## Pareidolia illusions in advertising with "hidden" symbolic images

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**Abstract.** The article covers the problem of using "hidden" symbols that are actually imperceptible without purposeful very careful examination of advertising picture. On the other hand "hidden" symbols in advertising are highly effective as a psychological effect on consumer. The authors discuss specifics of psychological effect of "hidden" symbols in advertising, analyze some symbols that may be found in today advertising and demonstrate specifics of perception dependence of sex. The authors have came to conclusion that hidden symbols in advertising pictures are not always carefully selected and do not reflect initial intention. Besides "hidden" symbols often contradict with advertising idea.

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## Introduction

Many authors have analyzed the problem of using psychological tricks in advertising (N. Berkowitz[1], L.W. Doob[2], L. Festinger[3], D.B. Lucas[5], J.M. Carlsmith[3], Kh. Kaftandjiev [6], E.E. Pronina [7], G. Felsier [8], V.V. Tseniov [9]). Still analysis show the lack of works related to the problem of using pareidolia illusions in advertising. On the other hand such type of illusions in advertising is very effective factor of psychological effect on ordinary consumer. This contradiction determined the topic of this research.

Expertise of advertising materials reveals interesting pattern: creators start to use the trick of "hidden" symbol in advertising more and more often. We understand "hidden" symbol as this or that symbol that is actually imperceptible without purposeful very careful examination of advertising picture. Reasons of using "hidden" symbols in advertising are not very obvious from the point of view of perception of advertising materials. Viewing time of advertising picture is limited. Recipient notices only the general pattern of advertising and rarely examine it for a long time. Creators understand that careful analysis of advertising picture by recipient may hardly be expected and use additional underlying theme to intensify effect on recipient. Analysis of some "hidden" symbols in today advertising will be done later.

According to psychological researches pareidolia illusions (or pareidolia) are illusive perception of real object. Unlike ambiguous figures, sensory illusion of depth, pictures for images recognition with intentionally created images to provoke illusions, pareidolia illusions appear while viewing ordinary objects. For example viewing the patterns of wall-papers or carpets, cracks, spots on the

ceiling, clouds one may see changing fantastic landscapes, human faces, unusual animals, etc. The basic of these illusive images are details of a real pattern. Kahlbaum [4] and и Jaspers [10] were the first to describe pareidolia. These images may be seen on examples. On the photographs with the World Trade Center buildings in fire (2001) one may see devil's figure. In 1954 the Central Bank of Canada issued new bank note with the picture of Oueen Elizabeth II head but in a short time a flood of complains and from Canadians forced authorities to withdraw bank notes. It seemed to people that they saw devil in the hair of the Queen. On the photograph of Mars surface made by NASA in 1976 many people saw human face. This effect of light and shade pattern caused a number of ufology theories about ancient civilizations of Mars. On the later photographs of this region of Mars these is no face. So these images are often fantastic, they relate to the area of unknown, secret and fantastic.

Analyzing hidden symbols (see Fig. 1) we used E.E. Pronina method [7].

Analysis of each of 9 examples allows making the following conclusion.

84 women and 68 men saw hidden symbol ("fairies") in 1 examining sample 1. This symbol denotes the force of unconsciousness, inferiority, outcast, pariah, limitation of possibilities, ignorance. Analysis revealed positive attitude to this picture both of women and men. That means that this picture caused positive emotions and intentions regarding promoted object. They are likely to buy it if not immediately than in time. It should be also noted that few respondents from women (1.6%) had psychic shock. That means that this advertising picture caused sharp negative reaction that may lead to painful feeling, internal discomfort and consequently to negative attitude to promoted object.

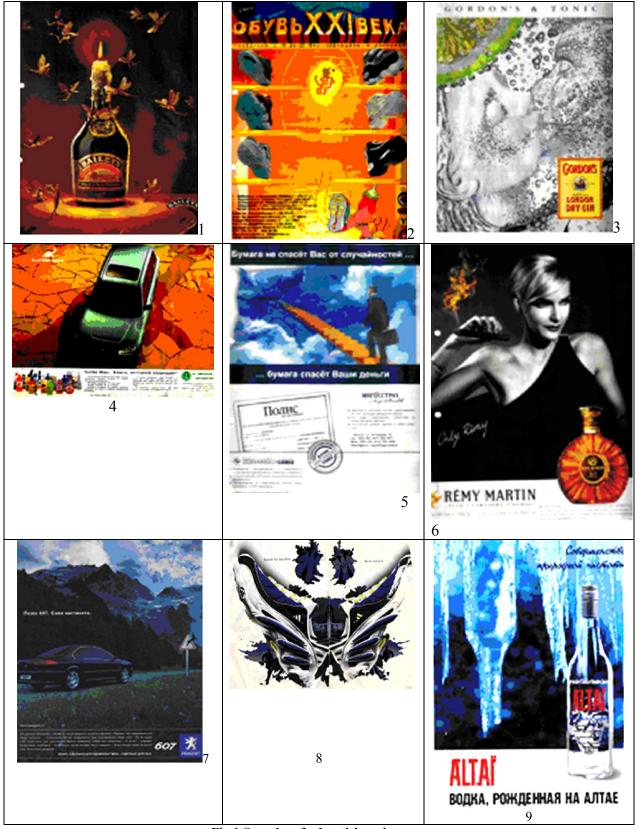


Fig.1 Samples of advertising pictures

Hidden symbol in sample 2 is phallus. 70 women and 83 men saw this hidden symbol. This symbol is related to fertility and development. In general both women and men demonstrated positive attitude to this advertising. Still it is worth noticing that share of women with negative attitude to this picture and psychic shock was greater that of men. This may mean that women are more emotionally sensitive and react on such advertising more painfully.

90 women and 75 men saw hidden symbol "lovers" in sample 3. Symbol "lovers" denote spring, excitement, promise, hope and quiet joy. In women group large share (86.6%) had positive attitude to this picture and 16.6% demonstrated its full acceptance. That means that this advertising drew positive emotions and intentions. They liked to watch this picture and very likely they would buy promoted goods. Perhaps this may be explained by the fact that women are more sentimental than men. Still in men's group general attitude was positive. But the share of respondents with positive attitude was smaller - only 66.6%, and in men's group 10% demonstrated ambivalent attitude to information and 16.6% respondents provided heteropolar data. That means that they possibly felt a sort of internal conflict, some sharply contradictive puzzling emotional states.

60 women and 70 men saw hidden symbol in sample 4 that is "tortoise". This symbol denote substance, development of natural forms, longevity, fixing power, inertia, involution of spirits, obscurity, stagnation, vague menace, mean materialism. In general both groups demonstrated positive attitude to this advertising image. But in women's group some respondents (1.6%) felt psychic shock, i.e. full rejection of this advertising. But the main symbol in this advertising is a car and this shock may be explained by the fact that it is not interesting for women to watch advertising about cars and related articles.

96 women and 90 men noticed hidden symbol "stairs" in sample 5. Stairs denote ascent, gradation, ties of many vertical levels, material, spiritual and social growth, connection of universes, way to God; access to invisible, covered in heights. Despite the fact that this hidden symbol was discovered by majority of respondents only a half reported positive attitude. For example, 35% of respondents from men's group were ambivalent to information. That reflects some internal conflict, hyperactivity of psychological protection mechanisms. 18.3% of respondents from women's group provide heterpolar data. This may be explained by the fact that this advertising picture caused some odd contradicting emotions because they did not understand the meaning of advertising.

"Centaur" is hidden symbol in sample 6. "Centaur" symbolizes total domination of mean forces, illegal origination, attraction without control, unconscious, pathology, natural force beyond the control of spirit. 40 women and 25 men noticed this symbol. Such small number of respondents who noticed the symbol may be explained by the fact that it is hard to notice. Regarding men's group this number may be also explained by the fact that the main symbol in advertising picture is cute girl. More likely attention was drawn to her. It also explains why more respondents from men (75%) had positive feeling towards this advertising and full acceptance – 18.3%. Some respondents from women group (5%) demonstrated full acceptance of this advertising but there were also some of them (11.6%) who had negative feeling. It may be explained by envy and dislike of a girl pictured on advertising.

15 women and 20 men noticed hidden symbol "deer" on sample 7. Such low result may be explained by the fact that it is hardly noticeable. According to the records of interviewing men paid attention mainly on the car and women — on the environment. General attitude to advertising in both groups was positive. Still in men's group the share of positively related respondents was greater. It is also worth noticing that in men's group 15% of respondents fully accepted this advertising that means they liked it, felt positive emotions towards it and arose some intentions regarding promoted object.

Footwear (sneakers) is hidden symbol in sample 8. This symbol denotes mean nature, plebs, poverty, contempt, being behind the rate of life, attention to something unessential, being in debt. 78 women and 80 men noticed this symbol. 71.6% of respondents had positive feeling to promoted object that was more that in women's group - 58.3%. Number of respondents with ambivalent attitude to advertising in women's group was twice higher than those of men's group and full acceptance of advertising had only 1.6% while in men's group this number was 8.3%. According to records of women's group majority of respondents did not like this advertising. It may be seen from descriptions of the picture given by women. For example, "nothing impressing", "dirt, black butterfly, black people. Nothing pleasant", etc. Such attitude may be explained by design of this advertising picture and its colors.

Hidden symbol in 9 samples is "icicle". This symbol means paralysis of possibilities, latent live potential, stop, waiting, infinity, hardness and resistance, contempt to all mean and unworthy, aristocraticism. 45 women and 86 men saw this hidden symbol. This advertising was better accepted in men's group, 73.3% of respondents were positive

towards the object and only 6.6% had negative feeling. To compare only 53.3% of women had positive attitude and 16.6% - negative. In women's group these were also respondents who had psychic shock (1.6%) while nobody felt it of men's group. That may be explained by design of advertising picture. It is not only advertising of alcohol but hidden symbol itself is pictured in aggressive form (sharp pieces, broken bottleneck of icicle-bottle, etc.) All these factors caused negative emotions of women's group. Women are more emotionally sensitive and they immediately see or feel that something is threatening them. They react more keenly than men.

So respondents of women's and men's groups in general had positive feelings regarding these advertising pictures. They had positive intentions and positive ideas regarding promoted object. Still advertising caused negative emotions, intentions and ideas of some people. So it may be concluded that these advertising with hidden symbols is not psychologically safe, it can cause damage to both physical and psychical health of people.

Intent analysis was used to study intentions of respondents regarding advertising. All material (in our case associative stories made by recipients of advertising according the viewed picture) had been analyzed via the set of "intent categories" that are analysis units. The essence of this method is counting words or phrases that relate to selected categories. To process data we used statistic method - Fisher's test. This test allowed us selecting attitudes regarding advertising in women and men groups. We found out that difference in opinions of women and men are insignificant ( $F_{emp} = 1.5$ ). So men and women have the same ideas about these advertising samples. Maybe this advertising is relevant to generally accepted ideas and people evaluate it similarly.

The following conclusions may be done basing on the research. Using hidden symbol is one of the approaches for creating the composition of advertising picture that promote getting additional information while perception of advertising sample. The flow of communicative information forms consciousness of a person imitating permanent connection of individual and collective consciousness. Hidden symbols in advertising pictures are not always

carefully selected and do not reflect initial intention. Besides, "hidden" symbols often contradict with advertising idea. Using "hidden" symbols it is necessary to think the idea of advertising carefully, determine correlation of the main and additional symbols. Contradiction of these symbols may create cognitive dissonance that will lead to wrong perception of advertising picture and hamper development of intention regarding promoted object.

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