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Beauty and Art in the Lab: What Empirical Aesthetics Can Contribute to Philosophical Aesthetics and What It Cannot

"There seems to be a methodological revolution taking place in philosophy. In some corners of the field, it's business as usual, but in others, philosophers have become resolutely impure: integrating lessons from various branches of psychology (cognitive, developmental, social, and cross-cultural), neuroscience (cognitive, molecular, and clinical), evolutionary theory, experimental economics, and other 'scientific' fields"¹.

"Aesthetics is a strange field, in some ways a confused one"².

Abstract: estetyka empiryczna, estetyka eksperymentalna, neuroestetyka, filozofia eksperymentalna

Keywords: empirical aesthetics, experimental aesthetics, neuroaesthetics, experimental philosophy

Introduction

Empirical aesthetics understood broadly can be regarded as part of a long-standing tradition of doing aesthetics according to a philosophical idea of empiricism³. The empirical approach to aesthetics may take various forms and recently has gravitated to a relatively new, narrower approach called experimental aesthetics, on which I focus specifically in a further part of this paper, because, in my opinion, it is the most promising and at the same time dangerous form of empirical aesthetics today. However, even though empirically-oriented approaches to art and other aesthetics phenomena have been developing quite dynamically over the last decade, they remain rather rare within philosophical aesthetics and

1 Jesse J. Prinz, 'Empirical Philosophy and Experimental Philosophy', in *Experimental Philosophy*, Joshua Knobe and Shaun Nichols (eds.), Oxford University Press, Oxford New York, 2008, p. 189.

2 Kendall Walton, 'Aesthetics-What? Why? and Wherefore?', *The Journal of Aesthetics and Art Criticism*, vol. 65, No. 2 (Spring, 2007), p. 147.

3 Empirical aesthetics is not the same as (although it is related to) aesthetic empiricism, defined by Currie as the idea that „What is aesthetically valuable in a painting can be detected merely by looking at it. Features that cannot be so detected are not properly aesthetic ones“, Gregory Currie, *An Ontology of Art*, Macmillan, London 1989, p. 17.

are rather found in other disciplines, especially psychology and neurosciences which often take beauty and art as its research subject.

This paper offers an overview of these recent developments in empirical aesthetics with special attention to experimental aesthetics. In the first part, I present a general description of the field of empirical aesthetics and its various incarnations, levels and methods, with special regards to experimental aesthetics. I also ground experimental aesthetics in a wider context of experimental philosophy. In the second part, I present benefits aesthetics may derive from taking into account empirical data from and methods, and discuss at a greater length some major controversies and limitations of the empirical approach to aesthetics.

What is empirical/naturalised aesthetics? The relationship between science and aesthetics

Throughout history, many attempts have been undertaken to answer the questions related to art and its mysteries, but even though some classical philosophers have employed methods we would now associate with psychology or sociology, rather than philosophy *sensu stricto* – think of Aristotle’s description of catharsis that can be read as aesthetic and psychological –, there has been little interest in empirical studies of the arts within philosophical aesthetics and empirical data have rarely been used as support for arguments. It is surprising, since aesthetics, by its very name, seems to be predisposed for empirical investigation – its focus on experience, attitude, evaluation etc. seems to beg for empirical verification, while its history is dominated by speculation rather than by experiments or reference to other empirical data.

This long-lasting and seemingly obvious natural connection between philosophical aesthetics in its original formulation as “the science of sensible cognition”⁴ and empirical/cognitive sciences, as well as aesthetics’ disregard for scientific solutions to at least some of its problems have been mentioned by many proponents⁵ of empirically oriented approaches today⁵.

The history of empirical aesthetics can nevertheless be traced back to at least the 19th century and the work of Gustav Fechner, who combined philosophical and psychological approaches and methods in his work on aesthetics. In a large portion of the literature on the subject, we can find what I would call a narrow understanding of empirical aesthetics, where it is conceived as a branch of psychology studying art perception, or more precisely responses to artistic stimuli, without much reference to philosophy, very much in Fechner’s spirit. Arielli notices that experimental aesthetics as it is currently practised is disconnected from philosophical debates and its findings are rarely regarded as interesting

4 Quoted in Noël Carroll, Margaret Moore, and William P. Seeley, ‘The Philosophy of Art and Aesthetics, Psychology, and Neuroscience. Studies in literature, music, and visual arts’, in *The Aesthetic Mind: Philosophy and Psychology*, Elisabeth Schellekens and Peter Goldie (eds), Oxford University Press, Oxford 2011, p. 31.

5 See for example Carroll, Moore and Seeley, op. cit.; Florian Cova, Amanda Garcia, Shen-yi Liao, ‘Experimental Philosophy of Aesthetics’, *Philosophy Compass* 10.11, 2015.

by philosophers: "From this perspective, aesthetics is not a subset of philosophy, but is rather a domain intersecting with philosophy. Applied aesthetic in design, composition, fashion, music, or studies in human attractiveness is of philosophical interest only for their general theoretic implications, but have rarely been a topic of deeper investigation by philosophers"⁶. Some researchers even believe that disengagement from philosophical aesthetics, especially with its association with art creation and experience would be beneficial for the field of experimental aesthetics and neuroaesthetics. For example, the authors of *A Farewell to Art: Aesthetics as a Topic in Psychology and Neuroscience* propose that "aesthetics as the study of how and why sensory stimuli acquire hedonic value. Under this definition, aesthetics becomes a fundamental topic for psychology and neuroscience because it links hedonics (the study of what hedonic valuation is in itself) and neuroeconomics (the study of how hedonic values are integrated into decision making and behavioural control)"⁷. It seems like an instrumentalised version of the original notions of *aisthesis*. Some of their postulates seem worth taking into account, such as "to separate the questions about sensory pleasure from the questions about art experience"⁸. However, reducing aesthetics to the former may deprive the field of aesthetics of seeking answers to questions related to experiencing artworks that go beyond sensory data.

As for the relationship between aesthetics and science conceived as cooperation, one of the formulas of such relationship can be defined in the following way: "an approach of shared evaluation of experience in art in that art theorists – philosophers, art historians, art critics or artists – define the *criterion* of what the experience is expected to be; scientists – most often psychologists – provide a *test* of whether this criterion is fulfilled, in that they examine the actual experience of recipients and its match to the criterion"⁹. It seems that the dependence here is reversed, in comparison to the one in the previous paragraph: science serves for the needs of aesthetics.

Currently, we can observe a growing interest in empirical studies of the arts, especially since the 1980s, not only in fields such as psychology or neurosciences but also in philosophical aesthetics, as evidenced by, for example, the growing number of publications on the subject in leading journals and collections of essays¹⁰. The relationship between philosophical aesthetics and sciences based on empirical research can be situated on a scale from total separation/autonomism (in which usually both sides can display an equally reductionist

6 Emanuele Arielli, 'Is beauty in the folk intuition of the beholder? Some thoughts on experimental philosophy and aesthetics', *Rivista di estetica* 69, 2018, par. 13.

7 Martin Skov, and Marcos Nadal, *A Farewell to Art: Aesthetics as a Topic in Psychology and Neuroscience, Perspectives on Psychological Science* 15(3), DOI: 10.1177/1745691619897963, p. 2.

8 Ibidem.

9 Rolf Reber, 'Art in Its Experience: Can Empirical Psychology Help Assess Artistic Value?', *Leonardo* 41 (4), 2008, 367-72, p. 367.

10 See, for example, *The Aesthetic Mind: Philosophy and Psychology*, Elisabeth Schellekens and Peter Goldie (eds), Oxford University Press, Oxford 2011; *Aesthetic Science: Connecting Minds, Brains, and Experience*, Arthur P. Shimamura, Stephen E. Palmer, (eds.), Oxford University Press, USA, 2012; *Aesthetics and the Sciences of the Mind*, Greg Currie, Matthew Kieran, Aaron Meskin and Jon Robson (eds.), Oxford University Press 2014.

approach) to empirically informed aesthetics (including Nanay's indirect model¹¹), to interdisciplinary (cooperation, Smith's naturalised aesthetics). Experimental aesthetics seems to be somewhere on the side of this scale.

In his book about film aesthetics, Murray Smith offers some general reflections on the relationship between aesthetics and sciences, and proposes a model of naturalised aesthetics. To situate his proposition, he describes several forms of such relationship. Smith distinguishes between two types of naturalism: replacement naturalism, based on the idea that as the tools of natural sciences progress and improve, they will tell us everything there is to know about the world and human beings, and in time, humanities will cease to be of use. Cooperative naturalism, on the other hand, is inclined towards integration and sees objectives and methodologies of human and natural sciences as complementing each other. Autonomism would include a position that both types of sciences should be practised separately and don't have much to share. There is also a "cherry-picking" version of autonomism, which at the first glance may look like cooperative naturalism but is not one, consisting in "selective and ad hoc appeal to science"¹², which, I think, aptly describes some portion of the actual practice of empirical aesthetics. Murray Smith proposes his own version of naturalised aesthetics: "an approach that, while fully acknowledging the diversity of artistic forms and their cultural contexts, sees film art as a manifestation of a cluster of deeply entrenched, basic human capacities, and thus treats it as a phenomenon which is likely to be illuminated by various types of scientific as well as traditional humanistic research"¹³. Smith proposes the explanatory model of our interaction with artworks "the triangulation model", in which three factors (levels of analysis and related empirical evidence) must be taken into account to have a full picture of our object of experience: phenomenological (what it feels like), psychological (capacities and functions of the mind) and neurophysiological (what happens in the brain)¹⁴. This approach may be described as naturalistic but anti-reductionist.

Another approach to empirical aesthetics would be to practice it as an interdisciplinary field, in which, so to speak, questions precede methods. The broad understanding of empirical aesthetics includes the use of empirical data in aesthetic reasoning, from data mining to data collecting (to use Prinz's expression about empirical and experimental philosophy). In this sense, as Kendall Walton observed, most aesthetics is in some sense empirical. Walton notices

11 Bence Nanay emphasizes that one of the aims of his book was "to draw attention to just how much progress could be made in various debates in aesthetics if we make more use of the arguments and conceptual apparatus of philosophy of perception" (p. 91). This might look like an interchange between philosophies, but there is also an appeal to "fair amount of empirical findings throughout the book" (p. 93), however, these empirical data are not applied directly to aesthetics (contrary to what neuroaesthetics does), but filtered through empirically informed philosophy of perception. See: Nanay, Bence, Murray Smith, Sherri Irvin, and Elisabeth Schellekens, "Is Psychology Relevant to Aesthetics? A Symposium", *Estetika: The Central European Journal of Aesthetics* 56, no. 1 (2019), DOI: <http://doi.org/10.33134/eeja.185>.

12 Murray Smith, *Film, Art, and the Third Culture. A Naturalized Aesthetics of Film*, Oxford University Press, Oxford 2017, p. 24.

13 Ibidem, p. 3.

14 Ibidem, p. 60.

that aesthetics has always been empirical in some sense. In his view, philosophy is about constructing theories and theories always rely on some empirical, observational data: "The data philosophers organize include, or should include, results of scientific experimentation and observation. Like hyenas feeding on carrion, philosophers appropriate data collected by others"¹⁵. Data, however, do not determine the theory (the same data can be explained by different theories). The same goes for aesthetics as a philosophical discipline. Sometimes philosophers (aestheticians included) take as data some common knowledge or truths obvious to everyone, that can be easily falsified by empirical tests. But, as Walton observes, "Rather than running experiments or doing surveys or recording observations, philosophers typically reflect on what all or most of us already know. They do it in armchairs"¹⁶. I will use the expression 'armchair philosophers' to refer to this kind of speculative reflection on aesthetic issues which could be empirically tested. However, Walton continues his line of thinking, aesthetics is ultimately an a priori discipline: "The theories philosophers construct are empirical in the sense that they are based on and aim to explain empirical data, but constructing them once the data are in requires no additional empirical investigation. Deciding which of several competing theories best explains a given body of data (...) would seem to be about as a priori a task as there is"¹⁷.

Today, empirical aesthetics is getting increased attention from philosophers. It is visible in the proliferation of journals, associations, institutions and a growing body of research. One of the prominent institutions devoted to conducting empirical aesthetic research is, for example, Max Planck Institute for Empirical Aesthetics, whose fields of interest listed on their website include the nature of aesthetic pleasure, appeal and aesthetic emotions, the cognitive and affective mechanisms of aesthetic perception, the motivational aspects, aesthetic preferences, concepts used to designate and discuss aesthetic judgments functions of aesthetic practices and judgments, and aesthetically appealing properties of objects¹⁸. In fact, research projects implemented in the Institute, as well as available laboratories and methods employed there bring it closer to experimental aesthetics.

Just as the interest in empirical aesthetics increases, its sophistication, variety of topics and methods, as well as the growing body of critical literature

15 Walton, op. cit., p. 152.

16 Ibidem.

17 Ibidem. This may ultimately be read like a rejection of aesthetic empiricism, although Walton recognises the importance of empirical data in the broad sense. Fabian Dorsch is more radical in his rejection of aesthetic empiricism understood as recognizing the epistemic role of empirical evidence in producing and justifying aesthetic judgement or its adequacy (but not the role it plays in experiencing artworks). His reason for endorsing aesthetic rationalism include impossibility of empirical access to aesthetic principles and measurement of aesthetic properties: "That most aesthetic properties are response-dependent and, especially, normative means that they are not open to measurement" (p. 95). Aesthetic reasoning may refer to conclusions of empirical studies, but it does not make the justification for judgment empirical, because the reasoning itself is not guided by empirical evidence, which may only serve as a premise, since aesthetic principles cannot be established empirically. See Fabian Dorsch, 'The Limits of Aesthetic Empiricism', in *Aesthetics and the Sciences of Mind*, op. cit.

18 For more detailed description of the Institute's research: <https://www.aesthetics.mpg.de/en/the-institute/mission-statement.html>, accessed 15.08.2020.

on the subject also increases. Researchers gather data on several levels: from physiological data (such as bodily, physiological reactions, brain activity, changes in posture, eye movements), behavioural data (such the behaviour of museum visitors, measured for, example, with wristbands recording their movement), to phenomenological data, related to experience reported by perceivers (their conscious reactions measured by qualitative and quantitative techniques various psychological and sociological scales) and secondary data analysis/found-material analysis (for example, professional and non-professional reviews, blogs about art, etc. and also artworks themselves – especially music and visual arts, but also, for example, literature). They also employ the variety of methods, techniques and tools they use: from the simple (or less simple) application of theories, notions, results from other disciplines (for example evolutionary theory, some psychological effects, the study on wine tasting applied to art appreciation etc.), soft qualitative methods used in social sciences (interviews, focus groups, observation), Quantitative methods (questionnaires, measuring scales), Simple technological devices (computers, PDAs, sensors, wristbands, etc.) and technologically advanced neuroimaging used in neuroaesthetics.

It should be noted that elements these scales often intertwine and there are studies which combine different levels and methods used to study art empirically. For example, the study on museum-goers called *eMotion: Mapping the Museum Experience*¹⁹ uses both wristbands objectively recording the route and time of museum visit and questionnaire, in which record their subjective experience.

There are also some (rare) cases of combining an empirical social study and artistic performance (or perhaps statement?), as in the case of Komar and Melamid and their project *The Most Wanted Painting*. These artists decided to survey the preferences of Americans and other nations in the form of a detailed questionnaire, in which they asked their respondents about their aesthetic preferences. After they gathered their data, they created the most wanted and the least wanted painting for each country and in general. The whole gallery, as well as the questionnaire, is available on the project's website. The results were and at the same time were not surprising. In all countries (with one exception), including Poland and Kenya, these paintings are strikingly similar: we like rather small landscapes, with blue as the dominant colour, we like it to include some animals and people (preferably wearing clothes and historical figures). The least wanted painting was usually abstract²⁰. But such projects, even though illuminating to some extent, are hard to categorise and remain on the borderline of artistic anecdote.

19 See: Paul Locher, 'Contemporary experimental aesthetics: State of the art technology', *i-Perception*, vol. 2, 2011.

20 The only exception was Holland – preference for abstract art and dislike for representational art. See: <https://awp.diaart.org/km/painting.html>, accessed: 16.08.2020.

Experimental aesthetics – the new incarnation of empirical aesthetics

Experimental philosophy of aesthetics in the narrower sense is yet another approach to combining empirical study and philosophical speculation, not. It is a branch of experimental philosophy, in which philosophers themselves design experiments to confront philosophical intuitions with empirical dimension.

Experimental aesthetics came late to experimental philosophy. Perhaps some evidence of this delay may be found in the fact that in two volumes reporting research devoted to experimental philosophy, edited by Joshua Knobe and Shaun Nichols in 2008 and 2014 there is not a single paper devoted to aesthetics²¹. Maybe that is why it avoided some of its shortcomings. Jesse Prinz outlined some differences between empirical philosophy and experimental philosophy that have been adopted within aesthetics. His distinction between empirical philosophy and experimental philosophy lies the difference between data mining and data collecting. Empirical philosophers use empirical results to confirm, support or refute philosophical theories, while experimental philosophers design and conduct their own experiment. One can be both, empirical and experimental philosopher, depending on what use of empirical methods and results he or she is currently making. They also ask different questions: empirical philosophers: empirical philosophers are interested in first-order questions, whereas experimental philosophers in second-order questions. They both differ, however, from empirical psychologists, because they are more theoretically oriented and their objective is to use empirical findings for philosophical purposes, even though the very data they mine and collect might just as well be collected by an empirical psychologist.

Two programmes of experimental philosophy can be distinguished: positive and negative. The negative programme aims at undermining traditional philosophy, its methods and findings, whereas the point of the positive programme is “not simply to deny the evidence of philosophers, but more importantly to look for and provide the additional evidence necessary to complete certain philosophical claims”²². Another distinction to be made within experimental philosophy is between the broad and narrow approach: the former is basically limited to testing folk intuitions, but the broad one is “simply an instantiation of the long tradition of philosophical naturalism– the view that empirical data are relevant to certain philosophical questions”²³. Torregrossa argues that the broad conception better describes the actual practice of experimental philosophy and especially experimental aesthetics.

Within experimental aesthetics, philosophers attempt to verify empirically their hypotheses related to aesthetic values and factors influencing our aesthetic beliefs and preferences or the way we apply aesthetic notions. They explore

21 *Experimental Philosophy*, edited by Joshua Knobe and Shaun Nichols Oxford University Press, Oxford, New York 2008 and *Experimental Philosophy: Volume 2*, edited by Joshua Knobe and Shaun Nichols, Oxford University Press USA, 2013.

22 Clotilde Torregrossa, “A defence of experimental philosophy in aesthetics”, *Inquiry*, 2017, DOI: 10.1080/0020174X.2017.1385527, p. 3.

23 David Rose and David Danks. 2013, “In Defense of a Broad Conception of Experimental Philosophy”, *Metaphilosophy* 44 (4), p. 515, (I quote after Torregrossa, op. cit., p. 3).

issues related to aesthetic experience, imagination or emotions. In general, to quote Paul Locher, “a primary goal of investigators working in the field of experimental aesthetics is to understand the components and underlying mechanisms responsible for aesthetic appreciation”²⁴. Specific interests of experimental aesthetics would include models of aesthetic processing (issues related to aesthetic experience) and variables influencing aesthetic judgement and appreciation. These are reflected in the findings of a meta-study on topics and methods used in research papers published in the *Journal Empirical Studies of the Arts* from 1983 to 2014. The dominant art domain was painting, or visual arts in general and the most frequently studied topics of research included aesthetic judgement (51%) and perception (38%). The methods of data collection were dominated by surveys/questionnaires and ratings, but also included experiments and observation²⁵.

What about the relationship of experimental aesthetics and science? There was an interesting symposium on that topic published in the *American Society for Aesthetics Newsletter*. I think the dialogue between a philosopher William Seeley and a neuroscientist Anjan Chatterjee can be treated as paradigmatic in this respect. Seeley distinguishes between neuroaesthetics and a cognitive neuroscience of art, which is a broader approach defined as “a subdivision of empirical aesthetics devoted to just that, the application of neuroscientific methods to the study of our engagement with artworks”²⁶. Neuroaesthetics is, in his view, limited to aesthetic questions and not engaging in semantic or ontological aspects of art theory. Seeley believes that neuroscientists can contribute valuable information to aesthetics, such as data supporting certain theories, as he shows on the example of Noel Carroll’s theory of movies as attentional strategies. Aestheticians can use such outcomes of empirical studies for a better understanding of how artworks work. The question, however, is about their potential for generalisation, which Seeley leaves open.

A neuroscientist Anjan Chatterjee asks a reverse question: how can philosophy contribute to neuroaesthetics and he notices: “Stuck in the mess and mire of incremental science, most neuroscientists do not have the time or the training to step back and take a broad view of what we are doing, even though that might be precisely what is needed in these early days”²⁷. So the philosopher’s role would be, as Chatterjee puts it, a “conceptual clean up”. The role of neuroaesthetics is restricted to adding details within the boundaries of a general agreement and it has limited potential for adding anything new, “understanding new worlds”²⁸, as well as for facing the complexity of our actual interactions with art and beauty. This is where philosophical aesthetics should enter.

24 Locher, op. cit., p. 700.

25 Fabian Greb, Paul Elvers, and Timo Fischinger, ‘Trends in Empirical Aesthetics: A Review of the Journal Empirical Studies of the Arts from 1983 to 2014’, *Empirical Studies of the Arts* 2017, vol. 35(1) 3-26, DOI: 10.1177/0276237415625258.

26 William Seeley, ‘What is the Cognitive Neuroscience of Art...and Why Should We Care?’, *American Society for Aesthetics Newsletter* 31 (2): 1-4 (2011), p. 1.

27 Anjan Chatterjee, ‘Where there be dragons: Finding the edges of neuroaesthetics’, *American Society for Aesthetics Newsletter* 31 (2):1-4 (2011), p. 4.

28 Ibidem, p. 5.

In the following part, I shall discuss the advantages and disadvantages of adopting the empirical approach in aesthetics as a whole and if I refer to some specific area of empirical aesthetics, this will be noted.

How can aesthetics benefit from empirical approach? What are the dangers and limitations of empirical aesthetics?

Some advantages of the empirical approach for aesthetics have already been mentioned above, but I shall try to summarise them here. One advantage that immediately comes to mind, and thus may seem banal, is what I would call raising awareness. Turning to empirical data while discussing philosophical problems can make us aware of what Matthew Kieran called the “fragility of aesthetic knowledge”²⁹. Drawing on examples such as wine tasting experiments, snobbery effect or Cutting’s exposure effect, Kieran demonstrated that “we are often particularly bad at knowing when our appreciation and judgements are being driven by aesthetically relevant factors”³⁰. His answer to this problem is not to doubt in the possibility accurate aesthetic judgement, but rather to use this empirical knowledge to cultivate awareness, humility, self-honesty, courage and other virtues to become a skilled appreciator.

As I already stated, using empirical findings can help us verify some pseudo-problems and overly speculative or idealistic premises or theories, for example by revealing their underlying processes. Some questions and paradoxes that philosophers have pondered upon can actually be decided or resolved by turning to empirical data; setting them can leave more room to reflect upon a bigger picture or issues that are impossible to settle upon by reference to empirical research³¹.

Empirical research can provide new, interesting stimuli for philosophical reflection, inspire new directions of thinking. It can open up a meaningful interdisciplinary dialogue to reveal a comprehensive image of art, its underlying mechanisms, processes, role and significance. But there are dangers and limits to this approach which should be considered.

One is the question of values and norms, or the prescriptive dimension. Often the results of empirical studies are left without elaborating their normative consequences and, perhaps similarly to ethics, empirical studies often explain why most people would behave in a certain way but are unable to account why some didn’t, therefore provoking the question about their potential for generalisations. The question about the potential for generalisation goes beyond the normativity of such disciplines like ethics or aesthetics³². Emanuele Arielli, although his overall attitude towards experimental aesthetics can be described

29 Matthew Kieran, “The Fragility of Aesthetic Knowledge: Aesthetic Psychology and Aesthetic Virtues”, in *The Aesthetic Mind: Philosophy and Psychology*, op. cit.

30 Ibidem, p. 34.

31 For many examples of such studies from various artistic domains see, for example: Carroll, Moore, and Seeley, op. cit.

32 Some philosophers might claim, that ethics and aesthetics are (or should be) descriptive and this point does not apply.

as welcoming, remains sceptical about the applicability of the narrow approach (testing folk intuitions), which comes down to classic thought experiments converted to experimental tests: “While it is useful and interesting to investigate the average folk conception about what is considered an artwork, we are not urged as a result to build a more realistic theory from the investigation’s outcome”³³. I think that in some cases this conclusion is correct, and in these cases, it is often a result of either limited competence and resources of philosophers or trying to test with experimental methods phenomena or theories which are not operationable at this level. The same issue arose in the discussion about Kramber’s experiment about philosophical definitions of art and folk intuitions about what counts as art³⁴ or several critical reactions to Cutting’s experiment on the mere-exposure effect in art³⁵.

If the expressed concern about potential generalisations and applicability to philosophy is justified, another – reversed – problem arises. Individual studies are often conducted without a more general context and as such, become meaningless for philosophy. Claus-Christian Carbon describes empirical aesthetics as a heterogeneous field of often unconnected research pervaded by confusion in using aesthetic notions. Researchers “talk of aesthetics in an unfocused, undefined and often non-theoretical way”, without much reflection on a “clear theory behind or underlying their research”³⁶. More importantly, however, Carbon indicates another reason why most empirically-oriented projects fail to contribute anything meaningful to our knowledge in the field of aesthetics, namely the fact that they “do not address true aesthetic qualities”³⁷, focusing instead on “reductionist sets of variables” and they show “the lack of understanding what aesthetic experience is really about”, namely deep involvement and not rating (which is what most empirical measurements are about)³⁸. To overcome these difficulties, Carbon offers a set of innovative research methods which are, in his opinion, better able to capture the deep and dynamic nature of aesthetic experiences, such as *Repeated Evaluation Technique (RET)* or *Emotional Footprint: Implicitly Measuring Body Sway*. This is yet another example of the potential direction empirical aesthetics may take in the near future.

Experimental aesthetics has been criticised because of its incompetence³⁹, for example, that philosophers resort to methods they are not trained to apply,

33 Arielli, op. cit., par. 30.

34 The experiment is described in Richard Kramber, “Experimental Philosophy of Art”, *The Journal of Aesthetics and Art Criticism* 69 (2), 2011, pp. 197-208; and detailed critical analysis in Annelies Monseré, “Experimental Philosophy and Intuitions on What Is Art”, *Teorema: International Journal of Philosophy* 34 (3) 2015, pp. 159-175.

35 See James E. Cutting, ‘The Mere Exposure Effect and Aesthetic Preference’, in *New Directions in Aesthetics, Creativity, and the Arts*, P. Locher, C. Martindale, L. Dorfman (eds.), Baywood Publishing Company, Amityville, New York 2006; and critical discussion in: Aaron Meskin, Mark Phelan, Margaret Moore, and Matthew Kieran, Mere Exposure to Bad Art, *British Journal of Aesthetics* 53 (2) 2013, pp. 139-164.

36 Claus-Christian Carbon, ‘Empirical Aesthetics: In Quest of a Clear Terminology and Valid Methodology’, Z. Kapoula et al. (eds.), *Exploring Transdisciplinarity in Art and Sciences*, https://doi.org/10.1007/978-3-319-76054-4_5, p. 108.

37 Ibidem.

38 Ibidem, p. 109.

39 See, for example, Vladimir J. Konečni, ‘Empirical Psycho-Aesthetics and Her Sisters: Substantive and Methodological Issues-Part I’, *The Journal of Aesthetic Education*, vol. 46, No. 4 (Winter 2012), pp. 1-12

thereby distorting the results. Sometimes this actually is the case. Prinz noticed in the context of experimental philosophy that philosophers often lack training in statistics, access to laboratories and equipment, institutional infrastructure, etc., so they resort to simple methods they have available but which often cannot reflect the complexity of their object of research⁴⁰. This incompetence argument can take various forms. Taking into account various and complex factors involved in actual aesthetic experience, Francesca Bacci points to limitations of the experimental approach to aesthetics from an art-historian point of view, also emphasising the lack of sufficient background of researchers regarding not so much their fluency in empirical research techniques – which was my concern – but rather their potential lack of sufficient knowledge about artworks they use as stimuli (including intention and message of the artist)⁴¹. Other limitations include lack of original viewing conditions and viewers' lack of (of differences in terms of) knowledge and experience with art. Perhaps her concerns could be generalised into the field of neuroaesthetics: different circumstances, personal life experience with art, as well as more general factors, such as beliefs, may shape different neuronal paths in the viewers' brains, making it impossible to find any universal and comprehensive answers to aesthetic questions based on brain images.

An interesting take on the issues of expertise in experimental research is presented in Tereza Hadravová's paper *Aesthetic Experts*. On the examples of selected studies from the early stage of neuroaesthetic research (a period of about ten years from 1995 to mid-2000s), Hadravová shows how and why such experiments may be uninformative or conducted without sufficient background and argument or based on false premises. She focuses on the selection of subjects and suggests that interpretation of their responses to various stimuli was misinterpreted. The selection of 'naïve' subjects was based on a premise that they would display a natural, 'pure' reaction to art. However, the idea that there is such a thing as a naïve, pure eye seems rather dubious, and even if there was, after being shown 300 pictures they wouldn't be any more. Also, the lack of experience with art might just as well make the subject less likely to express their preferences. What is more, "they [researchers] did not think it necessary to explore what actually research subjects were doing in the MEG scanner while using their right-hand thumbs do indicate that they were, supposedly, undergoing the 'aesthetic perception'"⁴². Hadravová argues that this false premise and lack of reflection on the actual process the subjects are going through making such studies uninspiring for aesthetics. However, as she

and Idem, 'Empirical Psycho-Aesthetics and Her Sisters: Substantive and Methodological Issues-Part II', *The Journal of Aesthetic Education*, vol. 47, No. 1 (Spring 2013), pp. 1-21.

40 Prinz, op. cit., p. 200.

41 Francesca Bacci, 2011, 'Eye-movements and Piero's gaze: An art historical perspective', in *Esthétique et Complexité: Création, Expérimentations et Neurosciences*, CNRS Éditions Paris 2011 (I quote after: Locher, op. cit., p. 698).

42 Tereza Hadravová, 'Aesthetic Experts', *ESPEs* 2019, vol. 8/1, p. 30.

notices, contemporary visual neuroaesthetics is leaning towards what Davis Davies labelled “enlightened empiricism”⁴³.

Empirical research has its own limitations. For example, its reliance on data is generally problematic. If we rely on what people say, we can never be sure if they are saying what they really mean, consciously or unconsciously, for example by saying what is regarded by them as culturally appropriate rather than what they really think or feel (the group of so-called response biases); reliance on ‘objective’ data and measurements, such as brain images is also problematic because people can tell very different stories or report various states of minds and experiences that would possibly be reflected by the same brain image. In some cases, a question arises about what the results of empirical studies really tell us; for example, what do images resulting from studies on the brain tell us about the quality of experience? The imaging itself is a kind of medium. Often these experiments are taken out of context, historical, social, personal, etc. in which our interactions with artworks usually take place, and as a result, they offer us some bits and pieces of information that are not necessarily informative. Some theorists do not consider this to be a major problem. Markiewicz responded to the objection that neuroaesthetic research reduces the complexity and richness of experiencing artworks to reactions to stimuli, that “this is just a price science pays for precision”⁴⁴.

These problems and limitations are not typical just for aesthetics, they pally to experimental philosophy in general, and according to Torregrossa, they apply to aesthetics to a lesser extent than to philosophy in general. She discusses three major objections towards experimental philosophy: the incompatibility of philosophical and experimental methods, the relevance of empirical findings to philosophy (including the expertise argument and progress argument) and that it leads to scepticism (especially the negative programme). She rejects all three objections showing that even if they may have some standing in general experimental philosophy, they do not apply to experimental aesthetics. She is a proponent of Liao’s explanatory pluralism⁴⁵ and states that: “we need to think of it as a way of making theories about aesthetic phenomena as informative and robust as possible given the evidence available at a certain time” and continues: “Surely, some experiments will be more interesting for our aesthetic theories than others. Some will even fail to track any real phenomena and be proven insignificant by further replications. However, this does not change the fact that the methodological goals set by the phenomena-and-explanation model have the overall potential to yield more progress than traditional methods on their own”⁴⁶.

43 For the notion of enlightened empiricism see: David Davies, ‘Against Enlightened Empiricism’, in *Contemporary Debates in Aesthetics and the Philosophy of Art*, M. Kieran (ed.), Blackwell Publishing, Oxford 2005, pp. 22-34.

44 Piotr Markiewicz, ‘Neuroestetyka, krytyczna analiza wybranych badań empirycznych’, *Humanistyka i Przyrodznawstwo* 15, Olsztyn 2009, p. 123.

45 See Shen-yi Liao, “Explanations: Aesthetic and Scientific”, *Royal Institute of Philosophy Supplement*, 75, 2014, pp. 127-149, DOI: 10.1017/S135824611400023X.

46 Torregrossa, op. cit., pp. 11-12.

Our interactions with art and with other aesthetic phenomena are so complex and context-dependent, that it seems that no empirical study can provide a comprehensive explanation. Without philosophy empirical studies on art and aesthetic phenomena are perhaps left without the beginning – a set of relevant questions and notions (without preceding theoretical speculations and analysis empirical research would be, and sometimes is, dominated by a certain naïveté); but they would also be left without an end – a creative synthesis. Even if we combined all these methods, techniques and approaches, and gather all the empirical results would their summary give us final answers to our philosophical questions or comprehensive and exhausting description of aesthetic experience, appreciation, evaluation?

“Data without theory is empty, and theory without data is blind”⁴⁷. The future of empirical aesthetics

Empirical aesthetics is relatively young, some of its branches, such as neuroaesthetics – are even younger. Perhaps all experimental aesthetics, just like its subfield, neuroaesthetics, remains at the early stage of its development and all the concerns (or at least some of them) expressed here and in referred literature will cease to be valid in the future. Many proponents of these approaches emphasise their belief in its “impressive potential to deepen our understanding of the nature of aesthetic experiences and emotions with different visual art forms within different contexts”⁴⁸. It is still searching for its identity and it remains unclear, whether it will be able to deliver what it promises. It is open to criticism, some of which is directed at its “unphilosophical” character, and some – at its methodological unreliability. In other words, sometimes it is not philosophical enough for philosophers and not scientific enough for scientists. If we understand aesthetics narrowly, as a subdiscipline of philosophy, bound by the rigours of its problems and methods, perhaps one might legitimately claim that most empirical studies remain at the “zero level” of reflection – they take what is directly given at face value. In other words: we treat philosophical theories as hypotheses for verification by means of the same instruments that we want to go beyond by critical reflection on reality (epitomised in the question: is it possible that things are not what they seem?). On the other hand, we may conceive of aesthetics as a set of questions, answers for which may be found through various cognitive channels, methodologies, approaches. In such a case, philosophy would be treated as a source of hypotheses for experimental aesthetics.

If the empirical approach to aesthetics would mean reducing its scope to questions that can be decided empirically, operationalized and verified in a form of a controlled experiment, then no, the future of aesthetics does not lie in empirical approach. But if aesthetics is to be understood as a philosophical

47 Prinz, op. cit., p. 205.

48 Locher, op. cit., p. 706.

discipline, speculative and analytical, as a set of questions about art and beauty, we may reach for any method, assuming that they are used accurately, to find at least partial answers, which could be contextualized and incorporated into a more comprehensive aesthetic knowledge.

My aim was not to show that empirical findings from psychology are always irrelevant to aesthetics, that would be equally reductions as the idea that empirical data can provide answers to all important aesthetic questions. My suggestion is that some questions posed within philosophical aesthetics can be answered by referring to relevant data (empirically informed aesthetics) or collecting them (experimental aesthetics, collaboration with scientists). For example, this may help to dissolve some paradoxes debated in philosophy of art, such as the paradox of fiction⁴⁹, and where this happens, philosophers should listen to what empirical findings can tell us. Such an approach can contribute to the way we respond to artworks or other aesthetic phenomena and interact with them, or ways in which we experience artworks; or, as Kieran suggested, help us realise and understand our biases, thus making us better critics. An aesthetic empiricist would say that it is always the direct empirical perception of artistic qualities that forms the foundation for experience and judgment, but often these 'armchair' judgements and theories are filtered by various individual biases, subjective insights, cultural preferences and anecdotal evidence. Appeal to existing empirical findings or collecting relevant data may contribute to the overall project of exploring art and other aesthetic phenomena. I also believe that the positive impact goes both ways: just as philosophy can make good use of empirical findings, sciences can be inspired by philosophical insights and include philosophical investigations of their theoretical premises.

I have more concerns regarding experimental aesthetics understood as a practice in which philosophers conduct design and conduct empirical research. I would rather expect and encourage cooperation between philosophers and scientists. Philosophers often lack sufficient training in using experimental methods, which may either lead to the use of limited resources (such as simple polls or ratings) or to unreliable findings. In such cases, even if sometimes nevertheless interesting, they do not verify the philosophical claims they want to verify, either because the philosophical claims they refer to are empirically or the wrong research techniques have been employed. Again, it goes both ways: lack sufficient theoretical background may lead to empirical findings meaningless for philosophy.

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49 See, for example, Carroll, Moore and Seeley, and their use of Robinson's theory of emotions.

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