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# Everyday Representations of the Economy

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## Chapter 2

# Ambiguous Images in Advertising: An Application of the Associative Network Method

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The advertising campaigns used by the textile fashion company Benetton at the beginning of the 1990s are excellent examples of poster advertising which conveys emotions and sparks off controversial discussions. This publicity featured colourful condoms, the stark image of an electric chair, “grazing” pigs on a rubbish pile, dying AIDS victims and, finally, the shocking image of a human being stamped “HIV-positive”. In addition, the company has put itself in the spotlight as a sponsor of safe-sex events and as the agent for uncovering environmental sins and human and social problems.

Advertising campaigns which touch, to a particular degree, on socially sensitive and taboo subjects such as birth, death, violence and voyeurism, executions or AIDS, are not only noticed but act as the stimulus for involvement and discussion. The present study seeks to establish, by means of the associative network method, why the subject matter of three advertising images caused so much excitement.

Consumers not only purchase and use products for their functional aspects, but also for the symbolic meaning embedded within them (Dittmar, 1992; Douglas and Isherwood, 1979). Advertising is a major means of drawing attention to specific products, brand names, or special services, and provides information about their qualities, and it also evokes pleasant emotions which - after being successfully linked to a good - are “jointly acquired” with the purchase of a product or a service.

Advertising techniques are aimed, above all, at establishing connections between brand names and feelings. Learning processes initiated by advertisement campaigns cause people to store information, e.g. product properties, brand names, and emotions, and to develop memory links between these encoded elements. According to schema theories and associative models of memory, the established networks of information are spontaneously activated when an element is perceived (Alba and Hasher, 1983; Fiske and Morling, 1995). If a specific product, or a specific brand is repeatedly presented in an emotional context, e.g. a romantic scene, then it is to be assumed that a consumer will associate those romantic feelings with the product or brand name, so that, later perception of the product or the brand alone will be sufficient to activate those feelings. The product might not then be purchased for itself, but especially for this psychological meaning, specifically the feelings of romance which are associated with it (Engel, Blackwell and Miniard, 1995; Foxall and Goldsmith, 1994).

Studies on the effect of advertising often aim at assessing attitudes towards a good or an advertisement campaign as well as measuring behaviour intentions. The applied social sciences offer a rich repertoire of elaborate techniques for determining the effect which advertising has on attention, thoughts, and feelings. In most cases assessment scales are applied. Rather than assessing spontaneous, unreflected thoughts and feelings, cognitively elaborated judgements are often measured instead.

Research on the impact of advertising and on spontaneous, unreflected reactions to it are important. It can be assumed that the very first feelings and thoughts which arise in connection with an advertising message are those associated with the presented brands or the goods being offered, and that they provide information about the preferences for or rejection of the item. If, for example, Benetton advertises its company using ambivalent, socially-relevant themes, then recipients may react with fear and disgust towards the contents presented in provocative pictures, such as the human bodies stamped with "HIV-positive" or scenes of violence. After the initial negative reactions, however, recipients may come to the conclusion that the themes presented are socially relevant and end up evaluating the Benetton advertising campaigns in a positive light. The first spontaneous reactions would be negative, while the subsequent reactions, with strong cognitive foundations, would be positive. If recipients of advertising messages from Benetton were questioned, they would probably give positive assessments.

The spontaneous emotional experiences would, however, be negative, because the first feelings which a picture evokes are particularly intensely associated with the brand or with the name being displayed along with the picture.

In order to assess spontaneous emotional reactions to products or to the contents of product advertising, it is essential to confront people with the product or the advertising images and to record the immediate thoughts and sensations they evoke. One way to do this is to use projective techniques such as recording free associations which are spontaneously generated.

The interest in free associations is not new in psychology. Galton (1885) provided his research subjects with stimulus words and recorded the immediate verbal reactions to them. In advertising research, free associations are increasingly gathered as valuable information (Valette-Florence and Rapacchi, 1991; Wettler and Rapp, 1993).

In social psychology, free associations are predominantly studied in research on social representations (Di Giacomo, 1985; de Rosa, 1988; Abric, 1994; Le Bouedec, 1984). De Rosa (1993, 1995) has developed a technique named "associative network method" (*trama associativa*) which is particularly well-suited for collecting associations as evaluative components of social representations and, in particular, for investigating the contents, the structure and the polarity of the semantic fields of representations involved. In the following section, the associative network method will be presented in detail.

### The Associative Network Method

The associative network is used to collect latent, evaluative aspects of social representations. In this study, the method is used to record spontaneous reactions, that is the primary feelings and thoughts which arise when confronted with images of Benetton advertising campaigns.

Respondents not only indicate the subjective meaning of each of the stimuli presented, but are also asked

- to note the order of occurrence of the associations;
- to indicate the connotative value (positive, negative, neutral) of each association;

to establish further links among the associations by constructing a textual 'web' consisting of branching patterns and connections between words. This is useful for clearing up any ambiguities in the meanings of polysemic words based on their specific semantic context.

The task of the participants, therefore, is to record the thoughts and feelings which come to them spontaneously in connection with a stimulus, to evaluate whether an association has a positive, neutral, or negative connotation, and, finally, to indicate the connections between the associations in such a way that all the impressions are collated to form a network; i.e., an associative network. Figure 1 shows an example of an associative network. In this context, the term "association" refers to the spontaneous thoughts and feelings relating to the stimulus and to a word, image or figure. The figures in brackets stand for the sequence of incidences and the symbols "+", "0", and "-" stand for positive, neutral or negative assessments of the associative content.

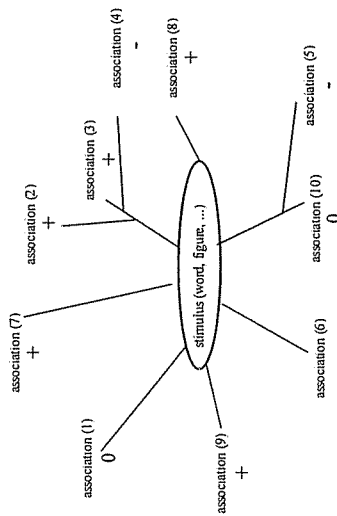


Figure 1: Associative Network.

The associative network allows: (i) an analysis of the contents of the associations and their structure by means of a multidimensional analysis of correspondence for textual data (Greenacre, 1993). Using methods of content analysis, the associations can be categorised and subsequently analysed. (ii) It is also possible to assess attitudes towards a stimulus based on evaluations of the contents of the associations it elicits. De Rosa (1995) proposes, as synthesised measurements, a polarity index and neutrality index. The polarity index results from the difference between the number of positive and negative associations mentioned by a participant as related to his or her total

number of associations. This index can be regarded as an attitude index, which varies from -1 to + 1. In the case of negative attitudes to a stimulus, the value is closer to -1, whereas for positive assessments it is closer to +1. The neutrality index is calculated from the difference between neutrally-evaluated associations and the remaining associations, as related to the total number of associations. It indicates the neutrality of a person towards a stimulus.

(iii) Since the sequence of the associations is documented, sequences of thoughts and feelings can also be analysed. The associative network method can be regarded as a qualitative assessment technique which yields sequences of associations which can be regarded as accounts of reactions to stimuli. The initial feelings and thoughts that come into the participants' minds can be investigated, as can the changes occurring in them thereafter. With regard to the advertising images presented, participants were able to indicate their spontaneous emotions first and then to proceed to increasingly "cool" reflections. For the purpose of advertising research, it is thus possible to distinguish between spontaneous associations and reflective evaluations, between uncontrolled thoughts and feelings and considered judgements.

(iv) The associative network method also enables the subjective connections between associative contents to be examined. With a sufficiently high number of research participants, all the information gathered can be analysed in combination. Analyses of the contextual "web" are also possible on the basis of computed distances between associations (see Marx and Hejji, 1989). Abric (1994) developed a process called the "associative card" which attempts to assess the inter-linking between the associations. In other qualitative approaches, such as those described in the previous chapter, the possibility of structural analyses is emphasised (see also, Vergès, 1994).

### Spontaneous Reactions to Benetton Pictures

The study presented here is part of a wider cross-national project on controversial images of advertising pictures activated by de Rosa in Italy. At present, over 1,500 subjects have been tested in Italy, France, Spain, Portugal, and Austria (de Rosa, 1995, 1998, 2000). The main purpose of the study is to examine the social discourse about Benetton advertising pictures and

the discourse produced by social activities by Benetton. In this paper, Austrian adolescents' spontaneous reactions to Benetton pictures are analysed.

#### Method

The associative network method was applied to investigate spontaneous reactions to three ambiguous Benetton images. The investigation was conducted in Austrian schools. A total of 42 male and 40 female school students, aged 15 to 19, took part.

The participants were contacted in their school classes where the associative network method was explained. First, the stimulus words "I" and "Benetton" were presented one after the other, and free associations, the sequence of associations, and degree of positivity were recorded. Then, one of three advertising posters from Autumn-Winter 1992/93 and Spring-Summer 1993 Benetton campaigns was presented and free associations related to it were recorded (see photos). The procedure lasted a total of 30 minutes. (The pictures are presented at the end of the chapter.) One poster showed a scene in which a man has been caught by other people and thrown to the ground, while a reporter holds a microphone to his mouth. This scene, referred to as the "Interview scene", was shown to 36 participants. 16 people were confronted with an image which shows part of a body on which the words "HIV-positive" have been stamped. This picture will be referred to as the "HIV-positive picture". 30 participants provided their comments on a scene with an albino girl. This picture, referred to as the "Albino girl", shows a group of black people, in the middle of which an albino girl is standing. All participants considered in the analyses indicated not having seen the pictures in any media in the past.

#### Results and Discussion

In total, 1,030 associations were generated for the word "I" and 974 for the word "Benetton". On average, each person gave 12.56 and 11.88 words, respectively, in response to the stimulus words. The 16 people who saw the "HIV-positive" pictures came up with 222 words for it, 13.88 words per person. 391 words were given in relation to the "Interview scene", an average of 10.86 words per person; and words counted for the Albino girl came to 286, or 9.53 words per person.

#### Attitudes

The attitudes towards the stimulus words "I", "Benetton" and the advertising picture were computed on the basis of the polarity and neutrality indices. Each subsample was presented with the stimulus words "I" and "Benetton" as well as one of the three pictures. Two 3 (subsample; between subjects factor) by 3 (stimulus words "I", "Benetton", "advertising picture"; within subjects factor) analyses of variance with polarity and neutrality indices as dependent variables, revealed significant differences of attitudes towards the stimuli. Table 1 shows means and standard deviations of the indices and correlations.

Table 1: Means (standard-deviations) of polarity indices and neutrality indices and correlations.

|                            | Neutrality indices                                        |      |              | Polarity indices                                             |      |              |     |      |      |
|----------------------------|-----------------------------------------------------------|------|--------------|--------------------------------------------------------------|------|--------------|-----|------|------|
|                            | M                                                         | Std  | Correlations | M                                                            | Std  | Correlations |     |      |      |
|                            | Sample presented with the stimulus picture "HIV-positive" |      |              | Sample presented with the stimulus picture "Interview scene" |      |              |     |      |      |
| Stimulus "I"               | 16                                                        | -.64 | .30          | .18                                                          | .05  | .43          | .24 | -.13 | -.46 |
| Stimulus "Benetton"        | 16                                                        | -.54 | .44          |                                                              | -.35 | .21          | .43 |      | .16  |
| Stimulus "HIV-positive"    | 16                                                        | -.64 | .35          |                                                              |      | -.19         | .28 |      |      |
|                            | Sample presented with the stimulus picture "Albino girl"  |      |              | Sample presented with the stimulus picture "Interview scene" |      |              |     |      |      |
| Stimulus "I"               | 36                                                        | -.62 | .27          | .14                                                          | .11  | .47          | .27 | .05  | -.09 |
| Stimulus "Benetton"        | 36                                                        | -.56 | .32          |                                                              | .03  | .34          | .39 |      | .11  |
| Stimulus "Interview scene" | 36                                                        | -.64 | .28          |                                                              |      | -.41         | .35 |      |      |
|                            | Sample presented with the stimulus picture "Albino girl"  |      |              | Sample presented with the stimulus picture "Albino girl"     |      |              |     |      |      |
| Stimulus "I"               | 30                                                        | -.55 | .35          | .16                                                          | .13  | .39          | .31 | .10  | .09  |
| Stimulus "Benetton"        | 30                                                        | -.56 | .39          |                                                              | -.02 | .28          | .43 |      | .13  |
| Stimulus "Interview scene" | 30                                                        | -.33 | .36          |                                                              |      | -.03         | .46 |      |      |

No differences between subgroups resulted with regard to polarity of associations evoked by the stimulus "I" ( $M = .44$  for all three subsamples) and the stimulus "Benetton" ( $M = .29$  for all three subsamples). Polarity indices regarding the three pictures were significantly lower ( $F(2,237) = 81.93$ ;  $p < .001$ ) than polarity indices of the verbal stimuli "I" and "Benetton": polarity of associations towards the picture showing the "Albino girl" was  $M = -.03$ . Even lower were polarity indices regarding the pictures "HIV-positive" ( $M$

= -.19) and the "Interview scene" ( $M = -.41$ ). As far as neutrality indices are concerned, averages ranged between  $-.56$  and  $-.64$  for the stimuli "I", "Benetton", "Interview scene", "HIV-positive" and were significantly higher for the "Albino girl" ( $M = -.33$ ;  $F(4,237) = 4.88$ ;  $p < .01$ ). Of the associations to the stimulus word "I", 20% were neutral in terms of content; of those relating to "Benetton", 22% were designated as "neutral". The associations with "HIV-positive" and "Interview scene" had neither positive nor negative connotations in 18% of the cases. Finally, one third of the associations evoked by the "Albino girl" were neutral.

On the basis of the attitudes assessed by neutrality and polarity indices, the conclusion can be drawn that the respondents expressed words with positive connotations about themselves, and can thus be seen as having a positive attitude towards themselves and a positive self-image. "Benetton", too, achieved positive attitude values. With regard to the image contents of and reactions to the stimuli "I" and "Benetton", there were significantly more negative associations expressed when confronted with the "Interview scene" and the "HIV-positive" picture.

#### Sequence of Associations

The associative network method also offers the possibility of describing events over a period of time, specifically the sequence of the associations, from the first to the last associated word. All participants produced two associations for the word "I" and five words for the stimulus "Benetton"; three subjects gave 26 associations for "I", and two provided a total of 23 words for "Benetton". Indices of polarity and neutrality were then calculated on the group level for each associative stage. The calculation of these indices was on a sample level rather than on the individual level as in the former case. For example, all 36 participants who saw the "Interview scene" mentioned a minimum of five words. For the total sample, the indices of polarity and neutrality were computed for the first association, the second association and so on. In that specific case the polarity index was computed as the difference between the number of participants who had mentioned a positively evaluated word minus the number of participants who had mentioned a negative word divided by the total sample of  $n = 36$ . For the first association, a mean value of  $-.46$  was calculated as polarity. For the next four associations, the polarity values amounted to  $-.46$ ,  $-.36$ ,  $-.44$ , and  $-.36$ . A total of 35 subjects mentioned at least six words, for which the mean positivity was -

.57. The neutrality indexes were computed as relative frequency of participants mentioning a neutral association at each associative step. Figure 2 shows the results for all stimulus words and images, from the first to the tenth associative step.

It can be seen from Figure 2 that the first immediate reactions to the stimulus words "I" and "Benetton" were positive. Upon prolonged confrontation with the stimuli, neutral words are mentioned more frequently and polarity indices decrease, that is, evaluations become less positive. This may indicate that spontaneous associations are emotionally laden at the beginning; prolonged confrontation with a stimulus then leads to reflection and "cool" associations. The process from emotional to cognitive descriptions can be identified in the first ten associations. Average polarity and neutrality indices after the first ten associations are not considered because of the increasingly low numbers of observations.

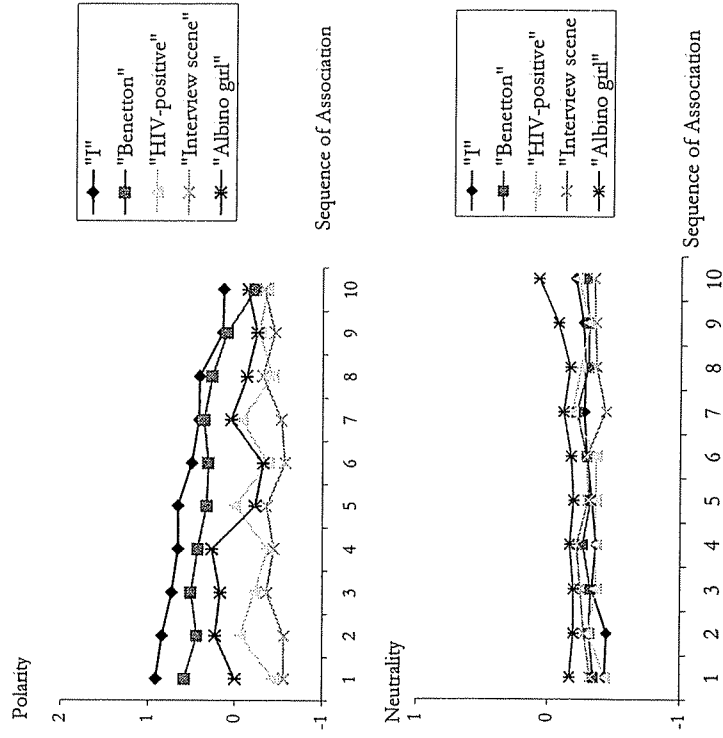


Figure 2: Polarity and neutrality of first ten associations with verbal and figurative stimuli.

By comparing polarity and neutrality values, it becomes clear that, as participants' confrontation with the images continues, the neutral elements in the associations start to increase. The picture with the "HIV-positive" stamp in particular triggered few neutral and, thus, more emotionally-marked associations at the beginning; as the provocative confrontation continued, the proportion of negative associations dropped.

#### Associative Contents

The next step was to analyse the content of words freely associated with the advertising pictures. Associations evoked by the stimulus words "I" and "Benetton" were not analysed any further. In total, 899 words were counted; 506 of these were different. In view of the fact that a large number of different words were recorded, and that the frequency of the naming of the individual words was low, it was necessary to categorise the associations. First, two colleagues and one of the authors developed a categorising scheme on the basis of the contents of the associations. Seven categories of words with neutral sentiments and nine categories for emotionally-laden words were formed. This distinction was made on the basis of the presence of objective or factual elements seen or associated with the reality of the advertisement versus subjective dimensions related to emotions evoked by it. This also means that in the case of some categories like drugs or sex that could have high emotional involvement, the associations were categorised as neutral sentiments because of their reference to factual or behavioural elements recognised in the ad. A further distinction was made as to whether a positive or negative feeling was mainly related to society, referred to the person(s) depicted, or reflected the experiences of the observer. This distinction too was a tool for simplifying the complexity of the evoked associations. The category scheme was explained in detail to a total of 18 students in psychology who collaborated as raters. They subsequently sorted all associations for the three pictures into the pre-established 16 categories. Only if at least 75% of the students assigned a word to the same category was it considered to be an element of the respective category. If less than 75% agreed, the group discussed categorisation until a majority of 75% reached agreement. Approximately 80% of the associations were categorised in the same category by more than 14 raters. In approximately 20% of the cases, categorisation was discussed by the group. In other words, inter-rater agreement was high

which indicates acceptable reliability of the content analysis of associations. Table 2 summarises the results.

The frequencies of associations, as shown in Table 2, were investigated by correspondence analysis (Doise, Clemence and Lorenzi-Cioldi, 1992; Greenacre, 1993; for further information on applications of correspondence analysis in image research, see Valette-Florence and Rapacchi, 1991; Wenzel, Dobrov and Bronner, 1994).

Table 2: Results of sorting free associations into seven neutral categories and nine emotionally-laden categories.

| Categories                                                 | "HIV-positive" | Ads "Inter-view-scene" | "Albino-girl" |
|------------------------------------------------------------|----------------|------------------------|---------------|
| <b>Descriptive associations:</b>                           |                |                        |               |
| Ad-descriptions (e.g., arm, girl, microphone)              | 19             | 63                     | 74            |
| Benetton Enterprise (e.g., cloth, firm, publicity)         | 28             | 12                     | 22            |
| Africa/culture (e.g., culture, nation, people)             | 0              | 4                      | 18            |
| Drugs (e.g., drug addict, marijuana, heroin)               | 12             | 2                      | 0             |
| Journalism/reality (e.g., media, reality)                  | 0              | 32                     | 0             |
| Sex (e.g., sexual intercourse, homosexual, prostitute)     | 31             | 0                      | 2             |
| Other "cold" associations (e.g., rat, advice)              | 20             | 31                     | 24            |
| <b>Emotionally-laden associations:</b>                     |                |                        |               |
| Attention (e.g., curiosity, effect, impression)            | 3              | 32                     | 4             |
| Contrast (e.g., discrimination, outsider)                  | 15             | 13                     | 61            |
| Embarrassment (e.g., shame, timid, insecure)               | 6              | 13                     | 15            |
| Fear (e.g., anxiety, danger, fight)                        | 40             | 17                     | 4             |
| Hope (e.g., friendship, uniqueness)                        | 6              | 1                      | 8             |
| Loneliness (e.g., being excluded, solitude)                | 5              | 1                      | 17            |
| No-way-out (e.g., end, death, despair)                     | 25             | 13                     | 1             |
| Suffering (e.g., grief, pain, unfeelingness, unjust)       | 8              | 46                     | 11            |
| Violence (e.g., aggression, brutality, hate)               | 3              | 106                    | 2             |
| Not categorised associations                               | 1              | 5                      | 23            |
| Sum                                                        | 222            | 391                    | 286           |
| <b>Re-categorisation of emotionally-laden associations</b> |                |                        |               |
| Positive emotions directed towards                         |                |                        |               |
| - Society                                                  | 3              | 0                      | 3             |
| - Represented figure(s)                                    | 3              | 0                      | 4             |
| - Observer                                                 | 2              | 17                     | 4             |
| Negative emotions directed towards                         |                |                        |               |
| - Society                                                  | 20             | 77                     | 40            |
| - Represented figure(s)                                    | 20             | 81                     | 71            |
| - Observer                                                 | 63             | 67                     | 1             |
| Sum                                                        | 111            | 242                    | 123           |

The two resultant dimensions explain 52% and 48% of the variance, respectively. The result is shown in Figure 3. The scene with the "Albino girl",

which achieved the most positive values in the attitude index, is described by words which can be summarised by the categories "culture" and "Africa". The feelings which are associated with this image are loneliness, contrast and discrimination, but also hope. The positive and negative feelings relate mainly to the central figure depicted, or to society in general.

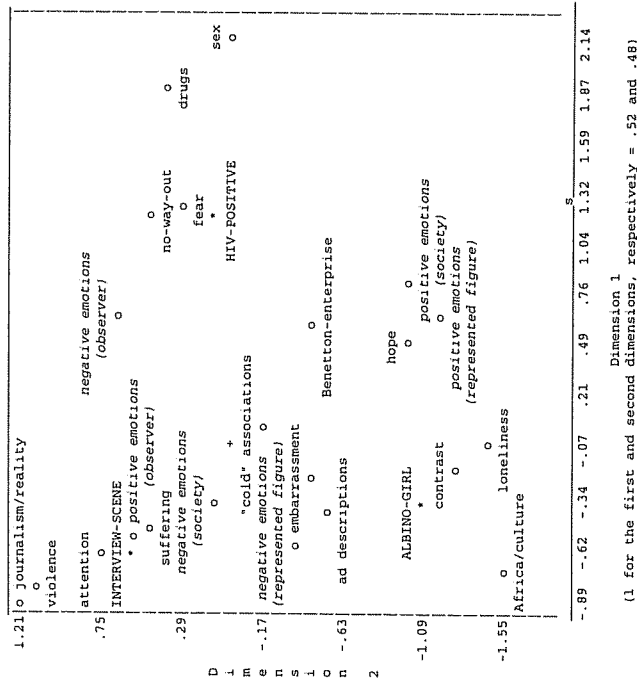


Figure 3: Outcome of the correspondence analysis with three column-variables (Benetton-ads) and 22 row-variables (categories of associations).

The "Interview scene" was described as a picture of journalistic reality; the feelings associated with it are violence, interest, and attentiveness, as well as suffering. These feelings express negative social aspects. The image showing an arm stamped with "HIV-positive" aroused the most markedly negative emotions. Fear and a sense of being trapped were the predominant categories of feelings. The picture was associated with sex and drugs, and recalled predominantly the negative consequences of drug-taking and unprotected sex. Of particular interest here is the difference between directions of negative associations. While the negative feelings evoked by the "Inter-

view scene" are directed towards society, the negative feelings evoked by the "HIV-positive" picture are directed towards the observer. This difference might indicate that the "HIV-positive" image incurs intense feelings from which the observers are unable to free themselves. In fact, the feelings of the observer remain with the observer rather than being (re)directed towards society or the depicted figure(s).

Conclusion

The aim of this study was to demonstrate the usefulness of the "associative network method" in research on the impact of advertising. Spontaneous reactions to three advertising posters from Benetton were investigated. The results show that the association technique created by de Rosa (1993, 1995) can be used to make differentiated measurements of spontaneous reactions. The recording of spontaneous emotions and of reflective judgements is necessary to estimate the effect of the advertising message in an appropriate manner. Spontaneous reactions contain cognitive elements which are a deliberate confrontation and processing of the stimulus, as well as emotional aspects which are experienced simultaneously. It is often the emotional aspects of an advertising message in particular which shape the way in which the content is experienced.

In relation to the Benetton ads, the associative network method has led to the following observations: The associations evoked by the pictures, calculated on the basis of the subjective assessment of the associations, are throughout more negative than attitudes which the participants have in relation to themselves or to the "Benetton" brand. The associations with the "Interview scene" picture, evoking violence and suffering, were especially negative. This picture and that of the body part with the stamp "HIV-positive" frequently engendered emotionally-laden associations and rarely neutral ones.

Given the fact that the thoughts and feelings directly aroused by both pictures are negative, the question arises as to whether the two pictures are useful for the realisation of advertisement aims. It is now known that Benetton gained recognition with its publicity and used the attention to make the brand name well-known. Because of the low neutrality elements and the



polarisation in the associations, the pictures under discussion in particular appear to be well suited for arousing attention and exciting discussion.

If the content of the associations evoked by the pictures is analysed, it can be seen that in one case violence, journalistic effect and suffering are experienced, while in the other it is fear and the claustrophobic sensation of being trapped, as symbolised by a fatal disease. On the one hand, negative emotions are aroused by the picture, that is, by the main figure represented, while, on the other, the feelings remain directed at the observer. It is not possible to attribute death and disease to the part of the body shown, and the persons observing the image, predominantly young people, sense these emotions and may see themselves as potential victims of HIV. Respondents directed their emotions differently from picture to picture, and this appears to be important for the understanding of advertisement effects.

The analyses of the temporal sequence of the associations show a further relevant difference in the impact of the advertisement pictures. It is true that the associations with "HIV-positive" and the "Interview scene" may be negative relative to those of the stimulus words "I" and "Benetton", and in both cases remain at this level. However, the emotional elements in the very first associations are different. Above all, the "HIV-positive" picture initially triggers intensely negative associations which recede only after prolonged confrontation. This result can be interpreted as an indicator that the initial encounter with the picture and therefore with taboo subjects such as "sex" and "drug abuse" and their possible consequences have a shock effect. The observers are not given the chance to project their considerable negative feelings onto a represented figure. As a result, one possibility of reducing these fears and anxieties can be seen in distancing oneself from the image and perhaps from those who created it.

Pictures from Benetton give rise to lively social debate and are either deemed good or condemned as heresies. The data presented here indicate that this discussion is triggered by the strong emotions evoked upon initial contemplation of the pictures and the subsequent pressure to clarify those emotions. If strong emotions are elicited by the representation without any cosmetic effect on socially-relevant problems, that image may appear justified and the Benetton campaign regarded as an act to arouse attention for more than just the products being presented. The heated debate may indeed signify the success for which Benetton is striving, and both the scene with the albino girl as well as the one with the prisoner and the journalist appear

to be suitable advertising pictures for achieving the desired goals. However, whether the picture showing part of a body stamped "HIV-positive" had the desired effect is doubtful. The fear which this engenders seems to remain directed at the observers instead of at society in general.

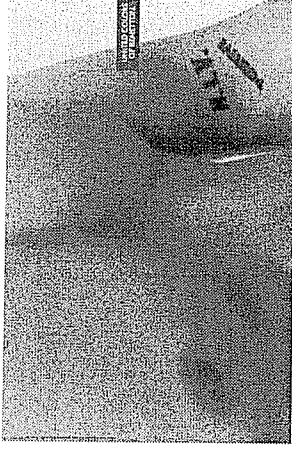
Finally, it should be re-emphasised that the aim of the present article was the introduction of a new technique for assessing advertisement effects, the associative network. The study which was presented on Benetton pictures served to illustrate the technique but it has some limitations concerning the analyses of data and generalizability of results. One problem which frequently arises with qualitative techniques is the descriptive rather than inferential statistical analysis. The analysis of the sequences of associations, for instance, lacks any statistical tests. Further development of the technique and data treatment are necessary. A further limitation may be seen in the presentation of verbal ("I", "Benetton") and visual stimuli ("HIV-positive", "Interview scene", "Albino girl"). Differences in responses may not only be due to the content of the stimulus but also to the form of presentation. Additional research on the associative network technique should not only concern these limitations but must also focus on the validity and reliability of the method and on differences between this technique and traditional methods for assessing attitudes in general.

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## Pictures



HIV-positive (Photo by Oliviero Toscani for United Colors of Benetton)



Interview scene (Concept by Oliviero Toscani for United Colors of Benetton)



Albino girl (Concept by Oliviero Toscani for United Colors of Benetton)