

NEUROMARKETING FROM A LEGAL PERSPECTIVE¹

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Abstract: Neuromarketing utilizes modern techniques of monitoring brain functioning in order to design efficient advertising contents. Due to its capacity to interfere with and to influence decision process of customers, neuromarketing is regarded as highly controversial. The article examines possible manners of protection of individuals from the perspective of personal autonomy and privacy protection. It analyzes possibilities of challenging validity of legal transactions made under influence of neuromarketing based advertising as well as applicability of unfair practices in advertising. The paper also claims that the current personal data protection legislation is not applicable. Privacy of mind is described in terms of privacy of contents and privacy of processes. Mental processes are considered as crucial for creating contents of mind as well as for an individual approach to own privacy. The article concludes that the current regulation of unfair practices as well as the regulation of privacy do not provide an appropriate level of protection and that general clauses should be complemented with specific provision on inadmissible practices in advertising.

Keywords: autonomy, biometric data, consumer protection, data protection, marketing, media law, neuromarketing, neurolaw, privacy, second generation biometrics

1. INTRODUCTION

The modern society is driven by profit and, therefore, develops new techniques in order to sell more goods as well as services. In order to achieve higher effectiveness in sales, companies employ specialized researchers examining an impact of various marketing strategies as well as particular advertisements on test subjects and later evaluate efficiency of their influence on a need of test subjects to choose a particular product over the others. Within the field of a marketing science, marketers started to utilize the knowledge produced based on monitoring of brain functioning. This trend is called “neuromarketing“.

Neuromarketing uses various monitoring techniques that either measure blood flow or electric activity in brain (for instance fMRI – functional magnetic resonance, QEEG – qualified electroencephalography, SST – steady-state topography) or techniques that indicate psychological or physiological arousal and changes in emotional responses of test subjects (for instance eye-tracking, galvanic skin response or facial coding).² With help of these techniques, test subjects are measured in order to establish what reaction a particular advertisement triggers. For instance, an emotional reaction or engagement have been proved as an efficient tool for either provoking irrational consumer behavior or for creating a memory that can later help with unconscious selection of an advertised product.

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² VOORHEES, T. Jr., SPIEGEL, D. L., COOPER, D. *Neuromarketing: Legal and Policy Issues. A Covington White Paper* [online]. 2011 [2016-06-15]. Available from: <https://www.cov.com/files/upload/White_Paper_Neuromarketing_Legal_and_Policy_Issues.pdf>.

From a social and legal point of view, such techniques of influencing people's brains are, however, quite controversial. Advocates of neuromarketing proclaim that the aim of neuromarketing is to understand clients and, therefore, serve them better.³ Some authors also claim that knowledge published in books on neuromarketing actually helps customers to understand own decision-making patterns and subsequently allows them to understand whether they are being manipulated or simply influenced “for their own benefit”.⁴ Professional literature mentions that the current effectiveness of persuasion techniques based on neuroscientific knowledge cannot lead to manipulation of consumer behavior.⁵ At the same time, neuromarketing is envisioned as a great means for optimizing advertising messages in order for their content to influence a so called reptilian part of a human brain that “makes us extremely selfish and drives our strong preference for mental shortcuts over strong deliberations”.⁶ Opponents of neuromarketing understand using such techniques as an “effort to influence consumer decision-making at an unconscious level. In this regard, the techniques will inevitably be criticized as a tool for overriding or circumventing rational consumer choice by using powerful stimuli to provoke emotional responses to products.”⁷

Both positive and negative criticism of neuromarketing draw attention to a very important social concept of personal autonomy. Personal autonomy refers to the capacity of an individual to decide about own actions and, among others, to make an autonomous choice. Compared to traditional methods of market research neuromarketing research methods have a greater potential to limit personal autonomy. Traditional methods of market research usually involve filling in a questionnaire by a test subject who is in fact limited only by their own sense of morality and free to decide whether to tell the truth or to deceive when being questioned. Moreover, a test subject can also decide unconsciously about not disclosing some information. Neuromarketing methods, on the other hand, circumvent the subject's decision process regarding the contents of information to be provided by monitoring real bodily reactions to certain stimuli and by interpreting these reactions independently with help of neuroscience. By doing so, these research methods can also potentially interfere with the right to privacy and with the existing data protection legislation.

Consequently, neuromarketing research methods need to be examined from two legal points of view: a) protection of personal autonomy, and b) protection of privacy. The following chapters shall provide an overview of the relevant Czech legislation related to the problem of neuromarketing in the above mentioned contexts and shall also evaluate several strategies that natural persons could use for protection of their interests.

³ DOOLEY, R. *Brainfluence. 100 Ways to Persuade and Convince Consumers with Neuromarketing*. Hoboken: Wiley, 2012.

⁴ RENVOISÉ, P., MORIN, CH. *Neuromarketing. Understanding the “Buy Buttons” in Your Customers Brain*. Nashville: Thomas Nelson, 2007, p. 10.

⁵ MURPHY, E., ILLES, J., REINER, P. B. Neuroethics of Neuromarketing. *Journal of Consumer Behavior*. 2008, No. 7, pp. 293–302.

⁶ MORIN, CH. Neuromarketing: The New Science of Consumer Behavior. *Society*. 2011, Vol. 48, No. 2, pp. 131–135.

⁷ VOORHEES, T. Jr., SPIEGEL, D. L., COOPER, D. *Neuromarketing: Legal and Policy Issues. A Covington White Paper* [online]. 2011 [2016-06-15]. Available from: <https://www.cov.com/files/upload/White_Paper_Neuromarketing_Legal_and_Policy_Issues.pdf>.

2. PERSONAL AUTONOMY IN THE CONTEXT OF THE CZECH PRIVATE LAW

Personal autonomy is a broad and flexible concept whose meaning depends on a social context in which it is used. In general, two models of personal autonomy have been identified: a model of authenticity and a model of liberty. According to the model of authenticity *“an autonomous person is a being who has his life in his own hands, acts rationally, consistently and independently and is motivated by proper values and norms: he is able to control situations and to resist external power and hidden persuaders.”*⁸ According to the model of liberty, on the other hand, *“persons are supposed to be autonomous and this imposes a prima facie requirement that we should not control the choices and actions of others, except when they harm others.”*⁹ As opposed to the model of liberty, the model of authenticity is more of a protective model that aims to provide safeguards to individuals whose autonomy in making decisions could be endangered for instance by their own irrational behavior or a weak position in legal relationships. Traditionally, the model of authenticity is used by European countries with the tradition of civil law rather than by those with the tradition of common law.

Within the context of the Czech law, personal autonomy is defined in the Charter of Fundamental Rights and Freedoms¹⁰ in Article 2, par. 3. According to this Article *“everyone may do that which is not prohibited by law; and nobody may be compelled to do that which is not imposed upon her by law”*. In the sphere of private law this principle has been defined in terms of autonomy of will and embodied into laws as a freedom of contract (or also as a freedom of legal transaction). The new Czech Civil Code of 2012¹¹ that has completely reformed the system of private law in the Czech Republic emphasizes the autonomy of will as its leading principle. Protecting the autonomy of will is considered as a necessary condition for ensuring the liberty to develop private life of an individual.¹² The autonomy of will is defined in § 1, par. 2 of the Civil Code as a right of persons to negotiate mutual rights and obligations notwithstanding the provisions of the Civil Code unless the Civil Code prohibits so specifically. The Civil Code prohibits contractual provisions that violate good manners, public order or rights related to personal status including rights to personal protection and privacy.

The interesting question that raises in this regard in the context of neuromarketing is to what extent the private law protects the autonomy of will of a potential buyer of products advertised with help of knowledge gained from neuromarketing research.

⁸ RAES, K. Legal Moralism or Paternalism? Tolerance or Indifference? Egalitarian Justice and the Ethics of Equal Concern. In: ALLDRIDGE, P, BRANTS, CH. (eds.). *Personal Autonomy, the Private Sphere and the Criminal Law. A Comparative Study*. Portland: Hart Publishing, 2001, p. 26.

⁹ Ibid.

¹⁰ Resolution of the Presidium of the Czech National Council of 16 December 1992 on the declaration of the CHARTER OF FUNDAMENTAL RIGHTS AND FREEDOMS as a part of the constitutional order of the Czech Republic. Available online in English at: <http://www.usoud.cz/fileadmin/user_upload/ustavni_soud_www/prilohy/Listina_English_version.pdf>.

¹¹ Act of 3 February 2012 No. 89/2012 of the Collection of Laws, Civil Code.

¹² Explanatory Memorandum to the Act No. 89/2012 of the Collection of Laws, Civil Code.

As already mentioned above, it is the aim of neuromarketing to create commercials that would appeal to basic human instincts and emotions as opposed to human intellect. However, the Civil Code protects one's own will especially with regard to their intellect. The Civil Code states that one could expect from any natural person who has a full capacity to make legal acts *"to have intellect of an average person and an ability to use it with ordinary care and diligence."*¹³ From this perspective it may seem that despite promoting autonomy of will the law does not provide enough means to protect it against efficient techniques manipulating with basic instincts and emotions of a person.

On the other hand, one must take in account the full notion of personal autonomy which, apart from the right to act autonomously, also entails the obligation to act autonomously and be diligent. Although neuromarketing techniques may be considered as more efficient than other marketing techniques, it would be devastating for the whole society to see an average person as someone who is unable to manage their emotions and basic instincts when facing a possibly manipulative advertisement.

Moreover, the purpose of private law is not to act in a patronizing manner but to allow persons to be active in making legal transactions and to take care of their own matters as they please compliant with an old principle of Roman law *"vigilantibus iura scripta sunt"*. In this regard, the negligence to assess an advertisement in a rational manner represents a choice of an individual as well. Its consequences then need to be respected. However, in context of marketing, the protection of autonomy of will is also regulated by specific provisions of public law that aim to protect consumers against unfair practices, such as misleading or aggressive commercial practices.

3. PROTECTION OF AUTONOMOUS WILL IN THE CONTEXT OF NEUROMARKETING ADVERTISEMENT

In case a natural person would feel their will was manipulated by a neuromarketing advertisement, there are several strategies that such a person could use for their protection. The first strategy relates to challenging validity of a particular legal transaction with regard to the missing or mistaken will of a person. The second strategy utilizes provisions of public law related to unfair practice in advertising.

3.1 Challenging Validity of a Legal Transaction

In general, validity of a legal transaction depends on fulfilling certain requirements on a quality of a legal act. A legal act is defined in § 545 of the Civil Code and refers to an expression of will that aims to cause specific legal consequences. Will in this sense, is understood as *"an inner psychological relationship of an acting person to the intended legal consequence"*.¹⁴ According to § 551 of the Civil Code an act of a person cannot be considered as a legal act if will of a person to cause legal consequences is missing. The Czech doctrine specifies that will of an acting person is missing if the person formally performs

¹³ See Article 4, par. 1 of the Civil Code.

¹⁴ LAVICKÝ, P. et al. *Občanský zákoník I. Obecná část (§ 1–654). Komentář*. Praha: C. H. Beck, 2014. p. 1967.

an act without intending to do so, such as in the case of reflex movements, talking from sleep or when exposed to physical violence.¹⁵ Law does not recognize legal consequences of such acts.

As opposed to missing will, the Czech legal doctrine also recognizes a situation in which will of a person has been deformed either by a mistake (§ 583 of the Civil Code) or by a threat of either physical or mental violence (§ 587 of the Civil Code). In these cases, an acting person whose will has been deformed can challenge validity of the respective legal transaction.

It is questionable whether either the objection of missing will or the objection of deformed will would be successful in challenging validity of a performed legal transaction. As an example, one can imagine a consumer who is exposed to an advertisement created based on neuroscientific knowledge which appeals to consumer's unconscious desires that she would never admit. The consumer buys the advertised product and later on she finds out that the advertisement was based on neuromarketing knowledge and might have influenced her decision process. Could she object that the transaction was made involuntarily?

From a legal perspective, the objection of missing will would be very hard to prove. The aim of neuromarketing is to persuade consumers in a more efficient way and, therefore, help them to make up their mind to buy products or services. If the will to buy is strong and long-lasting, the better for the producer as their return on investment in advertising becomes higher. Although neuromarketing techniques may compel a consumer to buy a product because specific emotions are triggered, the will itself has been formed and exercised. Whether it has been deformed is another case.

Deforming somebody's will is a concept that requires a closer inspection. Deforming somebody's will must be strictly distinguished from persuading someone to do something. Persuasion, arguments and advertisements are a common part of social life. People share their opinions, try to promote them and find support of others. In this sense many persuasion techniques are being used, including rational arguments and manipulation with feelings. However, any average person exposed to persuasion usually has a chance to mentally process pros and cons of a possible decision and form her will accordingly to her values and goals. Persuasion is an inevitable part of life and in fact stimulates the decision process.

Deformation of will, on the other hand, happens in situations when someone manipulates a decision process of a person by providing false information, not providing certain information on purpose or by presenting very negative consequences for that person if she would not form her will in accordance with what has been suggested to her. These situations are characteristic with a high degree of vulnerability of a person who is forced to use limited resources when making a decision. Her ability to make a conscious decision is controlled. A similar situation happens if a person is exposed to an efficient technique that by using an appropriate symbol triggers an affective rather than cognitive response. In that case a person is often unable to use all mental resources to form their will freely. Professional literature states that “[e]ven if consumers are made aware of the affective re-

¹⁵ Ibid.

sponse, it is very difficult for them to override the affective influence with cognitive reasoning. The authors speculate that cognitive processes may not be able to finalize a decision without a “go/no go” message from an affective function of the brain.”¹⁶

Triggering a mental process that circumvents conscious mind and prevents a person to form their will with utilizing their intellectual capacity needs to be in this sense considered as deforming one’s own will. However, since a person is neither mistaken (provided with false or misleading information) nor threatened with violence, she cannot invoke either of the two provisions of the Civil Code (§ 583 and § 587) and object invalidity of a transaction. The only objection such a person can make is to claim that the content of the respective legal transaction contravenes both the law as well as good manners and, therefore, the transaction must be considered invalid.

Limiting autonomy of will by its deforming definitely violates the fundamental principle of the Civil Code as well as the notion of good manners in the society. However, ultimately it will be the courts that will decide how the problem of neuromarketing should be approached in the future. The courts will most likely do so based on expert opinions on various techniques in individual cases.

3.2 Unfair Practice in Advertising

Neuromarketing and marketing in general are activities associated with advertising. Marketing, however, needs to be understood in a broader sense than simple advertising which, in fact, represents only the result of a marketing process. Marketing involves many activities such as market research, creating a product, testing its popularity, finding out preferences of clients, determining the right pricing scheme, defining strategies of promoting a product as well as creating an efficient advertisement.

As opposed to marketing, advertising is strongly regulated by means of public law. In the Czech Republic, all advertisements need to comply with the Act of 9 February 1995 No. 40/1995 of the Collection of Laws, on Regulation of Advertising, as amended (herein after only Act on Regulation of Advertising).

According to § 1 par. 2 “*advertising means announcement, demonstration or other presentation disseminated particularly with communication media that aims at promoting entrepreneurial activity, and in particular supports the consumption or sale of goods, construction, lease or sale of property, sale or use of rights or obligations, supports the provision of services or promotion of a trademark, unless stated otherwise*”.

Unfair commercial practice in advertising is prohibited in § 2 par. 1 letter b) of this Act. Ordering someone to create an unfair advertisement, delivering an unfair advertisement as well as its dissemination is punishable according to § 8a of the Act on Regulation of Advertising as an administrative offence with fine up to 5.000.000 CZK.

The definition of what is understood as unfair commercial practice can be found in the Act of 16 December 1992 No. 634/1992 of the Collection of Laws, on Consumer Protection, as amended (hereinafter Act on Consumer Protection).

¹⁶ WILSON, R. M., GAINES, J., HILL, R. P. Neuromarketing and Consumer Free Will. *The Journal of Consumer Affairs*. 2008, Vol. 42, No. 3, pp. 389–410.

According to § 4, par. 1 of the Act on Consumer Protection “*a commercial practice is unfair if it is contrary to the requirements of professional diligence and substantially distorts or is able to substantially distort economic behavior of consumers to whom it is addressed or who are exposed to influence of this practice, in relation to a product or a service.*” Professional diligence in this sense refers, among others, to fairness and general principles of good faith of consumers (§ 2 par. 1 letter p) of the same Act).

A key term with regard to advertisements based on neuromarketing is the “*ability to distort economic behavior of consumers*”. In case of a dispute over the ability of an advertisement to distort economic behavior, the accused person needs to prove that the respective advertisement does not have such ability. At the same time, law requires from an average consumer to stay reasonably alert and cautious.¹⁷

The criterion for deciding about lawfulness or unlawfulness of an advertisement based on neuromarketing is its potential to distort behavior, not the ability to influence a decision process of a consumer. Former version of the Act on Consumer Protection that was in force until 27 December 2015 stated in § 4 par. 1 that “*a commercial practice is unfair if acting of an entrepreneur towards a consumer is contrary to the requirements of professional diligence and is able to substantially influence decision process of a consumer so the consumer can make a commercial decision that they would not otherwise make.*”

Since 28 December 2015 it has been more difficult to classify certain practices as unfair and, therefore, prohibited. Ability to substantially influence a decision process can be understood as an easier condition to fulfill as a decision process is internal, hidden and much more questionable compared to objectively perceivable behavior of a person. Nevertheless, the border between these two concepts is not crystal clear and can be challenged.

Unlawfulness of a certain advertisement then depends on effects that neuromarketing techniques would have on consumer's behavior. These effect can, however, vary greatly. Therefore, each case will need to be assessed individually. Again, as in case of objecting validity of legal transaction made under influence of neuromarketing techniques, the courts will need to request expert opinions to evaluate possible effects. Right now, any specific results of such cases cannot be predicted. However, one can presume that given the rapid developments in this field and growing utilization of neuromarketing techniques a legislator will need to react soon and set up rules that would ensure efficient protection of consumers.

4. NEUROMARKETING AND PRIVACY PROTECTION

Neuromarketing practices are based on processing of data collected from research subjects based on monitoring their brain functioning. The data refers to specific neurological processes and is unique to individuals. As such it fulfills the definition of biometric data.

In the context of European law, biometric data was originally defined by Article 29 Working Party “*as biological properties, physiological characteristics, living traits or repeatable*

¹⁷ See Explanatory Memorandum to the Act of 9 December 2015 No. 378/2015 of the Collection of Laws on Amendment of the Act No. 634/1992 of the Collection of Laws on Consumer Protection, as amended.

actions where those features and/or actions are both unique to that individual and measurable, even if the patterns used in practice to technically measure them involve a certain degree of probability”¹⁸

Biometric data is deemed to be special and different from other types of personal data due to its specific nature allowing unique identification of individuals.¹⁹ This data has a character of an identifier which represents information itself as well as an identifying element linking the information with a particular individual.²⁰ From the privacy point of view information value of biometric data implies higher vulnerability of subjects to whom the biometric data pertains.

In the context of neuromarketing, biometric data collected from research subjects are analyzed in order to derive general principles of brain functioning that can be later used for designing an efficient advertisement. For instance, based on brain monitoring of test subjects, researchers were able to establish that if a brand refers to cultural meanings, memory of a person is activated and this person, therefore, tends to make a biased decision with regard to those relevant cultural meanings.²¹

Personal data protection legislation, however, protects only data that refer to a particular identified or identifiable person. Research test subjects usually need to provide explicit consent with monitoring their brain. On the other hand, privacy in the terms of processing biometric data of customers is not violated when people are exposed to techniques of influencing mental processes based on generalized principles. From this point of view there appears to be no problem. However, as the relevant legislation was not adopted taking in account advances in mental imaging, its application may result in negative consequences in the society.

The notion of privacy has been defined in many ways, while the most famous definition refers to privacy as to “the right to be alone”. Generally speaking, one can consider right to privacy as the right to be protected against unlawful intrusion in own personal space, be it person’s house, communication, body or mind. In terms of mind, privacy should be examined on two levels – privacy of contents (stored memories, formed attitudes and decisions) and privacy of processes (thinking, remembering, etc.).

Such as the society protects privacy of a household by prohibiting others to inspect what a person owns (privacy of contents) or what she does behind the walls of her house (privacy of process), this notion should be extended also to mind. However, more than anywhere else, in the mind, its contents depend strongly (if not completely) on mental processes. Therefore, if we accept a premise that human brains function the same way, the knowledge of mental processes and ways of their influencing and modification represents the key to the mechanism

¹⁸ Article 29 Data Protection Working Party. Opinion 4/2007 on the concept of personal data. 01248/07/EN. WP 136. *European Commission* [online]. 20 June 2007 [2016-06-15]. Available at: <http://ec.europa.eu/justice/policies/privacy/docs/wpdocs/2007/wp136_en.pdf>.

¹⁹ Article 29 Data Protection Working Party. Working document on biometrics. 12168/02/EN. WP 80. *European Commission* [online]. 1 August 2003 [2016-06-15]. Available at: <http://ec.europa.eu/justice/policies/privacy/docs/wpdocs/2003/wp80_en.pdf>.

²⁰ Article 29 Data Protection Working Party. Opinion 4/2007 on the concept of personal data. 01248/07/EN. WP 136. *European Commission* [online]. 20 June 2007 [2016-06-15]. Available at: <http://ec.europa.eu/justice/policies/privacy/docs/wpdocs/2007/wp136_en.pdf>.

²¹ MATTHEWS, S. Neuromarketing: What Is It and Is It a Threat to Privacy? In: CLAUSEN, J., LEVY, N. (eds.). *Handbook of Neuroethics*. Dordrecht: Springer, 2015.

that, in fact, defines not only mental privacy of a person, but other forms of privacy as well. As privacy is a concept that presupposes control of a person over what she wishes to keep secret and what to reveal in public, influencing mental processes of a person may also result in changing her understanding of what she needs to keep private.

Concerns about utilization of knowledge related to mental processes have been expressed already by many prominent scholars.²² Unfortunately, absence of legislation providing clear guidelines for processing mental biometric data does not allow for efficient privacy protection. Unfortunately, the very nature of neuromarketing research currently renders privacy claims inapplicable.

5. CONCLUSION

Neuromarketing is one of the emerging fields that give rise to completely new problems in the society. These problems help us to explore and redefine existing concepts of social organization and recognized values. A possibility to efficiently influence people's behavior through knowledge of their brain functioning opens the door to previously sacred space of mind. Neuromarketing techniques are designed to influence mental processes that, in fact, themselves define contents of mind as well as individual notions of privacy. However, although neuromarketing techniques in reality interfere with privacy of a person, the existing data protection legislation cannot be utilized for individual's protection against interference with privacy based on generalized principles. The only manner in which a person can claim her rights is by referring to the fundamental right of privacy that is formulated in a general manner and is subject to interpretation. Moreover, with respect to protection against neuromarketing techniques, one can also refer to provisions related to protection of autonomous will that are set out either in the Civil Code or in the Act on Regulation of Advertising. Predicting results of such claims at court is nearly impossible. However, courts should clearly express preference for protection of individual autonomy and privacy rather than economic interests of business companies.

The reason for preference of individual's protection of autonomous will and privacy over interests of business companies lies in the increasing body of knowledge related to brain functioning and a fast pace of developments of analytical methods. Business companies have strong economic interests and highly efficient tools on how to achieve their goals compared to individuals who have not yet had a chance to learn appropriate strategies on how to react to new challenges. The law needs to recognize this need as well as the asymmetry in the business to consumer relationship. For instance, subliminal advertising is one of methods that can efficiently influence person's decision process on a subconscious level without being perceived by this person. As such, this practice had been prohibited in the Czech law until 16 August 2015. Unfortunately, this specific provision was left out of the Act on Regulation of Advertising as the Czech legislators deemed that this provision does not comply with the European Directive 2005/29/EC; so called "Unfair Commercial Practices Directive". In the future, the law should return to specification of

²² The Committee on Science and Law. Are Your Thoughts Your Own?: "Neuroprivacy" and the Legal Implications of Brain Imaging. *Record of the Association of the Bar of the City of New York*. 2005, Vol. 60, No. 2, pp. 407–437.

methods that circumvent conscious mind and set up clear borders and guidelines on how to determine which practices are allowed and which are prohibited. This will certainly contribute to higher legal certainty and, therefore, not only to the protection of individuals but also to protection of business companies' interests in safe investments into marketing. The same specification should be done in the area of privacy protection as the relationship between generalized principles on brain functioning and individual brain functioning are strongly correlated.