

IMPACT OF ADVERTISING METAPHOR ON CONSUMER BELIEF

Delineating the Contribution of Comparison Versus Deviation Factors

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ABSTRACT: The linguistics literature argues that different meanings can be conveyed by different metaphors, and that the meaning content so conveyed will structure the perceptions of message recipients in profoundly different ways. We set out to measure the impact of varying metaphor content within an advertising context on consumer beliefs. We report an experiment that isolates the effect of metaphor, which is a function of cross-domain comparison, from the effect of figurativeness, which is a function of artful deviation. We find that only a highly figurative metaphor is able to alter specific consumer beliefs under conditions of incidental ad exposure. Consumers who have a high degree of ability to process metaphors are an exception to this rule; in their case, metaphors, whether figurative or not, did alter beliefs. Theoretical and practical implications are discussed.

Advertisements often make use of metaphors, such as “exercise lays the foundation for lasting fitness,” or “exercise provides the building blocks for good health.” Metaphors such as these rely on *cross-domain comparisons* and are classified as a type of rhetorical figure, which in turn is defined as an *artful deviation* from expectation (McQuarrie and Mick 1996). A substantial body of research has accumulated to show that rhetorical figures are both common in advertising (Leigh 1994) and able to meaningfully alter consumer response (McQuarrie and Mick 1992, 1996; Mothersbaugh, Huhmann, and Franke 2002). The positive impact of rhetorical figures has been demonstrated across a range of dependent variables, including attitude and memory outcomes, and across various processing conditions, including incidental as well as directed exposure (McQuarrie and Mick 2003a).

The typical research design in this stream creates two semantically equivalent versions of an ad headline, with each claiming the same attribute. One version of the ad uses a rhetorical figure to express this claim figuratively and the other states the claim literally. An example would be a flashlight ad that reads “The gift idea that leaves everybody ‘beaming’ (versus ‘happy’).” Once these different versions are incorporated into an experimental design, differences on the dependent variables are then attributed to differences in the style rather than the content of the ad; that is, consumer response is said to depend on the presence or absence of the rhetorical figure

(McQuarrie and Mick 1999, 2003b). Results are interpreted as showing the importance of style factors (i.e., how a message is structured) relative to content factors (i.e., what attribute is claimed).

It is important to recognize exactly what has and has not been demonstrated in this now well-established research stream. None of the research cited shows that a metaphorical statement is a more effective means of claiming possession of some particular attribute relative to a nonmetaphorical expression; more generally, it has not been shown that exposure to metaphors in the context of advertising can produce a change in the degree to which a specific belief is held. In fact, the nature of the research designs used, which pretest for semantic equivalence with respect to a specific attribute, make it impossible to show that a metaphorical expression can be an effective means of altering belief that the advertised object possesses the claimed attribute. In addition, it is not known whether the power of a metaphorical figure lies in its metaphoricality (i.e., cross-domain comparison) or its figurativeness (i.e., artful deviation), or both. All of these are important questions, certainly for theory, but also for the practitioners who must decide what kind of metaphors to include in ads to shift consumer beliefs in the desired direction.

These observations are not intended as a criticism of the extant research stream on rhetorical figures. At its outset, the influence of style variables on consumer response to advertising was neither well understood nor accepted as empirically supported (see Scott 1994). Equating stimuli on attribute content was perhaps a necessary step in showing the importance of style factors to understanding advertising effects.

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In this paper, we describe a different paradigm for investigating the persuasive impact of metaphor (and by extension, other rhetorical figures). In the experiment reported below, we equate ad stimuli on style and manipulate attribute content instead. That is, all of our stimuli contain the stylistic device of metaphor, but these metaphors are preselected to convey different attribute content. We then measure the extent to which exposure to these metaphors can alter consumer beliefs about the advertised object and examine the extent to which this belief change, if it occurs, is a function of cross-domain comparison (a property shared by all metaphors) or a function of artful deviation (a property found in some but not all metaphors).

In a second departure, this research focuses on verbal metaphor in particular, rather than rhetorical figures in general. With a few exceptions (McQuarrie and Phillips 2005; Morgan and Reichert 1999), verbal metaphor does not appear among the stimuli used in the research stream on rhetorical figures; puns and rhyme have predominated (e.g., McQuarrie and Mick 1992, 1999, 2003a; Mothersbaugh et al. 2002). Verbal metaphor is the most widely discussed rhetorical figure, however, with a long history of inquiry across multiple disciplines (Noppen 1990). In linguistics, in particular, there is a focus on the different meanings that can be conveyed by different metaphors along with a conviction that different metaphors structure the perceptions of message recipients in profoundly different ways (Lakoff and Johnson 1980). Hence, we set out to measure the impact of varying metaphor content within an advertising context on consumer beliefs and to define the role in that process played by the factors of cross-domain comparison versus artful deviation.

THEORETICAL FRAMEWORK

A metaphor compares two objects through analogy by suggesting that one object is figuratively like another even though on the surface they appear to be quite different (Stern 1990; Ward and Gaidis 1990). The essence of metaphor is *cross-domain comparison* (Lakoff and Johnson 1999, p. 46). For example, an ad uses a metaphor when it states that exercise will “lay the foundation for lasting fitness,” inviting consumers to compare exercise routines to house foundations to infer what the two concepts have in common. That is, exercise routines are like foundations because they provide a base (e.g., muscle development or concrete slab) on which to build a desired outcome (e.g., lifelong fitness or dream house).

An important contribution of Lakoff and Johnson (1980) was to point out that many distinct individual metaphorical statements can all share the same underlying comparison or analogy. When a variety of individual metaphor statements are thematically related because they all make use of the same underlying cross-domain comparison (e.g., exercise ~ construct-

ing a building), we can assert the existence of a conceptual metaphor (Ritchie 2003). For instance, a consumer might encounter advertisements that variously state “this treadmill is my secret weapon for good health,” “crunches are the only ammunition my body needs,” and “the best way to lose weight is to win the fight against fat.” Each of these statements is part of a conceptual metaphor family that can be summarized as *exercise is combat*. Another set of ads might employ a different set of statements: “my treadmill whittles my waist,” “crunches carve my body,” and “exercise shapes my life.” These statements are thematically linked to yet another conceptual metaphor family: *exercise is sculpting*. As seen in the examples accumulated thus far, a consumer domain such as exercise can accommodate multiple distinct conceptual metaphors (e.g., *exercise is construction*, or *combat*, or *sculpting*), each of which can be expressed by an unbounded number of individual metaphorical statements (Phillips and McQuarrie 2007).

It has been proposed that because individuals process metaphors without noticing the underlying conceptual theme (Gentner et al. 2001), metaphors have great power to alter belief systems. This happens because a regularly proffered conceptual metaphor is internalized as normative (Lakoff and Johnson 1980). Specifically, because the essence of a metaphor is that one domain is like another, it has been argued that the relationships that allow the two domains to be joined also function to highlight the similarities between the two domains and mask the differences. The idea is that through conceptual metaphor, the characteristics of the target situation that match the metaphor are made salient, and at the same time and in the same process, characteristics that do not match the situation become less salient and are essentially “masked.” For example, Lakoff and Johnson (1980) argue that because Western culture commonly asserts that *argument is war*, we believe that to argue is to “attack” our opponent’s position, to “defend” our own, and to try to “gain ground.” This conceptual metaphor highlights the goal of “winning” the argument and masks other beliefs, such as compromise. A competing conceptual metaphor, such as *argument is dance*, would make the ideas of cooperation and compromise salient, whereas the ideas of winning and losing would decrease in salience and be masked.

Translated into consumer terms, exposure to an ad that uses a specific metaphor should have a positive impact on beliefs that match that metaphor (salience) and a negative impact on other beliefs (masking). Such effects are most likely when the advertised object is intangible, abstract, or otherwise susceptible to multiple interpretations. In fact, the rationale for using metaphors in everyday communication rests on the idea that reference to concrete and familiar domains can help the audience understand more abstract and remote domains (Gibbs 1998). This suggests that metaphor in advertising will be of less relevance to communicating a concrete product fact (e.g., “these chips contain no trans fats”) and of greater relevance

when the goal is to communicate an attitude or perspective (e.g., “regular exercise is the key to good health”). However, it is important to note that the idea that conceptual metaphors can have a persuasive impact via processes of highlighting and masking is not universally held (McGlone 1996; Vervaeke and Kennedy 2004).

In fact, in an advertising context, the ubiquitous and unobtrusive character of verbal metaphors can be used to support an argument that metaphorical statements will *not* share the power of other, more deviant rhetorical figures, such as puns and rhymes. Thus, Gibbs (1994, p. 121) estimates that six verbal metaphors are used per minute of ordinary conversation. By contrast, most of us treat puns in everyday speech as deviant when encountered; we would be astounded by a lunch companion who regularly rhymed his speech. We know that the impact of rhetorical figures in advertising stems in large part from their *artful deviance*, which leads to positive persuasive outcomes, per Berlyne’s (1971) arguments concerning the effects of incongruity. But it is difficult to see how a kind of statement that occurs six times a minute can be deviant in the sense used by McQuarrie and Mick (1996) to distinguish rhetorical figures from other statements found in advertising. If the typical metaphorical statement is not very deviant, then metaphorical statements in advertisements need not have the powerful effects attributed to other rhetorical figures in the published literature.

In short, linguistic analysis can readily trace out the semantic gulf that separates “argument is dance” from “argument is war.” But how much practical impact do such differences in metaphor content actually have in an advertising context?

STUDY OVERVIEW

The empirical question, then, is whether verbal metaphorical claims can shift specific beliefs. Hence, we conducted an experiment in which equally acceptable but semantically distinct metaphors were identified in pretesting. Participants were then exposed to ads containing these different metaphorical statements in a pretest-posttest design. This produces a test (with replication across multiple metaphors) of whether metaphor exposure can shift belief. Additional design factors then allow us to determine whether any such belief shift is contingent on the particular kind of metaphor exposed, or the particular type of consumer exposed.

Selection of Advertised Object

Recall that the function of metaphorical cross-domain comparison is to help audiences understand abstract and intangible concepts using more familiar, concrete domains. This suggested the need to select an abstract and intangible life project or lifestyle activity as the advertised object in this study (rather

than a brand or product). An advertised object of this kind can be expected to have enough scope to accommodate very different metaphorical descriptions. We also needed an activity sufficiently prominent in the culture to ensure that a wide variety of published material would be available for analysis to identify candidate metaphors for use in the experiment. Selecting metaphors widely diffused in the culture makes it more likely that all the experimental metaphors will be broadly acceptable across the subject population.

In light of the above, we selected physical exercise as the target for metaphorical statements. The Centers for Disease Control and Prevention (CDC; 2004) report that 61% of American adults engage in some leisure-time physical activity, with 31% of adults meeting the minimum requirements of physical activity recommended by the CDC. Therefore, exercise is a familiar domain, and many participants are likely to enter the study with preexisting beliefs about exercise; at the same time, we can reasonably expect that not all individuals will have the same degree of involvement in exercise, making it likely that a range of belief structures will be present among participants.

Stimulus Development

To identify the set of culturally available conceptual metaphors currently used to describe exercise, we undertook a content assessment of ads and articles in the men’s and women’s fitness magazines with the largest circulations (i.e., *Men’s Fitness*, *Men’s Health*, *Fitness*, and *Shape*). We also reviewed a month’s postings by consumers at the Internet forums hosted by these four magazines. The content assessment identified six conceptual metaphors frequently used in contemporary culture to represent the nature of exercise. These six conceptual metaphors are: *exercise is heat*, *exercise is a journey*, *exercise is work for pay*, *exercise is construction*, *exercise is sculpting*, and *exercise is combat*. Next, six metaphorical statements were developed for each conceptual metaphor for use in a preliminary multidimensional scaling (MDS) analysis (Phillips and McQuarrie 2007). The goal of the MDS analysis was to identify the meaning dimensions along which the six conceptual metaphors were arrayed and to identify a subsample of conceptual metaphors located sufficiently far apart on these dimensions to be used in the experimental manipulation described below. In the initial MDS pretest, 76 undergraduate students made similarity judgments of subsets of pairs of 36 metaphorical statements. Based on this initial scaling effort, four conceptual metaphors appeared sufficiently distinct, with relatively tight clusters of statements, to be worth further study.

To finalize the stimulus set, a second MDS pretest was conducted with 84 different students, using four statements for each of the four surviving conceptual metaphors. A balanced incomplete block design was used to divide the statement

pairs into three sets of 40 pairs. Participants were randomly assigned to rate one of these sets as in the initial pretest; half the forms presented statement pairs in one order and half in another order. In addition to making these similarity judgments, all participants rated each of the 16 metaphor statements using a five-point scale to assess how figurative it was in the eyes of participants. This scale (anchored by “artful, clever/straightforward, matter of fact”) is the same as the key manipulation check used in the rhetorical figure experiments of McQuarrie and Mick (1999), McQuarrie and Phillips (2005), and Mothersbaugh, Huhmann, and Franke (2002).

Based on the results of the second MDS analysis (Figure 1), three conceptual metaphors were selected for use in constructing the experimental ads: *exercise is a journey*, *exercise is work for pay*, and *exercise is heat*. The two-dimensional solution resulting from the second MDS indicated that each of these three conceptual metaphors differed from the others on at least one dimension. In addition, one set of statements (for the “heat” metaphor) was rated as particularly artful and clever ($M = 2.07$) and as significantly more artful and clever than the statements for either the “journey” or the “work” metaphors, which were rated toward the middle of the scale ($M = 2.70$ and $M = 3.50$, respectively; $p < .01$ for each mean comparison with “heat”).

In summary, pretesting identified three conceptual metaphors that all differed markedly in their meanings and where one set of corresponding metaphor statements was regarded as much more figurative than the others. For each of the three conceptual metaphors, the most direct statement of each conceptual metaphor (marked as “1” in Table 1) was reserved for use as the dependent variable on which shifts in belief would be measured. The remaining two statements (marked as “2” and “3” in Table 1) were selected to appear in the experimental ad manipulation. These two statements allowed us to expose participants to metaphors that related to and could potentially strengthen belief in the underlying conceptual metaphor, without including the direct statement of that metaphor in the ad.

Participants and Procedure

A total of 344 undergraduate students participated in the study in exchange for \$10. Data were collected from the participants in multiple classes on two different days. In the first part of the study, participants indicated the extent of their belief in each of the three direct statements of conceptual metaphor (statements numbered “1” in Table 1) corresponding to the individual metaphor statements that would subsequently appear in the ad stimuli. This measure served to capture the preexisting belief state for each participant with respect to each conceptual metaphor. Participants then answered demographic questions, completed the Metaphoric Thinking Ability Sen-

tence Completion Test (Burroughs and Mick 2004), and were paid and dismissed.

The second part of the study was held five days later, again in class. Participants received a booklet that presented the cover story on the first page, as described below. They then saw a full-page color ad, answered questions about it, saw a second ad, answered questions about it, and then rated their belief in each of the three direct metaphorical statements a second time. In addition, they indicated the frequency with which they exercised. Finally, participants were asked to explain what they felt was the true purpose of the two-part study.

The cover story was designed to ensure that motivation to process the conceptual metaphor conveyed through the words of the ad was constrained to a relatively low level. Thus, participants were told to focus their attention on the pictures in the ads. They were told that the managers of the exercise facility on campus were interested in getting their opinions regarding two exterior pictures of the building that might be used in a future ad campaign. To reinforce the focus on the ad pictures, participants were asked to write comments about the picture in each ad and then to discuss which of the two pictures they thought was best. The pictures were purposefully selected so that they did not cue any of the conceptual metaphors used in the study.

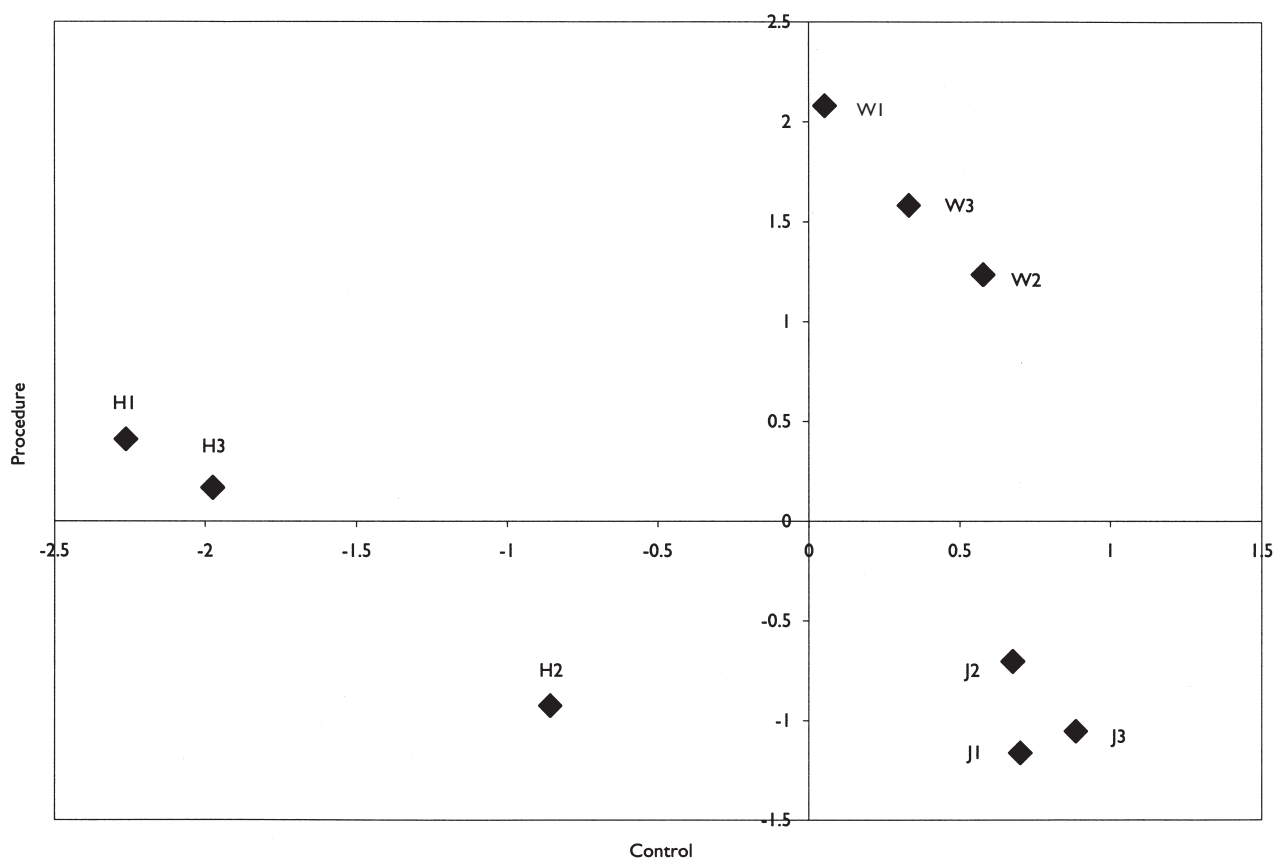
Each participant saw two ads where the same conceptual metaphor was expressed via two metaphorical statements, one serving as a headline and one as a tag line; each ad included one of two slightly different pictures of the building. For example, half of the participants assigned to the *exercise is a journey* condition saw both ads with statement J2 in the headline position and J3 in the tag line position; the other half of the participants in that condition saw the headlines and tag lines reversed. To illustrate the materials, all four of the *exercise is a journey* condition ads are presented in Figure 2. In summary, with their attention focused on comparing two ad pictures, a given participant was exposed twice to two individual metaphor statements associated with a single conceptual metaphor. No other words occurred in the ad except for the name of the facility and the accompanying university logo; the direct statement of the conceptual metaphor itself (i.e., *exercise is a journey*, *exercise is work for pay*, *exercise is heat*) did not appear anywhere in the ad. Figure 3 provides a visual representation of the flow of the experimental procedure for further clarification.

A total of 235 participants were present for both Time 1 and Time 2 data collection. No one identified metaphor or figurative language as the purpose of the study.

Dependent Variable

Participants in the first part of the study were asked to rate their degree of belief in each of the three summary statements of conceptual metaphor using an 11-point scale anchored by

FIGURE 1
Multidimensional Scaling Map of Conceptual Metaphors in Exercise: Solution in Two Dimensions



Notes: Sixteen statements were used to generate the MDS (multidimensional scaling) solution, but only the nine statements actually used in the experiment are plotted in this figure. See Table 1 for the text of these statements.

TABLE 1
Conceptual Metaphor Statements and Dimensions Used in the Experiment

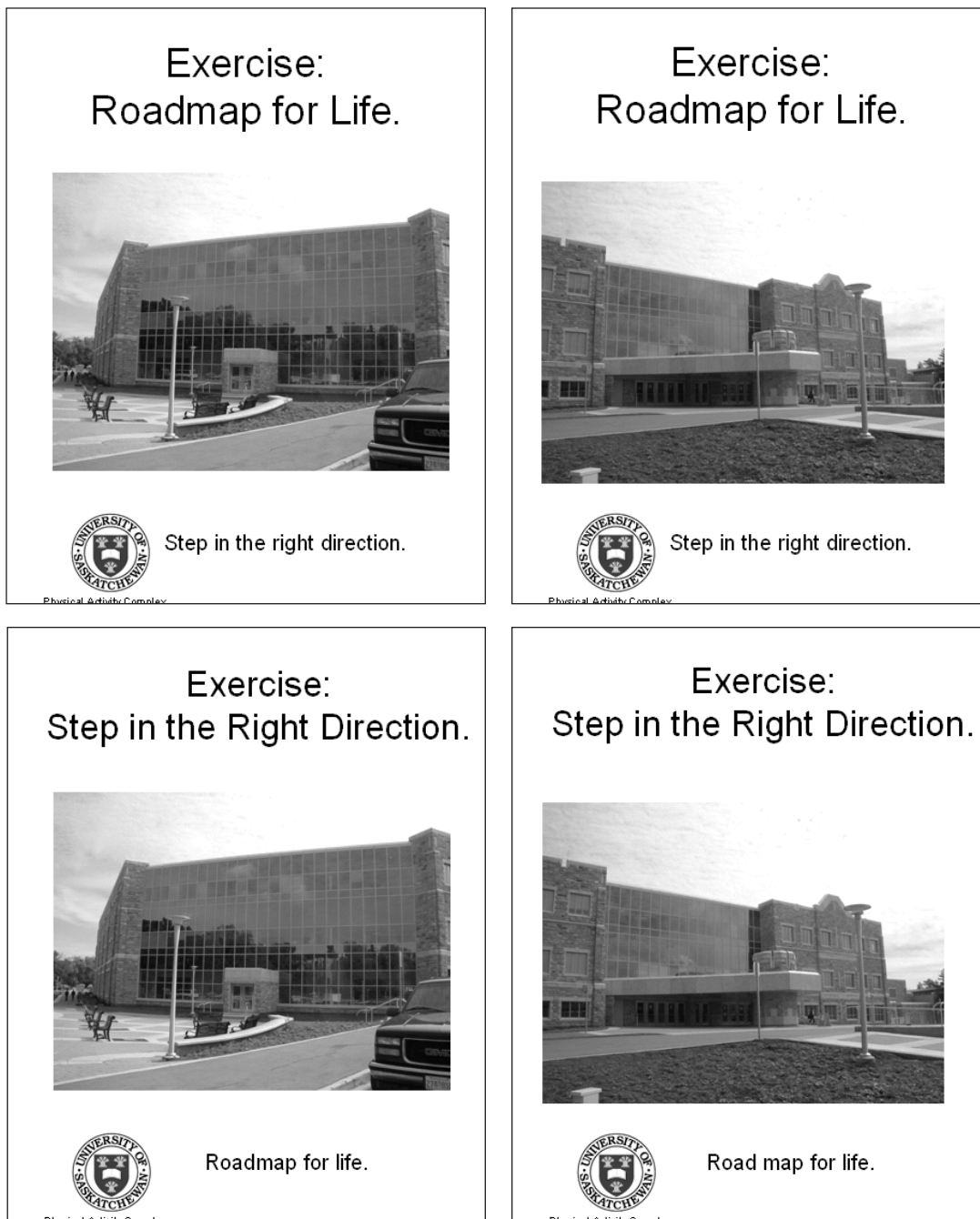
Conceptual metaphors	MDS dimensions	MDS statements	Corresponding ad headline/tag line ^a
<i>Exercise is a journey (J1)</i>	Control: predictable	Exercise provides the roadmap for my life. (J2)	Exercise: Roadmap for life
	Procedure: variable	Exercise is a step in the right direction. (J3)	Exercise: Step in the right direction
<i>Exercise is work for pay (W1)</i>	Control: predictable	Exercise provides job training for my life. (W2)	Exercise: Job training for life
	Procedure: routine	Exercise is a matter of putting in the time. (W3)	Exercise: Put in the time
<i>Exercise is heat (H1)</i>	Control: contingent	Exercise provides the flame for my life. (H2)	Exercise: Flame for life
	Procedure: neither	Exercise is a way to turn up the heat. (H3)	Exercise: Turn up the heat

Notes: MDS = multidimensional scaling.

Codes in parentheses allow these statements to be located in the multidimensional scaling map reproduced in Figure 1.

^a In the headline position, the key phrase was preceded by "Exercise"; in the tag line position, the key phrase stood alone (see Figure 2 for examples).

FIGURE 2
Experimental Ads for *Exercise Is a Journey* Conceptual Metaphor



1 = “exactly captures how I feel about exercise” to 11 = “does not reflect my feelings at all.” Participants completed this measure again in the second part of the study after exposure to the ads. To control for testing effects, participants simultaneously rated their belief in two other metaphorical claims in both the pretest and the posttest (*exercise is sculpting*, *exercise is combat*). These two claims served as unexposed controls. The change from pretest to posttest for the target belief, relative to any change in belief with respect to the unexposed controls,

is interpreted as the impact of exposure to a metaphorically stated claim on the participant’s belief that the advertised object possesses the claimed attribute.

Independent Variables

We distinguished the highly figurative heat metaphor statements from the moderately figurative journey and work metaphor statements. If the target belief increases relative to

FIGURE 3
Example Experimental Procedure for One of the Journey Conditions

1. Before exposure to the ads (Time 1)

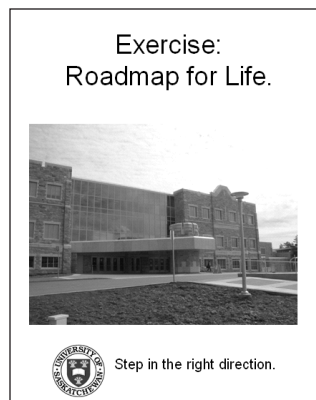
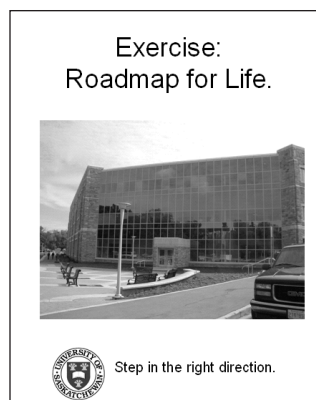
- (a) Measure of exercise beliefs →

- (b) Demographic questions
- (c) Metaphoric Thinking Ability Sentence Completion Test

Exercise is a journey
Exercise is work for pay
Exercise is heat
Exercise is sculpting
Exercise is combat
 1 = exactly captures how I feel
 11 = does not reflect my feelings at all

2. Ad exposure (Time 2)

- (a) Cover story:
 "Which of these pictures is better?" →



3. After exposure to the ads (Time 2)

- (a) Measure exercise beliefs again →

- (b) Take measure of exercise frequency
- (c) What was the purpose of this study?

Exercise is a journey
Exercise is work for pay
Exercise is heat
Exercise is sculpting
Exercise is combat
 1 = exactly captures how I feel
 11 = does not reflect my feelings at all

the unexposed controls in the case of all metaphor statements, then we may conclude that metaphors per se have the potential to shift belief in an advertising context. If this increase is only observed for the highly figurative metaphor, then it is not metaphor per se that alters belief, but rather, figurativeness or artful deviation. Second, we distinguished participants who were high or low in metaphorical ability. This variable allows us to determine whether the effects of metaphor or figurative-

ness are contingent on individual differences in the ability to process metaphor. Third, we distinguished participants who exercised regularly from those who did not, with the idea that the beliefs of regular exercisers, because they are based on extensive personal experience with the domain, might be more resistant to change due to a single brief advertising exposure. Inclusion of this variable did not affect any of the interactions, however, and results for it are not reported.

TABLE 2
Mean Belief Level for Exposed and Unexposed Metaphors by Condition

	Metaphor ability							
	Low (<i>n</i> = 129)				High (<i>n</i> = 106)			
	Exposed		Unexposed controls		Exposed		Unexposed controls	
	Pretest	Posttest	Pretest	Posttest	Pretest	Posttest	Pretest	Posttest
Less figurative metaphors	5.71 (.29)	5.69 (.28)	5.64 (.23)	5.27 (.21)	6.13 (.32)	5.83 (.31)	5.43 (.25)	5.04 (.24)
More figurative metaphor	5.40 (.40)	5.36 (.39)	5.39 (.31)	5.18 (.29)	5.92 (.45)	4.19 (.43)	5.06 (.35)	5.18 (.33)

Notes: Numbers are estimated marginal means from the repeated-measures GLM (generalized linear model) discussed in the text; numbers in parentheses are standard errors generated by the GLM. Less figurative metaphors are the journey and work metaphor statements described in Table 1 (*n* = 154); the more figurative metaphor is the heat metaphor statements (*n* = 81).

Participants were asked to rate their degree of belief in each exercise statement using an 11-point scale anchored by 1 = "exactly captures how I feel about exercise" to 11 = "does not reflect my feelings at all." Consequently, lower means indicate a greater belief in the exercise statement.

Design

The design analyzed is a repeated-measures GLM (generalized linear model) with two within-subjects factors and two between-subjects factors. The first within-subjects factor (time) is the degree of belief with respect to a particular metaphor at pretest versus posttest. The second within-subjects factor (exposure) distinguishes the belief score at each time point for the to-be-exposed metaphor, versus the average score for the two unexposed metaphors that served as controls. We are interested in the interaction between these two factors; this interaction controls against a testing effect wherein all belief ratings increase at Time 2, irrespective of ad exposure.

The first between-subjects factor (figurative) distinguishes whether exposure occurred for the highly figurative heat metaphor statements or for the moderately figurative journey or work metaphor statements. The second factor (ability) distinguishes subjects who scored high and low (split at the median) on the measure of metaphor-processing ability. With respect to these between-subjects factors, only interaction effects that include the time \times exposure term are relevant to assessing the effects of metaphor exposure on belief.

RESULTS

Initial Belief Equivalence

A one within-subjects, two between-subjects repeated-measures GLM found no difference in initial degree of belief for the to-be-exposed versus unexposed metaphors (the within-subjects factor) across either the figurative factor or the ability factor, or the intersection of these two (all *F*s < 1). Hence, the

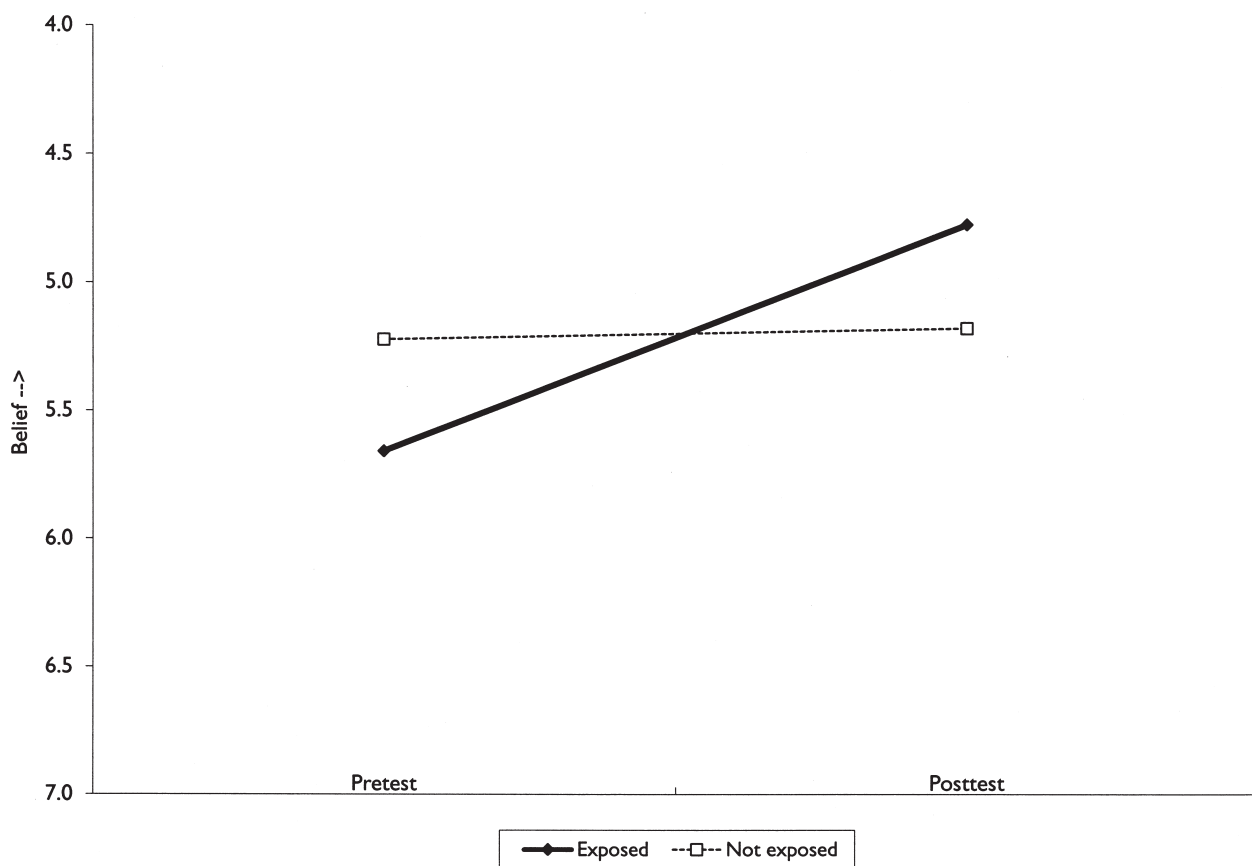
effects for metaphor exposure reported in the analyses below are unlikely to be confounded by differences in preexposure belief states across subject groupings. A comparison of all means is presented in Table 2.

Effects of Metaphor Exposure

The two within-subjects (time, exposure), two between-subjects (figurative, ability) repeated-measures GLM revealed a number of significant effects. First, there was a significant effect for time, $F(1, 231) = 7.11, p < .01$, confirming the need to include unexposed metaphor claims as controls. That is, beliefs corresponding to all metaphors, whether exposed or unexposed in the experimental ads, showed a positive shift when measured a second time. Second, the exposure \times time interaction was not significant, $F(1, 231) = 2.27, n.s.$ (not significant). Taken together as a set, the three exposed metaphors did not show any belief shift greater than that observed for the unexposed metaphors. This suggests that metaphorical claims per se have little capacity to shift the level of a specific belief under conditions of moderately incidental advertising exposure.

The GLM did show a significant exposure \times time \times figurative interaction, $F(1, 231) = 6.70, p < .01$. Thus, exposure to the highly figurative heat metaphor statements did produce a significant positive shift in belief, as graphed in Figure 4. The GLM also showed a significant exposure \times time \times ability interaction, $F(1, 231) = 7.66, p < .01$, wherein exposure to the three metaphors, taken as a set, did shift belief in a positive direction, but only for participants with a high degree of metaphor-processing ability, as graphed in Figure 5. Finally, there was a significant four-way interaction between exposure,

FIGURE 4
Exposure \times Time Interaction for Highly Figurative Metaphor



time, figurativeness, and ability, $F(1, 231) = 4.57, p < .05$, such that the exposure effect specific to the highly figurative heat statements was further accentuated in the case of participants high in metaphor-processing ability, as graphed in Figure 6.

In summary, the results showed that metaphors per se seem to have little power to shift belief under conditions of moderately incidental advertising exposure. However, a highly figurative metaphor is able to shift beliefs across the subject population under these circumstances. Moreover, it appears that there is a subpopulation of individuals with a high degree of ability to process metaphors, who are responsive to incidental advertising exposure to metaphors generally. Finally, this differentially sensitive subpopulation is affected to an even greater degree when the exposed metaphor is highly figurative.

DISCUSSION

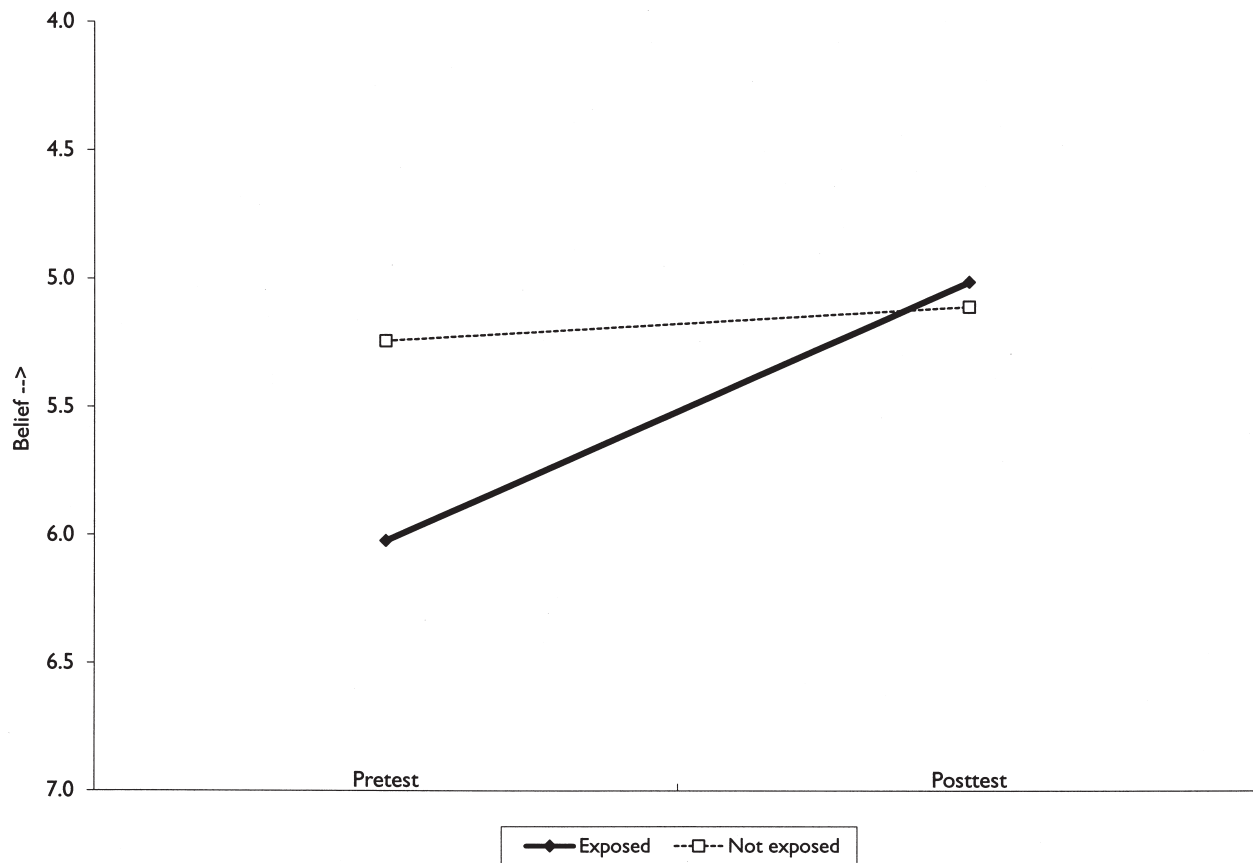
We identified two important gaps in the existing stream of research on rhetorical figures in advertising: (1) neglect of the relatively ubiquitous figure of metaphor in favor of other figures such as pun and rhyme when designing experimental stimuli, and (2) omission of belief change from the roster

of dependent variables investigated. We also noted that the typical experimental design in this research stream, which attempts to equate figurative and nonfigurative stimuli with respect to some claimed attribute, makes it difficult to investigate the effects of rhetorical figures on beliefs about a particular attribute.

We then described an experimental paradigm that reverses the standard approach in this research stream by holding style factors constant while varying content instead. Thus, we eschewed the figure to nonfigure contrast and instead examined only metaphorical stimuli. We developed a new approach to pretesting that used multidimensional scaling to ensure that these metaphorical stimuli conveyed maximally different content, that is, that the metaphors used claimed qualitatively distinct attributes for the advertised object that were located far apart in semantic space.

Pretesting also allowed us to identify more and less figurative metaphors. This allowed us to distinguish the effects of metaphor (i.e., cross-domain comparison) from the effects of figurativeness (i.e., artful deviation). This is important because the theoretical literature in linguistics focuses on the effects of cross-domain comparison, which is a property that all metaphors share regardless of how figurative they are. The

FIGURE 5
Exposure \times Time Interaction for Participants High in Metaphor Ability



empirical literature on rhetorical figures, by contrast, professes not to care whether an expression represents a metaphor or some other construction; what matters is how figurative it is. McQuarrie and Mick are blunt on this point:

particular named rhetorical figures handed down by the classical tradition ought not to be considered as entities *sui generis* that have distinctive impacts on ad processing. . . . Instead, it is artful deviation, irregularity, and complexity that explain the effects of a headline such as “Say hello to your child’s new bodyguards,” and not its assignment to the metaphor category. (1996, p. 429)

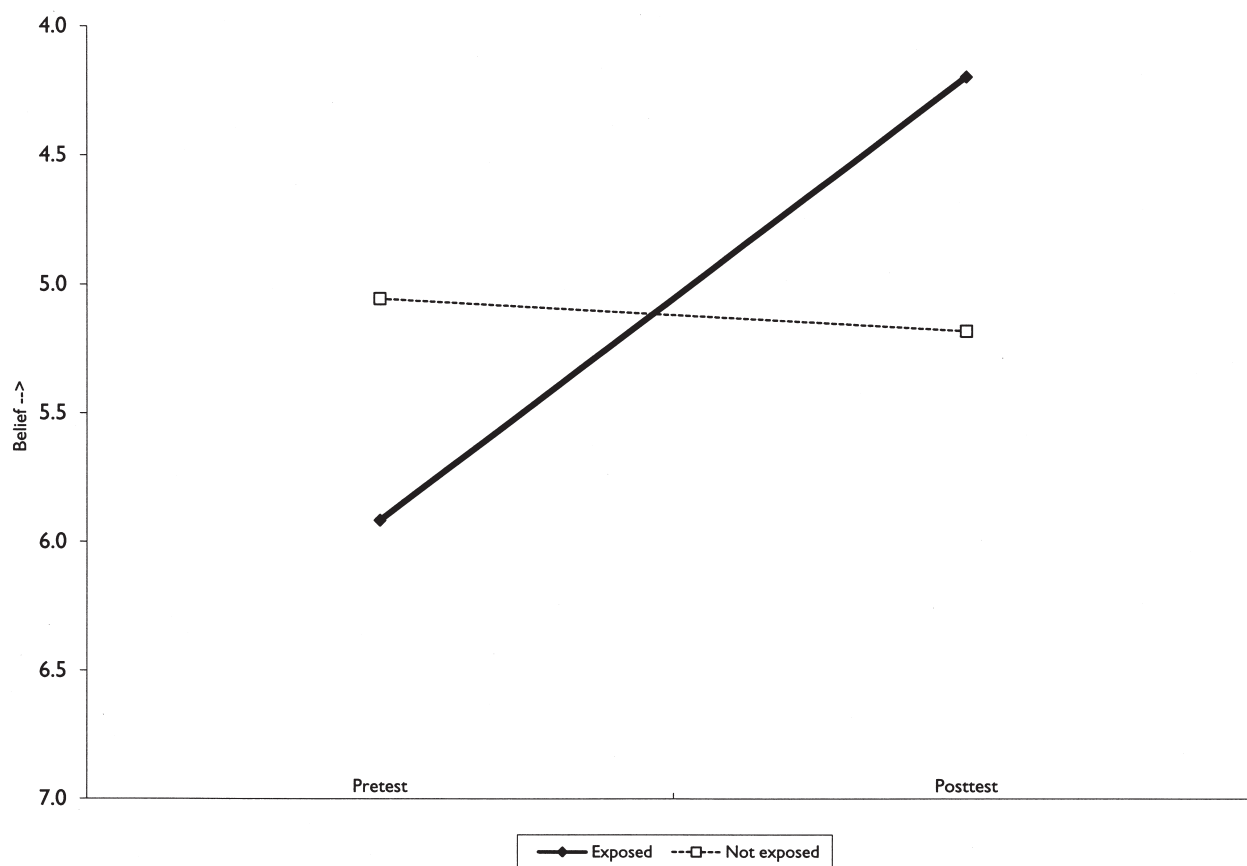
To a linguist, the assertion *argument is dance* communicates something very different from the assertion *argument is war*. After exposure to one or the other, a specific belief such as “it hurts to argue” should come to be held more or less strongly, as it is highlighted or masked by the one set of cross-domain comparisons versus the other.

Our results are not supportive of the linguistic position—at least as far as incidental advertising exposure contexts are concerned. Exposing participants to such metaphorical formulations as *Exercise: roadmap for life* had no significant effect on the corresponding belief that *exercise is a journey*.

Instead, and consistent with the empirical research stream on rhetorical figures, it required a more deviant formulation such as *Exercise: flame for life* to exert a significant impact on the corresponding belief that *exercise is heat*. Returning to the linguistic example, it now appears that if and only if *argument is dance* strikes the audience as artfully deviant (as well it might, within Western culture) will incidental advertising exposure to this metaphor have a measurable effect on belief change. Previous researchers have noted that rhetorical figures containing artful deviations can increase elaborative processing of an ad’s message (McQuarrie and Mick 2003a; Mothersbaugh, Huhmann, and Franke 2002); we speculate that the same mechanism underlies the belief change prompted by the heat metaphor.

It is interesting to note that the results did support the idea that metaphors represent a distinct category of expressions to which a subpopulation of consumers is differentially receptive. Thus, when we grouped consumers by their scores on the test of Metaphor Processing Ability developed by Burroughs and Mick (2004), we found that consumers high in this ability did shift their beliefs, even after exposure to less figurative metaphors such as “Exercise: roadmap for life” or “Exercise: job training for life.” That is, those consumers high in metaphori-

FIGURE 6

Exposure \times Time Interaction for Participants High in Metaphor Ability Exposed to a Highly Figurative Metaphor

cal processing ability appear to engage in more elaborative processing for all kinds of metaphors. This partially contradicts the assertion from McQuarrie and Mick (1996) quoted above, since it appears that metaphors do have a distinctive causal impact on consumer processing—for some consumers. However, this finding has to be regarded as tentative—the design does not permit us to rule out the alternative inference that consumers high in metaphor processing ability are simply more susceptible to *any* kind of influence attempt, regardless of whether or not it involves metaphor or figures. In any case, even this subgroup of consumers responds to a significantly greater degree when exposed to a more figurative metaphor such as “Exercise: flame for life.”

The gist of these results is that artful deviation is of greater importance than cross-domain comparison in predicting consumer response to advertising. The study thus serves to refine the scope of generalizations from both the linguistics literature and past research on rhetorical figures in advertising. This study reinforces the idea that what matters is not whether an advertising headline uses a pun, metaphor, or rhyme, but how artfully deviant that headline manages to be, regardless of its construction. It extends the existing research stream by demonstrating that the positive impact of figurative ads

extends beyond such global outcomes as attitude toward the ad and ad recall to more specific outcomes such as the degree to which the consumer holds a specific belief.

These findings have straightforward implications for advertising practitioners. It appears that a metaphor can successfully be used to alter consumer beliefs in a desired direction, but only if that metaphor is perceived as an artful deviation from expectation by the target audience. Practitioners are encouraged to reach beyond common metaphoric comparisons, however apt or familiar, to develop unexpected and incongruous metaphors relevant to their advertising messages. It is deviant, incongruous metaphors that are most likely to facilitate belief change and persuasion.

FUTURE RESEARCH

The findings of this study should encourage researchers to reexamine the source of the positive effects attributed to other rhetorical figures in advertising. If it is not the simple presence of a metaphor that influences persuasion, but the degree to which that metaphor is deviant, then the same distinction may hold for other figures of speech. For example, Phillips and McQuarrie (2002) found that “wait/weight” and “lite/light”

were common puns used repeatedly during the last five decades of advertising. Hence, it is possible that these puns have lost their deviance through overuse and are no longer capable of influencing consumer response (i.e., they have become dead or frozen, to use terms that appear in the metaphor literature). Future research must move beyond attributing advertising effects to the simple presence of a named figure in an ad toward understanding the underlying factor that is actually driving persuasion outcomes. Likewise, rhetorical figures may not be the only or even the best way to incorporate deviation and incongruity into an advertisement, and future research might examine alternative ways of artfully constructing deviant ads.

In the same vein, recent studies have suggested that visual metaphors may be more effective at eliciting positive outcomes than verbal metaphors (McQuarrie and Mick 2003a; McQuarrie and Phillips 2005). Again, we would ask whether it is the metaphoricity or the deviance of the advertising picture that is the key factor driving this finding. Some images, such as feathers and kittens used to convey softness, may be conventional and lack the necessary deviance to achieve belief change. As noted above, if deviation rather than metaphoricity is the factor that causes certain kinds of stylized advertising pictures to alter consumer response, then in addition to the specific visual deviations discussed in Phillips and McQuarrie (2004), researchers may want to investigate other kinds of visual deviations. Finally, a limitation of the present study is that we combined verbal metaphors with pictorial elements that were carefully selected to in no way leverage the verbally stated metaphor. A very different kind of design might combine interrelated verbal and visual metaphors, and compare their separate and additive effects (Mothersbaugh, Huhmann, and Franke 2002).

In addition to studying ad elements, the current findings suggest avenues for further differentiating the audience for advertising. We found participants high in metaphoric processing ability to be more persuaded by metaphorical ads, even when those ads were low in deviation. It remains to be seen whether such consumers are drawn to verbal metaphors per se, to all metaphors in any modality, or even to all verbal figures of speech. Similarly, there may exist populations of consumers who are differentially sensitive to other specific rhetorical figures and are more likely to elaborate ads containing these figures than ordinary consumers (e.g., those high in "pun ability" or "rhyme sensitivity"). If consumers who are particularly sensitive to different kinds of figurative speech also differ in other identifiable ways, such as gender or age, media planning may be able to target them, thus allowing the creators of the ads to further refine and focus their choice of stylistic elements.

In summary, this study extends our knowledge of the power and the limits of metaphor as a persuasive device in advertising.

However, much more remains to be done to further theoretical and practical understanding of the contribution of both metaphor and other kinds of rhetorical figures.

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