FISEVIER

Contents lists available at ScienceDirect

## Journal of Business Research



# Print advertising: White space

G. Douglas Olsen <sup>a</sup>, John W. Pracejus <sup>b</sup>, Thomas C. O'Guinn <sup>c,\*</sup>

- <sup>a</sup> Arizona State University, United States
- <sup>b</sup> University of Alberta, Canada
- <sup>c</sup> University of Wisconsin, Madison, United States

#### ARTICLE INFO

Article history:
Received 1 January 2010
Received in revised form 1 March 2010
Accepted 1 April 2010
Available online 21 February 2011

Keywords: White space in print ads Creative directors Advertising execution Visual rhetoric

#### ABSTRACT

A survey of North American ad agency creative directors (n=31) reveals that they use the "white space" executional format in print ads mainly to advertise new brands of products rather than services. Their not necessarily mutually exclusive reasons for designing a predominantly white-space ad are (1) artistic – the ad "looks good," (2) to increase attention to the ad overall, (3) to focus attention on the product and the brand name, and (4) to convey brand prestige. None of the creative directors reported that their clients follow Ambler and Hollier's (2004) theory of deliberately using white-space ads to signal an extravagant budget and therefore a superior quality product. To the contrary, almost half of the clients were reportedly concerned about "paying for wasted space" in agreeing to run a white-space ad.

© 2011 Elsevier Inc. All rights reserved.

## 1. Introduction

The role of art in advertising is often a contentious topic between agencies and their clients. The root of this tension lies solely in the motivation of creatives in one perspective. Their motivation, this line of reasoning would argue, is to create ads that will win awards and look good in their books or reels and advance their careers, regardless of impact on sales. While it would be naïve to assume that such considerations play no role in the motivations of creative personnel, so too would it be an unfair generalization to assume that all friction between creative directors and clients were rooted in the vanity or self interests of the creatives. In fact, most of this conflict is more likely to have roots in widely varying (and still evolving) fundamental conceptions about how advertising works.

Even after a century or so of inquiry into that fundamental question, there is still a surprising lack of agreement. Alternative conceptions may be found both across the agency-client divide and across different functional areas within those respective organizations. This lack of a uniform set of assumptions is perhaps most apparent when contrasting the working beliefs of creative personnel with virtually everyone else. Rather than simply believing that creatives operate with narcissistic motives, however, it may be more prudent to assume that language is really the issue. By being fluent in the rhetorical laguage of advertising, agency creatives may routinely use tools and techniques that are less well understood by clients and even account services people. Creatives' naïve theories of practice may be among the most valid. Their fluency in both

E-mail address: Douglas.olsen@asu.edu (G.D. Olsen).

verbal and visual commercial rhetoric may give them a much better understanding of how advertising actually works than account executives, brand-side managers, or academic researchers (see e.g., Kover, 1995). This may be particularly true where visual forms of persuasive language (rhetoric) are concerned. Perhaps creatives are employing a commercial visual language that they and consumers understand at a working level, even though the rules have never been formally written down.

The present study investigates creative directors' "rules" about an important executional factor in print ads: white space. White space (sometimes referred to as "negative" space) is a widely used tool in the visual lexicon of advertising practice (see Fig. 1 for a Cartier ad that purposefully employs white space).

White space is particularly interesting because it has a long history of debate between creatives and brand managers. At best, clients may resent paying for a lot of "expensive empty space." Worse, clients may believe that a simple, clean design employing white space is, in fact, the inferior product of lazy and overly "artsy" creatives. The debate over white space has persisted since at least the 1920s (Marchand, 1985). Anecdotal evidence, however, suggests that agency creative directors believe that white space is an important part of a system of commercial visual rhetoric that they *and* consumers understand to convey a certain range of meanings. An exploration of how and when creative directors employ white space may also help to elucidate their more general understanding about how advertising works.

#### 2. Literature review

The majority of "mechanical factors" or "formal features" research on print ads occurred in the 1960s, 1970s and early 1980s. In 1950, Lucas and Britt asserted that big ads are more effective not just because

<sup>\*</sup> Corresponding author at: Department of Marketing, Arizona State University, Tempe, AZ 85287, United States. Tel.:  $+1\,480\,965\,4011$ .

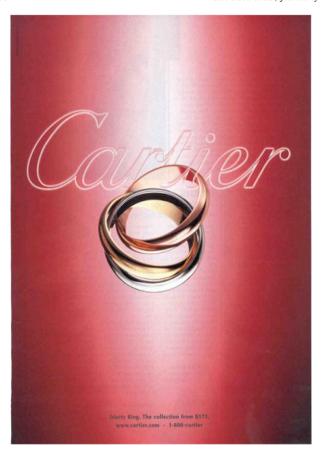


Fig. 1. Cartier white (negative) space ad.

they are big, but because they reduce competing visual elements. Bogart and Tolley (1964) used "blank" spaces where ads should have been in newspaper pages and while producing some fascinating results regarding reader's projection of recalled ads into the empty field, their paper is really not about white space as a design element within an ad. Greenberg and Garfinkle (1962, 1963) were among the first to demonstrate that as the visual content of an ad (measured as surface area of the illustration or illustrations) went up, so did ad readership. Yet, as luck would have it, white space was excluded from their study (Greenberg and Garfinkle, 1963, p. 31). Assael et al. (1967) studied various executional factors of print ads and found the amount of illustration (i.e., its proportion of the ad) to be a relatively important variable in terms of readership, but did not measure (directly or indirectly) white space. Valiente (1973) looks at the impact of ad size, illustrations and color on recognition, but again not white space specifically. Of note is that Hendon's (1973) classic review of mechanical factors in print ads does not mention white space and neither does the later empirical study of magazine ads conducted by Rossiter (1981). At one level, this is surprising in that the white space "trope" is well known, is commonly discussed in commercial design books, and is mentioned in prominent histories of advertising. Perhaps these researchers failed to mention white space because it was seen as problematic to operationalize and count; it was, after all, the absence rather than the presence of something.

Fletcher and Zeigler (1978) demonstrate that a category of ads which appeared to contain a higher percentage of "minimalist" techniques performed better in terms of Starch scores. In other research, too, white space would seem to be relevant, but is not directly considered. For example, Rossiter and Percy (1980) manipulated verbal and visual elements and found a visual superiority effect and Hornik (1980) demonstrates that a composite verbal–visual ad is preferred by consumers. Further, although anecdotal evidence

suggests that white space implies quality, Homer's (1995) article on ad size concludes that "consumers are left hungry for anything indicating quality," but does not consider the impact of white space. Similarly, while Singh et al. (2000) build a case for the difference between short and long predominantly pictorial ads, their findings are silent with respect to the impact of white space.

A large portion of research regarding visual information in advertisements has concentrated on the specific image or product representation employed. For example, research has examined the presence or absence of pictures (e.g., Hanssens and Weitz, 1980; Childers and Houston, 1984); issues regarding information processing of such images (e.g. Edell and Staelin, 1983); the angle of the camera shot (Meyers-Levy and Peracchio, 1992); cropping of images (Peracchio and Meyers-Levy, 1994); and the number of images (Singh et al., 2000). A small but significant research stream has examined the impact of complex images and textual (semantic) content (e.g., Phillips, 2000). To a far lesser extent, studies have concentrated on issues associated with the actual organization of visual information within an advertisement (e.g., Janiszewski, 1990) and factors influencing effective layout within a business-to-business context (e.g., Chamblee and Sandler, 1992). Additionally, researchers have also examined the effect of color in gaining attention in Yellow Pages advertising (Fernandez and Rosen, 2000) and the contribution of color and graphics in signalling quality and credibility in this particular genre of print advertising (Lohse and Rosen, 2001).

The only published study to deal specifically with white space is the recent study by Pracejus et al. (2006). These researchers found that practitioners and consumers both understood the essential meaning of white space used deliberately in print ads. Consumers associated *white space* with prestige, market leadership, quality and trust. Unfortunately, their study did not go into the rules, grammar, syntax and other elements of the white-space "trope."

## 3. Creative use of white space

Advertising creatives are particularly adept at transferring relevant cultural knowledge to advertised brands (Marchand, 1985; McCracken, 1990; Frank, 1998). Central to that task is their fluency in the visual language of advertising in the service of selling. They are able to use the culturally appropriate look, the correct aesthetic, and the proper trope to help imbue the advertised brand with the desired meaning. Over the last one hundred years or so there has been a pronounced shift from words to visuals (Leiss et al., 1990; McQuarrie and Phillips, 2008; O'Guinn et al., 2008; Rossiter and Bellman, 2005). Indeed, for various reasons, industry experts have argued that visuals have become the *lingua franca* of advertising.

Persuasion and information are relics. If an idea – or, more accurately, a visual joke – can't be expressed with a photo that wittily conveys a single brand attribute, the ad is not apt to get made (Bob Garfield, *Advertising Age*, 2001).

Feasley and Stuart (1987) note that from 1932 to 1982 layout styles shifted from being copy-heavy to simple and uncluttered, and of the more common creative elements employed in print advertising is the use of white space, often argued by creatives as necessary to break through the clutter. White space represented a rejection of this assault on the consumer, and represented a new professional paradigm: advertising did not have to irritate the consumer to work; it could delight and aesthetically please. Fig. 2 demonstrates this contrast.

As Pracejus et al. (2006) note, creatives' use of white space has its origins in the minimalist movement of mid-twentieth century modern art. Robert Rauschenberg and others used white (or negative space) to reject the artificial and to celebrate materiality. It is no accident that these motives were also seen as appropriate to the first

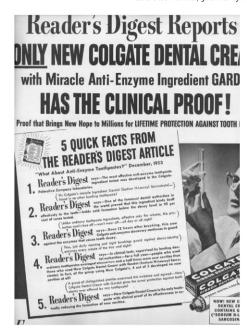




Fig. 2. Text versus white space contrast.

wave of modern American commercial designers such as Paul Rand, himself most famous for his IBM "block" logo. Likewise, it is no accident that creatives such as Bill Bernbach found the politics and aesthetics of minimalism, including white space, to be perfect for their part in the creative revolution in American advertising. The fact that white space also pointed to the "clean" and uncluttered minimalist enclaves of the upper social strata further gave meaning to the white space trope. Like all tropes, the linguistic meaning of white space was a product of a specific social history. As is typically the case, even though the etymology of the word, phrase or trope may become increasingly irrelevant to everyday practice, the working knowledge of the meaning of the trope remains strong among those who use the language. For ads to be effective, the art director should still possess a clear understanding of when and how to use visual rhetoric, in this case white space.

### 4. The study

Creative directors for this research on reasons for use of white space in print ads were creative directors from advertising agencies in North America. The participants were purposively sampled to ensure that their creative assignments included print advertising. Potential participants' names were obtained from a list of creative directors across Canada and the United States. Of the 54 creative directors contacted by phone, 31 agreed to participate, a response rate of over 50%. The creative directors surveyed had an average of 17 years of industry experience. They reported, on average, that about three in four of the campaigns they recently worked on involved a print advertising component.

The goal of the research was to elicit and explore considerations made by creative directors when using white space in their print advertisements. Again, the purpose was an exploratory investigation into why and how creative directors employ white space.

The survey began with an open-ended question. Respondents were asked to enumerate the objectives that one *might* accomplish in a print advertisement through the use of white space. Respondents were then asked to revisit each one of these self-generated possible objectives and evaluate how effective they thought white space was for accomplishing each one. They did this by rating each objective on a 9-point scale anchored by "extremely ineffective (1)" and "extremely effective (9)".

Open-ended questions followed regarding: (1) products or services for which the use of white space was particularly appropriate, (2) concerns regarding the use of white space in print advertising, (3) when white space is most effective as a design element, (4) when white space is least effective as a design element, (5) whether the impact of white space is a function of the size of the advertisement, and (6) additional comments they wished to make regarding the use of this design element. Lastly, creative directors were asked about their experience in the advertising industry, and with print media in particular.

For each question asked of creative directors, a two-stage method was used to categorize responses. In the first stage, a research assistant, in conjunction with one of the authors, sorted the responses into logical categories. In the second stage, two additional research assistants independently sorted the comments made into mutually exclusive categories. For all questions, inter-coder agreement was above 95%. Differences were resolved through a discussion between coders.

#### 5. Findings

### 5.1. Objectives for using white space

The survey data revealed three major objectives for using white space (Table 1).

The first objective was artistic in nature. Creatives clearly believed that an artistic goal was not only acceptable but also desirable. That was why they did what they did, first and foremost. Though clearly of a commercial nature, each print advertisement represents an artistic endeavour...and art directors expressed it that way. It was, however,

**Table 1** Creative directors' objectives in using white space (n = 31).

Objective	%ª	Rating <sup>b</sup>
To meet a visual design objective (e.g., achieve balance) Attention	74	8
To draw attention to the ad in general	68	8
To influence visual flow	48	8
To convey meaning about the product or company	39	7

<sup>&</sup>lt;sup>a</sup> Percent of respondents.

<sup>&</sup>lt;sup>b</sup> On a 9-point scale anchored 1 = extremely ineffective, 9 = extremely effective.

also quite clear to creative directors that in the case of white space, artistic merit is consonant with a business aim. In other words, white space communicating what it was supposed to communicate is also "on strategy."

Clearly these advertising professionals think that white space gives the brand the desired meaning and ultimately sells. But, why do they think it works? Their answers include "it looks good," it has "visual impact," and "drama." They explained that white space was used to achieve "visual and graphic balance." This idea of balance is rooted in general design theory. The idea that a receiver of the ad must perceive visual balance to persuade was taken as a given, a requisite of good design and good art. An unbalanced ad leaves the consumer "unsettled" and is "unattractive."

The second objective was to draw attention to the ad in general and also direct readership within the ad. Creative directors often state that white space ads tend to "break through clutter" and "get noticed." Further, they want it understood that white space also "points to" or "sets" off other items (such as a brand name, logo, and headline) within the ad itself.

Creative directors strongly believe that one reason white space works to sell is by getting attention in a crowded media environment. They believe that it provides a contrast to other advertisements and the surrounding clutter. Most art directors believed that white space has this ability. Their explanation is essentially a contrast effect: white space ads look different and are easily set apart from the background. This belief is completely consistent with any number of psychological streams of research. The creatives are very aware that noticing does not mean liking, but argue that "if if it doesn't get noticed, why bother?" This is a professional re-stating of the traditional hierarchy of effects model: being noticed is the first step to persuasion. Inherent in this belief, and strongly so, is that only conscious processing matters. Working theories of art directors do not seem to put much stock in un-noticed ads as being effective due to "subliminal" effects.

The art directors stated that white space may be used strategically within the ad to influence the sequence by which elements in an advertisement are "read." White space is supposed to "help direct the eye," and influence the sequence with which information is processed. As noted by one creative director, "white space helps to guide the reader through a message." In this vein, another creative director noted that "Society wants a message to be easily sold. No hunting... they have no time for that."

Specific qualities and meanings are given to the brand by virtue of it being surrounded with white space. Many of the creative directors indicated that an objective of using white space is to assign specific qualities to the advertised product or service. These qualities are neither vague nor overly redundant; they have precise linguistic meaning. They include: trust, integrity, reliability, quality, fashionable nature, leadership, elite nature, modern, and upscale. White space has all these meanings in the language of modern advertising.

Some creative directors commented that white space provides a "clean minimalist look." The idea that minimalism is related to prestige, to upper social strata and elegance is known and applied by these art directors. When Ritz Crackers were introduced they were positioned as an upscale and sophisticated food. The name *Ritz* no doubt brought about associations with the famous hotel. The colloquialism "Putting on the Ritz" refers to the high-life and chic urban society. It is therefore unlikely a coincidence that Nabisco and its advertising agency used white space to link to this image, because by then the two had likely become intertwined (see Fig. 3).

#### 5.2. Products for which white space is ideally suited

Creative directors were asked to nominate products or services in which could appropriately use white space in their ads. In Table 2, the most frequent answer was: "all products." Many creative directors believed that white space would be effective regardless of the product



Fig. 3. Nabisco's Ritz Crackers and minimalism.

category. Some, however, believed that professional services (e.g., legal and financial services); high-technology products; and products related to fashion (e.g., furniture, clothing, and jewellery) would particularly benefit. Historically, these have been popular categories for the white-space creative tactic.

## 5.3. Factors enhancing the effectiveness of white space

When asked "when is white space most effective as a design element?", most creative directors said "always." However, a number of factors moderating the likely success of white space were also identified. Although some of these relate to objectives in using white space, they are given further consideration here in an effort to provide better understanding. These factors are summarized in Table 3.

One theme pertained to the effectiveness of white space under conditions of high clutter. One of the main purposes of using white space is to make the ad stand apart from its surroundings. This was reflected by comments such as: "When used properly [white space] can really make an ad jump out and break through the clutter"; "[Effective] in a crowded page environment such as newspaper

**Table 2** Creative directors' perceptions of products for which white space is ideally suited (n=31).

Products	%ª
All products	39
Professional services	29
Hi-tech products	26
Fashion (e.g., furniture/clothing/jewellery/cosmetics)	19
Travel	10
Established brands	7

<sup>&</sup>lt;sup>a</sup> Percent of respondents.

**Table 3** Creative directors' perception of factors enhancing white space effectiveness (n = 31).

Conditions impacting effectiveness	%ª
None (effective under all conditions)	23
When there is a single point to communicate	26
When the purpose is to increase attention to the ad under high clutter	19
When the purpose of the ad is to increase brand awareness	13
When the white space ties into the message	10

<sup>&</sup>lt;sup>a</sup> Percent of respondents.

advertising or low-end magazine publications"; and, "[When used as] a canvas to contrast surrounding clutter."

Another theme pertained to its use when there was a single point to communicate. Approximately one-quarter of creative directors noted that white space is most effective when the message itself is not complex and may be expressed in a single point. Here, visual simplicity is to be read as rhetorical simplicity, that is: "Remember just this one thing." This was exemplified by a variety of phrases, including: "When the message is simple and direct"; "When the headline and copy are also brief"; and "When you want to focus on a single product or single message."

#### 5.4. Concerns and limitations regarding the use of white space

In the survey, separate questions were provided to assess the concerns creative directors have with using white space, as well as factors they thought mitigated its effectiveness. The concerns and limitations are summarized in Table 4 and discussed under two headings below.

Client-based concerns. The most frequent client-based concern, mentioned by approximately half of respondents, was how to convince clients of the value of white space. As put by one creative director, "Most customers/clients do not like paying large sums of money for 'blank artwork'." Similar statements included, "Most advertisers feel that they have paid for the space so they are obligated to fill it"; and "[The] client sometimes wants more 'word value' for the expensive space."

Another client-based concern was fighting the perception that white space is a signal of extravagant spending. One creative director gave the example of government advertisements where it may be perceived by members of the public as a waste of taxpayers' money. Hence such clients may be reluctant to use it. Again, this debate goes back to the 1930s when "atmospheric" advertising was criticized for waste and the mantra of clients wanting "every paying inch" (for words or multiple pictures) was common (Fox, 1985). However, to the contrary, Ambler and Hollier (2004) hypothesize that "The waste in advertising is the part that works" (see their article's title). Kirmani (1990) also made the same argument.

Creative technical issues. Two technical issues were identified. The first pertains to the *improper use* of white space. Related comments include: "Effectiveness decreases when not supported by appropriate proportions of design elements"; "White space can be a bit daunting. Some layouts I've seen in the past, the designer didn't know how to place the elements together and the idea got lost because it was not

**Table 4** Creative directors' concerns with using white space (n = 31).

Concerns	% <sup>a</sup>
Client-based concerns	
Cost	48
Concern of "excessive spending" impression	10
Creative concerns	
Poor graphic use of white space	42
Poor fit between the use of white space and message purpose	39
Placement concerns	26

<sup>&</sup>lt;sup>a</sup> Percent of respondents.

placed properly"; "Images can appear as though they are floating in the middle of the ad"; "If not used correctly or tastefully it can make a product look cheap. This will lose the reader immediately"; and "The type, image and layout have to work harder to produce an effective ad. White space ads can look stark and unexciting if they are not designed well"; and "There is often too much copy to use enough white space."

Another theme was the fit of white space with the purpose of the ad (with its message). Many comments were made in this regard: "Strategy should come first, execution and tactics second. If a visual concept of 'lots of white space' does not fit the strategy, then abandon it"; "So often white space is used ineffectively in advertising/design, it must have a purpose, reason and/or benefit for being there"; "Used inappropriately there can be a lack of information. Communication is an issue as a[n] [agency] may be putting its needs above its client's"; and "Testing has always proved that the more information one gives a potential customer, the more likely that customer can be converted to a sale"; and finally, "Visual tricks do not make an ad. An effective ad draws a link from the consumer back to the brand [and considers] likes/dislikes, attention span, need for knowledge, and so forth. The ad should be designed to meet those needs."

Several creative directors mentioned the importance of strategically selecting the print-media vehicle in which the advertisement would appear.

#### 6. Conclusions

The findings here demonstrate that creative directors have a sophisticated understanding of how and when to employ white space in print ads. The themes emerging from the creative directors in this study indicate a shared formal understanding of a sophisticated visual lexicon, of which white space is but a single element.

However, the opinions of these creative directors make clear that others in the industry may have a different attitude toward the use of white space, not believing that the use of white space in print ads is cost-effective.

#### References

Ambler T, Hollier EA. The waste in advertising is the part that works. J Advert 2004;44(4):375-89.

Assael H, Kofron JH, Burgi W. Advertising performance as a function of print ad characteristics. J Advert Res 1967;7(2):20-6.

Bogart L, Tolley S. The impact of blank space—an experiment in advertising readership. J Advert Res 1964;4(2):21–7.

Chamblee R, Sandler DM. Business-to-business advertising: which layout style works best? | Advert Res 1992;6(32):39–46.

Childers TL, Houston MJ. Conditions for a picture-superiority effect on consumer memory. J Consum Res 1984;11(2):643–54.

Edell JA, Staelin R. The information processing of pictures in print advertisements. J Consum Res 1983;10(1):45–61.

Feasley FG, Stuart EW. Magazine advertising layout and design: 1932–1982. J Advert 1987:16(2):20–6.

Fernandez KV, Rosen DL. The effectiveness of information and color in yellow pages advertising. J Advert 2000;29(2):61–73.

Fletcher AD, Zeigler SK. Creative strategy and magazine readership. J Advert Res 1978;18(1):29–33.

Frank T. The conquest of cool: business culture, counterculture, and the rise of hip consumerism. Chicago, Illinois: University of Chicago Press; 1998.

Fox S. The Mirror Makers: A History of American Advertising and Its Creators. New York: Vintage; 1985.

Greenberg A, Garfinkle N. Delayed recall of magazine articles. J Advert Res 1962;2(1): 28–31.

Greenberg A, Garfinkle N. Visual material and recall of magazine articles. J Advert Res

1963:30–4.

Hanssens DM, Weitz BA. The effectiveness of industrial print advertisements across

product categories. J Mark Res 1980;17(3):294–305. Hendon DW. How mechanical factors affect ad perception. J Advert Res 1973;13(4):39–45.

Homer PM. Ad size as an indicator of perceived advertising costs and effort: the effects on memory and perceptions. J Advert 1995;24(4):1-12.

Hornik J. Quantitative analysis of visual perception in printed advertisements. J Advert

Res 1980;20(6):41–8.

Janiszewski C. The influence of print advertisement organization on affect. J Consum Res 1990;17(1):53–66.

Kirmani A. The effect of perceived advertising costs on brand perceptions. J Consum Res 1990;17:160–71 September.

- Kover AJ. Copywriters' implicit theories of communication: an exploration. J Consum Res 1995;21:596–611 March.
- Leiss W, Kline S, Jhally S. social communication in advertising: persons, products and images of well-being. Toronto, Ontario: Methuen; 1990.
- Lohse GL, Rosen DL. Signalling quality and credibility in yellow pages advertising: the influence of color and graphics on choice. J Advert 2001;30(2):73–85.
- Lucas DB, Britt SH. Advertising psychology and research. New York, NY: McGraw-Hill; 1950.
- Marchand R. Advertising the American dream. Berkeley, California: University of California Press; 1985.
- McCracken G. Meaning manufacture and movement in the world of goods. In his book Culture and consumption. Bloomington, Illinois: Indiana University Press; 1990. p. 71–92.
- McQuarrie EF, Phillips BJ. It's not your father's magazine ad. J Advert 2008;37(3):95-106. Meyers-Levy J, Peracchio LA. Getting an angle in advertising: the effect of camera angle on product evaluations. J Mark Res 1992;29(4):454-62.

- O'Guinn TC, Allen CT, Semenik RJ. Advertising and integrated brand promotion. Mason, Ohio: Southwestern; 2008.
- Peracchio LA, Meyers-Levy J. Understanding how ambiguous cropped objects can influence product evaluations. J Consum Res 1994;21(1):190–205.
- Phillips B. The impact of verbal anchoring on consumer response to image ads. J Advert 2000;29(1):15–24.
- Pracejus JR, Olsen GD, O'Guinn TC. When nothing became something: white space, rhetoric, history and meaning. J Consum Res 2006;33(1):82–90.
- Rossiter JR. Predicting starch scores. J Advert Res 1981;21(5):63–8.
- Rossiter JR, Bellman S. Marketing communications: theory and applications. Frenchs Forest, NSW: Pearson; 2005.
- Rossiter JR, Percy L. Attitude change through visual imagery in advertising. J Advert 1980;9(2):10-6.
- Singh SN, Lessig VP, Kim D, Gupta R, Hocutt MA. Does your ad have too many pictures? | Advert Res 2000;40(1,2):11-27.
- Valiente R. Mechanical correlates of ad recognition. J Advert Res 1973;13(3):13-8.