

Advertising Montage: Two Theoretical Perspectives

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ABSTRACT

Building upon structuralist and phenomenological theories, this article explores the effects of video montage—camera cuts in particular—on the appeal and persuasiveness of television advertisements. The article proposes a structuralist method for objectively describing ad form and tests well-known theories propounding that responses to a stimulus are a function of boredom and confusion. Camera cuts, boredom, and confusion were all found to affect subjects' attitude toward the ad. © 2004 Wiley Periodicals, Inc.

Having just completed a broad-ranging empirical study of ad executional variables, Stewart and Furse (1986) lamented, some years ago, the dearth of theories that could guide advertising research into ad form by providing a set of well-defined measures, testable propositions about specific relationships, and a comprehensive statement about what effects were important. The problem identified by Stewart and Furse has persisted, as McQuarrie and Mick (2002) have recently made clear. Building upon structuralist research that has deep linguistic roots and phenomenological research that highlights a particular pattern of psychological responses, this article addresses the problem of ad form. It proposes theories within which it is possible (a) to describe more precisely differences in ad form and (b) to test more rigorously the psychological effects of alternative forms.

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In emphasizing ad form rather than ad meaning, the article draws upon the experience of linguists, who have achieved much greater rigor in phonology and syntactics, where the primary focus is language form, than in semantics, where the primary focus is meaning (Chafe, 1970; Lyons, 1981). Because form has fewer dimensions than meaning, advertising researchers, like linguists, will probably succeed in developing integrated theories on the effects of ad form before they produce integrated theories on the effects of meaning, though, as this study will demonstrate, it is difficult to cleanly separate the formal and semantic dimensions of a sign system.

THEORY

Structuralist Theory of Objective Ad Form

In this study, ad form is investigated within a theoretical framework that is deeply rooted in the structural linguistics of de Saussure (1959). De Saussure distinguished between a stable, deep structural aspect of language that he called *langue* and more changeable surface manifestations of that structure that he called *parole*, a distinction very much analogous to Chomsky's (1957, 1965) distinction between language competence and performance. Both linguists suggest that overt, observable language behaviors are grounded in and derive their meaning from an underlying language system.

Extending this basic idea to the study of audiovisual forms, structuralist film and literary critics Metz (1974), Genette (1980), and Chatman (1978), formulated a basic distinction between two kinds of time: normal time and what will be called in this study ad time. A related distinction between *normal space* and *ad space* is introduced here for the first time. Normal time and normal space have four dimensions, one temporal, three spatial. All of these dimensions are continuous, without natural gaps.

In other words, under normal circumstances, people do not suddenly find that an hour has passed which they did not experience (a gap in time) or that they are standing in Salt Lake City one moment, in Atlanta the next (a gap in space). In ad time and ad space, on the other hand, gaps do occur. A hapless consumer applies the wrong deodorant at six o'clock; cut to nine (gap in time) and a wet spot is showing under her arm. Or viewers are inches away from a person's mouth, then mid-sentence, a camera cut puts them five feet away (gap in space).

By using normal time and normal space as a baseline, very much as Saussure used *langue* and Chomsky *competence*, it is possible to describe rigorously four relationships that exist between normal time and space and ad time and space. One option is for the two to be equivalent. This occurs in an uncut ad when what viewers see on screen is the same



thing they would have seen had they directly observed the action depicted in the ad. But there are also three ways in which the ad experience may differ from normal experience because the ad contains spatial and/or temporal ellipses. In an ad with a spatial cut, the viewer suddenly views the same action from a different point of view. For example, a model walks down a runway toward the viewer, then a camera cut instantaneously shifts the point of view so that the model is seen in profile walking past the viewer. In an ad with a temporal or “jump” cut, the point of view remains unchanged but the flow of time is discontinuous. For example, a man puts an unpopped bag of popcorn into a microwave, then, following a temporal cut, removes the popped popcorn from the oven. In an ad with a spatiotemporal cut, there are both spatial and temporal discontinuities. For example, an SUV crosses rugged mountain terrain, then, following a cut that shifts both time and place, drives down a city street.

Spatial, temporal, and spatiotemporal cuts increase what Krull, Watt, and Lichty (1977) have called the *entropy of the image*, the degree of fragmentation in the underlying spatiotemporal gestalt. An entropic ad confronts viewers with the task of mentally reassembling the image that camera cuts have temporally and spatially disassembled. And though lack of theory has made systematic investigation of advertising entropy impossible, there is some evidence that entropic distortions in normal time and space do have an effect on viewers. Researchers have shown that viewer attention and affect are influenced by camera cuts (Reeves et al., 1985), camera angles (Meyers-Levy & Peracchio, 1992), camera motion (Kipper, 1986; Penn, 1971), and by degree of montage linearity, that is, the presence of flash forwards and flashbacks (Anderson, Lorch, Field, & Sanders, 1981; Cowan, 1984; 1988; Isenhour, 1975).

Phenomenological Theories on the Subjective Response to Ad Form

An objective, structuralist description of ad form is independent of any theory used to account for its psychological effects. However, some theories may be particularly well suited to address the impact of the kind of entropic spatiotemporal fragmentation structuralist theory is designed to describe. Researchers who have studied the effects of executional variables on responses to television programming have suggested that boredom and confusion may be crucial response dimensions in television viewing (Anderson, 1985; Krull et al., 1977). Wolfgang Iser (1974, 1978), a phenomenological literary critic, has proposed a theory within which these two response dimensions play an important role. His theory also has clear parallels with those of Saussure, Chomsky, and the structuralist film and literary critics previously mentioned.

In his studies on the phenomenology of reading, Iser suggests that reading is, among other things, a consistency-building task, an occasion

to recompose the fragmented images that comprise the text into a coherent mental whole.) In other words, he sees reading as a dynamic interaction between a fragmented surface structure and a more coherent deep structure. Because texts vary in their level of fragmentation, these consistency-building tasks vary in their degree of difficulty and, consequently, in the degree to which they engage readers. If the task is too simple because a story spells everything out (e.g., simple, direct prose), readers may be bored; if the story is too elliptical and fragmented and the consistency-building task, therefore, too complex (e.g., modern poetry with its frequent violations of semantic and syntactical codes), readers may be confused. Thus, Iser's phenomenological analysis yields a psychological model in which a reader's engagement with a text is bounded by two kinds of negative affect—*boredom* and *confusion*.) As the complexity of the stimulus increases, boredom generally decreases while confusion increases.

Iser's reader-response theory may be viewed as a general theory within which Berlyne's influential two-factor theory is a special case. Berlyne (1970, 1971) suggested that when subjects are repeatedly exposed to visual stimuli, their responses will be a function of two factors, *tedium* and *positive habituation*, which are moderated by the level of stimulus complexity. These two factors and this moderator have been used by advertising researchers to account for advertising wear-out rates (Anand & Sternthal, 1990; Rethans, Swasy, & Marks, 1986). Iser's theory is more general than Berlyne's because it applies to a single as well as to multiple exposures to a stimulus. Within Iser's framework, positive habituation may be regarded as a function of reduced confusion. A complex ad wears out more slowly than a simple one (Anand & Sternthal, 1990; Morrison & Dainoff, 1972) because it is initially more confusing and, therefore, at least potentially more intriguing. Unlike positive habituation, the concept of confusion is not tied to the idea of multiple exposures, so confusion can have an effect even in a single exposure. Confusion is, thus, a more generalizable concept than positive habituation.

Hypotheses

Within the structuralist framework developed in this article, stimulus complexity or *entropy* may be defined as a divergence between ad space and normal space and/or between ad time and normal time. The greater the divergence, the greater the objective stimulus complexity. (MTV-style ads become a kind of complex visual poetry, fragmented, elliptical, hard to recompose as a coherent narrative.) An intuitive and parsimonious hypothesis on the effects of this objective stimulus complexity is that confusion will increase and boredom will decrease as space and time become more fragmented and the stimulus, consequently, more objectively complex.

Unfortunately for those who like parsimony, indirect effects must also be posited. As Anderson's (1985) research on television watching has shown, when a stimulus is very confusing, subjects often become bored and stop paying attention to it—also a common experience in reading poetry, the verbal analog of a fragmented video. Conversely, when viewers are very bored, their minds may wander, and they may fail to process the stimulus, thus becoming confused (Hsia, 1971). So the direct effects of stimulus complexity on boredom and confusion may be moderated by indirect effects of the other factor—indirect effects that are possible because boredom and confusion are independent constructs, not logically opposite poles of a single dimension. The dominant downward and upward sloping effects and the indirect effects are combined in the following hypotheses.

- H1:** As the level of objective stimulus complexity increases, the level of confusion will increase. This effect will be moderated by the level of boredom, thus forming an upward-sloping J curve.
- H2:** As the level of objective stimulus complexity increases, the level of boredom will decrease. This effect will be moderated by the level of confusion, thus forming a downward-sloping J curve.

Boredom and confusion are both expected to have a negative effect on A_{ad} (Krull et al., 1977). The combined effects of the crossing J curves should produce an inverted U on the attitude measure as stimulus complexity increases.

- H3:** As stimulus complexity increases, A_{ad} will first increase, then decrease, forming an inverted U.

Iser (1974, 1978) points out that readers differ in their taste for complexity in a text. This is probably true of viewers as well, so it is reasonable to suppose that the effects of boredom and confusion on A_{ad} and other dependent variables will be affected not only by the level of stimulus complexity but also by a subject's need for cognition (NFC). Just as they are more likely to enjoy reading complex poetry, subjects high in NFC should enjoy thinking about the meaning of a complex ad more than those with low NFC (Cacioppo & Petty, 1982). If this supposition is valid, there may be an interaction between stimulus complexity and NFC on the dependent variable.

- H4:** The effects of stimulus complexity on A_{ad} will be moderated by NFC with subjects high in NFC viewing complex ads more favorably than those low in NFC.

The effects of objective stimulus complexity are undoubtedly moderated by other variables as well (e.g., the intrinsic interest of the stim-

ulus, Cox & Locander, 1987), but these other variables are not considered in this study.

METHOD

Though it is assumed in this article that they are compatible because both reflect the linguistic concern for deep structural order and surface structural fragmentation, it must be emphasized that the structuralist theory of objective ad form and the Iserian theory of subjective response are independent theories. It is therefore possible that boredom and confusion might be good predictors of A_{ad} , whereas the fragmentation of normal time and normal space have no effect. Conversely, it is also possible that distortions in normal time and normal space might have an impact on A_{ad} that is unmediated by boredom and confusion.

Although the entropy of an ad can be manipulated by including flashbacks or tilted horizons or camera movement or fast and slow motion, camera cuts were chosen as a relatively stringent test of the effects of entropy. This test is especially stringent because camera cuts are the most common distortion of normal space and time in television advertising. They are, therefore, the distortion to which subjects are most likely to be habituated. The objectivity of the manipulation is readily apparent. Camera cuts are easily counted, and there is unlikely to be disagreement among judges on the number of cuts (Barbatsis & Guy, 1991; Padderud, 1976).

Subjects

The subjects were 255 juniors and seniors—125 females, 130 males—taking business classes at a major university in the eastern United States. This convenience sample was deemed appropriate for initial tests of the proposed theories. Subjects received extra credit as an incentive to participate.

Stimuli

In a classroom setting groups ranging in size from 14 to 29 subjects were randomly exposed to one of three versions of a television ad, professionally prepared by the university film unit. The versions were identical in their length (80 s), setting, script, and actors, but differed in the number of camera cuts during the ad—the first version having 2 cuts (3 shots with a 26.66-s mean, 15.17 *SD*), the second 8 cuts (9 shots with an 8.88-s mean, 3.14 *SD*), and the third 16 cuts (17 shots with 4.71 mean, 2.46 *SD*). The ads begin dramatically with a conversation in which one woman confides to another that she has been sexually assaulted. The

confidant encourages the victim to seek help, assuring her that “there are people who really care.” All versions then cut to a woman lawyer in a law office who offers to help victims of sexual assault find counseling and, if they wish, initiate criminal proceedings and a suit for civil damages.

Procedure

Subjects were told that the ad was being considered for use on cable TV in a nearby metropolitan area. After viewing the ad, they evaluated it in a survey that included 7-point Likert measures of confusion, boredom, A_{ad} , and purchase intention. To reflect their purchase intention, women indicated whether they would use such a service were they to be sexually assaulted, men whether they would advise a spouse or female friend to use the service. No significant differences were found in the responses of women and men. Need-for-cognition scores were obtained from a survey (Cacioppo, Petty, & Kao, 1984) administered a week prior to exposure to the ad stimulus.

Reliability and Validity of Measures

The reliability of the measures was assessed by calculating Cronbach’s alpha. The alphas ranged from 0.80 to 0.88 with the confusion measure being 0.80, boredom 0.87, A_{ad} 0.88, and purchase intention 0.82. The discriminant validity of the four key constructs was assessed with the use of principal-components analysis with a varimax rotation. This analysis yielded a four-factor solution that explained 65% of the variance. Each item loaded between 0.61 and 0.85 on its own factor whereas all loadings on the other factors fell below Stevens’ (1992) 0.4 cutoff for interpretable factor loadings.

RESULTS

To evaluate both the possible synergy of the two theories and possible independent effects, the relationships between A_{ad} and the three predictor variables—stimulus entropy, boredom, and confusion—were tested both systemically in a structural equation model and independently of each other in linear contrasts and ANOVAs. The use of a structural-equation model is appropriate because these models allow for more complete modeling of the kind of relationships between and within theories that are posited in this study. This tool is especially appropriate for testing psychological models because it analyzes data at the individual rather than the group level as in ANOVA (Bagozzi & Yi, 1989). And it makes possible the exploration of reciprocal relationships among var-

iables. The contrasts and ANOVAs are used because some particular effects are easier to test and see with the use of these less comprehensive techniques.

Test of Systemic Relationships

The systemic relationships among variables were modeled with the use of LISREL 7.2. The experimental manipulations were represented by two dummy variables that were expressed as exogenous latent variables, X_{i1} (2-cut version) and X_{i2} (8-cut version), the three treatments being coded 1 0 (2 cuts), 0 1 (8 cuts), and 0 0 (16 cuts), and the indicators having no corresponding error term. Bagozzi and Yi (1989) provide a rationale for this procedure. Confusion, boredom, A_{ad} , and purchase intention were all endogenous latent variables, each having three indicators with corresponding residuals (see Figure 1).

Measures of goodness of fit indicate that the proposed model does not differ significantly from an exactly identified full model. The chi-square statistic is 71.32 ($p < .40$, $DF = 69$), GFI is 0.955, AGFI is 0.929, and the Bentler and Bonett NFI is 0.939. Root-mean-square residual is 0.049. The betas are all sizable and significant at the .01 level or better. The measurement model has a 0.997 coefficient of determination, and all lambda ys are significant at the .001 level.

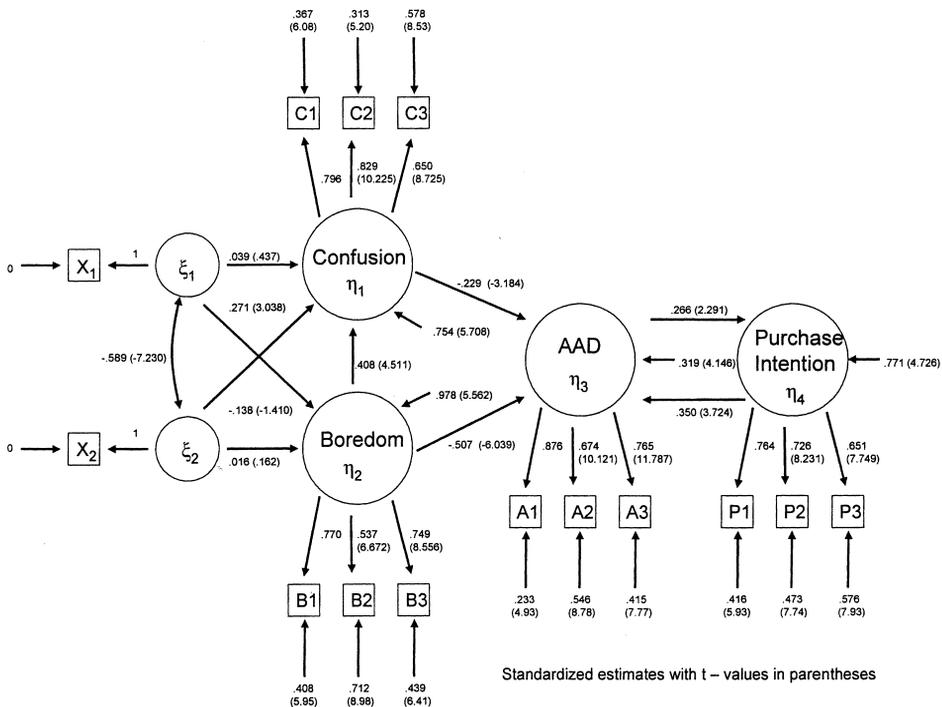


Figure 1.

The LISREL model makes apparent the value of structuralist theory of ad space and time, for it shows that subjective responses are influenced by the fragmentation of normal space. Thus, the manipulation of cutting rate explains 25% of the variance in confusion (1 minus the 0.754 ζ for unexplained variance in confusion), 2% of the variance in boredom (1 minus the 0.978 ζ for unexplained variance in boredom). Still more apparent, however, is the support for a subjective response model built, as Iser (1974, 1978), Anderson (1985), and Krull et al. (1977) propose, around the confusion and boredom constructs. The psychological model, so constructed, explains 68% of the variance in A_{ad} ($\zeta = 0.319$ for A_{ad}), 23% of the variance in purchase intentions ($\zeta = 0.771$ for purchase intention).

Though the LISREL model confirms the assumption that changes in the degree of entropy affect subjective responses, it also demonstrates the autonomy of the structuralist theory of ad form and Iserian theory on the psychological factors that drive advertising responses. The amount of variance explained by the cut manipulation—25% for confusion, 2% for boredom—suggests that confusion is the more important variable from a purely structuralist point of view where the focus is degree of entropy and its effects. On the other hand, the direct effects in the psychological model of confusion and boredom on A_{ad} — -0.507 coefficient for boredom, -0.229 for confusion—suggest that boredom is the more important variable from a purely psychological point of view. The key point is that the explanatory power of the psychological model is rooted not only in entropic distortions of normal space but in other factors as well.

Along with anticipated effects, one unanticipated effect emerged in the structural equation model—the influence of purchase intention on A_{ad} . Although this influence has generally been understood to run the other way (MacKenzie & Lutz, 1989), it is not surprising that A_{ad} should be influenced by preexisting attitudes toward and willingness to use legal council in response to a sexual assault.

Tests of Individual Relationships

Although the structural-equation model provides strong and relatively specific support for the boredom/confusion response theory and more general support for the importance of entropy, when it comes to the specific hypotheses, it is not possible to draw any firm conclusions about their validity on the basis of the model. Further analysis is, therefore, necessary.

To test H1—the hypothesis that confusion will slope upward in a J curve when plotted against stimulus complexity—the means on confusion were compared in a linear contrast where the coefficients were a J-curve-compatible 0.334 for the first, objectively least complex ad, -2 for the second ad, and 1.666 for the third, most complex ad. In this

comparison, the means were not significantly different. H1 is, therefore, rejected.

An inspection of the means reveals, however, that the manipulation of stimulus complexity may have had an effect on confusion. In a one-way ANOVA comparing the three means, this effect approximated significance ($F_{2,251} = 2.88, p < 0.06$; see Table 1), but in the opposite direction from the one hypothesized. Confusion appears to have been highest in the ad that was, objectively, the most simple. A *post hoc* explanation for this counterintuitive result is discussed below.

H2—the hypothesis that when plotted against objective stimulus complexity, boredom will describe a downward-sloping J curve—was tested by the same contrast used for H1 but with the coefficients in reverse order: 1.66, -2, 0.334. In this case, the means form the expected J curve ($F_{1,250} = 2.81, p < 0.05$), but the effect is small, a result that is consistent with the subtlety of the manipulation and the short duration of an advertisement.

H3—the hypothesis that A_{ad} will first increase then decrease as the stimulus becomes more complex was tested by a linear contrast with

Table 1. Hypotheses Tests.

Number of Cuts	Dependent Variable	Contrast Coefficient	Mean	F Value	P Value
H1					
2	Confusion	0.334	3.29	1.87	.17
8		-2.000	2.52		
16		1.666	2.64		
2	Confusion	1.000	3.29	2.88	.06
8		1.000	2.52		
16		1.000	2.64		
H2					
2	Boredom	1.666	4.86	2.81	.05
8		-2.000	4.50		
16		0.334	4.61		
H3					
2	A_{Ad}	-1.000	3.78	3.09	.04
8		2.000	4.24		
16		-1.000	4.12		
H4					
2 Low NFC	A_{Ad}	1.000	4.07	3.04	.02
8 Low NFC		1.000	4.06		
16 Low NFC		1.000	4.13		
2 High NFC		1.000	3.59		
8 High NFC		1.000	4.30		
16 High NFC		1.000	4.10		

Note: Higher means indicate higher levels of the attitude in question.

inverted-U-compatible coefficients, $-1.2 - 1$. This hypothesis was supported ($F_{1,250} = 3.09, p < 0.04$).

H4—the hypothesis that the relationship between stimulus complexity and A_{ad} is moderated by NFC—was tested by splitting subjects into two approximately equal groups based on their relatively high/low NFC scores, then checking for a version by NFC interaction in a two-way ANOVA. The interaction was significant ($F_{3,250} = 3.04, p < 0.02$) and in the expected direction. The camera-cut treatment had no effect on subjects low in NFC, whereas those high in NFC responded more favorably to complex ads. But with high-NFC subjects, the positive effect of complexity on A_{ad} appears to have an upward limit, for the 16-cut version was not preferred over the 8-cut version.

DISCUSSION

Taken together, the results of the study seem to confirm the utility of the two theoretical perspectives that are proposed. As suggested by the linguistically grounded structuralist theory of objective ad form, camera cuts do seem to be an important variable. As the phenomenological theories of subjective response suggest, boredom and confusion do seem to mediate ad responses. One problem remains to be addressed, however: the fact that the stimulus that was objectively most simple caused the most confusion. The failure to confirm H1 calls into question the seemingly commonsensical connection between the two theories, between *objective complexity* (level of entropic distortion in normal space) and *subjective complexity* (confusion). This lack of a relationship between objective and subjective complexity might be explained by an unanticipated semantic *editing effect*.

This article followed Iser (1974, 1978) and Krull et al. (1977) in assuming that fragmenting an ad will increase its entropy and make a viewer's consistency-building task more difficult. Hence, it hypothesized higher confusion with a more fragmented ad. This hypothesized increase in confusion might be called an *entropy effect*. It is possible, however, that a *purposive* fragmentation of normal time and space may have the opposite result, reducing confusion through a semantic *editing effect*.

An editing effect would occur if a stimulus were purposely fragmented in such a way as to highlight important elements or causal connections. A director might, for instance, use an ellipsis to edit out of her advertisement or film unimportant events that distract attention from the main plot (e.g., she might show a man purchasing a bouquet at a supermarket, then show him presenting the bouquet to his mother, leaving out the rest of his grocery shopping and his drive from the supermarket to his mother's home.) Though the story would be less fully dramatized if time spent shopping and driving were left out, its meaning

and effect might be clearer and stronger with the ellipsis than without it. (This clarity and force would be an editorial effect that followed from the strengthening of semantic linkages.)

Consistent with this example, Carroll and Bever (1976) have suggested that cuts may function as a kind of visual punctuation, directing attention toward more important elements in a stimulus and away from less important ones. In the experimental ads used in this study, cuts were not random. They were made at logical points in the narrative—switching, for instance, from one actor to the other as they alternately spoke in a conversation. (This is a point of some consequence, for purposeful cuts may function as semantic cues that embody the director's thoughts about what is most important in the action.) By focusing attention on some portion of the scene, they may predigest the stimulus, reducing the amount of confusion that viewers experience as they try to sort out and focus on important elements in the ad. (In the absence of these cues, viewers must decide for themselves where their attention will be directed.)

Returning to the key issue addressed in this section—how can there be a positive correlation between objective and subjective complexity when the least fragmented version of the ad evoked the most confusion—two points seem relevant: (a) entropy effects entail the hypothesized positive correlation, editorial effects an inverse negative correlation, and (b) both effects may result from the same edit. If these two points are accepted, one can explain the fact that the objectively least complex ad was most confusing: The semantic editing effect overshadowed the structural entropy effect, thus making the least edited ad most subjectively complex.

What are the implications of this *post hoc* explanation for the hypotheses tested in the study? Though H1 was not supported using stimuli with purposive cuts, it might be supported with stimuli using random cuts, because unmotivated cuts should not produce an editing effect. On the other hand, the results for H2 should be unaffected by the presence/absence of editing effects, for these effects impact confusion, not boredom. (Structural entropy would seem to be the key to an ad's level of energy and, hence, its level of boredom.)

The results for H3 should also be unaffected. As long as subjects make some mental effort to reconstruct normal time and space from various shots in an ad, entropy effects should occur. But at high cutting levels, editing effects should diminish or disappear, because the purpose behind a specific cut will become less interpretable, and that purpose must be evident for a semantic editing effect to occur, that is, for the cuts to function as visual punctuation. The rationale undergirding H4 changes somewhat if this *post hoc* explanation is accepted. Instead of suggesting that high-NFC subjects like complex stimuli more than low-NFC subjects like them, the confirmation of H4 would suggest that high-NFC subjects are more susceptible to editing effects—more likely to infer

meaning encoded in purposive cuts than their low-NFC counterparts, who seem to be largely unaffected by the editing.

Directions for Future Research

When advertising practitioners sit down to construct an ad, they currently have little information on the likely effects of alternative ad forms, a problem the Marketing Science Institute (1988) highlighted some years ago by making the study of ad executional variables a research priority. The linguistics-based structuralist theory of objective ad form proposed in this article could facilitate important advances in the study of advertising. Researchers might, for instance, examine the effects of different ratios between *ad time* and *normal time* on A_{ad} , recall, and other dependent variables. Slow and fast motion are commonly used in advertising. What psychological responses are associated with different degrees of fastness and slowness? Turning to the relationship between *ad space* and *normal space* that was explored in this study, researchers might investigate the information-processing consequences of camera movement from one plane to another on a given line or from one angle to another on a given plane. They might explore potential differences between older and younger people in their response to the fragmentation of space and time in ads. In conducting this research, they may be able systematically to isolate and distinguish between structural entropy and semantic editing effects.

CONCLUSION

This study suggests that the fragmentation of space and time in ads affects ad responses, and, specifically, that viewers high in NFC will respond most favorably to ads with moderate cutting levels. It provides a framework within which form variables may be further studied. The kind of systematic study of form undertaken in this study is now all the more important because technology increasingly facilitates and practitioners increasingly use distortions of time and space to enhance the visual interest and persuasiveness of their television ads (Goldman & Papson, 1994).

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