

Roberta Dreon and Carlos Vara Sánchez

Naturalist trends in current aesthetics

Abstract

In this paper we investigate some important trends in contemporary naturalist aesthetics in relation to two decisive issues. Firstly, it is important to explicitly clarify what kind of naturalism is at stake within the debate, more specifically whether an account of the topic involves forms of physical reductionism, emergentism, and/or continuistic views of art and culture with nature. Secondly, we argue that it is necessary to define what conception of art is assumed as paradigmatic: whether this conception deals with basically autonomist approaches to art, assuming aesthetic experience to coincide with the disinterested contemplation of formal features, independently of cognitive, practical, and ethical implications, or whether the arts are considered an enhancement of the features of human experience and developments of other human behaviours. The second part of the paper will investigate some recent developments in current neuroaesthetics and fresh enactivist proposals in the aesthetic field which display a tendency toward a non-reductive naturalism, views of the arts as continuous with other modes of behaviour and more conscious attitudes about the risks of scientism within scientific investigations. Generally speaking, we espouse an idea of culture as the natural development of human organic experience that involves new emerging properties depending on the re-organization of already existing natural resources and favour continuistic and emergentist views as more suited to dealing with specific problems in the field of the arts and as better responding to the criticism of irrelevancy directed against the latter, compared to reductive naturalist approaches.

Keywords

Aesthetic naturalism, neuroaesthetics, evolutionary aesthetics, enactivist aesthetics, pragmatist aesthetics

Received: 13/09/2021

Approved: 12/11/2021

Edited by: Mario Farina

© 2020 The Authors. Open Access published under the terms of the CC-BY-4.0.

robdre@unive.it (Università Ca' Foscari Venezia)

carlos.varasanchez@unive.it (Università Ca' Foscari Venezia)

1. Introduction

Naturalism is far from being a novelty in aesthetics. In the founding century of the discipline, Friedrich Schiller strictly connected his reflections on beauty and aesthetics to a theory about human nature and its basic impulses, Edmund Burke provided a psycho-physiological conception of beauty and pleasure, and Johann Gottfried Herder thought that art could – and should – promote human flourishing, namely “the exercise of human natural capacities in harmonious engagement with their environment, including their social environment” (Zuckert 2015: 2). Nonetheless, it is unquestionably the case that in the second half of the twentieth century the debate in the aesthetic field was dominated by approaches to the arts and art objects that were quite foreign to naturalism. The debate on the definition of art and its ontology mainly gave rise to culturalist accounts of art, arguably also producing a sort of “semantic anesthetization” of aesthetics from Danto onwards (Shusterman 1997). But the turn of the century could probably be considered a new phase in the swinging of this pendulum, which is now laden with new naturalist research trends in aesthetics: from neuroaesthetics to evolutionary aesthetics, from neo-pragmatist aesthetics to radical embodied and enactive aesthetics.

George Dickie’s eagerness to assert the culturalist character of his own theory in opposition to naturalist accounts of the art is a significant sign of a change that occurred in the philosophical climate. In his 1997 paper, he assumed natural-kind theories of art and cultural-kind accounts to be alternative: either a theory of art is naturalistic because it claims that “art first emerged as a result of a natural-kind activity”, namely as an activity that is “written in the genes”; or a theory of art is based on cultural-kind activities, that are “carried out in a self-conscious way in the sense that those doing the activities are aware or could become aware that the activities are aspects of their group cultural life” (Dickie 1997: 26). Certain trends in current debates seem to feed such contrast by involving forms of reductive naturalism both on the ontological level and on the methodological one (see, for example, Ishizu and Zeki 2011; Pinker 1998).

But are we obliged to consider cultural and naturalist approaches as the elements of a binary opposition, which mutually exclude each other? In 2004, Noël Carroll considered “the case against human nature” (Carroll 2004: 96), i.e. the objection to a naturalist account of the arts grounded in the impossibility to share a universal conception of art – given the historicized character of our conception of art as autonomous, and requiring

disinterested contemplation. The alleged incommensurability of our concept of art in comparison to other views should not prevent us from seeing the similarities between what counts as art in other cultures and in our own tradition, as well as within our own culture. Carroll concludes that it is time for biologically informed researches and cultural-historical perspectives on the arts to possibly “mutually inform one another” (Carroll 2004: 97).

In this paper, we argue that a dichotomic view of nature-based approaches vs culture-based perspectives in aesthetics is misleading both for theoretical reasons – for it depends on what conception of naturalism implicitly or explicitly assumed – and on the historical level, given the many trends in current naturalist aesthetics assuming a continuity between natural and cultural features. Instead, we believe that continuistic and emergentist views are more suited to addressing specific problems in the field of the arts and better respond to the criticism of irrelevancy levelled against the latter, compared to reductive naturalist approaches (see Richards 2019). In a nutshell, these continuistic and emergentist approaches tend to favour an idea of culture as a natural development of human organic experience that involves new emerging properties, depending on the re-organization of already existing natural resources.

Consequently, we think it is important to begin focusing on the specific conception of naturalism that is presupposed by different naturalist approaches to the arts and the aesthetics in experience (§ 2). Aesthetic approaches in the light of naturalizing trends in contemporary philosophy of mind (cf. Zeki and Lamb 1994 as well as Pinker 1998) differ from aesthetic inquiries adopting a continuistic stance between natural and cultural features of human experience and forms of emergence to explain human artistic behaviours (cf. for example Margolis 2004). In section 3, we will consider the conception of art that is adopted as standard within different approaches as a second important criterion for discriminating between them (§ 3). More precisely, we argue that the crucial point is to distinguish between, on the one hand, the adoption of basically autonomist approaches to art, which take aesthetic experience to coincide with the disinterested contemplation of formal features, independently of cognitive, practical, and ethical implications¹, and, on the other hand, the

¹ See Chatterjee and Vartanian (2016), who claim that “some recent behavioural evidence suggests that experts may be more capable of adopting a stance reflective of disinterested interest than novices. [...] [Leder and colleagues’] findings are consistent

adoption of a view of the arts as the enhancement of the features of human experience (Dewey 1934, Johnson 2007) or as the development of other human behaviours (cf. Dissanayake 1980). The second part of the paper will investigate a couple of important positions in current naturalist aesthetics: neuroaesthetics and enactive aesthetics. Both display a tendency towards non-reductive naturalism, a view of the arts as continuous with other modes of behaviours, and a more conscious attitude towards the risks of scientism within scientific investigations. Section 4 will be devoted to very recent developments in neuroaesthetics, while in section 5 we will focus on Alva Noë's and Shaun Gallagher's latest inquiries into the aesthetic field from an enactivist point of view.

Methodologically, we will refer to the four main fields in contemporary naturalist aesthetics, which sometimes overlap. That is, neuroaesthetics, evolutionary aesthetics, aesthetic views inspired by Pragmatism, and radically embodied and enactive aesthetics. One more methodological caveat regards the very meaning of aesthetics. Although we generally favour an understanding of aesthetics as the theory of experience, in this paper we have decided to limit our focus to naturalist accounts of the arts, their origin, and their functions. As will become clear, we endorse a continuous approach to the arts and human experience. More specifically, we support the idea that the arts are enhancements and developments of specific features found in general experience. However, a serious investigation of this issue would deserve a separate treatment, which we cannot provide in one single paper.

2. *What does it mean to be a naturalist in aesthetics today?*

When considering contemporary trends in naturalist aesthetics, a central issue is to clarify what kind of naturalism is at stake within the debate or is assumed by a specific approach. The point, we argue, is that there are many forms of naturalism, although the trend towards the so-called naturalization of philosophy in the wake of Quine's famous article, *Epistemology naturalized* (Quine 1969), has become predominant both within the philosophy of mind and the cognitive sciences, which lie at the basis of neuroaesthetics and most forms of evolutionary aesthetics (De Caro, Macarthur 2004).

with the Kantian notion that adopting an aesthetic stance is emotionally distanced, at least among people knowledgeable about visual arts" (2016: 184).

Does assuming a naturalist stance in aesthetics involve committing oneself to the claim that works of art are reducible to their physical supports? Or, more plausibly, does it imply espousing the view that those activities by which one produces and experiences works of art (e.g. the imagination, perception, creative invention, thought) can be explained in terms of the neural processes encoded in the brain?

These are the kinds of issues we are exposed to today when considering what it means to be a naturalist in aesthetics. They differ from the sort of questions that were still important in the 60s, when Romanell and Munro (Romanell 1960, Munro 1960) tried to distinguish between artistic naturalism, involving an accurate representation of nature (e.g. Zola's approach to the literary novel), and aesthetic approaches grounded in a specific philosophy of naturalism. Romanell's central issue was the place of the human within the ontological framework and clarifying whether it could be considered part of nature or apart from it (Romanell 1960: 140).

At the turn of the century, this scenario changed significantly. The standard view of ontological naturalism which emerged in the wake of the naturalization of epistemology is the conception according to which "all spatiotemporal entities must be identical to or metaphysically constituted by physical entities. Many ontological naturalists thus adopt a physicalist attitude to mental, biological and other such 'special' subject matters" (Papineau 2007). Works of art are clearly 'special' subject matters, while also coinciding with the mental representations by which we presumably experience them. "The driving motivation for this kind of ontological naturalism" – Papineau goes on to state – "is the need to explain how special entities can have physical effects". Thus, envisaging a painting by Vermeer as a source of purely perceptual stimuli processed in our visual brain can represent a solution to the so-called causal closure of the physical (Zeki 1999). Together with physicalism and the dogma that only physical entities can have physical effects, the third assumption characterizing current ontological naturalism is the methodological claim that philosophical problems must be translated into scientific inquiries – it they are to be real problems at all. Epistemic naturalism in aesthetics consequently means, for example, converting issues about aesthetic experience in terms of neuropsychological processes. From this point of view, the varieties of aesthetic naturalism seem to differ according to the extent to which they are willing to reduce "value states" to "natural states", i.e. states that are essentially evaluative to allegedly "factual states" that

are supposed to be “scientifically or empirically accessible or investigatable” (Fenner 1993: 354)².

However, we argue, the differences between competing forms of naturalist aesthetics do not necessarily regard the degree of reductionism to which one position is ready to submit cultural features. Cultural and natural aspects can be assumed as continuous. In other words, cultural features can be regarded as emerging from natural resources and as responding to specific biological circumstances. For example, according to Ellen Dissanayake, artistic practices and aesthetically characterized interactions can be considered developments of proto-aesthetic behaviours taking place in early infancy between babies and their caregivers and responding to the strong immaturity of human newborns – their brains included – at birth and to their dependence from the social group of their intimates for survival (Dissanayake 2000). According to Joseph Margolis’ anthropology of the arts, cultural entities and artistic activities should be seen as developing from already existing materials and environmental circumstances without being reducible to them; they can be taken to produce a sort of retroaction or loop effect on previously given conditions, so that even humans could be considered cultural artefacts (Margolis 2009). Noel Carroll and Carole Talon-Hugon claim that the arts play a key role in relation to groups’ selection and survival, because of the arts’ capacity to build a common ethos and shared affective-based modes of evaluation: a form of normativity through “emotional contagion”, i.e. one based on the specifically evolved neuro-psychology of humans’ sensibility and emotions (Carroll and Talon-Hugon 2013). While assuming a prudent, explicit notion of naturalism – i.e. the idea that “philosophy should begin with what the best scientific theories tells us about the world” (Richards 2019: 9, quoting Clark 2016: 3-5) – Richard Richards adopts an “ecology

² According to David E. W. Fenner (1993), inquiries in the field of contemporary aesthetics can be divided into a priori and a posteriori depending on their naturalistic focus. The key difference between these two strategies is that the “[a]posteriorist believes that still within the system may be found grounds for adjudicating between claims, for addressing and incorporating normativity” (1993, 361). In other words, apriorist philosophers formulate necessary claims that have to be subsequently corroborated by empirical findings. Conversely, aposteriorist approaches take empiricism as far as it can go, for they present their normative findings aimed at connecting value and natural states “without recourse to a priori speculation or rationalistic construction” (Fenner 1993, 358).

of art”, involving the dynamic and mutual construction of artistic behaviours and engineered niches, and assigning a place to normativity and cultural specificity within organic-environmental interactions.

Criticism of reductive forms of naturalism can be found even among strongly embodied and enactivist aesthetic approaches, which historically have distanced themselves from representational and computational views of the mind, as well as brain-centred views of human perception and cognition. In his book *Strange tools. Art and human nature*, Alva Noë criticizes the “Cartesian dogmas” of contemporary neurosciences (Noë 2015: 95), afflicting even Zeki’s neuroaesthetics. On the one hand, we have the idea that what matters about human nature is fixed in the brain – and hence that relating the arts to human nature means considering the brain mechanisms which occur when seeing a picture, for example. On the other hand, we have the assumption that human behaviours are governed by brain processes, independently not only from one’s body, but also from the environment where a specific practice occurs – for example seeing a painting in a museum or in a video within a neuroimaging laboratory. In sections 5 and 6 we will take an in-depth look at more recent developments in aesthetic research within neuroscience and enactivism.

Although the formulations differ, we believe that a useful, positive definition of that family of naturalistic stances in aesthetics can be developed on the basis of Dewey’s notion of “cultural naturalism” (cf. Dreon 2019).

Cultural or continuistic naturalism, such as that supported by the Pragmatists, shares with the current naturalizing trend in philosophy the refusal “to admit non-natural or supernatural resources in the descriptive or explanatory discourse of any truth-bearing kind” (Margolis 2002: 6).

Nonetheless, cultural naturalism, as Dewey depicted it, differs from physicism and reductive naturalism because it involves a form of continuity: “There is no breach of continuity between operations of inquiry and biological operations and physical operations” (Dewey 1938: 18). “‘Continuity’ means that rational operations grow out of organic activities, without being identical with that from which they emerge” (Dewey 1938: 18). In other words, it implies a form of emergentism that clearly foreshadows more recent emergentist trends within enactivism³. Even

³ According to Matteucci, “[i]n the field of experience-with, that is, of the aesthetic as described by Dewey, subject and object emerge by virtue of a correspondence that dynamically shapes each of its vectors, and therefore the two potential poles towards

though Dewey did not resort to the concept of “emergence” (see Dreon 2022), his cultural naturalism already involved the assumption that new forms of organization of existing resources can emerge, characterized by new properties that cannot be attributed to the mere association of pre-existing factors and circumstances. For example, salt displays properties – such as making food more savoury or influencing blood pressure – that are not shared by chlorine and sodium, whose properties (being highly toxic or burning when in contact with water) are very different. Analogously, a statue representing a dictator elicits reverence or anger in a way that marble or bronze cannot. Briefly, cultural naturalism is ontologically pluralistic, in the sense that it is tolerant towards a variety of ways of being real (Margolis 2002): not only auditory waves but also melodies are real. Furthermore, it is epistemically pluralistic, insofar as it admits of diverse scientific accounts and conceptual frameworks as helpful in understanding artistic practices and objects – i.e. physiological mechanisms concerning perception and the emotions as well as anthropological accounts about rituals and the way humans make use of images, laboratory-based inquiries as well as phenomenological observations of artistic behaviours “in the wild”. A continuistic form of naturalism can engage with scientific investigations and results, but it does not assume that philosophical issues must be translated into scientific problems, if they are to be regarded as problems at all. Neither does it assume physics – more specifically, a certain kind of physics – to be the best or most paradigmatic model for science. A vast range of sciences are considered challenging for philosophical inquiry, particularly life sciences.

Thirdly, cultural naturalism replaces a linear conception of causality with a more complex view of mutually conditioning processes. Works of art can affect our emotive life in its most embodied organic features by means of its powerful symbolic meanings in ways that allegedly mere perceptive stimuli cannot.

Finally, cultural naturalism, at least in its Deweyan version, involves a challenging reading of Darwin’s legacy and the criticism of the assumption that “natural” means fixed once and for all, universal and context-independent, and is consequently opposed to “cultural” (Dewey 1938, Margolis 2002). Human nature is historicized and human artistic practices are similarly exposed to change and re-shaping.

which it extends, through the ways of acting and operating the vectors themselves, according to the basic principle of enactivism” (2021: 11).

3. *The hidden presupposition: what concept of art are you assuming as standard?*

This last claim allows us to introduce a second criterion for discriminating between different naturalist positions in the aesthetic field, namely the conception of art that is assumed as standard and informs inquiries, whether implicitly or explicitly. Some leading authors state the issue at the very beginning of their inquiry - especially those working in evolutionary aesthetics and having a developmental view on the arts (Dutton 2009: 47, Davis 2012: 25, Richards 2019: 1). Similarly to anthropologists, they must take into account the modes and meanings of artistic practices in traditional societies, where participatory engagement and habits, as well as the profound integration of the arts in the fabric of religious, political, and everyday experience, are the norm. Until recently, the field of neuroaesthetics, at least reflected in some seminal works, would appear to have been little aware of the problem. Quite often it has uncritically presupposed a conception of the experiencing of paintings, music, and so on in terms of purely perceptual, contemplative fruition (Zeki 1999, Kawabata and Zeki 2004, Tooby and Cosmide 2015). Yet, as we will see in the next section, this situation has started to change.

However, even among those authors who explicitly pose the issue, the main concern seems to be to find a unitary definition of art. The most reasonable way out seems to be to adopt a cluster conception of art, flexible and inclusive enough to include the broad varieties of artistic and aesthetic practices occurring at different times and geographical latitudes, and in different cultural contexts (Dutton 2009: 51). While sharing such a tolerant, pluralistic approach to the meanings of art, we emphasize that almost none of those scholars seems to consider the fact that the very question of the definition of art is a very recent phenomenon, probably connected to a series of specific circumstances: the production of artworks that are very similar or even identical to everyday objects, the emancipation of artistic practices from religious concerns in Western culture, the fruition of artworks in specialized places such as museums, galleries, and concert halls, the development of a merely contemplative and allegedly disinterested experience of the arts within so-called Fine Arts or High Culture, and the affirmation of an autonomist conception of art, considered as a singular noun and written with a capital letter – namely as an overarching concept and a honorific term.

This claim converges with Ellen Dissanayake and Steven Brown's assessment in a famous article, provocatively subtitled *Neuroaesthetics as*

Narrow Aesthetics. In that paper, they claim that neuroaesthetics – and evolutionary aesthetics insofar as it presupposes the same conceptual framework – runs the risk of illegitimately assuming a culturally and historically specific concept of art, as well as the related idea of purely aesthetic experience, as a universal paradigm for investigating the roots of the arts in human nature (Brown and Dissanayake 2009: 43).

Consequently, in order to navigate different naturalistic accounts of art and the aesthetic, it is crucial to understand whether one is implicitly buying into an illegitimate extension of a conception of art as autonomous and of aesthetic experience as a *sui generis* form of experience, different from other kinds of interaction with the surrounding context.

Furthermore, we would argue that naturalist aesthetics should not be set in contrast to contributions to the historicization of our conception of “Art”. In this sense, it is worth recalling Dewey’s pioneering criticism of the “museum conception of art” (Dewey 1934). Complementarily, albeit independently, Paul Kristeller provided an essential contribution to the historicizing of the concept of art through his inquiry into the establishment of a unitary system of the arts (Kristeller 1951 and Kristeller 1952). More recently, Larry Shiner has investigated the material conditions favouring a conception of disinterested contemplation as the kind of experience required for an understanding of “Art for the Art’s sake” – namely, as an independent realm, separate from artisanal and/or industrial production and scientific inquiries, and serving no end in the ordinary world (Shiner 2001).

We suggest that it is possible to maintain both a naturalist approach to the arts and, at the same time, an awareness of the historical and cultural boundaries of the autonomistic conception of Art, through the kind of cultural naturalism we described in the previous section, as well as by explicitly assuming that the arts have been practised in the past and in other cultural contexts as continuous with other activities – insofar as they were part of religious rituals and civic ceremonies, scaffolded political consensus, and displayed individuals’ social status and distinction. Furthermore, this continuity of the arts with other human practices appears to still be a characteristic of our form of life, provided we abandon the traditional view of art that is prevalent in philosophical aesthetics and the history of art, and also consider current widespread broadly artistic activities and objects, such as mass art, the use of media for aesthetic enjoyment, and the connection of high culture fruition with social and economic prestige, now exploited not only by individuals but also by com-

mercial companies. John Dewey's aesthetics could be seen as an outstanding attempt to develop a conception of the arts as the enhancement of the natural features of human organic-environmental transactions that at the same time reflects an awareness that "aesthetic hunger" (Dewey 1934) and needs in humans can be – and historically have been – satisfied in a variety of ways, depending on the specific form of life developed within a naturally social environment and an inherited culture⁴.

The issue at stake is to what extent contemporary naturalist accounts are capable of keeping natural and cultural features together through a view of the arts as continuous with other ordinary practices. Both artistic and non-artistic practices, we suggest, are developed within a given culture that is the result of a dynamically shaped and socially shared environment and which responds to needs that are not "written in the genes" once and for all, but are rather functions of the interactions between organisms and the environments they belong to and which they contribute to shaping from the inside. That is both of them, organisms and environment – are exposed to change, although to different degrees.

The concept of "engineered niche" applied by Richard Richards to the aesthetic field can probably be viewed in a similar light (Richards 2019: 43, see also Portera 2020). We believe that this category should be considered a hermeneutical tool for acquiring a more flexible and historicized conception of human nature, which is crucial when dealing with the arts. However, we should resist any temptation to multiply entities and avoid new risks of "compartmentalization" (Dewey 1934) that could be introduced again by the idea that each specific artistic practice requires the building of a different, peculiar niche.

4. *Towards a less narrow neuroaesthetics?*

One of the most popular current naturalist trends in aesthetics over the last two decades has been neuroaesthetics. The term neuroaesthetics was coined by Semir Zeki (1999) to express the idea that no theory of aesthetics is complete without an understanding of its neurobiological

⁴ A thorough discussion of the general benefits and problems deriving from the use of the concept of 'aesthetic experience' – or even from talk of aesthetic aspects with reference to different human needs and practices – is still needed. Yet, it clearly exceeds the scope of this paper. At the moment, we have decided to focus on artistic practices. The broader aesthetic perspective will be explored in future papers.

foundations. The roots of neuroaesthetics can be traced back to Fechner's research on experimental aesthetics (1876), Gestalt psychologists' work on the emergence of perception (Wertheimer 1912), and, more recently, Berlyne's psychobiological study of motivational systems and arousal potential (1971). At the turn of the century, Zeki and other colleagues such as Tomohiro Ishizu and Hideaki Kawabata were looking for specific brain areas correlated with responses to what is considered beautiful, independently of stimulus modality. Recently developed technologies such as functional magnetic resonance imaging (fMRI) allowed them and other neuroscientists to observe changes in patterns of temporal activity in different brain areas in a way that previously had not been possible. This constitutes a shift from Fechner and Berlyne's interest in establishing relations between stimulus properties and individual aesthetic pleasure responses. Early neuroaesthetics was aimed at finding universal mechanisms for aesthetic responses. Papers such as Kawabata and Zeki (2004)'s "Neural correlates of beauty" or Ramachandran and Hirstein's "The science of art: A neurological theory of aesthetic experience" (1999) constitute a good example of this early wave of neuroaesthetics. Considering this interest in seeking essential mechanisms, Andrea Pinotti (2008) contends that these works could be regarded as examples of *sui generis* Platonism. Even though these early neuroaestheticians denied the reductive nature of their work, their focus on finding the principles of brain functioning that constrain art production and its experience certainly constitutes an example of ontological reductive naturalism.

Following classical cognitivist tenets, in first-wave neuroaesthetics research, the fact that everything that is perceived is mediated by neural representations is taken for granted. As Alva Noë explains, "[t]his idea that a person is a functional assembly of brain cells and associated molecules is not something neuroscience has discovered. It is not something that it asserts. It is something it takes for granted" (2015, 94). As a consequence, these essentialist and universalist neuroaesthetic endeavours may be regarded as a form of apriorism that presupposes the irrelevance of environmental, bodily, and sociocultural processes and attributes the role of an enabling condition to the neurological processes taking place in specific brain regions.

However, until now we have referred to first-wave or early neuroaesthetics research. How and when did things change? In 2016 some leading figures in the field published a joint paper: "Neuroaesthetics: The cognitive neuroscience of aesthetic experience". In this work, Marcus T. Pearce, Dahlia W. Zaidel, Oshin Vartanian, Martin Skov, Helmut Leder, Anjan Chatterjee, and

Marcos Nadal acknowledged some of the criticisms that neuroaesthetics had attracted from both the humanities and the sciences. To address these issues, they tried to provide a framework in which “researchers investigate the neurocognitive underpinnings of aesthetic experiences in response to many sorts of objects, not just artworks”, being aware that “[a]esthetic experiences can relate to beauty but are not limited to beauty alone” (2016, 267). The authors also tried to move beyond what they considered to be an inadequate focus: “the 18th century Western conception of aesthetic experience, understood as a dispassionate, purposeless, and decontextualized engagement” (269). As an alternative, they committed themselves to Richard Shusterman’s (1997) notion that aesthetic experience is composed of three dimensions: evaluative, affective, and semantic. In conclusion, they argued that research in the cognitive neuroscience of aesthetics – a term they preferred to neuroaesthetics – should try to “understand the biological and cognitive mechanisms that enable humans to have perceptual experiences that are evaluative and affectively absorbing (though possibly not satisfying particular motivational desires), in individually and culturally meaningful ways” (Pearce et al., 2016: 269). However, the honest effort behind this paper fell short of its goal. According to Martin Skov and Marcos Nadal – already part of the group of researchers that co-authored the Pearce et al. text in 2016 – their suggestion “has had little following among researchers in empirical aesthetics and neuroaesthetics. Most researchers continue to treat the study of art experience and the study of sensory pleasure as aspects of the same problem” (Skov and Nadal 2020: 631). Yet, Skov and Nadal’s point of view is particularly relevant for this paper: they are among the very few researchers on empirical aesthetics and neuroaesthetics who appear to be clearly aware of the problematic issue of regarding aesthetic experiences as different from ‘normal’ experiences. In other words, they advocate for a continuistic stance between aesthetic and non-aesthetic experiences. They contend that “much research in empirical aesthetics and neuroaesthetics rests on ideas about art and aesthetic experience that were developed more than two centuries ago”, and they claim that “these ideas linger today in the form of assumptions, such as that art designates ontologically special objects, the experience of which entails special mental states” (Skov and Nadal 2020: 639). They argue that “only by divorcing scientific aesthetics from the special assumptions with art will it be possible to define aesthetics in a precise way that turns it into a central topic in psychology and neuroscience. [...] Aesthetics can be defined as the study of how and why a specific sensory stimulus acquires a specific hedonic value” (Skov and Nadal 2020: 639).

Among the different possibilities explored by neuroaesthetics research, it seems that the only approach that is considered naturalist by its supporters – namely, the investigation of specific characteristics of aesthetic experiences in brain processes – is constrained by certain philosophical aesthetic apriorisms that date back two centuries. In another paper, Skov and Nadal (2018) quote Dewey's main aim, as stated at the beginning of *Art as Experience*: "recovering the continuity of esthetic experience with normal processes of living" (1934: 9). Afterwards, the authors cannot but pose the following question: "Why has the belief that the experience of art is a special experience requiring special explanatory mechanisms endured so stubbornly in scientific aesthetics?" (Skov and Nadal 2018: 701).

We cannot but agree with Skov and Nadal's recent theoretical work on neuroaesthetics: adopting an emergentist and continuistic point of view would allow us to develop a powerful naturalist approach to art and its experience whereby philosophical and neuroscientific research would derive mutual benefits by leaving ontological and methodological reductive naturalism behind. Neuroaesthetics and experimental aesthetics have offered relevant contributions to some particular elements that are part of artistic and non-artistic aesthetic experiences. Yet, we suggest, the extremely expanded aprioristic idea that aesthetic and non-aesthetic experiences are separated by a qualitative gap from non-aesthetic experiences somehow hampers empirical research. This is the case because of the unproven assumption that when someone looks at an art product, what the object (or even its digital reproduction) affords is an isolated and special type of experience. Focusing on the continuities, tensions, and potential thresholds between different types of experience, as well as on specific mechanisms that take place during certain types of encounter with art products and other objects – while dropping all essentialist and universalist assumptions – would bring empirical research closer to certain philosophical approaches, such as Deweyan Pragmatism and, more recently, aesthetic theories based on 4E theories of cognition.

5. Enactive aesthetic(s) and naturalism: Noë's and Gallagher's enactive approaches

Theories of 4E cognition – i.e., embodied, embedded, extended, and enactive cognition, sometimes also including ecological approaches – constitute a varied set of accounts that offer several alternatives to cognitivist models of the mind. Among these theories, the enactive framework of

cognition (Varela, Thompson, and Rosch 1991) was developed around two main tenets: (1) perception consists in perceptually guided action and (2) cognitive structures emerge from the recurrent sensorimotor patterns that allow action to be perceptually guided (Varela, Thompson, and Rosch 1991: 173). One could argue that aesthetics has not been a popular field of inquiry among enactive researchers. Yet, in recent years an increasing number of attempts have been made to provide general and specific frameworks for different types of aesthetic experiences (Brinck 2018; Brincker 2015; Carvalho 2019; Gallagher 2011, 2021; Noë 2015; Vara Sánchez 2021). These approaches are generally characterized by an emphasis on those relational and dynamic processes that emerge from a sociocultural engagement between the agent and the environment. In other words, enactive aesthetic theories try to account for the qualitative richness of aesthetic experiences and their tensions and continuities with general experience. It has been argued that this aim is merely a particular example of the ‘non-reductive naturalism’ that characterizes certain enactive approaches (Di Paolo et al. 2010). According to Di Paolo and colleagues, this point of view implies that enactivism “sees the properties of living and cognitive systems as forming part of a continuum and consequently advocates a scientific program that explores several phases along this dimension” (Di Paolo et al. 2010: 36). This idea is clearly and explicitly indebted to John Dewey’s philosophy (Di Paolo 2018: 74). In the specific case of enactive aesthetics, Dewey’s aesthetic goal of restoring the continuity between the intensified forms of experience that constitute artworks and everyday events (Dewey 1934: 3), along with other relevant ideas, is often explicitly invoked in enactive texts and used as a starting point to develop enactive accounts (Noë 2015; Gallagher 2021; Vara Sánchez 2021).

However, when speaking of enactive aesthetics, one could make the point that there are at least two main trends. The first would be Noë’s externalist and – at least to some extent – anti-neuroscientific theory. Its externalism derives from the fact that he contends that certain tools and practices resist our tendency to offload cognitive processes onto them and that this circumstance, in turn, grants them the capacity to re-organize us in our interaction with them. It is for this reason that according to Noë art is only successful as a re-organizational practice that grants us a second-order access to first-order organizational activities. This differential access is the by-product of unveiling us to ourselves. From this point of view, philosophy, art, and other re-organizational practices ensure the

possibility for us to perceive previously unnoticed aspects of daily activities, such as dancing or paint-making. Noë's approach has been criticized for its emphasis in dividing biology and culture (Burnett and Gallagher 2021) and for his "wholehearted dismissal of empirical accounts to the arts" (Fingerhut 2018: 89). These and other circumstances make Noë's theory a very specific form of externalist, practice-based naturalism. Indeed, according to Burnett and Gallagher, Noë's "emphasis on a division between activities (which use tools) and practices (which use strange tools), and in which practices are artistic by virtue of their lack of biological utility, further perpetuates the problem of a strict division between 'higher' and lower' cognition" (Burnet and Gallagher 2020: 164). However, we are not sure that Alva Noë really supports a distinction between biology and culture. Rather, we find that a more problematic issue is his strict separation between the primary technologies by which humans organize their interactions and second-order practices, which involve the adoption of a reflective attitude towards first-order activities. Are we justified in considering only explicitly reflective practices to be artistic, and in establishing such a rigid dichotomy between first-order activities and second-order practices? A strict distinction works well with twentieth-century Western arts but excludes a vast array of practices that have always been part of the human world— above all, participatory practices such as dance within rites and ceremonies in traditional communities, as well as dancing in discos in contemporary societies⁵.

The other enactive trend characterizes aesthetic experiences as constituted by situated and embodied dynamics emerging from processes that are also part of non-aesthetic experiences. From this point of view a relevant ontological feature of such frameworks follows: their pluralism with regard to aesthetic experiences. According to Gallagher, "we should not think that aesthetic experience is just one thing, or that there is any one phenomenology (or for that matter one signature neural pattern) of the aesthetic" (Gallagher 2021: 138). Among the different proposals that could be assigned to this current (see Brincker 2015 and Vara Sánchez 2021), we will focus on Gallagher's account of aesthetic experiences from the point of view of the performer (Gallagher 2021).

Basically, Gallagher regards aesthetics as a way to approach the continuity between everyday actions and specific art-related activities. In this

⁵ In our opinion, this is one of the reasons why Noë partly misunderstands and dichotomizes Ellen Dissanayake's view of art as the process of making things special, when discussing it in the fifth chapter of *Strange tools: Art and human nature*.

regard, his understanding of aesthetics is influenced by John Dewey's thought. Dewey's main aim of restoring the "continuity between the refined and intensified forms of experience that are works of art and the everyday events, doings, and sufferings that are universally recognized to constitute experience" (Dewey 1934: 3) is echoed by Gallagher (Gallagher 2021: 28). However, Gallagher's aesthetic thinking presents certain peculiarities, most notably an emphasis on the capacity of art to suspend our habits of thought. However, unlike in Noë's case, this suspension does not come from the external object, but emerges within the unfolding experience as a possibility of action that cannot be completely fulfilled. This idea, based on Merleau-Ponty's philosophy, means that art-related experiences – whether seen from the point of view of the performer or the viewer – set themselves apart from other everyday encounters thanks to their capacity to reveal something as strange. These two aspects could be considered contradictory, but they can also be regarded as two competing features at work within aesthetic contexts that distinguish art and its experience from other human practices. Within this general framework, Gallagher builds his account of the aesthetic experience of performers on the psychological notion of 'meshed architecture' (Christensen et al. 2016) as a model that explains the integration of perceptual and cognitive elements with sensorimotor processes and on Richard Wollheim's (2015) aesthetic notion of twofoldness. He contends that the performer – i.e., actor, musician, or dancer – undergoes a process of double attunement that encompasses the performer's perspective on her character and her own performing processes. Gallagher argues that, during performances, this double attunement is characterized by a double awareness: on the one hand, the awareness of the character being portrayed, the music being played, the dance being danced, and so forth; on the other, the self-awareness involved in the meshed architecture that characterizes the performance, the playing, the dancing. This double process expands, questions, and brings to the verge of collapse the meshed architecture from which it emerges and to which it returns. For this reason, it is neither externalist nor internalist: it is structured by the enactive, embodied, and embedded set of dynamical factors that constitute the horizontal and vertical axes of the meshed architecture.

Physical and social affordances are some of the factors that contribute to this task-dependent structures that emerge during performance. Affordances do not depend exclusively either on the objective properties of the environment or on subjective features on the agent. They are action possibilities perceived by an individual in an environment in relation to

her own sensorimotor and bodily skills (Gibson 1979). However, for Gallagher and other embodied and enactive researchers, these affordances do not only shape our actions and perceptions in specific ways, but also our deliberations and imaginings (Gallagher and Varga 2020). In other words, for Gallagher, the performer's engagement with the affordance space is open to various action possibilities offered by the environment in relation to her specific set of skills. These affordances are among those factors that come together during the dynamical and cohesive gestalt that constitutes the experience of an artistic performance, for "[e]ach time I act on an affordance in the material, the material changes shape and affords new possibilities for my action. This becomes a fluid process in which the material and the cognizer co-constitute one another as one system. Whether we are sculpting, throwing a pot, or dancing, the material that we are engaging with presents us with different affordances for action" (Kronsted and Gallagher 2021: 41).

Despite Gallagher's almost exclusive focus on performance, which raises the question on how and if the notion of double attunement can be generalized to the audience, his theory shows one differential aspect of what we have presented as a second enactive trend: the fact that researchers take into consideration empirical research from different fields such as psychology or neurosciences. They rely on different scientific disciplines to develop accounts of the processes emerging during specific aesthetic contexts in relation to non-aesthetic ones. These results are placed within an embodied and socially embedded context through relational notions such as the aforementioned ones of affordance, attunement, and entrainment.

These dynamic concepts, which play a role in our everyday engagements with persons, objects, and events, are used to account for the multiple dimensions that coexist while contemplating a painting (Brincker 2015; Burnett and Gallagher 2021) or while dancing and performing (Gallagher 2021). This trend in enactive naturalism, therefore, is not limited to empirical research, but it does not ignore it either. In trying to present an a posteriori perspective, the authors focus on identifying the points of connection and tension between everyday experiences and the different aspects of the aesthetic, sometimes through phenomenological methodologies. Only then, through the discussion, analysis, and integration of theoretical concepts and empirical research from different fields, do enactive approaches try to identify some emergent dynamics able to drive the emergence of the aesthetic within experience. As in Dewey's case, enactive accounts tend to rely on a non-reductionist vision of emergence.

However, one problem faced by enactivism is that, as of yet, there is no account able to encompass in a systematic way the particularities of globally embodied and embedded processes and its experiential correlations and significance.

6. Conclusion: from a continuistic theory of art to the continuum of experience

In this paper, we have provided a framework to navigate through contemporary trends in naturalist aesthetics. We started by presenting some criteria for discriminating between different types of naturalism. We then argued for the benefits of approaches focused on continuistic and emergentist points of view and, finally, discussed their relevance within some current naturalist perspectives such as neuroaesthetics and enactive aesthetics. We will now summarize what we consider to be the main conclusions of our discussion.

First, there are several conceptions of naturalism that have influenced different approaches to the analysis of artworks and their experience in recent decades. Among them is the physicalist stance which, in an aesthetic context, seeks to explain the experience of art in terms of neural processes. This ontological reductionism encourages the following methodological claim: philosophical problems should be translatable into scientific questions. As an alternative, we propose Dewey's characterization of cultural naturalism. Here are some relevant features of this perspective: it involves a form of continuity between the artistic and the non-artistic, it admits diverse scientific accounts as helpful and complementary strategies, it replaces linear conceptions of causality with a perspective focused on mutually conditioning processes, and it involves an understanding of natural and cultural aspects as subject to evolution via reciprocal interaction. It is important to note that many of these tenets are clearly aligned with contemporary embodied, situated, and enactive aesthetic approaches.

A second criterion for discriminating between naturalist positions in aesthetics is the conception of art that they assume. Some researchers from fields such as neuroaesthetics or evolutionary aesthetics support, either explicitly or implicitly, autonomistic and unitary definitions of art. Conversely, scholars such as Brown and Dissanayake, and more recently Skov and Nadal, claim that naturalist approaches to arts should be aware

of the historic and cultural influences, since artistic and non-artistic practices are developed within specific cultural and social contexts and, as a result, respond to interactions between organisms and their environment.

The most relevant conclusions of our paper were those obtained by applying these criteria to two popular current naturalist trends in aesthetics: neuroaesthetics and the enactive approach. Regarding neuroaesthetics, we contend that there is an evolution to be found between the original cognitivist program presented by Zeki or Ramachandran and more recent contributions by researchers such as Skov and Nadal. Interestingly, in their works we find references to Dewey's work and calls to adopt a continuistic perspective between art and non-artistic practices, as well as to abandon ontological and methodological reductive naturalism. It is our opinion that neuroaesthetics constitutes an interesting approach to study our experience of artworks as long as it focuses on these continuities, tensions, and potential thresholds between different types of experience and leaves essentialist and universalist ambitions behind.

When considering the nascent field of enactive aesthetics, we have also found perspectives that emphasize different dimensions of naturalism. For Noë, the naturalistic roots of the arts lie in the strange, external tools that are part of our practices and activities. This leads Noë to support what has been considered an externalist and anti-neuroscientific perspective. We contend that this point of view raises certain difficulties in relation to participatory and improvisational practices. An approach aimed at these specific activities has been offered by Gallagher's model of the performer's aesthetic experience. Gallagher's point of view favours interdisciplinary and continuistic points of view by resorting to the notion of affordance and other dynamic concepts aimed at leaving behind tensions between externalist and internalist perspectives. However, this approach has to be further developed in order to expand it to the point of view of the viewer.

To sum up, this exploration of the main naturalist trends in current aesthetics reveals the inadequacy of the traditional alternative between naturalistic and culturalist accounts and supports the adoption of nature-culture continuity as a more suitable conceptual framework for setting the inquiry into the functions and significance of the arts within the human world.

Bibliography

- Berlyne, D. E., *Aesthetics and psychobiology*, New York, Appleton Century Crofts, 1971.
- Brinck, I., *Empathy, engagement, entrainment: The interaction dynamics of aesthetic experience*, "Cognitive Processing", 19/2 (2018), pp. 201-13.
- Brincker, M., *The aesthetic stance - On the conditions and consequences of becoming a beholder*, in A. Scarinzi (ed.), *Aesthetics and the embodied mind: Beyond art theory and the cartesian mind-body dichotomy*, Dordrech, Springer, 2015, pp. 117–38.
- Brown, S., E. Dissanayake, *The arts are more than aesthetics: Neuroaesthetics as narrow aesthetics*, in M. Skov, O. Vartanian (eds.) *Neuroaesthetics*, Amityville, Baywood Publishing, 2009, pp. 43-57.
- Burnett, M., S. Gallagher, *4E cognition and the spectrum of aesthetic experience*, "JOLMA. The Journal for the Philosophy of Language, Mind and the Arts", 1/2 (2020), pp. 157-76.
- Carroll, N., *Art and human nature*, "The Journal of Aesthetics and Art Criticism", 62/2 (2004), pp. 95-107.
- Carroll, N., C. Talon-Hugon, *Arts, émotions and evolution*, "Nouvelle revue d'esthétique", 11 (2013), pp. 109-29.
- Carvalho, J. M., *Thinking with images: An Enactivist Aesthetics*, New York, Routledge, 2018.
- Chatterjee, A. O. Vartanian, *Neuroscience of aesthetics*, "Annals of the New York Academy of Sciences", 1369/1 (2016), pp. 172-94.
- Chemero, A. *An outline of a theory of affordances*, "Ecological Psychology", 15 (2003), pp. 181-95.
- Christensen, W. et al., *Cognition in skilled action. Meshed control and the varieties of skill experience*, "Mind & Language", 1/31 (2016), pp. 37-66.
- Clark, K. J., *Naturalism and its discontents*, in K.J. Clark (ed.) *The Blackwell companion to naturalism*, Chichester, John Wiley & Sons, 2016 pp. 1-15.
- Davies, S., *The artful species: Aesthetics, art, and evolution*, Oxford, Oxford University Press, 2012.
- De Caro, M., D. Macarthur (eds.), *Naturalism in question*, Harvard, Harvard University Press, 2004.
- Dewey, J., *Art as experience. The later works*, Vol. 10, Carbondale-Edwardsville, Southern Illinois University Press, 1989.
- Dewey, J., *Logic: The theory of inquiry, The later works*, Vol. 12, Carbondale-Edwardsville, Southern Illinois University Press, 1991.
- Di Paolo, E. et al., *Horizons for the enactive mind: Values, social interaction, and play*, in J. Stewart (eds.), *Enaction: Toward a New Paradigm for Cognitive Science*, Cambridge, MIT Press, 2010, pp. 33-87.

- Di Paolo, E., *The enactive conception of life*, in A. Newen et al. (eds.), *The Oxford Handbook of 4E Cognition*, Oxford University Press, Oxford, 2018, pp. 71-94.
- Dickie, G., *Art: Function or procedure – Nature or culture?*, “The Journal of Aesthetics and Art Criticism”, 55/1 (1997), pp. 19-28.
- Dissanayake, E. *Art as a human behavior: An ethological view of art*, “The Journal of Aesthetics and Art Criticism”, 38/4 (1980), pp. 397-406.
- Dissanayake, E., *Art and intimacy. How the arts began*, Seattle, University of Washington Press, 2000.
- Dreon, R., *Il naturalismo culturale di Dewey. Il caso della mente*, in G. Bagnati, M. Cassan, A. Morelli (eds), *Le varietà del naturalismo*, Venezia, Ca Foscari University Press, 2019.
- Dreon, R., *Human landscapes. Contributions to a pragmatist anthropology*, Albany, SUNY Press, 2022.
- Dutton, D., *The art instinct: Beauty, pleasure, & human evolution*, Oxford, Oxford University Press, 2009.
- Fechner, G. T., *Vorschule der Aesthetik*, Leipzig, Druck und Verlag von Breitkopf & Härtel, 1876.
- Fenner, D. E., *Varieties of aesthetic naturalism*, “American Philosophical Quarterly”, 30/4 (1993), pp. 353-62.
- Fingerhut, J., *Enactive aesthetics and neuroaesthetics*, “Phenomenology and Mind”, 14 (2018), pp. 80-97.
- Gallagher, S., *Aesthetics and kinaesthetics*, in J.M. Krois (ed.), *Sehen und Handeln*, Berlin, Akademie Verlag, 2011, pp. 99–113.
- Gallagher, S., *Performance/art: The venetian lectures*, Milano, Mimesis International, 2021.
- Gallagher, S., S. Varga, *Meshed architecture of performance as a model of situated cognition*, “Frontiers in Psychology”, 11 (2020), art. 2140.
- Gibson, J., *The ecological approach to visual perception*, Boston, Lawrence Erlbaum Inc. Publishers, 1979.
- Ishizu, T., S. Zeki, *Toward a brain-based theory of beauty*, “PLoS ONE”, 6/7 (2011), e21852.
- Johnson, M., *The meaning of the body: Aesthetics of human understanding*, Chicago, University of Chicago Press, 2007.
- Kawabata, H. and Zeki, S., *Neural correlates of beauty*, “Journal of Neurophysiology”, 91/4 (2004), pp. 1699-705.
- Kristeller, P. O., *The modern system of the arts: A study in the history of aesthetics*, Part I, “Journal of the History of Ideas”, 12/4 (1951), pp. 496-527.
- Kristeller, P. O., *The modern system of the arts: A study in the history of aesthetics* Part II, “Journal of the History of Ideas”, 13/1 (1952), pp. 17-46.
- Kronsted, C., S. Gallagher, *Dances and affordances: The relationship between dance training and conceptual problem-solving*, “Journal of Aesthetic Education”, 55/1 (2021), pp. 35-55.

- Margolis, J., *Reinventing pragmatism: American philosophy at the end of the twentieth century*, Ithaca, Cornell University Press, 2002.
- Margolis, J., *Placing artworks—Placing ourselves*, “Journal of Chinese Philosophy”, 1/31 (2004), pp. 1-16.
- Margolis, J., *The arts and the definition of the human. Toward a philosophical anthropology*, Stanford, Stanford University Press, 2009.
- Matteucci, G., *On Dewey’s trail: From aesthetic meaning to aesthetic meaningfulness*, “European Journal of Pragmatism and American Philosophy”, XIII/1, pp. 84-97.
- Munro, T., *Meanings of ‘naturalism’ in philosophy and aesthetics*, “The Journal of Aesthetics and Art Criticism”, 19/2 (1960), pp. 133-7.
- Noë, A. *Strange tools: Art and human nature*, New York, Hill and Wang, 2015.
- Papineau, D., *Naturalism*, in E. N. Zalta (ed.), *The Stanford encyclopedia of philosophy* (2021), URL = <<https://plato.stanford.edu/archives/sum2021/entries/naturalism/>>.
- Pearce, M. T. et al., *Neuroaesthetics: The cognitive neuroscience of aesthetic experience*, “Perspectives on Psychological Science”, 11/2 (2016), doi: 10.1177/1745691615621274.
- Pinker, S., *The meaning of life*, in *How the mind works*, London-New York, Penguin, 1998, pp. 521-65.
- Pinotti, A., *Neuroestetica, estetica psicologica, estetica fenomenologica: le regioni di un dialogo*, “Rivista di Estetica”, 37 (2008), pp. 147-68.
- Portera, M., *Babies rule! Niches, Scaffoldings, and the development of an aesthetic capacity in humans*, “British Journal of Aesthetics”, 60/3 (2020), pp. 299-314.
- Quine, W. V., *Epistemology naturalized*, in *Quine ontological relativity and other essays*, New York, Columbia, 1969, pp. 69-90.
- Ramachandran, V., W. Hirstein, *The science of art: A neurological theory of aesthetic experience*, “Journal of Consciousness Studies”, 6/6-7 (1999), pp. 15-51.
- Richards, R. A., *The biology of art*, Cambridge, Cambridge University Press, 2019.
- Romanell, P., *Prolegomena to any naturalistic aesthetics*, “The Journal of Aesthetics and Art Criticism”, 19/2 (1960), pp. 138-43.
- Shiner, L., *The Invention of art. A cultural history*, Chicago, University of Chicago Press, 2001.
- Shusterman, R., *The end of aesthetic experience*, “The Journal of Aesthetics and Art Criticism”, 55 (1997), pp. 29-41.
- Skov, M., M. Nadal, *Art is not special: an assault on the last lines of defense against the naturalization of the human mind*, “Reviews in the Neuroscience”, 29/6 (2018), pp. 699-702.
- Skov, M., Nadal, *A farewell to art: Aesthetics as a topic in psychology and neuroscience*, “Perspectives on Psychological Science”, 15/3 (2020), pp. 630-42.

- Tooby, J., L. Cosmides, *Conceptual foundations of evolutionary psychology*, in D.M. Buss (ed.) *The handbook of evolutionary psychology*, Second edition. Vol. 1: *Foundations*, Hoboken, John Wiley & Sons, 2015.
- Vara Sánchez, C., *Enacting the aesthetic: A model for raw cognitive dynamics*, "Phenomenology and the Cognitive Sciences", 21 (2022), pp. 317-39, doi: 10.1007/s11097-021-09737-y.
- Varela, F., E. Thompson, E. Rosch, *The embodied mind: Cognitive science and human experience*, Cambridge, The MIT Press, 1991.
- Wertheimer, M., *Experimentelle Studien über das Sehen von Bewegung*, "Zeitschrift für Psychologie und Physiologie der Sinnesorgane", 61 (1912), pp. 161-265.
- Wollheim, R., *Art and its objects*, Cambridge: Cambridge University Press, 2015.
- Zeki, S., M. Lamb, *The neurology of kinetic art*, "Brain", 117 (1994), pp. 607-36.
- Zeki, S., *Inner Vision: An exploration of art and the brain*, Oxford, Oxford University Press, 1999.
- Zuckert, R., *Adaptive naturalism in Herder's aesthetics: An interpretation of 'Shakespeare'*, "Graduate Faculty Philosophy Journal", 36/2 (2015), pp. 1-25.

This paper is the output of a scientific and didactic collaboration that took place between Roberta Dreon and Carlos Vara Sánchez at Ca' Foscari University from 2019 to 2021. Although the whole plan of the paper and each section have been planned and discussed by both authors in detail, §§.1, 2, and 3 were written by Roberta Dreon, §§.4, 5, and 6 by Carlos Vara Sánchez.

The present paper is part of a project that has received funding from the European Union's Horizon 2020 research and innovation programme under Marie Skłodowska-Curie grant agreement no. 794484. The paper exclusively reflects only the authors' views and the Research Executive Agency is not responsible for any use that may be made of the information it contains.