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Cognitive dynamics in car design: a semantic differential analysis.

As Danesi observes, a semantic differential is a technique for “fleshing out the connotation of words” or constructing “connotative profiles” (Danesi 2008[1999]: 27). In compliance with the PLM leitmotif and within the specific interest realm of multimodality section, this study puts to use the method of semantic differential to seek an understanding of cognitive dynamics implicated in the perception of visual texts. We explore the divide between perceived and not perceived relations as differences in the symbolic potential in automobile design by trying to ‘flesh out’ a semiotic profile of *the superfluous* in a specific context.

As Mick et al. observe, automobiles, as culturally intensive products, have been a common topic for semiotic analysis, “with their meanings often tied to Western science and technology, sociocultural status and power, and personal freedom and escape” (Mick et al. 2002: 46). We assumed that, judging both by semiotic and technological criteria, there is a surplus value (skeuomorphic dimension) in pickups which we intended to pin down using the tool of SD. In this presentation we thus set off to investigate the semantic space of sign value with reference to luxury products as products “that have a sign value on top of (or in substitution of) their functional or economical meaning” (Mortelmans 2005: 510). In this way we hope to contribute to the linguistic and semiotic understanding of ‘meaning’ and “to answer those and other related questions pertaining to the explanation of the concrete and mental nature of language in relation to reality” (cf. Wąsik 2014: 22).

The study is empirically grounded in the results of questionnaires administered to students of Opole University of Technology in 2012. The instrument featured two introductory pages, an example page, and 14 pages with stimulus concepts: each stimulus concept was contained on one page beside identical sets of 37 scales. The respondents were asked to rate the owners of the automobiles along scaled adjectives, contained within three cognitive dimensions (Activity, Potency and Evaluation). The data were loaded into the program of Hogenraad & David (1971) and subjected to a between-items principal axis factor analysis with varimax rotation. The results show a specific dimension for superfluous substance in automobile design, rendered as augmented values in the semantic space and with

a difference between target items and a 'control' item of the same dimensions (e.g. a van). The results show that this surplus semiotic value can indeed be translated directly into positioning in the semiotic space: the owners of pickups were rated highest on both factors and the owners of other luxury cars beneath them, while still maintaining a significant distance from 'ordinary' vehicles. As far as social competence is concerned (pleasantness, friendliness, helpfulness, etc.), we could not recover significant results at this point. We proposed a semiological position to analyze the data, in agreement with Baudrillard's idea that only a such a model can decipher the meaning structure of a modern commodity, because consumption is defined by the organization of materiality as signifying substance.

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