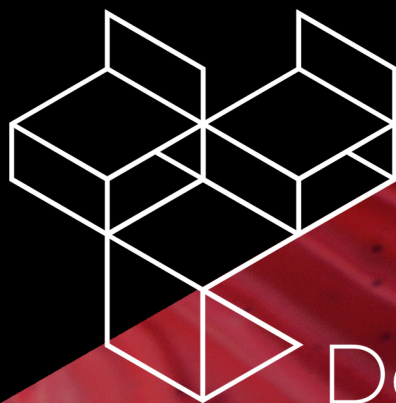**PROCEEDINGS
BOOK OF DDC'19**

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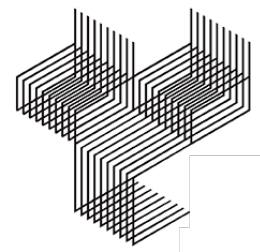Emília Duarte – IADE - Universidade Europeia, UNIDCOM/IADE, Lisbon, Portugal

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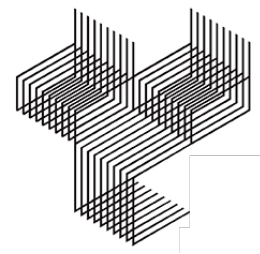
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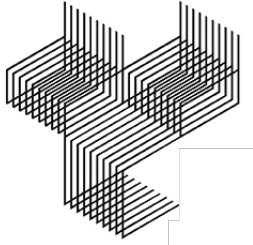
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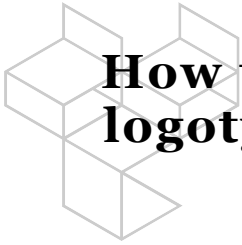
How to experiment if visual metaphor in a logotype has significance to remembrance

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ABSTRACT

We investigate metaphor (symbolism) in logotypes, its perception and its effect on memory. Thus, one visual standard experiment was developed for this effect. This model can be adapted to other logotypes (fig.4 and fig.6). Our research methodology aims to evaluate if this perception of symbolism within the logo occurs and if it has a consequent mnemonic effect on the observer. "Memorability is one of the most relevant descriptors to access logo effectiveness" (Rand, 2014). Many designers incorporate universal symbols in the graphic concept of "logos". For example, Linden Leader (1994) for FedEx incorporates an arrow, symbolizing to move swiftly and directly. Nike's logo is a further abstraction on the same symbolic theme of swiftness and directness even though it is inspired on the wing of the renowned statue of the Greek goddess of victory, Nike, who served as the cause of motivation for the distinguished and audacious warriors. We, therefore, evaluate the condition of adding a universal and common graphic characteristic to a logo and its communicative reach. All graphic identities are intended to accomplish remembrance. It's the designer's exertion and experience that will complement symbolism and novelty in a graphic form, until then unknown.

Keywords: symbol, logotype and logo, logo, mnemonic, creativity, metaphor

INTRODUCTION

"A symbol is a sign that stands for its referent because of convention." (Peirce (1932) "

Empirical Research for Developing Guidelines

Some investigation of "experimental aesthetics" (Berlyne, 1971, 1974), Gestalt psychology (Clement, 1964), graphic design (Dondis, 1973), and logo strategy (Peter, 1989) suggests many design characteristics that should influence affective responses to logos.

"Some of the logo strategy research is unpublished and has not been subjected to the rigors of statistical tests or peer review. As such, the literature does not provide unambiguous predictions of what sorts of logo designs should be selected to evoke the desired responses." (Henderson & Cote, 1998). Most theoretical estimates are based on the expertise of professionals and not on empirical research.

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When a logo is selected, substantial time and money are spent to build recognition, positive affect, and meaning. "It is possible that desired responses are not achieved because the selected logos have designs that are difficult to store or access in memory, are not likable, or fail to create any sense of meaning" (Henderson & Cote, 1998). This statement is sustained by findings that the logos of some companies with small budgets (e.g., Arm & Hammer) are more familiar and positively evaluated than logos of some big spenders (e.g., American Express) (Bird 1992).

HYPOTHESES

Several researchers emphasize that a logo should readily evoke the same intended meaning across people (Durgee and Stuart, 1987; Kropp and Hillard 1990; Vartorella, 1990) but provide little means for testing it. Paul Rand emphasis, "the principal role of a logo is to identify, and simplicity is its means" (Rand, 2014). Rand provides a 7-step logo-test to access logo effectiveness. The descriptors are distinctiveness, visibility, adaptability, memorability, universality, timelessness and simplicity. These guidelines are set up to evaluate the quality of the logotypes and are unquestionable issues for valuation.

Our investigation touches two of these descriptors:

- Memorability: the goal of a logo is to be unforgettable. We will be testing the long-term memory (LTM) on a logotype (see Methodology).

- Universality: When a logo can carry a consistent meaning to a diverse range of people.

We will design tests with common representations such as letters and well-known images (see Methodology).

We also examined the Henderson & Cote 1998-experiment findings and methods in "Guidelines for Selecting or Modifying Logos" that uses symbols but no company names.

Our study and method follow the semiotic concept of a sign being constituted by "signifier" and "signified" (Saussure, 1916). The "signifier" can be thus inferred as the word and image of the Sign (Symbol/Logotype) and the mental concept is the metaphor of the "signified".

Our hypothesis examines the mental concept created by the designer (the metaphor) and its consequence on remembrance. We examine the effects of design on responses to logo affect.

Logo strategy literature emphasizes that a logo should readily evoke the same intended meaning across people. In an advertising point of view Keller similarly argues that marketing stimuli should communicate one clear message that is difficult to misinterpret (Keller 1993). Semiotics literature suggests that the meaning of a stimulus can be assessed by examining the core or consensual meaning it evokes (Perussia 1988).

A clear meaning neither entirely specifies nor unduly constrains the nature or content of the meaning communicated, which enables companies to choose a design that communicates the most desirable message (Schmitt, Simonson, and Marcus 1995).

Michael Beirut made a comment about symbolic metaphor recollection when he was six years old and was pointed at a forklift truck parked in a nearby lot. Beirut's father pointed out how the word 'Clark' had been designed (figure 1). Clark was the logo on the side of the truck. "See how the letter L is lifting up the letter A?" explained his father.

Figure 1

"It's doing what the truck does." Beirut describes this moment as if an amazing secret had been revealed, right there in plain sight. He was dumbfounded and thrilled. "How long had this been going on? Were these small miracles hidden all over the place? And who was responsible for creating them?" He relates to this remembrance until today demonstrating the effectiveness of the graphic metaphor (Beirut, 2007).

CONCEPTUAL BACKGROUND

The Logotype

The subject of this research study is the logo-symbol popularly known as "logotype", and in our case understood as the visual and symbolic representation of an organization's identity (Villafañe, 1999).

Logotypes, known in the study of graphic signs (Signography) as emblematic, incorporate in their meaning all the associations that accompany the brand (Stötzner, 2004).

In this sense, a logo is a sign of a symbolic nature with its own autonomy, whose construction is based on some of the connotations of the expressive elements that constitute it (García García, Llorente Barroso & García Guardia, 2010).

If a logo has a clear meaning, it can be linked more easily to the company or product (Block 1969; Durgee and Stuart 1987; Kropp, French, and Hillard 1990).

Stages of Memory

For psychologists, the term memory covers three important aspects of information processing: Encoding, Storage, and Retrieval (Figure 2) (McLeod, 2013).
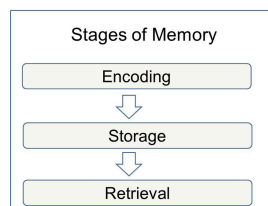
Figure 2

There are three main ways in which information can be encoded (changed):

Visually (picture), Acoustically (sound) and Semantically (meaning) (McLeod, 2013).

We will be studying long-term memory, as opposed to short-term memory (STM) because the principle encoding system in long-term memory (LTM) appears to be semantic coding (by meaning). Evidence suggests that the principle coding system in short-term memory (STM) is acoustic coding and therefore is not applicable in our study.

Most adults can store between 5 and 9 items in their short-term memory (Miller, 1956).

In contrast, the capacity of LTM is thought to be unlimited. Information can only be stored for a brief duration in STM (0-30 seconds), but LTM can last a lifetime. STM is stored and retrieved sequentially. LTM is stored and retrieved by association.

METHODOLOGY Qualitative & Quantitative Tests

The moment for the tests is coherent and pertinent within our investigation time line.

This study applies methods commonly used in experimental aesthetics, in which most empirical studies on design have appeared. Namely, we choose unfamiliar stimuli, follow traditional procedures for obtaining their ratings, and factor analyse the ratings to identify the underlying dimensions (Berlyne, 1971).

The experimental study will take a two-stage approach where respondents are asked firstly to examine twenty different panels and secondly, with a three-month interval, evaluate their remembrance about the first experiment (see Experiment I e II).

Experiment I (Qualitative Test)

A universal random sample of any adult public is suitable since the applied designs for testing have never been published and are unknown.

Each panel is shown individually (e.g. figure 3), to the respondent, to establish the recognition (or not) of the visual metaphor and the respondent is requested to give his opinion on the visual metaphors and meaning of the unknown logotype (should he encounter any).

Colour and type influence were minimized by the use of only black and white and the same typeface throughout all testing. Colour and type assessments are not on the scope of our investigation.
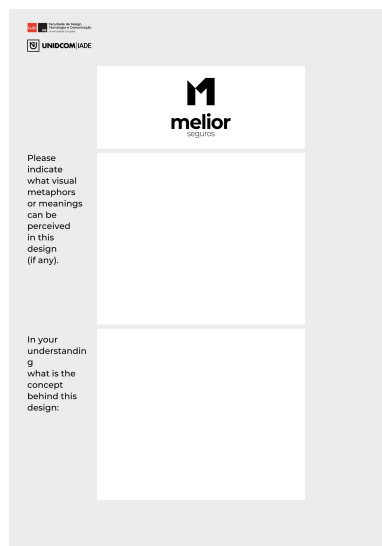
Figure 3
Experiment I

In figure 4 we demonstrate a set of some variations of the tests.
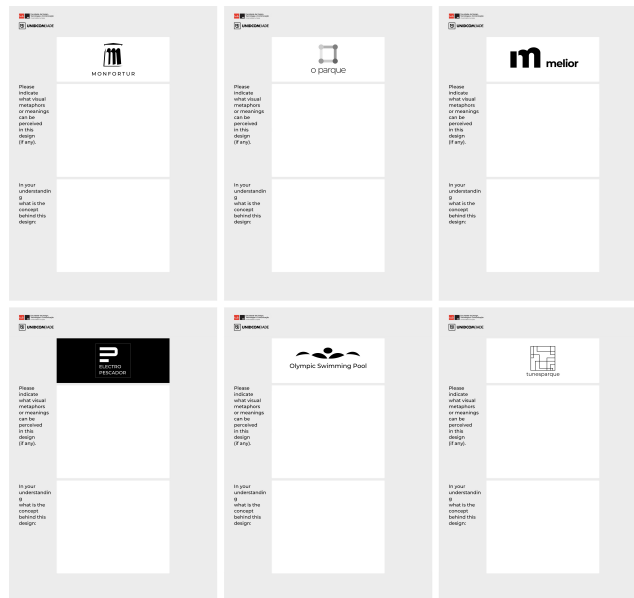
Figure 4
Panels 1-6

Panel 1 has primarily indented typographic and architectural (figurative) metaphors; Panel 2 has a primarily indented figurative metaphor; Panel 3 has primarily indented typographic and figurative metaphors; Panel 4 has a primarily indented typographic metaphor; Panel 5 has a primarily indented figurative metaphor; Panel 6 has primarily indented typographic and figurative metaphors.

Experiment II (Quantitative Test)

The same sample of "Experiment I" was utilized.

We proceeded in a second stage, with a three-month gap, to evaluate if there was a co-relation with remembrance from Experiment I. Six new panels were designed. For each panel the original logo and four other similar designs (positioned in a randomly chosen order) were shown individually (figure 5), to the respondent. We are still evaluating on the adequate number of alternative designs to be shown.

Figure 5
Experiment II

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The analysis is conducted in two phases. First, we use factor analysis to identify underlying design dimensions (independent variables). Secondly, the design dimensions are regressed against the response dimensions.
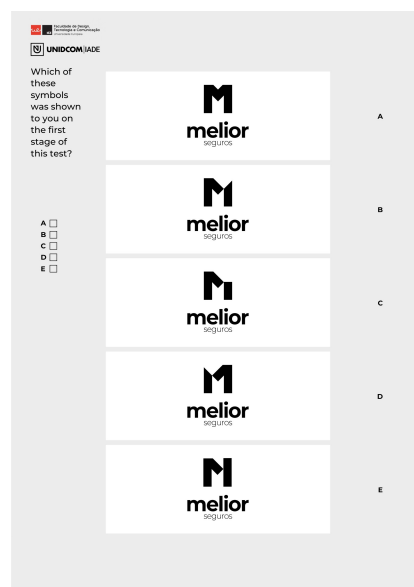
Criticisms of Memory Experiments

Ecological validity refers to the extent to which the findings of research studies can be generalized to other settings. An experiment has high ecological validity if its findings can be generalized, that is applied or extended, to settings outside the laboratory.

We hope to minimize ecological validity by the use of digital testing such as Google forms. Personal and class interviews are viewed as laboratory conditions.

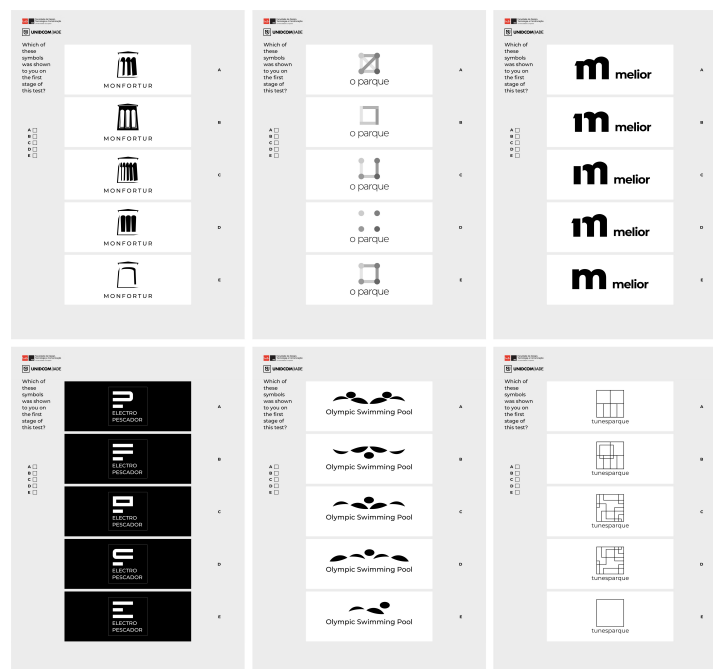In figure 6 we demonstrate a set of variations of the tests.

Figure 6
Panels 7-12

DISCUSSION AND EXPECTED RESULTS

Our discussion aims to determine if the most effective logotypes, hence of greater brand value, are those that attained remembrance through the graphic metaphor they imply. Does this engagement with the receiver, allow the logotype to establish his own empathy? Is the logotype saying to the observer someone thinks what you think?

We debate if this "reciprocity" is one of the main objectives for designers working with graphic marks and argue that light shed on this matter will valorise designer's exertion, experience and valorisation.

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