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WORKING PAPER

THE IMPACT OF ASSOCIATIVE ADVERTISING ON PERSONAL VALUES AND BEHAVIOR[1]

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Abstract

The current paper explores the impact of value-laden advertisements on consumer values and behavior. Study 1 revealed that participants who were exposed to ads that strongly communicated self-direction acted more in a way that was congruent to openness to change values in different scenarios and choose more often a candy bar that was perceived as unpopular. In study 2, exposure to advertisements featuring benevolence (versus exposure to achievement-oriented ads) increased participants' interest in blood donation and decreased their endurance in a difficult word puzzle task. The influence was even stronger for participants who perceived advertising as a source of information.

THE IMPACT OF ASSOCIATIVE ADVERTISING ON PERSONAL VALUES AND BEHAVIOR

Advertisers often use specific values in their campaigns to create a certain product image. Apple for example, uses the well-known advertising slogan "Think Different" to convince consumers that, in order to be creative and independent, you need to buy an Apple computer. According to means-end theory (Gutman 1982), highlighting personal values one can attain by using the product is indeed efficient for marketers. The question remains, however, whether the use of values in ads has an impact on consumers' personal values and value-based behavior. This question is addressed in the present article. In particular, we will investigate whether 'advertised' values gain in importance, affect subsequent behavior and whether this affect is moderated by consumers' attitudes toward advertising in general.

Advertising Effects

Few people would disagree that advertising is a powerful institution. Because of its pervasive and persuasive character, advertising is environmental in nature, persistently encountered, and involuntary experienced by the entire population (Pollay 1986). Studies on the effects of advertising typically focus on consumers' knowledge and evaluation of the advertised products as they focus on brand awareness, brand attitudes and purchase intentions. More recently, however, there is an increasing interest in the so-called secondary effects of advertising.

A growing number of studies, for example, are investigating the effects of idealized images on the satisfaction of people who are exposed to them. A host of studies suggest that exposure to media and advertising images depicting the thin-ideal body is related to body image concerns for women (e.g., Richins 1991; Martin and Gentry 1997; Halliwell and Dittmar 2004; Hargreaves and Tiggemann 2004; for an

extensive overview, see Grabe, Ward and Hyde 2008). Gulas and McKeage (2000) replicated these findings for men, and also demonstrated that men are found to be less satisfied with their financial situation after exposure to advertising featuring very successful men.

Another major criticism of advertising is rooted in the belief that advertising leads to the adoption of materialistic values. Some studies found that the emergence of a consumer culture in China and Korea has been paralleled by an increase in the promotion of materialistic values in advertising (Han and Shavitt 2005; Zhang and Shavitt 2003). Several studies also obtained a relationship between self-reported exposure to advertising and the endorsement of materialism (Moschis and Moore 1982) and of related consumer values (Paek and Pan 2004). Finally, exposure to TV-advertising is found to be related to materialistic requests (Buijzen and Valkenburg 2003) and children who watched Channel One during class (a news channel that also broadcasts advertising blocks) where found to be more materialistic than children who did not follow the news bulletin (Brand and Greenberg 1994). Although most of the above-mentioned findings are merely correlational in nature, it seems at least intuitively fair to assume that associative advertising - selling a product (e.g., computers) as a means to attain a higher goal value (e.g., creative, uniqueness, independent, etc.) – leads to the creation of a consumer culture, where we "have to buy in order to become" (Waide 1987).

We believe, however, that there is yet another possible effect of the practice of associative advertising, namely that 'advertised' values may become more important. For instance, when consumers "are bombarded for hours with the message that friends, lovers, acceptance, excitement, and power are to be gained by purchases in the market" (Waide 1987, p. 75), they may then end up believing that friends, lovers,

acceptance, excitement and power are indeed important to be pursued. Also, consumers may value creativeness and independence more after watching an ad where Apple promises you that buying a computer will make you more creative and independent. The current paper tries to answer the question whether consumers' personal values may assimilate to advertised values.

Values in Advertising

Gutman (1982) suggests that when consumers make buying decisions, they relate product attributes to functional and psychosocial benefits which, in turn, may help them to attain their personal goals. Because consumers may contemplate how certain products may help them to attain their goals, associative advertising, which spells out how product attributes relate to end goals, may be an effective tool for marketers. In fact, associative advertising can create a product image (Reynolds and Gutman 1984) and may help advertisers to appeal to specific value-segments (Reynolds 2006). Indeed, consumers tend to react more favorably towards advertising with values that correspond with their own personal values. For example, in masculine cultures (US, Canada), where men tend to be more self-oriented and women more other-focused, men prefer self-oriented ads over other-oriented ads while the opposite is true for women. However, in feminine cultures (Denmark, Norway), where women are more self-oriented and men are more other-focused, the reverse pattern was found for men and women (Nelson et al. 2006). Van Baaren and Ruivenkamp (2007) also found that there is a stronger brand preference for advertised products when the values expressed in the advertisements are congruent to the chronic self-construal then when the advertisements emphasize values incongruent to the chronic self-construal. In a similar vein, Briley and Wyer (2002) reported an

unpublished study by Avadal (2001) where participants whose independent self-construal was made salient reported liking an ad promoting uniqueness ("stand out from the crowd") more than a conformism-oriented ad ("don't stand out from the crowd"). The opposite results were found for participants whose interdependent self-construal was made salient. In essence, a fit between the values promoted in an ad and personal values enhances the likeliness for that ad and the brand.

The above findings suggest that advertisers benefit from incorporating values which are compatible with the core values of their audience. While advertisers are incorporating values in their advertisements to appeal to a certain value segment, we believe that this practice may also have some unintended effects. This suggestion is in line with the earlier raised possibility that associative advertising may play an active role in molding personal values rather than just reflecting them (e.g., Pollay 1986; Pollay 1987; Pollay and Gallagher 1990; Lantos 1987; Nairn and Berthon 2003). Research on the side-effects of associative advertising is, however, virtually non-existent. Nairn and Berthon (2003) found that participants who viewed romantic advertisements rated themselves as more romantic than participants who watched classicistic ads. Zhang (forthcoming) revealed that salient self-construal was found to shift toward independence or interdependence (measured by a sentence construction task) in response to individualistic versus collectivistic advertisements. Hence, it seems possible that advertising can affect consumers' self-rated personalities or make a particular self-construal more salient. The question remains, however, whether advertising can also affect a more central core of individuals' personalities such as personal values and whether such an effect would also lead to behavioral consequences.

Although values have been defined in several ways (for an overview, see

Hitlin and Piliavin 2004), there are five features that are common to most definitions. "According to the literature, values are (a) concepts or beliefs, (b) about desirable end states or behaviors, (c) that transcend specific situations, (d) guide selection or evaluation of behavior and events, and (e) are ordered by relative importance" (Schwartz and Bilsky 1987, p. 551).

Even though values are traditionally seen as relatively stable, some studies suggests that individuals might reorder the priority of relevant values, depending on the situation (Sparks and Durkin 1987; Kristiansen and Zanna 1988; Seligman and Katz 1996). For instance, when participants had to write an essay on abortion or the environment, they rank ordered their values differently afterwards, compared to participants who were simply asked to rank their values according to how important they were to them as guiding principles in their lives (Seligman and Katz 1996). Possibly, associative advertising can also shift the relative importance of consumer values. Because important individual values provide specific guidelines for behavior across different situations (Feather 1990), we expect that associative advertising can lead to general behavioral changes, even when that behavior has nothing to do with the product that is advertised. For example, when a consumer is exposed to advertising that sells computers as a means to attain independency, the value independency may gain in importance in the personal value system of that consumer, leading to other choices in later decision situations (e.g., shall I go and buy a sweater alone or with a friend?).

Overview of the Present Studies

The current studies draw on Schwartzs' (1992) circular values model. In this model, ten universal values are positioned along two bipolar dimensions: from openness to change (self-direction, stimulation and hedonism) to conservation

(tradition, security and conformism) and from self-enhancement (achievement and power) to self-transcendence (universalism and benevolence). Values that are situated on one pole of a dimension are congruent with each other and incongruent with the values situated on the opposite pole of that dimension. A person that is highly self-directed for example, will also score high on stimulation and hedonism, but low on tradition, security and conformism. This circular model is tested across different cultures and is found to be universal (Schwartz 1992). In the present paper, we therefore adopt this model as a basis for the experimental designs. In study 1, we examined the behavioral consequences of being exposed to ads that stress self-direction (i.e., openness to change) versus advertisements that stress security (i.e., conservation). In study 2, we used the self-transcendence vs. self-enhancement dimension by opposing advertisements featuring benevolence with advertisements featuring achievement. In both studies, we predict that participants will behave in a manner that is consistent with the value shown in the preceding advertisements. To further explore the mechanism involved in the presumed effect of associative advertising, study 2 will examine the moderating role of consumers' attitudes toward advertising.

STUDY 1

In study 1, after the presentation of the ads, we confronted participants with dilemma-situations whereby they had to make a hypothetical choice between an 'openness to change option' or a 'conservation option'. We hypothesized that participants who had been exposed to advertisements communicating self-direction would be more inclined to choose options which are consistent with that value, and as a result, choose more often for the 'openness to change options' compared to

participants in the security ads condition. In a similar vein, we hypothesized that participants in the security ads condition would choose more often for the 'conservation options' than the participants in the self-direction ads condition. We did not expect an effect of condition in dilemma situations where those values were not included in the choice options.

Moreover, to test whether the value-changes are also apparent in real behavior, we manipulated the perceived popularity of two candy-bars between which participants could choose. Since choosing for the unpopular or deviant option is a way to emphasize one's uniqueness (Kim and Markus 1999) and a popular option is a safer choice when in doubt about the likeability of the taste, participants in the self-direction ads condition should have a higher preference for the unpopular candy-bar (compared to the security ads condition).

Method

Participants. Ninety-four male and female undergraduates (60 women, 33 men, 1 missing gender, mean age = 20 years) at a Belgian university were invited to the lab to complete a series of unrelated experiments on a computer. They were all paid € 6 for participation.

Procedure. First, each participant had to rate how well-designed ten print ads were. In the self-direction ads condition, all advertisements highlighted uniqueness and independence (e.g., "You are unique", "Play your own game", "Be free to do what you want"). In the security ads condition, participants saw advertisements that communicate security (e.g., "Protect the things you care about", "Tradition in security", "High and safe"). Participants were randomly assigned to one of both conditions, but due to server malfunction the self-direction ads condition comprised more participants (n = 55) than the security ads condition (n = 39). After this rating

task, participants engaged in several unrelated filler tasks, for approximately 5 minutes.

In the second part of the experiment, participants were asked to read ten scenarios adopted from Feather (1995). The scenarios always consisted of a situation which was presented along with two choice-options (e.g., choosing between job A that offers a lot of security in employment but without much opportunity for freedom, independence, or creativity and job B with much opportunity for freedom, independence, or creativity but without security in employment). In five scenarios, participants were asked to choose between an 'openness to change option' (self-direction, stimulation, hedonism) or a 'conservation option' (tradition, conformity, security). Five other scenarios were filler tasks as they did not probe a choice on this dimension: in one scenario participants had to choose between two self-transcendence options, in four other scenarios a choice was required between a self-enhancement option and a self-transcendence option.

At the end of the experiment, participants were told that we had candy left over from a previous experiment and they were welcome to take one home. They could choose a candy-bar out of two different bowls filled with two different candy-bars (Bouchée or Twix mini). Because one bowl always contained more empty wrappers than candy-bars, participants were given the impression that this candy-bar had been more popular in earlier sessions of the experiment. The other bowl contained more candy-bars than empty wrappers and was therefore more likely to be perceived as the unpopular option. A pretest was conducted to be sure that both candy-bars were both equally liked. We regularly changed the 'perceived popularity' of both candy-bars during the experiment.

Selection of ads. The selection of the print ads was based on a pretest. Ten

undergraduates at a Belgian university rated 37 different existing print ads in terms of how strong the value of self-direction and security was highlighted in the advertisements (anchors 1 “No presence of self-direction” to 5 “Clear presence of self-direction”). The ten ads with the highest scores on self-direction were used for the self-direction ads condition. The ten ads with the highest scores on security were used in the security ads condition. Both conditions differed significantly on the degree by which the ads communicated self-direction ($M_{\text{self-direction ads}} = 4.69$, $M_{\text{security ads}} = 1.70$; F (1, 18) = 688.29, $p < .001$) and security ($M_{\text{security ads}} = 3.17$, $M_{\text{self-direction ads}} = 1.77$; F (1, 18) = 13.22, $p < .01$).

Results

Across the five critical scenarios, we counted for each participant the number of choices that were congruent with the value “self-direction”. A one-way ANOVA revealed that participants in the self-direction ads condition indeed more often chose the option that was congruent with the value self-direction ($M = 2.85$, SD = 1.18) than participants in the security ads condition ($M = 1.69$, SD = 1.10): F (1, 92) = 13.65, $p < .001$.

As hypothesized, we did not find an effect of the condition on the amount of chosen self-transcendence options (F (1, 92) = 1.17, $p = .28$) in the scenarios where a choice was required between a self-transcendence and a self-enhancement option. Also in the scenario where two self-enhancement options were given, we did not find a significant difference between both conditions: χ^2 (1) = .03, $p = .86$.

These results indicate that consumers’ scenario choices assimilate to advertised values. When exposed to advertising that featured self-direction, consumers are more likely to choose an option that reflected self-direction over a safe and traditional option. In addition, we found the same pattern of results when looking

at actual behavior. A chi-square analysis revealed a significant relationship between the condition participants were in and the candy-bar participants chose: χ^2 (1) = 3.89, p = .049. Participants in the self-direction ads condition more often chose the unpopular candy-bar (64.6%) than for the popular candy-bar (35.6%). In contrast, participants in the security ads condition preferred the popular candy-bar (57.6%) to the unpopular option (42.4%). Again, those results point to the inclination of less conformist (or more risk-taking) behavior after being exposed to self-directed advertising.

Discussion

Study 1 provided evidence for our hypothesis that associative advertising could influence consumer values and value-based behavior. As predicted, participants who were exposed to advertising featuring self-direction, more often chose the option that was congruent with the value self-direction in a hypothetical dilemma situation than participants in the security ads condition. The result that participants in the self-direction ads condition more often chose an unpopular candy-bar than participants in the security ads condition shows that even a trivial choice can be influenced by the type of advertising participants were exposed to. This difference is particularly noteworthy in light of the fact that participants believed that the experiment was over at the time they made their choices and had no reason to believe that their snack choice was being monitored.

The finding that associative advertising may have an impact on personal values and on value-relevant behavior may be particularly intriguing when one realizes that consumers are often sceptical of advertising. Consumers indeed accumulate knowledge about persuasive attempts and tactics as they are frequently exposed to them in daily life, which they may use to identify a persuasive agent and

cope with persuasive episodes (Friestad and Wright 1994). Study 2 takes consumers' attitudes toward advertising into account to shed some more light on the mechanism behind the effect of associative advertising on consumers' values.

STUDY 2

Both the Persuasion Knowledge Model (Friestad and Wright 1994) and the Flexible Correction Model (Wegener and Petty 1995) suggest that when consumers believe that they are unduly influenced by advertising, they may try to correct their judgments for this undue influence (see also Meyers-Levy and Malaviya 1999). Consistent with this reasoning, consumers with more favorable attitudes toward advertising are more persuaded by advertisements (Mehta 2000). In line with the Persuasion Knowledge Model and the Flexible Correction Model, consumers' attitudes toward advertising may moderate the effect of associative advertising on people's values. Consumers who view advertising as informative may believe that associative advertising signals to consumers how much importance their society attaches to these values: values that are often portrayed in advertising may be considered to be more shared in society as a whole. After all, given that ads are more persuasive when they appeal to the values of the audience, it makes sense that advertisers make use of values that are societally shared to appeal to as many consumers as possible. As a consequence, consumers who view advertising as informative may assimilate the 'advertised' values. Consumers who lament the manipulative character of advertising, on the other hand, may contrast their values away from the 'advertised' values. Put differently, they may devaluate the importance of 'advertised' values and consequently adopt the opposite values than the ones that were communicated in the advertisements. This contrast effect may be due to

overcorrection for the presumed influence (Lombardi, Higgins and Bargh 1987; Wilson and Brekke 1994).

Interestingly, a substantial number of studies has shown that consumers may hold mixed feelings about advertising: they may view advertising as manipulative, but at the same time believe that advertising is informative, amusing, or good for the economy (e.g., Bauer and Greyser 1968; Sandage and Leckenby 1980; Wills and Ryans 1982; Reid and Soley 1982; Muehling 1987; Pollay and Mittal 1993; Durvasula et al. 1993; Shavitt, Lowrey and Haefner 1998). Whether consumers assimilate to or contrast away from 'advertised' values may then depend on which aspect they believe more, that advertising is informative or that advertising is manipulative.

Apart from the moderation of consumers' attitudes toward advertising, we generalize the findings obtained in study 1 by using ads featuring values referring to a different dimension than the values in study 1. In particular, both poles of the self-transcendence vs. self-enhancement dimension were manipulated, resulting in a condition with ads highlighting benevolence and a condition with ads emphasizing achievement. To test whether those associative advertisements could cause a change in subsequent behavior we included two behavioral tasks involving achievement or benevolence. We hypothesized that participants in the achievement ads condition would work longer on a difficult word-puzzle (compared to participants in the benevolence ads condition) as the ads made them attach greater importance to the achieve something. The measure involving benevolence consisted of an information request following an invitation for blood donation. We predicted that participants who had been exposed to ads highlighting benevolence would be more interested in receiving information pertaining to a blood donation request (compared to participants

in the achievement ads condition).

Method

Participants. One hundred students from different faculties participated in the study (54 women, 46 men, mean age = 21.2 years). One participant was omitted from the dataset because he failed to comply with the instructions.

Procedure. At the beginning of the study, participants were invited to fill in a questionnaire on their attitudes toward advertising (translated from Pollay and Mittal 1993). Upon completion, all participants engaged in a task where they had to rate five print advertisements on some characteristics (e.g., design, quality, colors, etc.). In the achievement ads condition (n = 49), all print ads communicated the value achievement (e.g., "Are you the next top manager?", "For people with ambition"). The benevolence ads condition (n = 50) consisted of advertisements that were benevolence-laden (e.g., "Are you the next volunteer?", "Because knowing the other is the only way to friendship"). After this rating task, participants engaged in several unrelated filler tasks, for approximately 5 minutes.

In the second part of the study, participants were shown a string of eight letters (ADEORRTV) of which they had to make as many words consisting of at least five letters as they could. There was no time limit and participants were told that they could stop searching whenever they wanted to. The time participants engaged in the task was registered.

At the end of the study, all participants were told that the Faculty of Medicine was looking for some volunteers to donate blood. Participants were asked whether they wanted to register in order to receive more information on blood donation.

Selection of ads. The selection of the print ads was based on a pretest and was similar to the pretest of study 1. In this study, however, we created the ads ourselves

because of the lack of a sufficient number of good existing advertisements featuring achievement or benevolence. We created 28 print ads by manipulating the slogan that accompanied a picture. The ads were then rated by 10 undergraduates at a Belgian university in terms of how strong benevolence and achievement was present in the advertisements (1 "value not present" to 5 "value definitely present"). The five ads with the highest scores on benevolence were used for the benevolence ads condition. The five ads with the highest scores on achievement were used in the achievement ads condition. Both conditions differed significantly on the degree by which the ads communicated benevolence ($M_{\text{achievement ads}} = 2.08$, $M_{\text{benevolence ads}} = 4.44$; F (1, 8) = 13.92, $p < .001$) and achievement ($M_{\text{achievement ads}} = 4.40$, $M_{\text{benevolence ads}} = 2.48$; F (1, 8) = 74.45, $p < .001$).

Results

A principal component factor analysis with oblique rotation (oblimin) on the attitude towards advertising questions revealed two factors, based on the scree plot. The first factor consisted of items which measured to what extent participants perceived advertising as beneficial for the economy and as an important source of information (e.g., "Advertising helps raise our standard of living", "Advertising tells me what people with life styles similar to mine are buying and using"). We will further refer to this factor as the recognition of the positive features of advertising. The second factor measured to what extent participants perceived advertising as manipulative (e.g., "Advertising promotes undesirable values in our society", "Advertising makes people buy unaffordable products just to show off"). This factor will be further referred to as the recognition of the negative features of advertising.

The fact that two factors were obtained indicates that the recognition of the positive and recognition of the negative features of advertising are not two opposite

poles of the same dimension. In fact, the two factors correlate very modestly (r = -.12, p = .22). People may thus value advertising for its information and positive consequences for the economy, but nevertheless be somewhat skeptical of advertising claims.

Word puzzle. First, we investigated whether participants in the achievement ads condition worked longer on the word puzzle task than participants in the benevolence ads condition, and whether this influence was moderated by the attitude participants had toward advertising. Therefore, a one-way (advertising condition: achievement ads vs. benevolence ads) independent ANCOVA was conducted with the two factors of attitude toward advertising as covariate and the time participants worked on the word puzzle as dependent variable. The interaction of the advertising condition with each of the two attitude factors was also included in the model. One participant was omitted from this analysis because he worked for 40 min on the word puzzle task (M = 10.90, SD = 6.07; without this participant: M = 10.60, SD = 5.33).

In line with our hypothesis, participants in the achievement ads condition persisted significantly longer in the puzzle task (M = 11.89, SE = .74) than participants in the benevolence ads condition (M = 9.32, SE = .72), F (1, 92) = 6.25, p = .01. Moreover, as can be seen in Figure 1 (left panel), the difference in time between both conditions was more prominent for participants who strongly recognize the *positive* aspects of advertising, F (1, 92) = 4.48, p = .04. The more participants perceived advertising as informative and beneficial for the economy, the longer they persisted in the word puzzled task after exposure to ads highlighting achievement (B = 1.69, SE = .71, t = 2.36, p = .02). When participants had been exposed to ads highlighting benevolence, however, the recognition of the positive characteristics of advertising had no effect on the time participants engaged in the word puzzle task (B

= -0.51, SE = .76, t = -0.68, p = .50). Stated differently, the degree to which participants appreciated the positive functions of advertising was a good predictor of the time they worked at the word puzzle when they were in the achievement ads condition, but not for participants in the benevolence ads condition. Hence, the recognition of the positive aspects of advertising moderated the effect of the advertising condition. In contrast, the recognition of the *negative* aspects of advertising did not moderate the effect of the advertising condition on the time participants engaged in the word puzzle task (Figure 1, right panel), F (1, 92) = 0.64, p = .43.

Insert Figure 1 about here

Finally, neither of the two attitude toward advertising factors had an overall effect on the time participants engaged in the puzzle task (recognition of negative features of advertising: F (1, 92) = 0.78, p = .38, recognition of positive features of advertising: F (1, 92) = 1.28, p = .26).

Blood donation. A chi-square analysis revealed that participants in the benevolence ads condition were significantly more willing to put their names on the list in order to receive information on blood donation than participants in the achievement ads condition were. In the achievement ads condition only 16.3% of the participants were interested in blood donation, whereas this percentage was 64% in the benevolence ads condition (χ^2 (1) = 23.36, p < .001).

To explore whether the attitude toward advertising factors moderated this relationship, we conducted a logistic regression with the advertising condition and the two factors of attitude toward advertising as predictors of the blood donation measure, as well as the interaction of advertising condition with each of the two factors. The advertising condition remains a significant predictor (B = -2.46, SE = .56, Wald χ^2 (1)

= 19.31, $p < .001$).

The recognition of the *positive* characteristics of advertising significantly moderated the impact of the advertising condition on interest in blood donation ($B = -1.54$, SE = .56, Wald χ^2 (1) = 7.54, $p < .01$). This means that, as can be seen in Figure 2 (left panel), a stronger recognition of the positive features of advertising led to a significantly higher probability of being interested in blood donation for participants in the benevolence ads condition ($B = .85$, SE = .40, Wald χ^2 (1) = 4.61, $p = .03$), but to a marginally significant smaller probability of being interested in blood donation for participants in the achievement ads condition ($B = -0.69$, SE = .40, Wald χ^2 (1) = 3.02, $p = .08$).

The recognition of the *negative* characteristics of advertising marginally significantly moderated the impact of advertising condition on interest in blood donation ($B = 1.16$, SE = .61, Wald χ^2 (1) = 3.64, $p = .06$). Indeed, Figure 2 (right panel) shows that a stronger belief that advertising is manipulative leads to a smaller probability of being interested in blood donation for participants in the benevolence ads condition ($B = -1.40$, SE = .50, Wald χ^2 (1) = 7.82, $p < .01$), but not for participants in the achievement ads condition ($B = -0.24$, SE = .34, Wald χ^2 (1) = 0.48, $p = .49$).

Finally, overall, there was no significant effect of the recognition of positive features of advertising on blood donation ($B = 0.08$, SE = .28, Wald χ^2 (1) = 0.08, $p = .77$), while a stronger belief that advertising is manipulative led to less interest in blood donation ($B = -0.82$, SE = .31, Wald χ^2 (1) = 7.25, $p < .01$).

Insert Figure 2 about here

Discussion

In study 2, we replicated the finding that associative advertising may affect

consumers' values and value-relevant behaviour for a different value dimension than the dimension used in Study 1. Participants were more achievement-oriented after being exposed to ads that stressed achievement as they worked longer on a difficult word puzzle task. They were also more interested in information on blood donation after seeing ads featuring benevolence. This result is a strong validation of our hypothesis that associative advertising can influence value-expressive behavior.

As hypothesized, attitudes toward advertising moderate the effects of associative advertising on value-relevant behavior. Two things are noteworthy here. First, recognition of the negative and recognition of the positive aspects of advertising are not two opposite poles of the same dimension. Rather, they form two separate dimensions, on which consumers can score both low – implying indifference toward advertising – or both high – implying ambivalence toward advertising. Second, the fact that both factors moderate the effect of associative advertising points towards different mechanisms.

We found that participants assimilate more to the advertised value when they strongly think of advertising as informative and beneficial for the economy. Possibly, individuals who strongly recognize the positive features of advertising may simply look longer at ads, pay more attention to advertisements or engage in more pro-argumentation (i.e., come up with arguments that support the advertised message) than individuals who do not recognize the positive aspects of advertising. Longer exposure times may enhance the chance to be influenced by the value communicated by the ad and, consequently, explain why participants who strongly recognize the positive characteristics of advertising assimilate an advertised value more.

There is some evidence that consumers who strongly lament the manipulative practice of advertising may react against the advertised values. Indeed, our results

show that, when exposed to ads with a means-end chain stressing benevolence, participants who recognize the negative aspects of advertising more are less interested in blood donation. This finding may be explained by the Flexible Correction Model (Wegener and Petty 1995) which suggests that people tend to correct their social judgments when they think they were influenced while making those judgments. It seems plausible that consumers who think of advertising as a highly manipulative institution more readily detect advertising as a "mental contamination" source (Wilson and Brekke 1994) than consumers who do not hold this view. So, they may more readily engage in judgment correction processes. As the results of different priming studies indicate that these correction processes typically lead to overcorrection or contrast effects (Lombardi, Higgins and Bargh 1987; Newman and Uleman 1990), consumers who recognize the negative aspects of advertising may be more prone to show contrast effects. In addition, consumers who view advertising as manipulative may engage in more pronounced counter-argumentation (i.e., come up with more thoughts that are inconsistent with the advertised message) than consumers who don't view advertising as manipulative (cf. Obermiller, Spangenberg and MacLachlan 2005).

One could argue that it is hard to attribute our results to either contrast effects or to assimilation effects in the absence of a proper control condition. It should be noted, however, that the specific interactions with the two attitudes toward advertising factors do allow an interpretation in terms of contrast and assimilation effects. In a sense, participants who score low on a given attitude factor may be considered 'controls' for participants who score highly on that attitude factor. The fact that, within a given condition, as participants more strongly recognize the positive aspects, they behave more in accordance with the advertised value is indicative of an

assimilation effect. In similar vein, the fact that, within a given condition, as participants more strongly recognize the negative aspects, they behave less in accordance with the advertised value is indicative of a contrast effect.

In both the benevolence ads and the achievement ads conditions, we found that participants who strongly recognize the positive aspects of advertising show assimilation effects. In contrast, for participants who strongly recognize the negative aspects of advertising, we only obtained contrast effects in the benevolence ads condition. So, why did we fail to find a moderating influence of the recognition of the negative features of advertising in the achievement ads condition? Participants who dislike advertising for its manipulative influence, did not persist less in the puzzle task after exposure to associative advertising involving achievement. A tentative explanation for this result is the acceptance of the use of achievement in advertising. Maybe consumers accept and are used to advertising whereby advertisers are linking a product to achievement, while skeptical consumers more readily disapprove of the use of benevolence in such a commercial practice. In other words, even consumers – who strongly recognize the negative aspects of advertising – may not object to the use of certain values in advertising and, consequently, may not correct their judgments regarding those values.

GENERAL DISCUSSION

The present studies demonstrated that associative advertising may affect the behavior of those who are exposed to it. In Study 1, participants chose the self-direction option more both in hypothetical scenarios as in a real candy choice task after exposure to ads featuring self-direction than after exposure to ads featuring security. In study 2, participants persisted longer in a puzzle task after exposure to ads

featuring achievement than after exposure to ads featuring benevolence. Vice versa, participants indicated more interest in blood donation after exposure to ads featuring benevolence than after exposure to ads featuring achievement. In addition, Study 2 showed that the attitude toward advertising is moderating the effect. Participants assimilated the advertised values if they thought of advertising as informational and beneficial for the economy and contrasted away from the advertised values if they considered advertising as a manipulative institution. It should be noted, however, that the average participant in both studies showed an assimilation effect. In Study 1, we did not take attitudes toward advertising into account but observed an assimilation effect across our sample. In study 2, we observed an overall assimilation effect after controlling for attitudes toward advertising. Consumers are thus susceptible to unintended effects of the use of means-end chains in advertising, albeit even more so when they think of advertising as a source of information and consider it beneficial for the economy.

To our knowledge, this paper is the first to demonstrate that means-end chains in associative advertising can cause changes in consumers' behavior on the short term. Although it was not the aim of the present paper to answer the question of the long-term societal consequences of using values in advertising, the present findings can contribute to the debate whether advertising can mold cultural values in the long run. According to Pollay (1986, 1987) advertising is a distorted mirror because advertisers only use a small set of values when creating an ad. Those advertised values may then gain importance in society because of the pervasive and persuasive character of advertising ('advertising as a distorting mirror'; Pollay 1986). This practice may even end in a vicious circle where advertisers have an impact on consumers' values and consumers' values have an impact on the advertisers'

strategies. Is it possible that advertisers are turning society into a place where for example hedonism, self-direction, achievement and stimulation are more important than tradition, benevolence, and universalism, just because the first set of values are advertised more often? Considering the results of the present paper, one may indeed wonder what the impact of advertising on values could be in the long run. If it is true that advertisers use some values more than others, we can assume that repetitive exposure to those values can lead to chronic accessibility of those values (for an overview of effects from frequent exposure, see Higgins 1996).

From a more theoretical point of view the present research also contributes to the question whether personal value systems are really as stable as they are traditionally depicted. Earlier research already found that some situations can cause a shift in the value-system (for an overview see Seligman and Katz 1996), but the finding that advertising can cause such a shift is new and certainly noteworthy in the light of the negative connotation advertising may have for some. The question remains, however, whether the use of means-end chains in associative advertising leads to a shift in the relative importance of personal values or just makes the advertised value more salient. Because values can be ordered by relative importance (Schwartz and Bilsky 1987), it is possible that associative advertising creates a situation where the advertised values gain in importance, even if only temporarily, leading to behavior that is more in line with that value. Another possibility is that the advertised value is not shifting in importance, but that associative advertising is just priming the value, and thereby making the value more salient. A change in salience, and not a change in importance, is then what underlies the behavioral effect. We do not think, however, that this difference is very important in the long run. Values can be derived from past experiences (Higgins 2007), and therefore, individuals may infer

from their own behavior, possibly after being exposed to associative advertising, that they seemingly attach great importance to the value they express with their behavior. In other words, whether the long-term behavioral effect is due to a change in salience or a change in importance may not matter very much; through a process of self-perception, consistent short-term behavioral changes may lead to a long-term increase in the importance of the advertised value.

The fact that the attitudes toward advertising moderate effects is a new finding in the literature of the so-called secondary effects of advertising and deserves more attention in future research. An interesting question is, for example, whether individuals who strongly recognize the negative aspects of advertising will react against the perceived value when there is a longer delay between the exposure of the ads and the behavioral measure. Possibly, a sleeper effect (Kumkale and Albarracin 2004) may occur, whereby initially the advertised value decreases in importance because it is promoted by an untrustworthy cue (the ad itself), but increases in importance over time because of the dissociation between the value and the untrustworthy cue. In addition, it is interesting to investigate whether consumers' attitudes toward advertising also moderate the negative effect of exposure to thin models in ads on consumers' self-esteem. Possibly, this effect is all the more pronounced to the extent that consumers view advertising as informative and less pronounced to the extent that consumers recognize the negative aspects of advertising. Taken together, these studies contribute to the literature on the side-effects of advertising in two respects. First, they show that associative advertising may affect consumers' values. Second, Study 2 suggests that the extent of unintended advertising effects may depend on one's attitude toward advertising. In particular, this last finding generates new avenues for future research. In any event, once again, advertising

proves to be a powerful institution with far-reaching consequences for all those who are frequently exposed to it.

Figure 1

The Predicted Time Spent in Puzzle Task, Depending on Condition and the Focus on Positive Features of Advertising (left panel) and the Focus on Negative Features of Advertising (right panel).

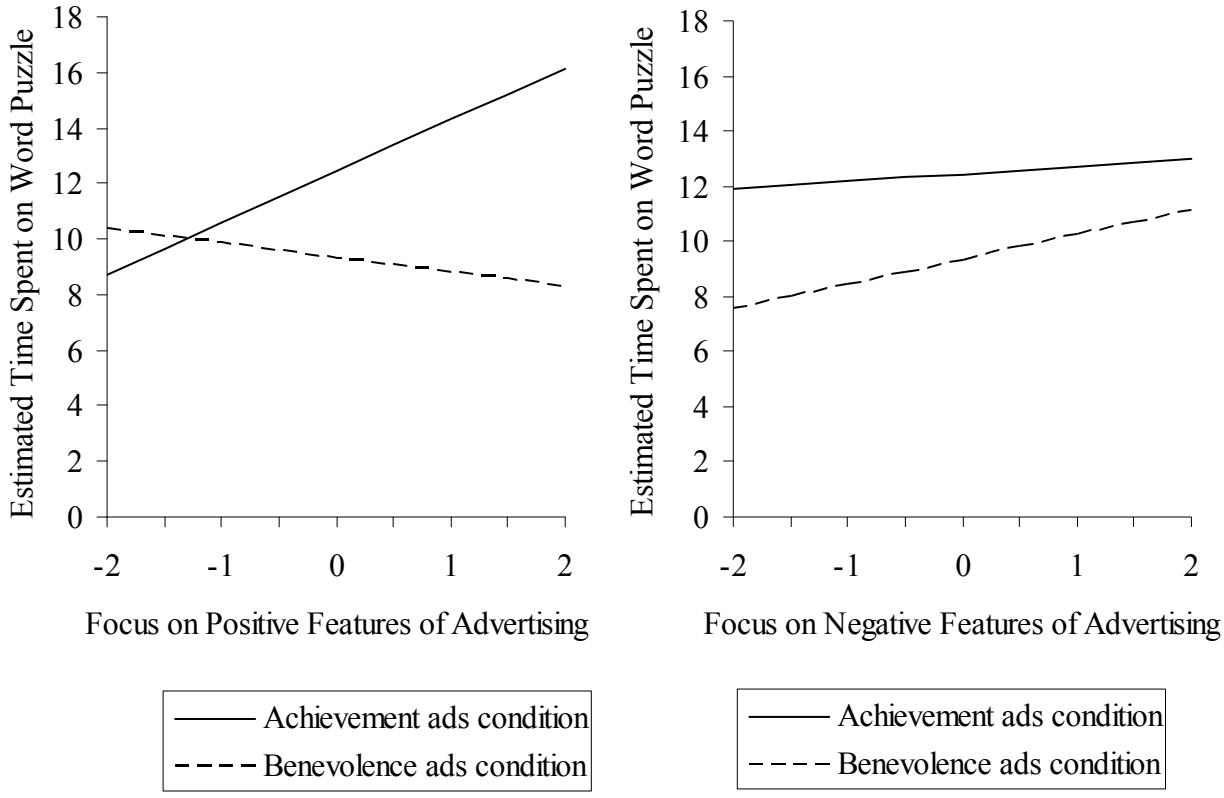
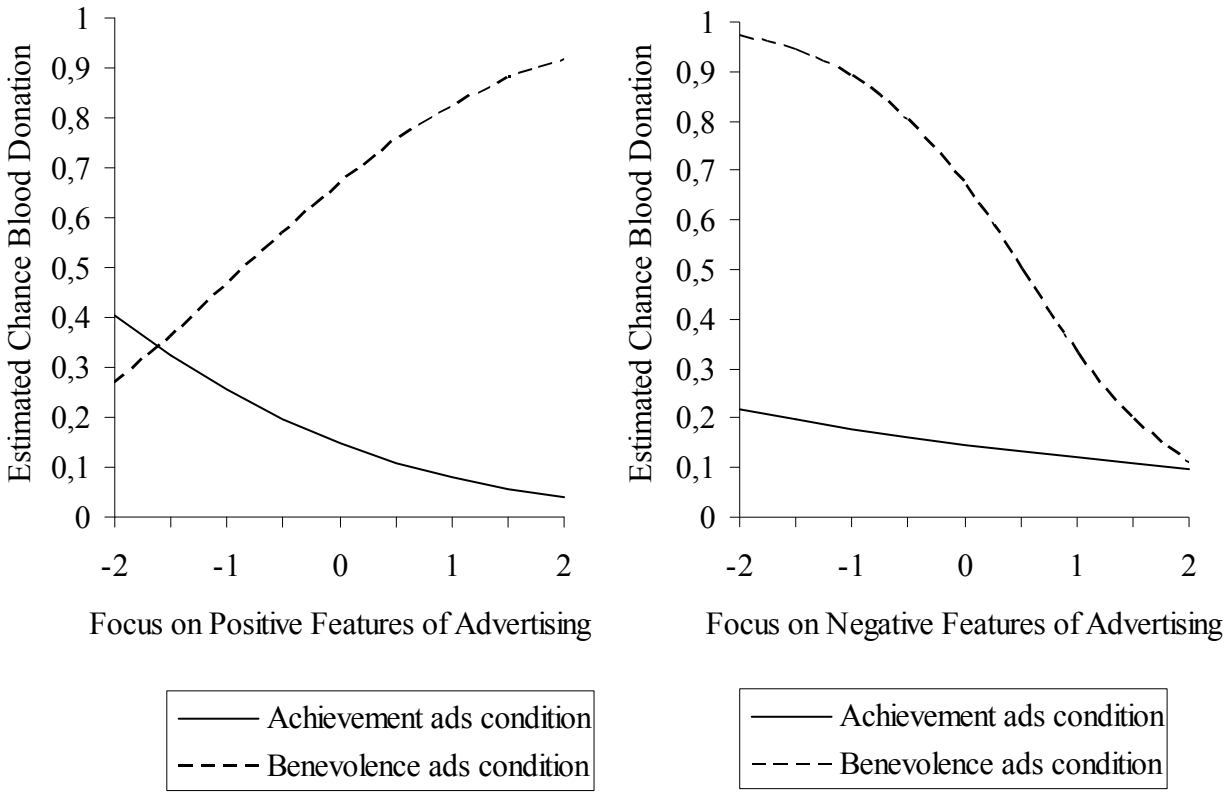


Figure 2

The Predicted Probability of Being Interested in Information on Blood Donation for Condition and the Focus on Positive Features of Advertising (left panel) and the Focus on Negative Features of Advertising (right panel).



REFERENCES

Bauer, Raymond A., and Stephen A. Greyser (1968), *Advertising in America: The Consumer View*, Boston: Harvard University.

Brand, Jeffrey E., and Bradley S. Greenberg (1994), "Commercials in the Classroom: The Impact of Channel One Advertising," *Journal of Advertising Research, 34*(1), 18-27.

Briley, Donnel A., and Robert S. Wyer (2002), "The Effect of Group Membership Salience on the Avoidance of Negative Outcomes: Implications for Social and Consumer Decisions," *Journal of Consumer Research, 29*(3). 400-15.

Buijzen, Moniek, and Patti M. Valkenburg (2003), "The Unintended Effects of Television Advertising: A Parent-Child Survey," *Communication Research, 30*(5), 483-503.

Durvasula, Srinivas J., Craig Andrews, Steven Lysonski and Richard G. Netemeyer (1993), "Assessing the Cross-National Applicability of Consumer-Behavior Models: A Model of Attitude Toward Advertising in General," *Journal of Consumer Research, 19*(4), 626-36.

Feather, Norman T. (1990), "Bridging the Gap Between Values and Action," in *Handbook of motivation and cognition,* Vol. 2, E. Tory Higgins and Richard Sorrentino, eds., New York: Guilford Press, 151-92

_____ (1995), "Values, Valences, and Choice: The Influences of Values on the Perceived Attractiveness and Choice of Alternatives," *Journal of Personality and Social Psychology, 68*(6), 1135-51.

Friestad, Marian, and Peter Wright (1994), "The Persuasion Knowledge Model: How People Cope With Persuasion Attempts," *Journal of Consumer Research, 21* (1), 1-31.

Grabe, Shelly, L. Monique Ward, and Janet S. Hyde (2008), "Role of the Media in Body Image Concerns Among Women: A Meta-Analysis of Experimental and Correlational Studies," *Psychological Bulletin, 134*(3), 460-76.

Gulas, Charles S., and Kim McKeage (2000), "Extending Social Comparison: An Examination of the Unintended Consequences of Idealized Advertising Imagery," *Journal of Advertising, 29*(2), 17-28.

Gutman, Jonathan (1982), "A Means-End Model Based on Consumer Categorization Processes," *Journal of Marketing, 46*(2), 60-72.

Halliwell, Emma, and Helga Dittmar (2004), "Does Size Matter? The Impact of Model's Body Size on Women's Body-Focused Anxiety and Advertising Effectiveness," *Journal of Social and Clinical Psychology, 23*(1), 104-22.

Hargreaves, Duane A., and Marika Tiggemann (2004), "Idealized Media Images and Adolescent Body Image: 'Comparing' boys and girls," *Body Image, 1*, 351–61.

Han, Sang-pil and Sharon Shavitt (2005), "Westernization of Cultural Values in Korean Advertising: A Longitudinal Content Analysis of Magazine Ads from 1968- 1998," *Advances in Consumer Research, 32*, 249-50.

Higgins, E. Tory (1996), "Knowledge Activation: Accessibility, Applicability, and Salience," in *Social Psychology: Handbook of Basic Principles,* E. Tory Higgins and Arie W. Kruglanski, eds., New York: Guilford Press, 133-68.

_____ (2007), "Value," in *Social Psychology: Handbook of Basic Principles*, Second Edition, ArieW. Kruglanski and E.Tory Higgins, eds., New York: Guilford Press, 454-72.

Hitlin, Steven, and Jane A. Piliavin (2004), "Values: Reviving a Dormant Concept," *Annual Review of Sociology, 30*, 359-93.

Kumkale, G.Tarcan, and Dolores Albarracin, (2004), "The Sleeper Effect in Persuasion : A Meta-Analytic Review," *Psychological Bulletin, 130*(1), 143-72.

Kim, Heejung, and Hazel R. Markus, (1999), "Deviance or Uniqueness, Harmony or Conformity? A Cultural Analysis," *Journal of Personality and Social Psychology, 77*(4), 785-800.

Kristiansen, Connie M., and Mark P. Zanna (1988), "Justifying Attitudes by Appealing to Values: A Functional Perspective," *British Journal of Social Psychology, 27*(3), 247-56.

Lantos, Geoffrey P. (1987), "Advertising: Looking-Glass or Molder of the Masses," *Journal of Public Policy and Marketing, 6*, 104-28.

Lombardi, Wendy J., E. Tory Higgins, and John A. Bargh (1987), "The Role of Consciousness in Priming Effects on Categorization," *Personality and Social Psychology Bulletin, 13*(3), 411-29.

Martin, Mary C., and James W. Gentry (1997), "Stuck in the Model Trap: The Effects of Beautiful Models in Ads on Female Pre-Adolescents and Adolescents," *Journal of Advertising, 26*(2), 19-33.

Mehta, Abhilasha (2000). "Advertising Attitudes and Advertising Effectiveness," *Journal of Advertising Research, 40*(3), 67-72.

Meyers-Levy, Joan, and Prashant Malaviva (1999), "Consumers' Processing of Persuasive Advertisements: An Integrative Framework of Persuasion Theories," *Journal of Advertising, 16*(1), 32-40.

Moschis, George P., and Roy L. Moore (1982), "A Longitudinal Study of Television Advertising Effects," *Journal of Consumer Research, 9*(3), 279-86.

Muehling, Darrel D. (1987), "An Investigation of Factors Underlying Attitude-

Toward-Advertising-in-General," *Journal of Advertising, 16*(1), 32-40.

Nairn, Agnes, and Pierre Berthon (2003), "Creating the Customer: The Influence of Advertising on Consumer Market Segments - Evidence and Ethics," *Journal of Business Ethics, 42*(1), 83-99.

Nelson, Michelle R., Frédéric F. Brunel, Magne Supphellen, and Rajesh V. Manchanda (2006), "Effects of Culture, Gender, and Moral Obligations on Responses to Charity Advertising Across Masculine and Feminine Cultures," *Journal of Consumer Psychology, 16*(1), 45-56.

Newman, Leonard S., and James S. Uleman (1990), "Assimilation and Contrast Effects in Spontaneous Trait Inferences," *Personality and Social Psychology Bulletin, 16*(2), 224-40.

Obermiller, Carl, Eric Spangenberg, and Douglas L. MacLachlan (2005), "Ad Skepticism: The Consequences of Disbelief," *Journal of Advertising, 34*(3), 7-17.

Paek, Hye-Jin, and Zhongdang Pan (2004), "Spreading Global Consumerism: Effects of Mass Media and Advertising on Consumerist Values in China," *Mass Communication and Society, 7*(4), 491-515.

Pollay, Richard W. (1986), "The Distorted Mirror: Reflections on the Unintended Consequences of Advertising," *Journal of Marketing, 50*(2), 18-36.

_____ (1987), "On the Value of Reflections on the Values in The Distorted Mirror," *Journal of Marketing, 51*(3), 104-10.

_____, and Katherine Gallagher (1990), "Advertising and Cultural Values: Reflections in the Distorted Mirror," *International Journal of Advertising, 9*, 359-72.

_____, and Banwari Mittal (1993), "Here's the Beef: Factors, Determinants and

Segments in Consumer Criticism of Advertising," *Journal of Marketing, 57*(3), 99-114.

Reid, Leonard N., and Lawrence C. Soley (1982), "Generalized and Personalized Attitudes Toward Advertising's Social and Economic Effects," *Journal of Advertising, 11*(3), 3-7.

Reynolds, Thomas J. (2006), "Methodological and Strategy Development Implications of Decision Segmentation," *Journal of Advertising Research 46*(4), 445-461.

_____, and Jonathan Gutman (1984), "Advertising is Image Management," *Journal of Advertising Research, 24*(1), 27-37.

Richins, Marsha L. (1991), "Social Comparison and the Idealized Images of Advertising," *Journal of Consumer Research, 18*(1), 71-83.

Sandage, Charles H., and John D. Leckenby (1980), "Student Attitudes Toward Advertising: Institution vs. Instrument," *Journal of Advertising, 9*(2), 29-32.

Schwartz, Shalom H. (1992), "Universals in the Content and Structure of Values: Theoretical Advances and Empirical Tests in 20 Countries," in *Advances in Experimental Social Psychology*, Vol. 25, Mark P. Zanna, ed., San Diego, CA: Academic, 1-65.

_____, and Wolfgang Bilsky (1987), "Toward a Psychological Structure of Human Values," *Journal of Personality and Social Psychology, 53*(3), 550-65.

Seligman, Clive, and Albert N. Katz (1996), "The Dynamics of Value Systems," in *The Ontario Symposium: The psychology of values*, Clive Seligman, James M. Olson and Mark P. Zanna, eds., Mahwah, NJ: Erlbaum, 53-75.

Shavitt, Sharon, Pamela Lowrey, and James Haefner (1998), "Public Attitudes Toward Advertising: More Favorable Than You Might Think," *Journal of*

Advertising Research, 38(4), 7-22.

Sparks, Paul, and Kevin Durkin (1987), "Moral Reasoning and Political Orientation. The Context Sensitivity of Individual Rights and Democratic Principles," *Journal of Personality and Social Psychology, 52*(5), 931-6.

Van Baaren, Rick B., and Martin Ruivenkamp, (2007), "Self-Construal and Values Expressed in Advertising," *Social Influence, 2*(2), 136 – 44.

Waide, John (1987), "The Making of Self and World in Advertising," *Journal of Business Ethics, 6*(2), 73-79.

Wegener, Duane T., and Richard E. Petty, (1995), "Flexible Correction Processes in Social Judgment: The Role of Naïve Theories in Corrections for Perceived Bias," *Journal of Personality and Social Psychology, 68*(1), 36-51.

Wills, James R., and John K. Ryans (1982), "Attitudes Toward Advertising: A Multinational Study," *Journal of International Business Studies, 13*(3), 121-29.

Wilson, Timothy D., and Nancy Brekke (1994), "Mental Contamination and Mental Correction: Unwanted Influences on Judgments and Evaluations," *Psychological Bulletin, 116*(1), 117-42.

Zhang, Jing (forthcoming), "The Effect of Advertising Appeals in Activating Self-Construals: A Case of Bicultural Chinese X-Generation Consumers," *Journal of Advertising*.

_____, and Sharon Shavitt (2003), "Cultural Values in Advertisements to the Chinese X-Generation," *Journal of Advertising, 32*(1), 23-33.