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Nonconscious Influence of TV Sponsorship: Effects of Emotions on the Implicit Attitude Toward the Sponsor

Didier Courbet
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Abstract

Thanks to an experimentation, this research studies the effects of two broadcast sponsorships on implicit attitude toward a new brand. This brand sponsors two quasi-identical broadcasts differentiated only by their emotional content. To be ecologically valid, the experiment records the attitudinal effects one week later when the subjects don’t remember the exposition phase any more and cannot explicitly recognize the brand. The attitude is then implicit. The impact of humorous broadcast sponsorship (with two exposures) on implicit attitude toward the brand is manifest and positive. The sad broadcast has no implicit effects: this type of TV sponsorship has been inefficient. The results are explained with the familiarity-misattribution model. At least, practical suggestions are proposed.
Nonconscious Influence of TV Sponsorship: Effects of Emotions on the Implicit Attitude Toward the Sponsor

Didier Courbet

University of Nice-Sophia Antipolis (France)

TV sponsorship signifies participation by an entity in the funding of film or program, which, in return is associated with the entity’s trademark/brand. In this way the entity ensures its presence via the visibility of its logo during transmission of a TV program and thereby realize communication marketing objectives: promote its image, boost or confirm its reputation or its “goodwill capital” with the audience. Each country often has its own regulations. However, the different TV sponsorship elements are everywhere almost identical: broadcast sponsorship (TV billboards, sponsored trailers, injections, identifications, sponsorship reminders, break bumper); endorsement fees; award of prizes and gifts; production sponsorship; product placement.

This article aims to contribute explaining TV sponsorship influence: in spite of the important economic stakes, its effects on recipients and consumers are not well understood. First, this article proposes a new communication influence theoretical framework. Second, thanks to an experimentation, the research studies two sponsorship influence models and, more specifically, emotions effects on brand judgments when subjects cannot recall the exposition phase.

New Communication Influence Theoretical Framework and TV Sponsorship

Communicational Characteristics

This framework distinguishes three phases to explain viewers’ influence in the everyday life: immediately before, during and after brand exposure. It can obviously be used to study
the impact of the other communication tools. Within this general framework, two models then explain TV sponsorship influence.

**New Communication Influence Theoretical Framework**

During the first phase, the viewer is watching TV. Just before TV billboard appearance, he is in a certain arousal and emotional state, produced by the program he is watching or by the program he is waiting for. Billboard or brand cognitive processing will depend on this state, called **Receiving Temporary State** (RTS). Research over the last twenty years on attitude in social psychology, on emotion-cognition bonds in cognitive psychology and on context effects in marketing has shown the existence of a great impact of emotions and arousal on message processing.

Researches on context effects find contradictory results. First, congruency model explain that when advertising messages appear near or in an happy program, they are more effective than when they appear near or in one sad program (Boldberg & Gorn, 1987; Krugman, 1983; Mathur & Chattopadyay, 1991). To explain product placement efficacy, Russel (1998) has proposed an identical model: placed in a happy program, brand will later be better evaluated. Other researches produce exactly the opposite results (Kamins et al., 1991; Meyers-Levy & Sternthal, 1993). Finally, others studies find that advertising efficacy is not influenced by the emotions produced by the message context (Murry & Dacin, 1996; Murry et al. 1992).

Depending on the RTS, brand or billboard processing constitutes the second phase. The viewer’s low involvement, the lack of advertising narration, the rapidity of brand appearance... induce viewers to process brand without attentional resources, and very rapidly. When attentional resources are allocated, viewers’ thoughts often are focused on the program they are watching or waiting for. Sometimes viewers aren’t really watching worked TV because they are doing something else: talking, eating... That is why no brand judgment is elaborated when brand appears.
Several low elaborated processing types induce memory traces. For example, memory traces which are produced by heuristic processing (Chaiken, 1987) or by mere exposure (Bornstein, 1989a; 1989b; Zajonc, 1980). Resultant learning is more often incidental learning (without learning intention) and non-conscious learning (individuals are not aware of memorizing): in the second phase, there are no elaborated evaluative judgments and no toward-the-brand-elaborated attitudes.

The third phase occurs at the point-of-sale when the consumer is choosing brands or products. He recalls the consideration set or he forms a judgment of the brand he is looking at. In this moment, he does not remember the second phase, that is to say TV sponsorship exposure. Because of the low elaborated processing during the second phase he has forgotten the source. To experimentally study the real effects of the exposure on memory traces, one must be sure that subjects do not remember the second phase. If this is not the case, subjects are aware of the brand-program association and bias appears: inferential belief formation (Kim et al., 1996). To be valid and more ecological, experiment must avoid this contingency awareness. Recalled memory traces then come from implicit memory. Formed attitude is called implicit attitude. Implicit attitudes are manifest as actions or judgments (brand judgment) that are under the control of automatically activated evaluation without the performer’s awareness of that causation (in which case, forgetting TV sponsorship exposure) (for a review in social psychology, see Banaji et al. 2001, Bargh & Chatrand, 1999; in communication marketing see Shavitt & Wänke, 2001).

With models and methods used by implicit memory psychology, experiments could be more ecological, such as when the time lapse between exposure phase and response phase is increased. A number of experiments on implicit attitude or implicit cognition (Greenwald & Banaji, 1995; Greenwald et al., 1998; Stadler & Frensch, 1998), automatic evaluation (Glaser & Banaji, 1999), perception without awareness (Merikle, 1992), mere exposure (for a review,
Nonconscious influence

see Bornstein, 1989a, 1989b; Bornstein & D’Agostino, 1994) and incidental advertising exposure (Janiszewski 1990, 1993; Shapiro, 1999; Shapiro et al., 1997) show that the effects of automatically recalled memory traces on judgment are different—and often stronger—than the effects of memory traces which are consciously recalled. In this framework, two models can better explain the influence of TV sponsorship (for a great development of these models, see Courbet, 1999).

The Affective Transfer Model

In this model, during the second phase, provoked-by-the program emotions are transferred to brand memory representations. Then, in everyday life, when individuals are in contact with the single sponsor (brand), dissociated from the program now, they feel emotions that were first produced by the single program. If the program was positively evaluated, the brand will be also positively evaluated.

Discussion of the degree of consciousness of these psychological mechanisms is largely absent from earlier publications (Hoffman, 1986). Earlier researchers have used affective classical conditioning to explain this transfer (Allen & Janiszewki, 1989; Golbey & Gorn, 1987; Gorn, 1982; Stuart et al. 1987). Classical conditioning however is not a theoretical explication but simply an experimental protocol where learning effects are observed. Thus, processes that underlie associations and transfers must be theoretically explained. The psychology of memory proposes two sound theoretical supports.

First, contextual encoding model (Baddeley, 1997; Tulving 1985) can explain this affective transfer. Produced-by-the-program emotions will be directly and immediately encoded in brand representations (emotions contextual encoding). This encoding can be realized with only one contact with the brand. If positive or negative emotional valence is directly encoded in the brand cognitive attributes, this encoding is called interactive contextual encoding (Baddeley, 1997). Each brand attribute and each brand trace stocked in
memory are then colored by this valence. If valence is integrated in the only one brand affective evaluation, the encoding is called independent contextual encoding (Davies, 1986).

Second, the different models derived from affective priming paradigms can explain affective transfer too (Bower & Mayer, 1991; Murphy & Zajonc, 1993; Niendenthal, 1990). Emotion is directly stocked in memory with a semantic concept. When an individual is in a positive affective state all memorized material is colored by this positive affect (Forgas, 1994). In particular, this model can be used to explain the recent results find by Meyers-Levy and Tybout (1997). They propose an explication in terms of assimilation: when an individual feels an emotion and when he simultaneously forms a low-elaborated judgment on a new product, he spontaneously assimilates the emotion and the product in memory.

For example, in an experiment, a brand sponsors two broadcasts which produce opposing emotions (first group: sadness; second group: happiness). The model postulates that the first group’s brand implicit representations would be completely different to the second group’s brand implicit representations. Later, when the subjects no longer recognize the brand or remember the exposure phase the two groups would have different (or opposing) brand judgments. However, these models can not answer the following question: when are new brand representations the most negative, when brand sponsors a sad broadcast or when brand does not sponsor any broadcast (and so does not appear) ? The following model can answer this question.

The Familiarity-Misattribution Model

The familiarity-misattribution model draws on mere exposure studies (Zajonc, 1980) and Mandler’s cognitive explication (Mandler et al., 1987). The most important process appears during the third phase, that is to say during the recollection process. For instance, a broadcast is sponsored by a new brand. During the first exposures, low elaborated processing (e.g., Rapid look) form only structural representations in memory (e.g., Logotype design), without
semantic content, without definite attribute and without affective valence.

Then, the more contact the viewer has with the brand, the faster he processes its structural design. This mechanism is called perceptual fluency. Whenever he sees the brand, it becomes a little more familiar. According to the neoconnexionist psychological theory, this vague familiarity is evidence of the fluidity of the cognitive system (see McClelland & Rumelhart, 1988; Reber et al., 1998). When an individual sees the brand, for example at the point-of-sale, this familiarity gets him to evaluate the brand positively. In fact, broadcast emotional content has no direct effect.

A lot of social or cognitive psychological studies (Glaser & Banaji, 1999, Jacoby et al. 1993) or marketing studies (Janiszewski & Warlop, 1993; Shapiro, 1999; Shapiro et al. 1997) have used this model. They more particularly show that when individuals are aware of being already in contact with the brand the effects decrease (Anand et al., 1988). During the recollection phase, the great accessibility of brand representations and the feeling of familiarity can be misattributed to evaluations. Recent hypotheses are more precise: the great accessibility and the feeling of familiarity could be misattributed to brand cognitive attributes too (e.g. Janiszewski, 1993).

This experiment tests these two sponsorship influence models and studies, more specifically, emotions effects on brand judgments when subjects cannot recall the exposition phase (see Courbet, 2000).

Method and Hypotheses

The experimental scenario, the material and the measures are conceived so that subjects do not consciously remember the TV broadcast and the exposition phase when they reply to the brand questionnaire. To avoid brand-broadcast association consciousness, the number of appearances is limited. The optimum number of exposures is two: literature which deals with the two models shows that this number of contacts is sufficient to establish effects (see
Material, Design and Test

Two professional quality broadcasts, entitled Recollections of the past, are designed and developed (duration: 4 min 06 s). In the two broadcasts, the actress, the setting, the filming techniques and the core elements of scenario are rigorously identical. There is almost only one difference between them: their emotional content. One patient talks about old family events. In the two broadcasts, each recollection is virtually identical. Through discourse content and a few actress facial expressions, the same recollection becomes funny or sad. In order to isolate the effects of emotions, the material aims at generating different emotions in each group, without any other factors (semantic or narrative factors) varying. In order to control previous brand representations, a new brand is created: Calmin. Whatever the program, the opening and closing program credits and the sponsorship billboard are identical (appendix A). A preliminary qualitative survey was carried out based on three methods: a broadcast content analysis made by a semiotic specialist (appendix B); six individual interviews with six subjects (the profile of the six subjects is the same as the profile of the experimental subjects; duration: 20 min) and a group interview with six other subjects (duration: 30 min). This preliminary survey confirmed that each program theme is correctly understood and is identical whatever the programs may be.

During the first experimental phase, each subject took the quantitative test. Two series of measures show that each program produces pertinent affective reactions. The rating scales used for the first series of measures are based on adjectives which come from terminology used to judge film, and from the psycholinguistic theory of emotions (Oatley & Johnston-Laird, 1987). After the question if you were to judge the program, you would say that it is. Each subject gives a figure from zero (not at all) to five (extremely). To be sure that viewers really feel the pertinent emotions, the second scales record the just-before-
viewing emotional state and the just-after-viewing emotional state. These scales are derived from the PANAS scales (Watson et al. 1988) and by Derbaix (1995). The subjects are asked to respond to 25 emotional items (zero: no emotional response at all; 4: very high emotional response).

In short, the results (tables 1 and 2) show that the subjects think that, compared with the humorous broadcast, the sad broadcast is very sad, tragic, is a saddening program and it gives the blues, for these four items: $p < .001$. The sad program is more irritating than the other one, $p < .05$. The intensity of the negative reactions which are produced by the sad program are significantly more important than the intensity of the negative reactions produced by the other one. The sad broadcast provoked truly negative affects: the subjects are sadder and more sickened after viewing than before, $p < .001$. Before viewing, certain subjects were in a positive affective state. The sad broadcast significantly reduced this positive affect: these subjects are less happy, less amused, less enthusiastic, $p < .001$; less enchanted, $p < .05$ just after the viewing.

The humorous broadcast is very amusing, funny, humorous, surprising, for these 4 items, the difference with the sad broadcast is significant at $p < .001$. Indeed, recipients are effectively more amused after exposure, $p < .01$; happier and less sad, $p < .05$. The intensity of the emotions produced by the humorous program is globally not as great as the intensity of emotion produced by the sad broadcast.

In sort, the thematic content of the two sponsored programs is identical. Exposure to the programs however produced truly contrasted affective reactions: either positive emotions or
negative emotions.

Procedures, Subjects and Experimental Design

Subjects. 176 female and male undergraduate students at the University of Nancy (France) participated in the experiment. Subjects were randomly assigned to conditions. 159 participants were included in the final analysis.

Procedure. - Phase T1 (divided into two phases: t1 and t’1). t1: each subject views one of the two broadcasts. Experimenters say to the subjects that before broadcasting a new program, a national channel would like to test it to find out how young people perceive it. t’1: affective states and broadcast evaluations are recorded (total duration of T1: 20 min).

- Phase T2: Seven days after the exposure, attitudes toward the brand Calmin are recorded, without explicit reference to the exposure phase: the experimenters and the context are different to T1. They tell participants that a French firm wants to test three new brands and logotypes in order to select those best adapted for new products. The first logotype is presented (solely for scenario credibility, created for the purposes of the experiment). Subjects are asked to respond to questions on the logotype. A second logotype is then presented (our Brand Calmin), participants answer to second questionnaire. A third logotype (created for the purposes of the experiment too) is shown, then, the response phase. The three questionnaires are collected. Only the second questionnaire is of direct interest here.

- Phase T3 (immediately after T2), the post-experiment questionnaire: subjects are asked to state what they think the subject of the questions is. They must say in all honesty if they recognize the brand as the brand previously associated with the broadcast viewed seven days ago (duration: 5 min). Data from subjects who recognized the brand are eliminated (17 subjects).

In the control group (GC), participants were neither exposed to the brand nor to the experimental material. They took part in phase T2 only.
Indirect measures without brand recognition one week later. Though the subjects do not recognize the brand, memory trace related to the brand exists. The subjects are not aware of this and cannot intentionally retrieve trace. Brand memory trace can be retrieved through indirect tests with forced choices, used in implicit memory psychology.

During phase 2, the subjects are asked to produce personal evaluations on the new brand. There are no true or false responses: the subjects need not be afraid of making mistakes or of justifying his response (they are asked to give their personal opinion). The participants are obliged to very rapidly indicate their first impressions, that is to say the first impressions that come to mind. Then, one forces their choice: six-step scales force subjects to take a stand. The response I don’t know does not appear on the questionnaire. These tests are very sensitive: responses, that tend to the slightest degree toward one or other end of the scale, are recorded. The least response, which is inclined to turn toward one side of the scale, is recorded.

The first item records feelings of familiarity toward the experimental brand. The questionnaire mentions the firm’s wishes: the test brand must not resemble any other brand on the market. The first item mentions: do you have the vague impression that the brand already exist? or has already existed? The variables are encoded by an indirect test, which measures the absence vs. the presence of this feeling (coded exist). The second scale evaluates the brand’s pleasant character vs. brand’s unpleasant character (coded: pleasant). The third evaluates the conception and the choice of the brand logotype (good vs. bad conception, coded choice). The fourth item evaluates the image given by the brand to the products (good vs. bad, coded product image). The next two following measures concern attributes: first, by means of the logotype, the products are perceived as high quality-products vs. low quality-products (coded quality); then, the age of the products (new vs. old, coded age).
Hypotheses

- Hypothesis 1 (H1): The brand (Calmin) exposure provokes a feeling of familiarity: the differences are significant between the experimental exposed groups (whatever the broadcasts may be) and the non-exposed group.

- Hypothesis 2 (H2): The effects of the sad broadcast and of the humorous one on familiarity feelings are identical.

- Hypothesis 3 (H3, with two options):
  - Either H3a: if H1 and H2 are validated, whatever the broadcasts emotional content may be, the exposed groups’ brand evaluations are better than the control group’s evaluations. Significant differences appear between:
    - the group exposed to the humorous broadcast and the control group;
    - the group exposed to the sad broadcast and the control
  
  On the other hand, the effects of the humorous broadcast sponsorship and the effects of the sad broadcast sponsorship on the brand are identical.

  - Or H3b: if H1 and H2 are not validated, hypothesis H3 is reversed.

  In addition, the comparison between the non-exposed group and the exposed group will better explain the effects of TV sponsorship.

Results and Discussion

Compared to the non-exposed subjects, the sad broadcast sponsorship has no effects on the feeling that the brand already exists (feeling of familiarity), or on the other dependent variables. The results are different for the humorous broadcast sponsorship (table 3). The brand is more familiar for the subjects. This effect is observed after comparing results from subjects exposed to the humorous broadcast with results from non-exposed subjects, $\chi^2 (1) = 24.5$, $p < .001$ and –which is more surprising– after comparing results from subjects exposed to the humorous broadcast with results from subjects exposed to the sad broadcast, $\chi^2 (1) =$
10.8, $p < .001$. The hypothesis concerning the effects of TV sponsorship on feelings of familiarity are invalidated: feelings of familiarity depend on broadcast affective valence. Humorous broadcast sponsorship has effects on the affective evaluation variables and also on the marketing attributes. Comparing the effects of the humorous broadcast sponsorship with the control group results, the brand is more pleasantly judged, $t_{(108)} = 1.94, p = .05$, the logotype chosen is better considered, $t_{(108)} = 2.28, p < .05$ and the product quality is rated higher, $t_{(108)} = 2.5, p = .01$.

When the effects of the humorous broadcast sponsorship are compared with the effects of the sad broadcast sponsorship, the brand is more pleasantly considered, $t_{(98)} = 2.09, p < .05$; the logotype choose is better considered, $t_{(98)} = 2.55, p < .01$; the products quality are rated higher, $t_{(98)} = 2.26, p < .05$.

TV sponsorship effects are strong for the humorous broadcast. One week later, subjects do not recognize the brand or remember the exposition phase. The two simple exposures to the new brand billboard have significant effects on several variables. Following the TV sponsorship billboards exposure, the viewers have encoded new brand memory traces. They then use them to form an implicit attitude toward the brand. Sad broadcast sponsorship has no effect, compared with non-exposed subjects. Hypotheses H1 and H2 have therefore underestimated the effects of broadcasts affective valence on feelings of familiarity. Consequently, for the second part of the model, the tested hypothesis is H3b.

According to the affective transfer model and results issue from affective priming (Bower, 1991), each brand memory trace would have been either positively (for the humorous broadcast) or negatively (for the sad broadcast) colored. Each response and each
brand attribute would have had an affective valence. This is not the case in this experiment. For the humorous broadcast, no effects on the products quality or on the products age have been shown. Recent researches in social or cognitive psychology attribute to this model a certain validity, but only when the processing operated in the second phase is a high-elaborated processing (Schwarz, 2000). Again, this is not the case in this experiment: individual motivation to process is not high and the billboard duration is short, which is why the familiarity-misattribution model seems more pertinent.

This model is adapted to explain the results and the humorous broadcast impact in particular. Mandler et al. (1987) have demonstrated that perceptual fluency is more easily misattributed to affective evaluations and less easily misattributed to cognitive attributes. What happened during the sad broadcast billboards reception? The results are in line with these following explains. The intensity of emotions has produced irrelevant thoughts, which prevent the processing of the closing credits sponsor billboard. These irrelevant thoughts consume part of the working memory resources. Because of limited cognitive capacity, attentional resources cannot be focused on the second billboard: sponsor logotype processing is thus minimal. The opening program credit billboard alone is not capable of producing structural traces in implicit memory. Feelings of familiarity are not recorded one week later; no misattribution is then possible. Logically, any effects on brand judgements is recorded. H3b is then validated. These explanations are identical with Seibert and Ellis’s explanations (1991). In our experiment, the first implicit memory traces appear after two contacts with the sponsor. In accordance with Murry & Dacin’s explanation (1996), sad broadcast judgement process that operates during closing program credit is lengthier and more complex than humorous broadcast judgement process. During humorous broadcast viewing, cognitive resources are more ready to process sponsor logotype (Lee & Sternhal, 1999). In this
experiment, the previous survey has shown that the sad broadcast was judged intensely sad and the humorous broadcast moderately humorous. Intensity of emotions would add to emotions valence. Intensity is the strength with which people feel emotions, independently of valence. In sponsorship or advertising researches, results show the great impact of intensity on the reception process. Arousal directs the selection of cues, which will be processed (Pham, 1992, 1996). During intensely-sad broadcast viewing, the logotype processing likelihood is then low. Negative affective valence and intensity of emotions would interact during sponsor exposure and billboard processing. Their pernicious influence on explicit memory has already been demonstrated in researches (Ambler & Burne, 1999; Moore et al. 1995; Mackie & Worth, 1991, 1989; Pavelchak et al. 1988). This experiment proves that they have pernicious effects on implicit memory too, that is to say when consumers do not remember exposition phase.

Limits and New Research Perspectives

To generalize these results, experimental researches on this theme should be continued: the number of exposures should be increased; the participants’ profiles, the material and the exposure conditions should be diversified. The implicit cognition paradigm is interesting for communication research. Methodologically, demand awareness bias is removed. Theoretically, ecological validity is better: when consumers are buying products, they do not usually remember advertising or broadcast sponsorship.

A prior study of the effects of emotional intensity on sponsor traces in memory should be made, independently of affective valence (positive or negative one). However, to study emotional effects, variable isolation is problematical. We have designed two quasi-identical broadcasts. To produce two different types of emotions, certain components have been changed. Ideally, a third broadcast should be designed: this should be identical to the other two programs, but should provoke neutral affective reactions. The impact of TV sponsorship
would be more detailed. However, when subjects take part in experiments, they are always in a certain affective state: they will never be in this neutral affective state. The effects of emotional intensity could more rigorously be studied if drugs were administered. One attraction of using drugs (bêta-blockers) to block intensity of emotions is that their effect is unambiguous (Ambler & Burne, 1999). The effects of time factors on implicit cognition should be an important research object.

Conclusion and Practical Suggestions

Through experimentation, this research studies nonconscious effects of two broadcast sponsorships on implicit attitudes toward a new brand. This brand sponsors two quasi-identical broadcasts: there is almost only one difference between them, their emotional content. To have a better ecological validity, the effects are recorded one week later: subjects do not recognize the brand or remember the exposition phase. The attitude is then implicit. The impact of humorous broadcast sponsorship (with two exposures) on brand is evidenced and positive: the feeling of familiarity is stronger; the affective evaluations and the quality of the products are better. The sad broadcast has no influence: the intensity of emotions has produced irrelevant thoughts, which prevent the processing of the closing credits sponsor billboard. The intensity of emotions seems to reduce the degree of attention allocated to process the brand billboard. The sponsor could not be stored in implicit memory. In this experiment, the first implicit memory traces solely appear after two contacts with the sponsor. These results are in line with the familiarity-misattribution model. During the first exposures, low-elaborated processing form only structural representations in memory (e.g., Logotype design), with no semantic content, clearly defined attributes or affective valence. Then, the more contact viewers have with the brand the faster they process its structural design. Whenever they see the brand, it becomes a little more familiar. Later, when individuals see the brand, for example in the point-of-sale, this familiarity makes them evaluate the brand
positively.

If these results were confirmed by experimental replication, three types of implications would be important. First, to select a broadcast, practitioners would analyze the emotions produced by the broadcast. The second and the third implications concern TV sponsorship effectiveness measures. Methodologically, this experiment shows the usefulness and the practicality of using indirect measures. As for measured variables, some variables would be more sensitive than other: sponsor recognition (which is similar to feelings of familiarity), attitudes toward the sponsor (affective evaluation) and the quality of the products.
References


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Attitudes: four experiments in an Advertising Context. *Journal of Consumer Research, 14* (December), 334-349.


Appendix A

Material designed and developed

\textbf{Insert photo 1 (Calmin)}

\textbf{Figure 1.} Brand and Sponsorship Billboard. Opening program credits billboard with voice over: “The brand Calmin presents…”.
Closing program credits billboard with voice over: “The brand Calmin has presented…”. Duration: 6s.

\textbf{insert photo2 (souvenirs du passé)}

\textbf{Figure 2.} Opening and closing program credits. Voice: “Souvenirs du passé” (“Recollections of the past”). Duration: 11s.
Appendix A (continued)

Material designed and developed

*Insert photo 3 (the actress)*

Figure 3. Broadcast content: The patient in the consulting room (duration: 4 min 03s).
## Appendix B
### Broadcast Content Comparison

<table>
<thead>
<tr>
<th>Comparison criteria</th>
<th>Sad broadcast content</th>
<th>Humorous broadcast content</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Principal character (identical in the two programs)</td>
<td>- Smart woman, 30 years</td>
<td>- Smart woman, 30 years</td>
</tr>
<tr>
<td>- Personality-mood</td>
<td>- Sad, depressive</td>
<td>- Enthusiastic, humorous</td>
</tr>
<tr>
<td>Scene and setting (identical in the two programs)</td>
<td>- Psychotherapy (patient on a divan)</td>
<td>- Psychotherapy (patient on one divan)</td>
</tr>
<tr>
<td></td>
<td>- Eye cues directed toward psychologist (monologue)</td>
<td>- Eye cues directed toward psychologist (monologue)</td>
</tr>
<tr>
<td></td>
<td>- Sober setting</td>
<td>- Sober setting</td>
</tr>
<tr>
<td>- Program content (identical in the two programs)</td>
<td>- Evocation of family recollections</td>
<td>- Evocation of family recollections</td>
</tr>
<tr>
<td>- Associated affects</td>
<td>- Negative affects are associated with the recollections</td>
<td>- Positive affects are associated with the recollections</td>
</tr>
</tbody>
</table>
Table 1
Humorous Broadcast Evaluations, Sad Broadcast Evaluations and Comparison

<table>
<thead>
<tr>
<th>Affective evaluations (0-5)</th>
<th>Sad Broadcast M (SD) n = 57</th>
<th>Humorous broadcast M (SD) n = 60</th>
<th>Comparison t values (df)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sad</td>
<td>2.79 (1.47)</td>
<td>0.70 (1.00)</td>
<td>9.03 (115)***</td>
</tr>
<tr>
<td>Irritating</td>
<td>1.00 (1.25)</td>
<td>0.55 (1.06)</td>
<td>2.10 (115)*</td>
</tr>
<tr>
<td>Boring</td>
<td>1.81 (1.54)</td>
<td>1.33 (1.37)</td>
<td>1.76 (115)</td>
</tr>
<tr>
<td>Gives the blues</td>
<td>1.19 (1.47)</td>
<td>0.43 (0.91)</td>
<td>3.39 (115)***</td>
</tr>
<tr>
<td>Saddening</td>
<td>2.61 (1.40)</td>
<td>0.71 (1.11)</td>
<td>8.16 (115)***</td>
</tr>
<tr>
<td>Tragic</td>
<td>2.28 (1.51)</td>
<td>0.85 (1.02)</td>
<td>6.03 (115)***</td>
</tr>
<tr>
<td>Disappointing</td>
<td>1.70 (1.63)</td>
<td>1.73 (1.70)</td>
<td>0.10 (115)</td>
</tr>
<tr>
<td>Amusing</td>
<td>0.67 (1.14)</td>
<td>2.58 (1.29)</td>
<td>8.49 (115)***</td>
</tr>
<tr>
<td>Funny</td>
<td>0.11 (0.41)</td>
<td>1.73 (1.26)</td>
<td>9.30 (115)***</td>
</tr>
<tr>
<td>Surprising</td>
<td>1.74 (1.53)</td>
<td>2.88 (1.33)</td>
<td>4.33 (115)***</td>
</tr>
<tr>
<td>Exciting</td>
<td>0.19 (0.52)</td>
<td>0.70 (1.03)</td>
<td>3.34 (115)*</td>
</tr>
<tr>
<td>Humorous</td>
<td>0.30 (0.82)</td>
<td>2.18 (1.41)</td>
<td>8.78 (115)***</td>
</tr>
</tbody>
</table>

Notes: (0-5) is the step number for each scale.
* significant at p < .05.
** significant at p < .01.
*** significant at p < .001.
Table 2
Emotional states generated by humorous broadcast and sad broadcast (items selection)

<table>
<thead>
<tr>
<th>Emotional state (0-4):</th>
<th>Humorous broadcast (n=60)</th>
<th>Sad broadcast (n=57)</th>
<th>Comparison by Wilcoxon test</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean before</td>
<td>Mean after</td>
<td>Z values</td>
</tr>
<tr>
<td>Amused</td>
<td>1.23</td>
<td>1.78</td>
<td>2.82**</td>
</tr>
<tr>
<td>Enchanted</td>
<td>0.75</td>
<td>0.75</td>
<td>0.16</td>
</tr>
<tr>
<td>Happy</td>
<td>1.3</td>
<td>1.7</td>
<td>2.26*</td>
</tr>
<tr>
<td>Satisfied</td>
<td>0.95</td>
<td>0.93</td>
<td>0.22</td>
</tr>
<tr>
<td>Enthusiastic</td>
<td>1.13</td>
<td>1.17</td>
<td>0.36</td>
</tr>
<tr>
<td>Agreeably surprised</td>
<td>1.02</td>
<td>0.97</td>
<td>0.27</td>
</tr>
<tr>
<td>Sad</td>
<td>0.35</td>
<td>0.15</td>
<td>2.34*</td>
</tr>
<tr>
<td>Sickened</td>
<td>0.23</td>
<td>0.37</td>
<td>1.58</td>
</tr>
</tbody>
</table>

Notes. (0-4) is the step number for each scale.
* significant at p < .05.
** significant at p < .01.
*** significant at p < .001.
Table 3
Effects of Sponsored Broadcasts on Brand Judgments

<table>
<thead>
<tr>
<th>Dependent variables:</th>
<th>Sad broadcast</th>
<th>Humorous broadcast</th>
<th>Control Group (CG)</th>
<th>Humorous broa. vs. sad broa. comparison</th>
<th>Humorous broa. vs. CG comparison</th>
<th>sad broa. vs. CG comparison</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nominal variable:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Exist:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>n=9</td>
<td>n=30</td>
<td>n=5</td>
<td>Khi 2 (dl)</td>
<td>Khi 2 (dl)</td>
<td>2.56 (1)</td>
</tr>
<tr>
<td>No</td>
<td>n=36</td>
<td>n=28</td>
<td>n=51</td>
<td></td>
<td>10.84 (1)**</td>
<td>24.53 (1)**</td>
</tr>
<tr>
<td>Metrics variables:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pleasant (1: pleasant–6: unpleasant)</td>
<td>2.78 (0.9)</td>
<td>2.4 (0.89)</td>
<td>2.71 (0.9)</td>
<td>2.09 (98)*</td>
<td>1.94 (108)*</td>
<td>0.41 (98)</td>
</tr>
<tr>
<td>Choice (1: good–6: bad)</td>
<td>2.87 (0.94)</td>
<td>2.38 (0.95)</td>
<td>2.8 (0.94)</td>
<td>2.55 (98)**</td>
<td>2.28 (108)*</td>
<td>0.35 (98)</td>
</tr>
<tr>
<td>Product image (1: good–6: bad)</td>
<td>2.47 (0.84)</td>
<td>2.45 (0.83)</td>
<td>2.62 (0.84)</td>
<td>0.07 (98)</td>
<td>1.02 (108)</td>
<td>0.89 (98)</td>
</tr>
<tr>
<td>Quality (1: high–6: low)</td>
<td>3.04 (0.88)</td>
<td>2.64 (0.91)</td>
<td>3.09 (0.88)</td>
<td>2.27 (98)*</td>
<td>2.5 (108)**</td>
<td>0.24 (98)</td>
</tr>
<tr>
<td>Age (1: new–6: old)</td>
<td>2.69 (0.79)</td>
<td>2.71 (1.05)</td>
<td>2.74 (0.79)</td>
<td>0.11 (98)</td>
<td>0.18 (108)</td>
<td>0.29 (98)</td>
</tr>
</tbody>
</table>

Notes. “CG” is the control group. “broa.” means “broadcast”.
* significant at p <.05.
** significant at p <.01.
*** significant at p <.001.
Footnotes

i In French: “Souvenirs du passé”.

ii The adjectives are represented in table 1.

iii Only representative results are represented in table 2.

iv In the familiarity-misattribution model, the two phases are independent. Phase one is represented by H1 and H2, phase two by H3.