



## Do opposites attract? Understanding opposition in promotion

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### ABSTRACT

Opposition, a promotion execution style that uses contrasting/contradictory images and/or verbal cues, is recognizable across numerous media. In spite of its popularity and perceived effectiveness, empirical evidence regarding opposition as an effective execution mechanism is limited. A series of three experiments demonstrates that the underlying mechanism for opposition is reduction of visual complexity and the simplification of processing that leads to increased recall of product claims. In addition, the moderating impact of cognitive load is examined, showing that under high cognitive load, recall is significantly higher for oppositional appeals than for non-oppositional ones. Theoretical and managerial implications are offered.

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“Cause you’re hot then you’re cold You’re yes then you’re no You’re in and you’re out You’re up and you’re down You’re wrong when it’s right It’s black and it’s white...” (Katy Perry, “Hot n Cold”, 2008).

### 1. Introduction

Developing a message and creative strategy that is easy to comprehend and attracts attention is often a challenge for advertisers/marketers. A number of creative design principles help structure how visual and verbal elements are positioned within a promotional communication (Bartel, 2010). For example, contrast is used to create emphasis and to gain attention via a comparison of rhetoric, verbiage, or visuals (Moriarty, 1986). This principle is derived from the *law of contrast* which states that, “...other things being equal, the duration and degree of attention depend upon the contrast of an object with surrounding objects” (Starch, 1914, p. 72).

Comparison and contrast is a classic execution technique, “...inspired by the tension between the antitheses” (Pricken, 2008, p. 60), that can be applied in a variety of ways. For example, it may show the before and after effects of a product, or demonstrate the contrast between the problem situation and the benefits (Pricken, 2008). In addition, comparison and contrast can be applied to generate paired opposites that are relatively concrete (e.g., beautiful–ugly) or more abstract (e.g., animal–human). The focus of this research is on one element of advertising contrast that we define as *opposition*.

Opposition is defined as “...the relation between two propositions in virtue of which the truth or falsity of one of them determines the truth or falsity of the other,” or “the act of opposing, or the state of being opposed by way of comparison or contrast” (“opposition”, *American Heritage Dictionary*, Fourth Edition). In their discussion of advertising language, McQuarrie and Mick (1996) identify tropes as a key form of figurative rhetoric that increase destabilization in several forms, one of which is opposition. Thus, opposition in promotion is here defined as the practice of pitting two seemingly opposing views (e.g., images) in a promotional message (e.g., ad). Oppositional appeals can feature either literal or metaphorical opposition, often originating from consumer mythology (Levy, 1981). For example, inside/outside and weak/strong are examples of binary opposition. In contrast, heart/mind and beauty/power illustrate metaphorical opposition. While opposition is apparent in a variety of marketing campaigns and executions (e.g., *Crystal Light's* “pale” versus “pumped” print ad depicting ordinary versus “one of a kind” females), there is virtually no empirical evidence regarding its effectiveness. This paper extends existing literature to explore when and how oppositional communications are effective.

We propose that opposition is an executional tool that simplifies decision-making and perceptual cognition. A series of three experiments demonstrates that the underlying mechanism for opposition is the reduction of visual complexity and the simplification of processing. A pilot study supports previous research that at a fundamental level, antonyms (opposites) are easier to generate than synonyms (similarities) (Krishen, Nakamoto & Herr, 2008; Lichtenberg, 1962). Study 1 compares perceived complexity of an oppositional print ad to a non-oppositional ad for the same (known) product. Study 2 manipulates verbal and visual components in a print advertisement for a hypothetical brand to test if perceived complexity and ad copy

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recall vary for oppositional versus non-oppositional execution formats. As technology and changing lifestyles create environments that require more cognitive demands, consumers often seek ways to simplify the decision-making process (e.g., apply heuristics; cf. Garbarino & Edell, 1997). In response, Study 3 examines whether the effectiveness of incorporating opposition in marketing-dominated messages is moderated by cognitive load.

## 2. Conceptual framework and background

Opposition in promotion, as defined here, consists of verbal and/or visual metaphorical or literal positioning of information for the featured object (e.g., brand or product category). First, this presentation format is conceptualized in an attempt to answer the question, what motivates a firm to use this creative executional format (tactic) to promote a product? Next, the processing benefits of using oppositional appeal formats are discussed.

### 2.1. The concept of opposition

#### 2.1.1. The benefit of creative advertising

Extant research shows that creative advertising can lead to more favorable brand positioning. For example, Baack, Wilson and Till (2008) confirm that advertising creativity in traditional media leads to increased unaided recognition and recall, thereby providing additional evidence for the widely-held notion that “creativity sells” (Sasser & Koslow, 2008). Novelty, meaningfulness, and connectedness, key components of the advertising creativity cube, produce higher levels of recall and attitude towards the ad ( $A_{ad}$ ) (e.g., Ang, Lee & Leong, 2007). From a broader perspective, Mercanti-Guerin (2008) identifies originality, usefulness, complexity, and aesthetics as the four key dimensions of a creative product. These are but a few examples of creative elements shown to be effective persuasion tools in the academic literature. We posit that visual and verbal opposition is a powerful creative execution format/mechanism.

Firms often make use of another creative mechanism in advertising: visual and/or verbal metaphor. Conceptual metaphor theory suggests that the traditional definition of metaphor is broad and abstract, and that metaphor “...unites two disparate domains and at the same time recognizes the asymmetry between them” (Joy, Sherry & Deschenes, 2009, p. 40). Our conceptualization of opposition involves both visual and verbal message format strategies that often include literal as well as metaphorical opposition. Brain versus brawn is a common example of a metaphorical opposition. Jeong (2008) argues that visual argumentation is a powerful and persuasive technique used in advertising that can be more persuasive than its verbal counterpart. In contrast, McQuarrie and Phillips (2005) suggest that the strategic managerial advantage of visual and verbal metaphor in advertisements is its’ ability to spontaneously motivate multiple positive inferences. More recently, the authors show that metaphor in advertising can elicit changes in beliefs, especially when executed in a highly figurative context (Phillips & McQuarrie, 2009). We argue (and test) that using metaphorical opposition (via visual and verbal executional elements) increases message comprehension.

#### 2.1.2. Priming consumer mind-sets

Creative executives can also design promotions that cue or prime consumers. Academic research supports that, in an experimental paradigm, people can be primed at a semantic level (actual words given in a memory-based task) and also at a mindset level (e.g., by priming an abstract versus concrete mindset). Higgins, Bargh and Lombardi (1985) propose a recency-frequency model of activation, arguing that when a mindset is active in memory, an ambiguous stimulus is categorized according to the prime that is active in memory.

A pilot study explores the basis of oppositional thinking by comparing the ability and ease with which people generate opposites versus synonyms. [Findings show that antonyms are easier to generate than synonyms as measured by total words ( $t(48) = 5.40$ ,  $p < .001$ ;  $M_s = 22.20$  versus 15.60), and correct words ( $t(48) = 4.75$ ,  $p < .001$ ;  $M_s = 21.00$  versus 14.76). Those asked to generate word opposites also find the task to be less difficult ( $t(48) = 5.29$ ,  $p < .001$ ;  $M_s = 2.80$  versus 5.42), and are more confident ( $t(48) = 2.89$ ,  $p < .001$ ;  $M_s = 6.99$  versus 5.47).] The foundation for the primary studies lies in the concept of mind-sets and the law of cognitive structure activation (Sedikins & Skowronski, 1991), which proposes that the method of encoding an ambiguous stimulus is based on the most active structure in memory and the one that is most semantically similar to the stimulus itself. Recent and frequent activation of a construct increases the accessibility of that construct, even if not intentionally (Higgins & Chaires, 1980). The framework here posits that oppositional thinking (1) occurs due to frequent activation of comparison and contrast in the learning process (Bartel, 2010) and (2) stems from a decisional heuristic (Krishen et al., 2008).

#### 2.1.3. Complexity in advertising

The use of opposition in an advertisement provides consumers with information processing benefits. As previously mentioned, complexity plays a key role in the definition of creativity (Dahl, Frankenberger & Manchanda, 2003). Higher perceived complexity in an ad is typically thought to be a negative feature, as processing complex elements require increased cognitive effort. Although individuals may possess varied levels of cognitive ability, research repeatedly shows that promotions should aim for simplicity (Zinkhan & Martin, 1983). From a design perspective, more information in a promotional message increases actual complexity (Mercanti-Guerin, 2008), and from a consumer perspective, more information can lead to information overload. Achieving an optimal level of complexity in ad copy and visual images, while minimizing overload and perceived complexity, is a constant challenge for advertisers/marketers.

In an advertising context, Putrevu, Tan and Lord (2004) identify four relevant dimensions of complexity: visual, technical, lexical, and information complexity. The visual complexity dimension is perhaps most relevant here, defined as a function of the number of elements presented, the dissimilarity between the elements, and the level at which these elements belong to one unit (Berlyne, 1970). In a developmental psychology realm, Chipman and Mendelson (1979) show that perceived complexity in visual images is a function of pattern structure and symmetry, among other variables. Increased visual complexity can also lead to increased motivation to process and deeper processing (MacInnis, Moorman & Jaworski, 1991).

Promotional executions that incorporate verbally detailed message structure increase information complexity: the extent to which they contain extensive and descriptive product details (Putrevu et al., 2004). Whereas high informational complexity may create decision difficulty in terms of information load, research also reports that such complex information may help consumers distinguish brands and thereby enhance persuasion (Stewart & Koslow, 1989). In contrast, others argue that consumers seek to minimize the information needed for decision-making (e.g., Malhotra, 1982), and that information overload is a possible consequence of the presentation of too many choices or product attributes (e.g., Keller & Staelin, 1987). The phenomenon of overchoice, seemingly associated with informational complexity, has been studied via an effort-accuracy framework, with the underlying argument centering on its adverse affect on choice quality (Payne, Bettman & Johnson, 1993). More recently, Mick, Broniarczyk and Haidt (2004) discuss the harmful consumer outcomes of hyperchoice such as increased stress, negative emotions, and decreased satisfaction.

Overall, this body of literature suggests that increased choice complexity has negative consequences for consumer decision-making. Thus, while some complexity may assist with brand differentiation (Stewart & Koslow, 1989), we argue that increased complexity within a promotional communication has a detrimental impact on viewers' ability to process and recall message content.

**H1.** An oppositional format is less complex than a non-oppositional format.

**H2.** An oppositional format enhances memory of message content more than a non-oppositional format.

### 3. Study 1

#### 3.1. Overview, stimulus development, and measures

To better understand how opposition works in a promotional context, Study 1 (S1) begins with a simple test that uses one particular (professional) print ad for a popular children's drink (*Caprisun*) that fits the defined oppositional format. H1 proposes that viewers perceive that an oppositional format is less complex (though it has more physical information). Half of the respondents viewed the oppositional ad and the others viewed only the half of the ad that "sells" the product (see Appendix A). Thus, this experiment is a single factor between-subjects design with two groups (*appeal format*: oppositional versus non-oppositional).

*Perceived complexity* is assessed with six scale items: not/very complex, dense, crowded, overwhelming, simple, and no variety/much variety ( $\alpha = .88$ ; cf. Geissler, Zinkhan & Watson, 2001). Measures also capture *ad credibility* (not/very believable and credible; Spearman Brown reliability coefficient (SBRC) = .78), *ad uniqueness*, *ad professionalism*, *ad clarity*, *ad eye-catchiness*, and *ad creativity* (the last five judgments are single-indicator constructs). To account for prior familiarity with the (known) advertised brand, we measure *familiarity* with a single item, "How familiar are you with the *Caprisun Roarin Waters*' product?" (Johnson & Russo, 1984). In addition, *product knowledge* is measured with a three-item Likert-type scale that averages the following items (strongly disagree/strongly agree endpoints): "I understand beverage offerings well enough to evaluate the different brands," "Choosing a brand in this product category is rather complicated," and "If I ever pick a brand in this category, I will feel confident that I will be making the right choice" ( $\alpha = .73$ ). [All measures in all studies use 9-point formats unless otherwise indicated.]

#### 3.2. Subjects and procedure

Fifty-four undergraduate students enrolled at a large state-supported Western University received course credit for participation (56% female, median age = 22.1, mean age = 22.6). In a small classroom setting (approximately 15 subjects per session), participants first read the general instruction page including a statement of the cover story for the experiment: "This is a study about Advertising and related forms of promotion." After viewing one of the test ads (timed), participants completed the questionnaire containing the key dependent measures at their own pace. Both experimental treatments were administered randomly ( $N = 27$  in each treatment) by an administrator who was blind to the treatment assignments and research hypotheses.

#### 3.3. Results — Study 1

The print advertisement features a known product and thus, familiarity is treated as a covariate to account for prior knowledge and experience with the brand. Analyses of additional potential covariates reveal that the two ads are judged to be comparable in terms of

credibility ( $F(1,52) = 1.70, ns$ ), eye-catchiness ( $F(1,53) = 0.22, ns$ ), professionalism ( $F(1,53) = 2.50, ns$ ), and clarity ( $F(1,53) = 2.57, ns$ ). The two ads are also rated as being similar in terms of *uniqueness*, which serves to refute a "novelty" explanation ( $F(1,53) = 2.02, ns$ ). However, the oppositional advertisement is perceived to be more creative than the non-oppositional version ( $F(1,53) = 4.55, p < .05$ ,  $M = 6.15$  versus  $M = 5.04$ ). Based on these execution-related results, familiarity and ad creativity are included as covariates in the primary hypothesis test. After accounting for familiarity ( $F(1,53) = 1.65, ns$ ) and ad creativity ( $F(1,53) = 1.64, ns$ ), ANCOVA analyses reveal an appeal format effect for complexity (see Table 1), supporting H1 that the oppositional ad is perceived to be less complex than the non-oppositional ad ( $F(1,50) = 9.93, p < .01$ ,  $M = 2.99$  versus  $M = 4.16$ ; partial eta squared = .166; observed power = .871).

The literature confirms that brand familiarity is a critical element that can influence consumer processing (e.g., Dawar & Lei, 2009; Homer, 2006) and recall (Mikhailitchenko, Javalgi, Mikhailitchenko & Laroche, 2009). "Familiar and unfamiliar brands differ in terms of the knowledge regarding the brand that a consumer has stored in memory" (Campbell & Keller, 2003, p. 293). To eliminate any unmeasured effects of brand knowledge and brand usage and to overcome the above creative differences, the next two studies use more "comparable" stimuli that feature an unknown brand.

### 4. Study 2

#### 4.1. Overview and stimulus development

Study 2 (S2) overcomes some weaknesses associated with S1 and expands on the pilot study finding that tasks involving opposites are less difficult than tasks involving similarities. Similar to S1, oppositional versus non-oppositional visual and verbal information (*appeal format*) is manipulated within a print ad for a new car (fictitious brand name, *Mogen*, selected based on pretest showing that the name *Mogen* had no excitement, image, or attribute-related associations). The oppositional ad depicts two "opposing" images: a V6 engine is shown on top with the heading "Inside." And below, is an exterior shot with the heading "Outside." The visual component is manipulated by removing the contrasting image in the non-oppositional ad (versus the oppositional ad): the non-oppositional ad shows only the bottom exterior image with the same "Outside." heading. The layout is constant across the two colored ads (except that one is slightly wider to retain image proportions), and the copy varies only slightly to achieve two other goals. First, the oppositional ad includes verbal opposition ("Power inside and beauty outside."), whereas the non-oppositional ad does not mention nor depict power ("Beauty in many

**Table 1**  
Summary of treatment means.

	Oppositional format			Non-oppositional format		
	Mean	SD	N	Mean	SD	N
Study 1						
Complexity	2.99	1.18	27	4.16	1.47	27
Study 2						
Complexity	3.03	0.99	23	3.54	0.71	23
Claim recall	2.44	1.07	23	1.44	1.89	23
Recognition	0.72	0.24	23	0.56	0.23	23
Study 3						
High Load						
Complexity	3.67	1.14	46	4.23	1.17	44
Claim recall	0.49	1.99	47	-0.39	1.64	47
Low Load						
Complexity	3.79	1.06	34	3.40	1.02	34
Claim recall	-0.11	2.11	34	0.18	1.47	33

forms” replaced “Power inside and beauty outside.”). In order to equalize the amount of ad information, the non-oppositional ad mentions “comfortably seats five” to counterbalance the power claim. The other copy claims are constant across both ads:

- A sculpted design and wide stance give the Mogen a sophisticated look unlike any other premium sedan on the road.
- And if that weren't enough, it also gets 26 mpg. [See [Appendix A](#) for stimuli.]

#### 4.2. Ad stimulus pretest

A pretest (N=85) provides evidence that the previously described appeal format manipulation works as intended. Subjects (from the same general population as S1) viewed and evaluated one of the two ads (randomly assigned) in a classroom setting. As desired, analyses show that the ads are equivalent in terms of professionalism, clarity, credibility, informativeness, and creativity. There are also no appeal format differences for task involvement (two-item construct; involved, interested) or product knowledge (single-indicator construct) and thus, the manipulation was deemed effective.

#### 4.3. Subjects and procedure

A total of 46 undergraduate students (23 exposed to each ad) enrolled at a large state-supported Western University received course credit for participation (50% female, median age=23, mean age=23.2). S2 follows the same basic procedure as S1.

#### 4.4. Dependent measures and construct development

To separate the viewing task from the critical dependent measures, subjects were first asked to “describe the advertisement that you viewed. What was the advertisement trying to convey?” On a separate page, participants were then asked to “list the product claims made in the advertisement.” To assess comprehension, *total correct recall* is calculated as the number of correctly recalled claims minus the number of incorrectly recalled claims (cf. [Homer & Batra, 1994](#)). This recall task was followed by a set of cued recognition ad claims (on a separate page): subjects checked those attributes (e.g., beauty, speed) that they recalled being mentioned in the ad (“bogus” attributes are included in this list). A *total correct recognition* scale is calculated as the number of correct items checked minus the number of incorrect items checked. The recall and recognition tasks were followed by ad-related measures (details below), familiarity with sedan cars (single indicator), ad familiarity (measured because an image comes from a recent print campaign), car involvement (involved, interested; SBRC=.90), age, and gender.

To enhance construct reliability, S2 uses a more comprehensive set of ad evaluation items. Construct development yields the following reliable scales: *perceived ad complexity* (six items used in S1 and not complicated/very complicated;  $\alpha=.80$ ), *A<sub>ad</sub>* (negative/positive, unfavorable/favorable, dislike/like;  $\alpha=.95$ ), *ad clarity* (clear/not clear, easy to understand/hard to understand; SBRC=.96), *ad credibility* (meaningless/meaningful, not/very credible and believable;  $\alpha=.72$ ), *ad quality* (low/high quality, not professional/professional; SBRC=.85), and *ad creativity* (not/very creative and eye-catching; SBRC=.74).

#### 4.5. Results – Study 2

##### 4.5.1. Manipulation check and ad equivalence tests

As a manipulation check, per previous research (e.g., [Homer & Yoon, 1992](#)), thoughts from the ad description task were coded by two

independent coders (98% agreement) into the following categories: Oppositional; Visual-positive, negative, neutral ( $Vis_{pos}$ ,  $Vis_{neg}$ ,  $Vis_{neut}$ ); and Verbal-positive, negative, neutral ( $Ver_{pos}$ ,  $Ver_{neg}$ ,  $Ver_{neut}$ ). In addition to affirming the pretest results ([Section 4.2](#)), those exposed to the oppositional ad elicited more “oppositional” thoughts than those exposed to the non-oppositional ad ( $F(1,44)=13.87$ ,  $p=.001$ ;  $Ms=0.57$  versus 0.00). There are no differences between the two ads for all other thought categories. As desired, the ads are rated as comparable in terms of overall  $A_{ad}$ , quality, clarity, credibility, informativeness, and creativity. There are also no appeal format differences for product knowledge, ad familiarity (as the image is from an existing print ad), or product familiarity.

##### 4.5.2. Hypothesis tests

As predicted (H1), the oppositional ad is rated as less complex than the non-oppositional ad ( $F(1,44)=4.03$ ,  $p=.05$ ;  $Ms=3.03$  versus 3.54; partial eta squared=.084; observed power=.501). In support of H2, claim recall ( $F(1,44)=4.90$ ,  $p=.03$ ;  $Ms=2.43$  versus 1.43; partial eta squared=.100; observed power=.581) and recognition ( $F(1,44)=4.83$ ,  $p=.03$ ;  $Ms=0.72$  versus 0.57; partial eta squared=.099; observed power=.575) are higher for the oppositional ad versus the non-oppositional one.

##### 4.5.3. Mediation tests

We argue previously that reduction in perceived complexity results in enhanced claim recall for ads with oppositional elements. In other words, our framework suggests that perceived complexity acts as a mediator between appeal format and recall:

appeal format→complexity→recall.

Applying [Baron and Kenny's \(1986\)](#) 4-step regression approach, results reveal (1) a significant direct effect between appeal format (non-oppositional ad coded as “0” and oppositional ad coded as “1”) and recall ( $F(1,44)=4.90$ ,  $b=.32$ ,  $t=2.21$ ,  $p<.05$ ), and (2) a significant effect between appeal format and perceived complexity ( $F(1,44)=4.03$ ,  $b=-.29$ ,  $t=-2.01$ ,  $p=.05$ ). (3) The effect of perceived complexity on recall is also significant ( $F(1,44)=4.70$ ,  $b=-.31$ ,  $t=-2.17$ ,  $p<.05$ ). Lastly, (4) when controlling for perceived complexity, the main effect of appeal format on recall is rendered insignificant ( $F(2,43)=3.87$ ,  $b=.25$ ,  $t=1.69$ , *ns*). In summary, the ad appeal format has an indirect effect on claim recall via perceived complexity that dominates over any direct effect.

#### 5. Study 3

Mind-sets are cognitive frames that cause people to organize relationships between information such that they are consistent with the priming they receive ([Bayuk, Janiszewski & Leboeuf, 2010](#)). In psychological terms, the idea of “thinking oppositionally” evokes the idea of an oppositional “mind-set”. Priming subjects with opposites (versus similarities) prior to completing a decision task, [Krishen, Nakamoto, and Herr \(2008; Study 1\)](#) show that subjects in an oppositional (or dichotomous) mind-set report significantly less decision difficulty and frustration when presented with large choice sets. Motivated by the mind-set concept and existing evidence that oppositional thinking reduces the negative impact of cognitive load ([Krishen et al., 2008](#)), Study 3 (S3) examines whether the appeal format effects in S2 are qualified by cognitive load. Cognitive effort has been studied extensively across multiple disciplines (e.g., [Fiske & Taylor, 1984](#); [Hogarth, 1987](#); see [Garbarino and Edell \(1997\)](#) for a concise summary). It is well-established across fields that humans have limited cognitive resources that they try to allocate “judiciously” ([Garbarino & Edell, 1997, p. 148](#)), and that many are “cognitive misers” ([Fiske &](#)

Taylor, 1984, p. 12). The basic premise is that when cognitive resources are constrained, promotional communications that are more effortful to process (i.e., those that are more complex, e.g., non-oppositional) inhibit the recall of message claims.

**H3.** Under high cognitive load, an oppositional format is perceived as less complex compared to a non-oppositional format.

**H4.** Under high cognitive load, an oppositional format yields greater recall of message claims compared to a non-oppositional format.

### 5.1. Design overview and stimulus development

S3 employs a 2 (oppositional/non-oppositional *appeal format*)  $\times$  2 (low/high *cognitive load*) between-subjects factorial design. Appeal format is manipulated via the same ads used in S2. The cognitive load manipulation is achieved by asking subjects in the high load condition to recall a 10 character alphanumeric string prior to the ad viewing task (this manipulation is effective in past studies in the literature, e.g., Darke, Chattopadhyay & Ashworth, 2006). S3 does not include the ad description task used in S2 so as to create a true “low cognitive load” setting (and high load condition).

### 5.2. Subjects and procedure

A total of 197 undergraduate students received course credit for participation (51.2% female, median age = 22, mean age = 23.2). In a small classroom setting (approximately 15 per session), subjects first read the general instruction page including the statement of the cover story for the experiment: “This is a study about Advertising and related forms of promotion.” Those in the high cognitive load condition were instructed to memorize a 10-character alphanumeric string (cf. Darke et al., 2006) before viewing one of the two test ads. The procedure then followed that of S1 and S2 (e.g., random assignment, self-paced).

### 5.3. Dependent measures and construct development

For those in the high cognitive load condition, the first question asked them to recall the 10-character alphanumeric string. [Those unable to recall the string ( $N=34$ ) were removed prior to data analysis (cf. Darke et al., 2006), resulting in a final sample  $N=163$ ,  $N=68$  and  $N=95$  for low and high load conditions, respectively.] Next, subjects ( $Ss$ ) were asked to list the product claims made in the advertisement, followed on a separate page by the same set of ad attitude items used in S2. *Total correct recall* is calculated following the procedures detailed previously (S2). In addition, we assess product knowledge (3 items;  $\alpha=.65$ ), familiarity with sedan cars (single indicator), ad familiarity, car involvement (involved, interested in cars;  $SBRC=.98$ ), age, and gender. S3 uses similar scales as those in S2 for perceived *ad complexity* ( $\alpha=.73$ ), *A<sub>ad</sub>* ( $\alpha=.93$ ), *ad clarity* ( $SBRC=.86$ ), *ad credibility* ( $\alpha=.71$ ), *ad quality* ( $SBRC=.83$ ), and *ad creativity* ( $SBRC=.68$ ).

### 5.4. Results – Study 3

#### 5.4.1. Ad equivalence tests and covariates

As desired, the two test ads are comparable in terms of ad creativity, quality, clarity, and credibility (all  $p>.05$ ). The ads are also judged to be equivalent in terms of *A<sub>ad</sub>*, car involvement, and product knowledge. However, additional analyses show some treatment effects for car familiarity, ad familiarity, and gender and thus, these are included as covariates in all hypothesis tests.

#### 5.4.2. Hypothesis tests

To test for the interaction predicted in H3, a 2 (oppositional/non-oppositional *appeal format*)  $\times$  2 (low/high *cognitive load*) ANCOVA is

conducted with *perceived complexity* as the dependent variable and the three covariates noted previously. Consistent with H3, after controlling for the covariates, the appeal format  $\times$  cognitive load interaction effect is significant ( $F(1,152)=7.18, p<.01$ ; partial eta squared = .045, observed power = .759). Planned comparisons (H3) reveal that in the high load condition, ad complexity is greater for non-oppositional ads ( $M=4.20$ ) than for oppositional ones ( $M=3.71$ ;  $t(89)=2.01, p<.05$ ). Comparisons also reveal that for non-oppositional ads, ad complexity is significantly higher under high cognitive load ( $M=4.20$ ) versus low cognitive load ( $M=3.29$ ;  $t(76)=3.35, p<.01$ ). Lastly, consistent with past research, a main effect for cognitive load indicates that respondents perceived that the ad was more complex when cognitive load was constrained ( $F(1,152)=4.13, p<.05, M_{HIGH}=3.95$  versus  $M_{LOW}=3.59$ ).

H4 tests for message claim recall effects: the appeal format  $\times$  cognitive load interaction effect is significant ( $F(1,154)=3.92, p<.05$ ; partial eta squared = .025; observed power = .503). As predicted, planned comparisons indicate that under high cognitive load ( $t(93)=2.26, p<.05$ ), recall is significantly higher for oppositional ads ( $M=0.49$ ) than for non-oppositional ones ( $M=-0.39$ ) and the two ads yield similar recall levels under low cognitive load ( $M_{OP}=-0.11$  versus  $M_{NONOP}=0.18$ ;  $p>.74$ ; see Fig. 1).

## 6. General discussion

While contrast is perhaps most typically used to create emphasis in promotional communications, we show that one form of contrast, opposition, facilitates processing. In addition, the above studies extend the concept of opposition in choice sets (Krishen et al., 2008) to a marketing/advertising context, showing that it is a perception phenomenon that cuts across multiple human tasks. As such, these studies demonstrate that opposition not only allows individuals to make easier decisions, but it can also enable more simplistic perceptual processes. Thus, while opposition does not appear to reduce information load, it is a creative technique that can reduce perceived complexity. In addition, tests of the impact of cognitive load find that when resources are limited, oppositional thinking serves to reduce perceived complexity and in turn, processing is enhanced (as measured by memory).

The findings have both theoretical and practical implications. Theoretically, the pilot study confirms that humans find it easier to generate and process similarities (e.g., synonyms) than opposites (antonyms). More interestingly, data establish that oppositional cues in print ads are perceived to be less complex which should be

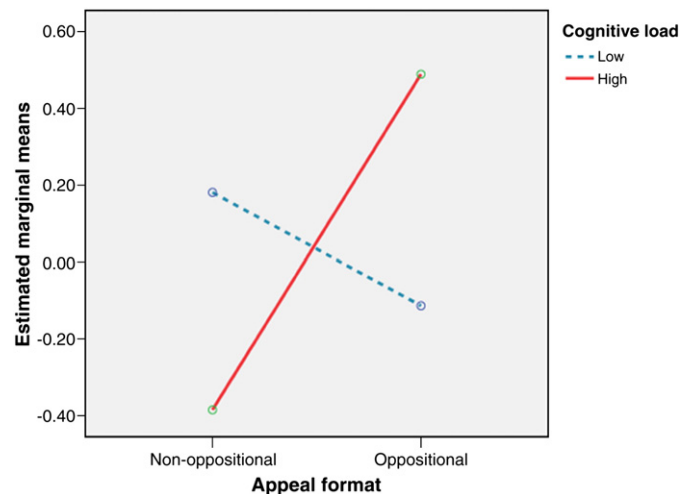


Fig. 1. H4 interaction effect for recall [Study 3].

appealing to the “cognitive misers” of the world. Recent technological advances and changing lifestyles have created environments that require more cognitive demands, thus motivating consumers to seek ways to simplify decision-making (e.g., apply heuristics; cf. Garbarino & Edell, 1997). The results also provide evidence that the impact of oppositional/non-oppositional visual and verbal informational cues is not a simple phenomenon, but rather that effects are qualified by cognitive load. When cognitive resources are constrained, promotional messages that are more effortful to process (i.e., those that are more complex; e.g., non-oppositional) inhibit recall of message claims.

It is well-established across social science disciplines that visual cues are easier to process, contain more information, are easier to remember, and are often preferred compared to verbal cues (e.g., Childers, Houston & Heckler, 1985; Homer & Gauntt, 1992). For example, Childers et al. (1985) show that individuals prefer to have visual descriptions of items rather than verbal descriptions, and musicians prefer pictorial scales over verbal scales. More recently, Wedel and Pieters (2000) find that ad-based brand memory effects are robust and that visual rather than verbal information tends to create higher recall. Opposition in print ads is manipulated via visual and verbal cues. Future research should explore (1) whether visual and verbal oppositional cues are processed differently, and (2) how they impact brand and ad-related responses. We argue, but do not confirm empirically, that a combination approach where both visual and verbal elements convey opposing information is most effective.

Advertisers commonly argue that vivid or prominent stimuli are more attention-getting with more imagery-evoking power than non-vivid stimuli (e.g., Finn, 1988). To the extent that oppositional cues are perceived to be more vivid than non-oppositional ones, future research may explore if such appeals garner more attention and thus, are more effective. The memory-based findings support this line of reasoning. Furthermore, while one may argue that our oppositional appeal format effect was merely a replication of a “novelty effect” (also known as the “Von Restorff Effect”), some of the data suggest otherwise (e.g., Jakobovits, 1968; Von Restorff, 1933). Recall that S1 data appear to refute that the oppositional ad was perceived as more novel (as measured by uniqueness). Berlyne (1970) finds that ratings of complex patterns increase and then decrease after the third trial, whereas ratings of simple patterns decrease throughout, indicating that complexity moderates the novelty effect. [See, e.g., Homer and Kahle (1986) for a discussion of novelty.] In conclusion, the novelty/opposition “connection” remains inconclusive.

From a practical perspective, findings support managers' use of oppositional ad-based cues as effective persuasive tools. As decision environments require more cognitive demands, consumers often seek ways to simplify the decision-making process. Oppositional execution elements are one way that advertisers/marketers can assist consumers seeking cognitive economy. Firms might design promotions that prime consumers to think oppositionally via visual and verbal execution cues. More specifically, by priming oppositional thinking, managers stress their brands by defining what something is by knowing what it is *not*. For example, when asked to define what “sophisticated” means, people often say “not crude.” Thus, a brand that wishes to position itself as sophisticated could use “less crude” as a verbal cue and tie that into a visually oppositional execution.

There is an inherent connection between oppositional thinking and comparative thinking. Lichtenberg (1962) argues that (1) “the more a person values comparatively, the more he thinks oppositionally”, (2) “the more a person values comparatively, the more he will contrast values with disvalues” (p. 99), and (3) that comparative valuation and opposition are often so closely tied that it is impossible to separate them. To the extent that oppositional elements in a promotional message motivate comparative thinking about competitive brands,

such appeals may not be appropriate for trailer brands. However, in the appropriate situation, using an oppositional format to compare two different brands (comparative ads), may be an effective method to intensify product characteristics and differences. In fact, since comparative ads increase attention, involvement, and motivate higher stimulation levels, this message strategy combined with an oppositional execution may be effective (Pillai & Goldsmith, 2008), especially for new or improved products (Yagci, Biswas & Dutta, 2009). In addition, managers should pick the specific oppositional element(s) carefully: keep the focus on the brand's strength(s). For example, power/beauty will work for the car with superior horsepower – not for the “slow” brand.

Another idea worth visiting is “two-fers” (Felton, 2006), an entire category of appeals that incorporate information in sets of two, both visually and verbally. Comparative advertisements have been studied as one particular example of two-fers. Managers can consider visual versus verbal opposition and the use of metaphor in oppositional advertisements. For example, verbal opposition (using contrasting words such as simple/complicated, exciting/boring, good/bad) and visual opposition (such as dark and light colored products, contrasting image colors) are two different ways to increase memory recall.

### 6.1. Limitations and research directions

The above-presented experiments are limited in size and scope: for example, they use a single media type and sample college students. Whereas data show that an oppositional print ad is effective when cognitive resources are limited, future research is necessary to determine other qualifying factors (moderators and mediators) that render this format more effective than others. For example, do oppositional formats lose their effectiveness over time and what levels of repetition motivate boredom or tedium?

Oppositional thinking is sometimes associated with processing negative information. For example, the “pale” versus “pumped” *Crystal Light* appeal implies that being pale is inferior to being seen as pumped. A “negativity effect” has been reported across disciplines showing that negative information is processed more deeply and has higher processing “weight” compared to “equal” positive information (e.g., Homer & Batra, 1994). The “connection” between oppositional execution format and the negativity effect, and the general concept of informational valence deserves further attention.

Consumers use heuristic processing (effortless and relatively automatic) and systematic processing (conscious and effortful elaboration), depending on circumstances. For example, heuristic processing is more common under low elaboration and a combination of heuristic and systematic processing is more likely under high elaboration (e.g., Darke et al., 2006). Future research might investigate how an oppositional format influences heuristic versus systematic processing. In addition, while this research studies the impact of opposition in a print advertising context, this can be extended to product packaging and other media. As findings indicate that an oppositional format increases recall, further research can focus on the form and function of memory representations for a better understanding of the underlying mechanism (Childers & Viswanathan, 2000).

Evidence shows that the effectiveness of comparative appeals varies for interdependent versus independent cultures (Jeon & Beatty, 2002). Future endeavors may explore if such cross-cultural differences emerge for oppositional versus non-oppositional executions. Finally, the moderating impact of individual difference factors is an interesting area for study: NFC, style of processing (e.g., Childers et al., 1985), or gender. Gender differences in information processing styles are well-established (e.g., Meyers-Levy & Maheswaran, 1991), suggesting that males and females may respond differently to oppositional ad executions.

## Appendix A. Experimental stimuli.



Non-oppositional ad (S1)



Oppositional ad (S1)



Introducing the New Mogen

A sculpted design and wide stance give the Mogen a sophisticated look unlike any other premium sedan on the road. And if that weren't enough, it also gets 26 mpg and comfortably seats five. Beauty in many forms.

Non-oppositional ad (S2/S3)



Introducing the New Mogen

A sculpted design and wide stance give the Mogen a sophisticated look unlike any other premium sedan on the road. And if that weren't enough, it also gets 26 mpg and comfortably seats five. Beauty in many forms.

Oppositional ad (S2/S3)

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