

ARTIFICIAL, CHEAP, FAKE: FREE ASSOCIATIONS AS A RESEARCH METHOD FOR OUTDOOR BILLBOARD ADVERTISING AND VISUAL POLLUTION

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Abstract: The free association method is often employed in marketing research to investigate perceptions of a particular product or brand in different socio-cultural groups of customers. In our research, international and domestic students produced free associations in response to photographs of outdoor billboards from two different locations in one city (city centre and outskirts). The results indicate that free associations can depict qualitative aspects of outdoor billboards like poor quality (relating to the categories of *amateurish* and *fake*), problematic content (relating to *female stereotypes*, *gender stereotypes* and *cultural differences*), and that they have the potential to capture the general atmosphere of the neighbourhood (categories of *decay*, *depression*, *danger* and *past*).

Keywords: outdoor advertising; billboards; visual pollution; marketing research; free associations

Introduction

Visibility, media effectiveness, local presence and potential tangible response are four key reasons why advertisers use outdoor billboards (Taylor, Franke, & Bang, 2006). Visibility refers to the ability of being easily seen and making a strong impression 24 hours per day. Media effectiveness reflects the extensive reach of billboards within a small designated area at a relatively low cost per thousand exposures. Local presence is connected to the belief that billboards enable brand recognition among customers in geographical proximity to the business location. The last of these, tangible response, refers to the expectation that customer traffic and sales will increase. To achieve these, billboards—defined as “large format advertising displays intended for viewing from extended distances, generally more than 50 feet” (OAAA, 2019)—are often located in high-traffic areas, where they can be repeatedly seen and seamlessly accessed by the general public.

As a recent meta-analysis of public polls in the United States suggests, US consumers view billboards positively, and the large majority of people do not support billboard bans (Franke & Taylor, 2017). The growing number of billboards is, however, becoming a reason for concern. They are considered to be an aesthetically displeasing structural disruption of

the urban environment and are often insensitive to the local culture and traditions (Nowghabi & Talebzadeh, 2019). For these reasons, the term 'visual pollution' is employed in the research (Baker, 2007; Chmielewski, Lee, Tompalski, Chmielewski, & Weżyk, 2016) and its individual and social consequences are discussed (Portella, 2014).

Correa and Mejía (2015) argue in their research that the physiological impact of high levels of visual pollution in Ecuador's main city, Quito, is increasing stress levels, eyestrain and headaches. Similarly, Nowghabi and Talebzadeh (2019) argue that visual pollution in the second largest city in Iran, Mashhad, causes mental confusion and reduces intellectual concentration, and that its effects and consequences are accumulating over time.

More importantly, the negative effect of exposure to billboards displaying foreign cultural traits (such as the objectification of sexuality; Lloren, 2017) and age-inappropriate products (such as tobacco in the vicinity of schools; Vardavas, Connolly, & Kafatos, 2009) is emphasized. Pacoma (2017, p. 1), in his content analysis of billboards in the Philippines, articulates the conflicting idea of a "nation rich in morals, values and principles but [supporting] high profanity or obscenity through sexualized male bodies as seen in billboards of fashion brands and gratification of visual desire among its spectators". As a result of their in-depth interviews, Hartono, Davies and Macrae (2017, p. 179) state that:

Muslim mothers in Indonesia find many roadside billboards confronting, especially those advertising harmful products such as cigarettes or using sexualised images of women. This unease is exacerbated by the fact that during daily commutes neither they nor their children can avoid seeing these billboards. However, while billboards pose a challenge to Islamic sensibilities, some Muslim mothers use these billboards as sites to educate their children about piety, modesty and tolerance.

This re-framing of the original meaning by Indonesian women can be understood as a unique coping strategy requiring a great deal of wilful effort. Stocchetti (2014; 2017) explains that the meaning of images is always the result of negotiation between the images and social actors who are willing to participate in the communicative process. However, social actors are forced to participate in communication with outdoor advertising because they cannot choose not to look. The public is therefore obliged to engage with meanings that may contradict its cultural norms or traditions. This raises the question, "How can we access the meaning the public infer from communication with billboards?". To answer this question, we suggest in the next section that free associations provide a suitable method.

Free associations

The use of free associations was originally adopted for psychotherapeutic purposes by Sigmund Freud who wished to explore the unconscious contents of his psychoanalytic patients. Patients were free to, and encouraged to, produce associations (on target terms relevant to the therapeutic session, like 'mother' or 'sex') that infused the conscious meaning of their words with hidden feelings, memories, affections, sensations and sense of self. This technique is based on unconscious thinking and is more suitable for working with traumatic topics than in-depth interviews are, because it does not directly activate psychological defence mechanisms (Bollas, 2008; Kris, 2018).

Nowadays, free associations are frequently used in social psychology, because as the research suggests, a number of the first associations are shared by a sociocultural group. The more associations participants are asked to write down, the more personal the content becomes (Dany, Urdapilleta, & Lo Monaco, 2014; Plichtová, 2002; Rosen & Russell, 1957; Rozin, Kuzer, & Cohen, 2002). Time or space restrictions are therefore employed in social psychology. For example, participants have to write down their associations within one minute (Rozin et al., 2002), or only the first one or three associations are analysed in the research (Halamová, Baránková, Strnádelová, & Koróniová, 2018).

In qualitative research, a whole variety of target concepts are examined to find which words and word categories are associated with them (Nelson, McEvoy, & Dennis, 2000). Halamová and colleagues (2018) asked psychology students to supply associations related to ‘compassion’ and ‘self-compassion’. Lukšík and Guillaume (2018) used free associations to obtain descriptions of social representations of ‘love’ from education and psychology students. Urban (2017) used art-related terms to elicit representations from art students. Dany et al. (2014) asked secondary school students about academic success. In these studies, it was important to examine the representations of particular concepts from the unique perspective of the homogenous social group. As Halamová and colleagues (2018) argue, it is important for psychologists to understand compassion so they can express it to their clients. Urban (2017) revealed how different art-related concepts became part of the identity of the art students in later years of study.

Free associations tend to differ among sociocultural groups and researchers are interested in the differences in the associations produced by different groups. Marková et al. (1998) investigated political, ideological and economic terms in six Central and Western European countries. Urban (2014) asked groups of Slovak and Czech secondary school students to provide associations for Slovak and Czech film to examine adolescent perceptions of national cinematography. In their first study, Rozin and colleagues (2002) described cross-cultural differences in associations to the word ‘food’ produced by American, French and Indian adults. In their second study, they examined differences between groups of psychology students, their parents and their grandparents in an American population.

Free associations are also often employed in applied marketing research. It is used to investigate associations related to particular brands (such as ‘Coca-Cola’) and these can be treated as associations relating to a product or a company (Chen, 2001; Koll, von Wallpach, & Kreuzer, 2010). The emotional valence of the associations (whether they are mostly positive or negative) is often used as a diagnostic tool for identifying brand perception in different groups of consumers (McDowell, 2004). For our purposes it is important to note that free associations are often elicited in marketing research in response to different kinds of image (such as logos or photographs) stimuli (Koll et al., 2010).

Research goals

In the present study, we examine free associations produced by two different social groups of art students—international and domestic—in response to photographs of outdoor billboards in two distant parts of the city.

The first aim is to describe the differences and commonalities between local students and students who are not familiar to the local culture. As we argued above, outdoor advertising often conflicts with the local culture (Hartono et al., 2017; Lloren, 2017; Pacoma, 2017).

The second aim is to describe the commonalities and differences between the associations elicited by the billboards in the city centre and the locality on the outskirts. Koleček (2018) and Pavlíček (2015) show that a city's cultural development is irregular and dependent on the location. Therefore we aim to explore how this urban development is reflected by the free associations.

Methods

Sample

The participants were postgraduate art students at Jan Evangelista Purkyně University in Ústí nad Labem. We assumed that art students have more experience of different kinds of visual stimuli and are therefore better able to produce more nuanced associations. The group of international students consisted of four students of mean age 30.5 years ($SD = 1.5$). The group of domestic students consisted of four students of mean age 25.75 ($SD = 0.83$).

Testing materials

All the outdoor billboards in the two selected areas of Ústí nad Labem were photographed by the second and third authors. Appendix A shows the a) central and b) non-central locations where the photos were taken. The central area of the city contained 36 billboards. The non-central area contained 49 billboards. Appendix B shows examples of billboards in the central and non-central locations. All the photographs of the billboards were used as stimuli for production of associations.

Procedure

Photographs of the billboards were projected onto a projector screen with the instructions "... please write down all the associations that come into your mind when you see the picture on the screen". In line with previous social psychology research (Rozin et al., 2002), there was a time limit of one minute for each picture. This time restriction is used to prevent associations that are too personal (Rosen & Russell, 1957).

Data analysis

In order to understand the structure of and the relationships between the free associations, we decided to involve the students in the analysis (similarly to Plichtová, 1991). After the data collection, each group of students was given two electronic documents (one for the central location and one for the non-central location) containing their free associations. For the data analysis of each set of associations, separate analytical sessions were held with the group of international students and the group of domestic students under the supervision of a trained

researcher (the first author). During these sessions, the students had two objectives: they had to a) categorize their free associations and then b) organize the categories using a conceptual map. The analysis was conducted as a consensus-seeking facilitated discussion. At the end of the sessions, another trained researcher (the fourth author) acted as auditor and checked the categories and map of the relationships between them and provided feedback on the analysis (similarly to Halamová et al., 2018; Hill, 2012).

Results

Associations for the city centre billboards

The domestic students produced $N = 223$ associations and the international students produced $N = 136$ associations in response to the city centre billboards. As reported in Table 1, they placed the associations into 15 different categories. Eight of the categories were the same for both student groups. These contained 77% of all the associations produced by the

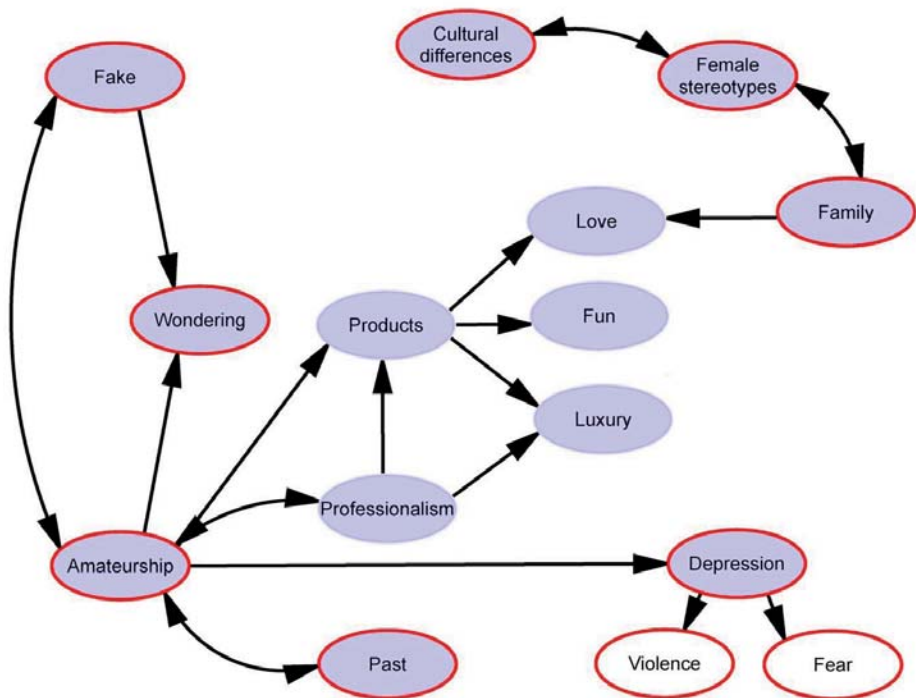


Figure 1. The conceptual map for the categories of associations in the city centre. Note: blue fill and red frame are shared categories; blue fill are categories produced by domestic students; red frame are categories produced by international students. Arrows indicate relationship between categories.

Table 1. Categories, definitions of categories, three most frequent associations and number of associations (percentage of the sample) produced for city centre billboards by domestic and international students.

Category	Definition	Examples	N of associations by domestic	N of associations by international
Female stereotypes	refers to female roles in family and society, body care, sex and age	sexist, forced to smile, pink	65 (28.7%)	19 (14%)
Fake	refers to inauthenticity of advertisements	fake, manipulation, artificial	32 (14.3%)	38 (27.9%)
Amateurish	refers to amateur design of the billboards	graphical waste, pathetic, disgusting	25 (11.2%)	24 (17.6%)
Wondering	refers to consternation of participants	what the hell?, absurd, what?	21 (9.4%)	9 (6.6%)
Family	refers to family members	children, happy family, girl	8 (3.6%)	8 (5.9%)
Past	refers to vintage style of billboards	old-school, retro, vintage	8 (3.6%)	5 (3.7%)
Depression	refers to symptoms of depression	melancholy, illness, emptiness	7 (3.1%)	19 (14.0%)
Cultural differences	refers to cultural imports that don't fit the culture	contrast, blacks for whites, difference	7 (3.1%)	2 (1.5%)
Luxury	refers to luxury products	luxury, elegance, pure	15 (6.7%)	—
Fun	refers to humorous associations	fun, comedy, humour	14 (6.3%)	—
Products	refers to content of advertisements	sweets, tea, meat	10 (4.5%)	—
Professionalism	refers to billboard quality	effective, nice photo, campaign	7 (3.1%)	—
Love	refers to romantic associations	romantic, fall in love, honesty	4 (1.8%)	—
Fear	refers to sources of fear	threat, horror, scared	—	8 (5.9%)
Violence	refers to crimes and brutality	torture, murderer, child abuse	—	4 (2.9%)
Total N			223	136

domestic students and 91.2% of all the associations produced by the international students. The domestic students placed the remaining associations in the most positive categories (e.g. *professionalism, fun, luxury, love*). The international students produced associations coming under the negative categories of *fear* and *violence*. In Figure 1 we can see the relationships among the categories.

On closer examination of the conceptual map in Figure 1, we can see that there are two sets of associations that are common to both student groups and two sets that are

unique (one to the domestic students and one to the international students). The first common set is related to the amateur design of the billboards (categories of *amateurish*, *fake* and *wondering*). The students thought the outdoor advertising in the city centre was inauthentic, and they were concerned by the poor quality. The students thought the city centre advertisements would not attract customers. This set was more frequent in the group of international (52.1% of all associations) than in the group of domestic students (34.9%).

The second common set relates to stereotypes (with the categories of *female stereotypes*, *cultural differences* and *family*). Unlike the previous set, the stereotype associations were more frequent among the domestic students (35.4% of all associations) than among the international students (21.4%).

Interestingly the international students created a specific set of depression-related categories (*depression*, *crime* and *fear*), accounting for 22.8% of all their associations, while the domestic students mentioned only depression (in 3.1% of cases).

By contrast the domestic students created the specific set of *product*-related categories (featuring *professionalism* in contrast to *amateurish*, and *luxury*, *fun* and *love* as the outcomes of *products*). This set contained mainly positive associations and accounted for 22.4% of all the associations.

Associations for billboards on the city outskirts

Table 2 shows categories of associations for the billboards in the non-central part of the city. In total 20 categories were created, and 9 were common to both student groups. The common categories contained 69.2% of all the associations produced by the domestic students and 75.9% of all the associations produced by the international students. The remaining associations produced by the domestic students were put into six categories referring mostly to *unpleasant* feelings connected to *products* and *materialism*. By contrast, the international students produced associations that fit into five negative categories such as *crime*, *fear* and *prison*. As can be seen in Figure 2, the unique categories enrich the sets of shared categories.

The conceptual map of associations produced in response to the peripheral billboards contained four of the same sets as the conceptual map of the city centre associations, but with a slight change in meaning and emotional valence. The amateurish design of the billboards remained the same; the set of stereotypes was enriched by male stereotypes (in the city centre there were only female stereotypes); the set of products shifted towards *materialism* and became more negatively connoted as *unpleasant* and *ordinary*; and depression shifted towards city *decay* and *danger*.

In the set relating to the amateur design of the billboards (the categories of *amateurish*, *fake* and *wondering*) the domestic students produced 37.5% of all the associations, and the international students 46.7%. However, the domestic students' emphasized associations with *amateurish* (28%), while the international students emphasized associations with *fake* (27.7%).

The set relating to *stereotypes* consisted of the categories of *gender stereotypes* and *cultural differences*. However, the number of associations was small in both groups of students (5.8% for the domestic group and 6.6% for the international group).

The set relating to *products* consisted of one shared and positively connotated category, *playfulness*, and four negatively connotated categories specific to the domestic students

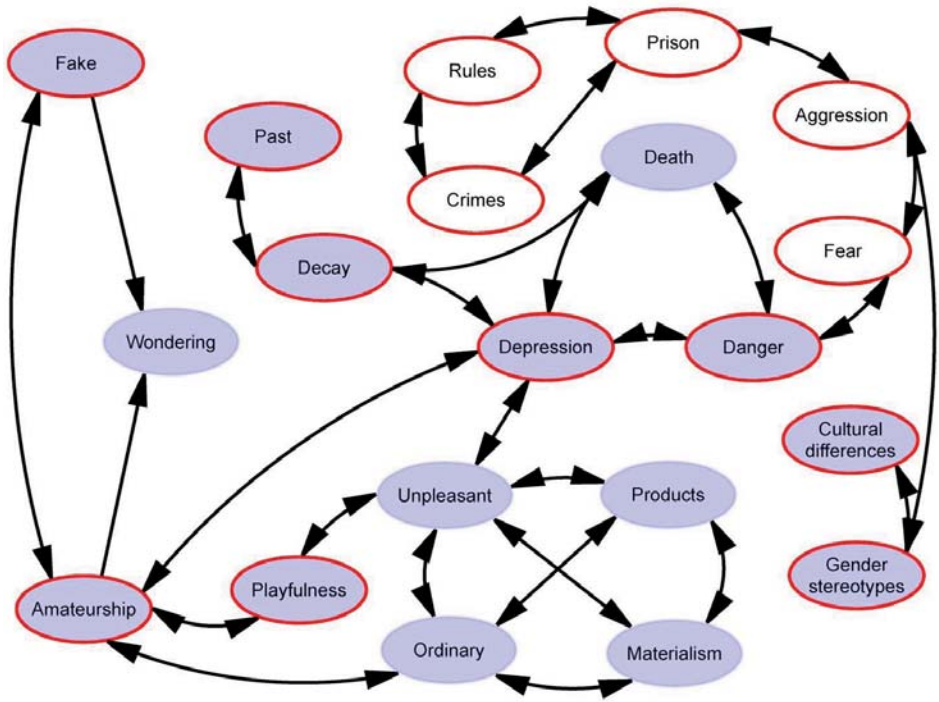


Figure 2. The conceptual map for the categories of associations in the non-central area. Note: blue fill and red frame are shared categories; blue fill are categories produced by domestic students; red frame are categories produced by international students. Arrows indicate relationship between categories.

(*products, materialism, unpleasant and ordinary*). The domestic students produced 21.1% of the associations in this set and the international ones 3.6%.

The last set related to *depression*, but in the context of the shared categories of *past, decay and danger*. There was one unique category produced by the domestic group (*death*) and five unique categories produced by the international group (*fear, aggression, crime, rules and prison*). The domestic group produced 35.4% of the associations in this set and the international group 45.2%. As we can see, the students thought the billboards on the outskirts of the city were in poor condition and elicited extremely negative responses.

Table 2. Categories, definitions of categories, three most frequent examples of associations and number of associations (percent of sample) produced for billboards in the peripheral location by domestic and international students.

Category	Definition	Examples	N of associations by domestic	N of associations by international
Amateurish	refers to billboard design	lacking an idea, ugly, clichéd	53 (28.0%)	26 (19.0%)
Decay	refers to dilapidated billboards	closed, dirt, degradation	19 (10.1%)	8 (5.8%)
Depression	refers to symptoms of depression	sad, emptiness, depression	17 (9.0%)	9 (6.6%)
Past	refers to vintage style billboards	old-school, retro, old	14 (7.4%)	3 (2.2%)
Playfulness	refers to relaxed feelings	funny, good feeling, comfort of home	8 (4.2%)	5 (3.6%)
Gender stereotypes	refers to male and female stereotyped perception	pink and women, angelic hair, alpha male	7 (3.7%)	3 (2.2%)
Danger	refers to dangerous places	I hate the military, army, danger	5 (2.6%)	6 (4.4%)
Fake	refers to unauthenticity of advertisements	fake ad, artificial, luxury - no way	4 (2.1%)	38 (27.7%)
Cultural differences	refers to cultural imports that do not fit the culture	import, against nature, foreign	4 (2.1%)	6 (4.4%)
Wondering	refers to consternation of participants	what the hell?, strange, bizarre	14 (7.4%)	—
Unpleasant	refers to uncomfortable feelings	boredom, annoying, distrust	12 (6.3%)	—
Death	refers to places, styles and products related to death	like an obituary, dead fish, funeral service	12 (6.3%)	—
Materialism	refers to consumerism	shopping, store, fashion ad	7 (3.7%)	—
Ordinary	refers to mediocrity	moderate, every day, minimalism	7 (3.7%)	—
Products	refers to content of advertisements	chicken everywhere, pharmacy, farm	6 (3.2%)	—
Crime	refers to different crimes	gangster, drugs, money laundering	—	8 (5.8%)
Fear	refers to the emotion of fear	fear, scary, dark window	—	8 (5.8%)
Aggression	refers to acts of brutality	violence, forced, aggressive	—	7 (5.1%)
Prison	refers to captivity	prison, cage, divide people	—	7 (5.1%)
Rules	refers to norms	official, strict, serious	—	3 (2.2%)
Total N			189	137

Discussion

Outdoor advertisement considered amateurish by art students

The research participants belonged to a specific group: they were postgraduate art students. Art students may well produce billboard images in the future, so we were interested in their views of the outdoor advertising. Miyai and colleagues (2019) found that art students differed in their views of abstract impressions based on their knowledge and experience. It is for this reason that our sample consisted of a group of domestic and international art students. In our research all the students thought the billboards were amateurish. They described the billboards as *lacking an idea, graphic waste*, and thought the images were *clichéd, ugly* or obviously *photoshopped*, while the fonts were *poorly chosen*. Moreover, they thought the advertisements were inauthentic, *artificial, insincere, fake* or *mock*. These results raise important questions about perceptions of the products advertised and whether these billboards fulfil their basic function of improving product sales.

Peng (2017) found that the more students considered the advertisement to be art, the more they liked it, and thought the product luxurious. In our research, the group of domestic students generated the categories of *professionalism* (with associations like *nice photos*) and *products* connected to *luxury, love* and *fun*. Phillips and McQuarrie (2010) show that advertising achieves these idealized beauty aesthetics by using photographs of beautiful girls, luxury products and appropriate backgrounds (see also Zarzosa & Huhmann, 2019).

Female stereotypes in the city centre

In 2003 an analysis of a selection of newspapers, magazines, television programmes and television news broadcasts was conducted in the Czech Republic (TNS Factum, 2003). Researchers found that the 'traditional roles and activities' of women were mainly related to sex, birth and raising children, and looking after the family and home. They concluded that advertisements portray women simply to elicit interest. The results supported the findings of the Council of Europe, which examined the relationship between the media and representations of women. It concluded that the media reproduce stereotypes and objectified representations of women (Sarikakis, 2013).

In the present study, we found a large number of the free associations elicited by the city centre advertisements related to female stereotypes. Women were portrayed as *naked* or *half-naked* sexual objects (associations like *targeted at men* and *sexist*) with *perfect bodies* and a *forced smile*. We also found that the billboards reproduced stereotypical views that women are *kind* and belong in the *household* (Výrost, 2011). Associations like *pink* are linked to the beauty myth (Cviková & Juráňová, 2006) disseminated by the media and in fairy tales to children from an early age (Urban & Urban, 2017). Surprisingly, the female stereotypes that were commonly found on the city centre billboards were almost absent from the peripheral billboards. Yet the billboards in the outskirts copied the beauty myth for women and in addition represented strong and aggressive men (Lenton, Bruder, & Sedikides, 2009; Urban & Urban, 2017).

The presence and absence of female stereotypes in the central and non-central locations can be explained by the category of *products*. While the products advertised in the city centre were associated with luxury, fun or love with women being used to attract customer

interest (TNS Factum, 2003), in the outskirts the *products* were mainly described negatively as ordinary and unpleasant. This emphasis is transferred from the stereotypes to the poor physical state of the billboards, referring to their actual *decay*.

Decay in the city outskirts

One of the four main reasons marketers use billboards is the potential tangible response from customers seeing the advertised products (Taylor et al., 2006). Our research of the free associations elicited by the billboards in the city outskirts showed that these advertisements did not attract customers, but more likely deterred them. Besides noting the amateurish nature of the advertisements, the students mentioned *decay*, *past*, *depression* and *danger*. The domestic students included *death* in this list, and the international students included *fear*, *aggression*, *prison* and *crime*.

Koleček (2018) explains that the urban identity of Ústí nad Labem is influenced specifically by its location and totalitarian history (the city is close to the Czech-German border and its inhabitants were forcibly expelled after World War II based on the principle of collective guilt). Pavlíček (2015) states that cultural memory determines the shape of the city, its urbanism, aesthetics and demography. It is therefore plausible that the free associations relating to *decay*, *past*, *depression*, *danger* and *fear* refer not only to the condition of the billboards but also the state of the city. While the city centre is mainly defined by female stereotypes, the city outskirts is portrayed as in a state of decay. Both of these findings are alarming.

Future perspectives

The billboards are highly visible. Viewers cannot choose whether to look at them or not; instead the billboards force their content upon the public. This phenomenon is usually understood as highly negative, especially where stereotypes are concerned (Pacoma, 2017). Different kinds of interventions, regulations and strategies have been discussed in relation to tackling these potentially harmful effects of outdoor advertisements (Baker, 2007). Most visibly, São Paulo the largest city in Brazil, banned outdoor advertisements in 2007 (Koeck & Warnaby, 2014). However, Elrod and Fortenberry (2017) argue that while we cannot avoid seeing billboards, we can exploit their visibility and advertise socially beneficial issues. They propose creating billboard content to help socially disadvantaged individuals, using prejudice reduction strategies (e.g. displaying desirable behaviour).

Nevertheless, the free associations in our research depicted characteristics of outdoor billboards like low quality (*amateurish*, *fake*), problematic content (*stereotypes*, *cultural differences*), and more importantly, captured the general atmosphere of the particular neighbourhood (*decay*, *depression*, *fear*). Our participants were postgraduate art students, but it would be beneficial to continue the research with the general public, as the public (at least in the United States) is keen on outdoor advertising despite its negative effects (Franke & Taylor, 2017). Free associations are often used in marketing research (Koll et al., 2010; McDowell, 2004), and our research has shown they are also useful in understanding billboard advertising and can provide valuable insights into the topic of visual pollution.

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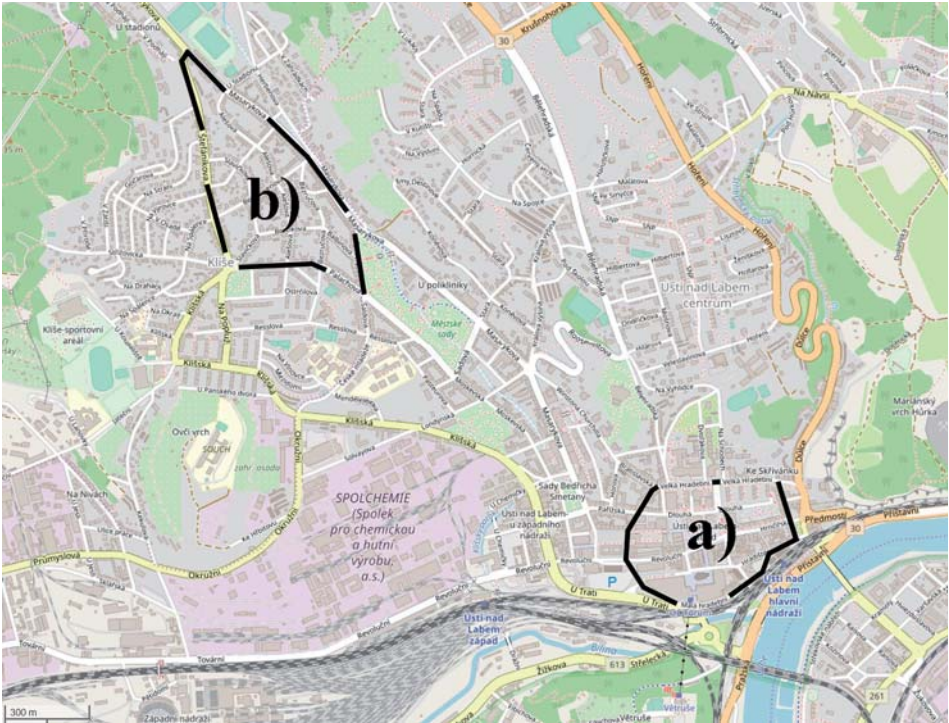
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APPENDIX A

City map of Ústí nad Labem with selected a) central and b) non-central areas where the outdoor billboards were photographed. *Note:* Copyright (CC-BY-SA) of the map belongs to OpenStreetMap Contributors.



APPENDIX B

a) An example of a billboard in the city centre.



b) An example of a billboard in the outskirts of the city.



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