organ donors and non-donors and how these representations changed after an intensive national campaign. The aim of the campaign was to promote organ donation and to increase the number of donor card holders. The campaign lasted four weeks and used national television, radio and newspapers. Amongst the people who gave testimonials on the benefits of organ donation on these media were recipients of kidney transplant and members of donor families.

Focus groups were used to find out the participants’ views of organ donation, organ donors and non-donors. Focus groups are an ideal tool to collect data when the purpose of the research is to elicit people’s own understandings, opinions, views and how these are elaborated and negotiated in a social context. “They are appropriate if the purpose of the research is to categorize or compare types of individuals and the views they hold…” (Wilkinson, 2003, p347).
In this research, the focus groups were carried out in order to explore the views participants had of organ donation and in particular to elicit information about the perceived characteristics of people who were willing to donate their organs after their death and those who were not. The views of the participants were examined at two points, once before the launching of the campaign and once again, six months after the end of the campaign. The aim of this exercise was to see if there were any changes in the perceptions of the participants as a result of the campaign. Of course a change in perceptions is often the result of a number of factors and the observed changes could not be solely attributed to the effect of the campaign. However the campaign would have been a significant factor in this change of perceptions.

In these focus groups, the participants were asked to discuss their views on organ donation, that is, whether they agreed or disagreed with the issue and the reasons why they agreed or disagreed. In the last part of the discussion they were also asked to talk about the type of persons who, in their opinion, were willing to donate organs after their death and the type of persons who were not. This was done through a photolanguage exercise with the aim of eliciting the perceptions which participants had of donors and non-donors.

Materials

In this exercise the stimuli were a set of sixty photographs. These photographs were taken from both local and foreign magazines and were electronically enlarged or cropped to measure 8cm by 6cm. The photos depicted people of all ages, coming from different socio-economic backgrounds and having different lifestyles. For example, photos showed an older person working in the fields, an airline pilot, a young person playing the guitar, a woman with a child and a family around a dinner table. A few of the photos were of media personalities and public persons.

Participants were asked to choose a photograph of persons who, they thought, would typically donate their organs and of those who would not. The aims of the exercise were two. The first aim was to find out what traits people attributed to organ donors and non-donors. These trait descriptions revealed the stereotypes which were associated with organ donors and non-donors. The second aim was to find out whether these traits change as a result of a campaign.
For each photo chosen, the participants were asked to give reasons for their choice. The reasons given described characteristics or traits which, participants perceived, donor and non-donors would have. The traits attributed to donors and non-donors were described by adjectives or descriptive phrases. In this exercise, the actual photographs chosen were not important. What were significant were the descriptions given by participants of donors and non-donors.

It is interesting to note that reasons given by most participants for choosing any particular photograph were, in fact, in terms of attribution of traits or dispositions to the person or persons appearing in the photograph. The role of social representations theory in explaining this type of attribution is discussed at length in Chapter 8 of Augoustinos and Walker (1995). These authors write that “attribution or lay explanations are not only the outcome of individual cognitive processes but are also linked to social and cultural representations.” They also claim that these attributions “provide social psychologists with insight into a society’s prevailing explanations or meaning systems.” (p.193)

Sampling Procedure

There is no agreement among researchers about what type of sampling procedures should be employed when recruiting participants for focus groups. While some researchers claim that the participants must not know each other (eg. Morgan, 1988) others like Farr, Trutkowski and Holzl (1996) claim that the aim of focus groups is to elicit lay theories and understandings of a group of people who are living and working in the same community. Hence in order for the focus group discussion to reflect a real-life situation, participants must know each other. In this research, both positions were considered. Participants were recruited from different towns and villages from all over the island to avoid possible biases of particular communities. However participants were also encouraged to invite one or two friends who were willing to accompany them for the discussion.

To recruit participants for the focus groups, three research assistants went to three very popular and well-known meeting places, one in the north, one in the south and one in the centre of the island. They approached the closest person to them at five minute intervals and asked them whether or not they had heard about organ donation. Those who replied in the affirmative were then asked whether they were interested in taking part in a discussion on this topic. Those people
who accepted were asked for their address and telephone number and were informed that they would be contacted at a later date.

**Participants**

A letter was sent to 57 prospective participants giving them more information about the project and also the time and place of the focus group. The people were again reminded of the discussion by telephone one day before the focus group. Sixteen persons dropped out. Each of the five groups was made up of eight people on average. They were evenly distributed between women and men, and between young and middle-aged people with different levels of education.

The group discussions were facilitated by the first researcher and lasted between 80 and 90 minutes. The last 30 minutes were dedicated to a photolanguage exercise (Gonzalez, 1981) carried out to find out participants’ perceptions of donors and non-donors. This paper reports only this part of the focus group, comparing responses collected in the focus groups before and after the campaign.

**Exploration of the data**

The basic units of analysis which were recorded from this exercise were the traits which participants projected onto the person in the photo they had chosen. Each unit will be referred to as an *utterance*. A single participant could have produced more than one utterance.

This “textual” data was elaborated as follows. Each utterance was classified on two variables. The first variable *DONOR* classified (i) whether the utterance was intended to describe a likely donor or non-donor and (ii) whether it was used in a focus group before or after the campaign. This variable *DONOR* therefore had four levels: Yes before, Yes after, No before, No after.

The second variable *DESCRIPTION* classified the reason expressed by the participant for choosing the photograph. In the first phase of the analysis, all the different traits attributed to donors or non-donors referred to by these utterances were analysed and synonyms were grouped together under one label. As a result, 35 different traits were identified, for example, “old”, “kind” and “happy”. These categories were the levels of the variable *DESCRIPTION*.

It must be emphasised that the actual photograph to which the utterance was attributed and the person making the utterance were not important in this analysis except if this information was essential in determining to which trait the utterance referred. For example, a phrase such as
“because the man in the picture is not my age” would be classified under the descriptive category “Old” if the photograph depicted an elderly man and the description was given by a young person.

To test for coding reliability, a second coder was given the transcript from which the utterances were extracted and asked to classify them according to the 35 traits which had been identified in the first phase. The classifications carried out by the second coder matched with the first coding for 91% of the utterances.

Analysis of data

In the following analysis, traits which were mentioned only once were discarded. There were eight such traits. This was done to eliminate one-off descriptions which did not represent shared ideas. This left 215 different utterances classified into 27 traits, which therefore became the levels of the variable DESCRIPTION. A contingency table showing the distribution of these utterances amongst the 27 traits and the four donor/non-donor levels is shown in Table 1.
Table 1: Contingency Table for Variables DONOR by DESCRIPTION

<table>
<thead>
<tr>
<th>DESCRIPTION</th>
<th>DONOR</th>
<th>Total Utterances</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>YES</td>
<td>NO</td>
</tr>
<tr>
<td>Public figure</td>
<td>13</td>
<td>0</td>
</tr>
<tr>
<td>Well informed</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>Young</td>
<td>5</td>
<td>3</td>
</tr>
<tr>
<td>Family person</td>
<td>6</td>
<td>0</td>
</tr>
<tr>
<td>Old</td>
<td>0</td>
<td>6</td>
</tr>
<tr>
<td>Caring</td>
<td>11</td>
<td>0</td>
</tr>
<tr>
<td>Sportive</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>Loves life</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>Does not care about others</td>
<td>0</td>
<td>9</td>
</tr>
<tr>
<td>Cold</td>
<td>0</td>
<td>6</td>
</tr>
<tr>
<td>Pro environment</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>Conservative</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>Uninformed</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td>Kind</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>Happy</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Vain</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Religious</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Analytic</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Generous</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Manual worker</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Modern</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Does not understand</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Afraid</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>Uneducated</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Unhelpful</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Middle aged</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Egocentric</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>60</td>
<td>46</td>
</tr>
</tbody>
</table>

A correspondence analysis was then performed on the data. Correspondence analysis seems to be a very appropriate tool within the context of this investigation of social representations. Hammond (1993) notes that such procedures, “are all descriptive in essence and are designed as an aid to interpretation and theory construction rather than model testing. The simplicity of the techniques is intended to ensure that the researcher is never far from her own data.” (p. 219)
The aim of correspondence analysis is to help show visually the relationships between the levels in a contingency table. In correspondence analysis, the different levels of the two categorical variables are given scores on one or more dimensions. This is done in such a way that levels that are more alike will get similar scores. Therefore if the scores are then plotted as graphs, levels that are alike appear close to each other whereas levels that are dissimilar appear far apart. These scores are calculated from the row and column proportions in each cell in the contingency table.

The **ANACOR** procedure in *SPSS V6.1* was used to carry out the correspondence analysis on the above contingency table. Four normalisation methods are provided by **ANACOR**. Canonical normalisation was chosen since the aim here was to analyse the similarities between the levels of **DONOR** and also between the levels of **DESCRIPTION**.

**ANACOR** extracted three dimensions from the data, that is, each level of each of the two categorical variables was given a score on each of the three dimensions. **ANACOR** also computed certain diagnostic statistics to help ascertain how well the dimensions extracted describe the given data. Most important of these is the “inertia” of the three dimensions, which came out as 72.8% of the total inertia for Dimension 1, 14.9% for Dimension 2 and 12.3% for Dimension 3. The higher the proportion of inertia accounted for by a dimension, the more important is that dimension in explaining the given data. **ANACOR** also calculates “eigenvalues” which can be interpreted as the correlations between scores for the **DESCRIPTION** levels and the **DONOR** levels. The squares of the eigenvalues for each dimension, in fact, gives the inertia. When variances of these eigenvalues are large it means that correspondence analysis is very uncertain of the location of the points. But on the other hand, low variances indicate that an overall stable solution has been found, that is, that the analysis would more likely produce a similar solution for a slightly different sample from the same population. (SPSS 6.1 Categories Manual, 1994)

In this case, variances for the three dimensions were very low (0.0003 for Dimension 1, 0.005 for Dimension 2 and 0.004 for Dimension 3) indicating that the correspondence analysis has found a stable solution for the given data.

Figure 1 shows joint plots of the row and column scores for Dimension 1 by Dimension 2. This highlights the traits used to describe donors, before and after the campaign. Figure 2, on the other hand shows a plot of these scores for Dimension 1 by Dimension 3. This figure highlights the traits used to describe non-donors, before and after the campaign.
Figure 1: Correspondence Analysis – Dimension 1 by Dimension 2
Row and Column Scores (Canonical normalization)

1.84
Pro environment

1.31
Caring

.78
YES BEFORE
Public figure
Loves life
Sportive

.25
Young
* (1)
Family person (2)

-.29
Happy Kind
Modern
Well informed
Manual worker

-.82
Analytic
YES AFTER
Generous

-1.35

-1.89

-2.42
Religious

Summary of multiple points in the plot

Point | Actual label
--- | ---
(1) | Cold
(1) | Afraid
(1) | Does not care about others
(1) | Uninformed
(1) | Unhelpful
(2) | Conservative
(2) | Old
(2) | Does not understand
(2) | Vain
(3) | Middle aged
(3) | Uneducated
(3) | Egocentric
Figure 2: Correspondence Analysis – Dimension 1 by Dimension 3

Row and Column Scores (Canonical normalization)

Point | Actual label
--- | ---
(1) | Generous
(1) | Analytic
(1) | Well informed
(2) | Modern
(2) | Happy
(2) | Kind
(2) | Sportive
(2) | Loves life
(3) | Public figure
(3) | Caring

Summary of multiple points in the plot

Dimension 1

-1.75 -1.5 -1.25 -1 -0.75 -0.5 -0.25 0 0.25 0.5 0.75 1 1.25 1.5 1.75
**Interpretation of correspondence analysis**

From the configurations depicted in the above graphs it is clear that the first dimension, the horizontal axis, opposes representations of donors and non-donors. It is not surprising that this should be the predominant dimension since this was the set task and, as such, almost all traits used referred exclusively to either donors or non-donors.

The other two dimensions, Dimension 2 and Dimension 3, oppose descriptions before and after the campaign. Dimension 2 opposes descriptions of donors before and after the campaign whereas Dimension 3 opposes descriptions of non-donors before and after the campaign. The fact that Dimension 2 (accounting for 14.9% of inertia) is slightly stronger than Dimension 3 (12.3% of inertia) is perhaps a reflection of the fact that, in general, participants found it harder to describe non-donors than donors.

This might be an instance of the phenomenon described by Eysenck and Crown (1948), Gilbert (1951), or Karlins, Coffman, and Walters, (1969) who, using the Katz and Braly (1933) stereotype paradigm, have reported an increasing proportion of respondents who were unwilling to make a judgement about a target group. However, the difference in strength between Dimensions 2 and 3 is not so pronounced as to enable one to make definite judgements on this issue from the present study.

The separation of descriptions of donors before and after the campaign is shown along the vertical axis of the first graph above, which plots Dimension 1 by Dimension 2. Before the campaign, donors were generally perceived to be young persons, people who care about others, who practise a sport, who love life, who have a professional job and who are pro-environment. Public figures were very often chosen and perceived to be donors. This can be seen in the top left quadrant of Figure 1. In the focus groups carried out after the campaign, participants selected photos from the same pool. However many of the reasons they gave for choosing particular photos were different. In the post-campaign focus groups, donors were perceived to be ordinary people, manual workers, persons who have a family, who are educated, analytic, happy, kind, modern and well-informed about current affairs, who can therefore make an informed decision, who are generous and who are religious. These can be seen in the bottom left quadrant of Figure 1.
The spread along the third dimension, which opposes descriptions of non-donors before and after the campaign, is shown in the Figure 2. This figure plots the row and column scores for Dimension 1 by Dimension 3. In the focus groups carried out before the campaign, non-donors were perceived to be conservative people, people who do not care about others and people who are cold, afraid and uninformed. In the groups carried out after the campaign, non-donors were perceived to be middle-aged or older people, people who have other worries and for whom organ donation would be unimportant, uninformed and uneducated people, and people who are vain and egocentric.

However, the contingency table shows three descriptions which did not fit in so well within this donor/non-donor dichotomy. These were Young, Family Person and Manual Worker. This also appears, to some extent, from the positioning of the three descriptions in the above plots, especially in Figure 1. Some possible reasons why these three descriptions were not exclusive to either donors or non-donors came out in the focus group discussion itself.

In the case of the trait Young, some participants judged young people to be more healthy and open-minded and therefore more likely to be donors. However, other participants made a different attribution to photos of young people. They chose images of young people who, through their appearance, gave the impression that they were vain and preoccupied with their image. These types of people were considered to be too egocentric to be donors.

Another interesting pattern came out in the associations with Family Person. There were two contrasting points of view. Some participants focused on the parent, usually a mother, and claimed that since parents love their children tremendously, they would be willing to help their children if they needed an organ and would therefore be donors. Other participants, on the other hand, claimed that since all parents love their children tremendously they would find it very hard to donate the organs of their children. So while in the first instance, participants were considering parents giving their own bodies, in the other group, they were considering parents giving their children’s bodies. This therefore could account for the description Family Person not fitting in well with the donor or non-donor category.

The third description which did not fit in well in the two categories was Manual Worker. The reason for this could be the effect of the campaign. Whereas participants in the pre-campaign focus groups associated Manual Worker exclusively with non-donors, the participants in the focus groups carried after the campaign were not so categorical. Some claimed that manual workers, having led a more difficult life than professional workers, would be more able to face the challenge of organ donation.
If these changes can be attributed to the campaign, then it would seem that it has had some measure of success in re-shaping social representations of organ donors and organ donation. Before the campaign, donors were associated with particular categories of people: public figures, young and sportive persons, professionals and people with good jobs. After the campaign it seems that donors were more readily perceived to be the ordinary person, a member of a family, and therefore possibly oneself.

Conclusion

The principal aim of this paper was to evaluate the effectiveness or otherwise of the organ donation campaign held in Malta in a national drive to increase the number of organ card holders. This was done by an empirical investigation of social representations using photographs as stimulus material and the technique of correspondence analysis to study the resulting qualitative data. The evaluation of the effectiveness of the campaign was carried out by employing multiple indicators. This paper discussed only the data gathered through the photolanguage exercise. The results presented here complemented and supported the data gathered through surveys, interviews, focus groups and content analysis of the main media.

This research has implications for the evaluation of the effectiveness of campaigns and addresses the fundamental question about the way social scientists could investigate campaign results. It proposes a novel way of evaluation, that of monitoring the change in social representation before and after a campaign using corresponding analysis.

Whether public communication campaigns are effective or not and why, has been debated for decades. More than half a century ago Hyman and Sheatsley (1947) were already discussing ‘some reasons why information campaigns fail’. The issue of whether and how campaigns bring about a change in people’s beliefs and, more importantly, in their behaviour, is an old debate. Wiebe (1952) asked why cannot we sell brotherhood in the same way we sell soap. And the response to the question seems to be that we can. In this vein this research asks ‘Can campaigns change the social representations which people have of a particular person, event or idea?’ The answer, according to this research is also ‘yes’.

We believe that in order to facilitate change in the behaviour of a group of people through campaigns, change agents must be aware of the social representations associated with the change which the campaign aims to bring about. This point of view is not merely a slight shift in
emphasis. Rather, it has an impact on every step of the campaign process. Campaigns sometimes fail because campaign planners, while being very familiar with the “scientific” theories of a particular social problem, are somewhat ignorant of the “lay” theories which surround the issue. Experience with the organ donation campaign held in Malta supports our contention that understanding the social representations of the target audience is an important step in the social change process.

References


