What do aesthetic affordances afford?*

Carlos Vara Sánchez Independent scholar carlosvarasanchez@gmail.com



Reception date: 1/10/2021 Acceptance date: 29/4/2022 Publication date: 25/10/2022

Abstract

This paper explores various notions of aesthetic affordance recently developed through embodied, situated and enactive approaches to aesthetic experience by Maria Brincker and Shaun Gallagher, and the similarities and differences between them and the idea of affective affordance put forward by Joel Krueger and Giovanna Colombetti. This discussion is a way to try to offer some answers to the question of what aesthetic affordances particularly afford compared to affective affordances. I will focus on the affordances that we perceive during various aesthetic experiences in which we find ourselves more moved by the object, event or person(s) causing the experience than we had anticipated. I will argue that these experiences emerge as opportunities to carry out an active exploration of aspects of the narrative self that we feel is related to features of the experience; and that one particular brain network likely to be involved in these experiences – i.e. the default network – might help us to understand how these experiences meaningfully change our relationship with ourselves and with the social context of which we are a part.

Keywords: affordances; aesthetic experience; enactivism; cognition; affectivity

Resum. Què ofereixen les affordances estètiques?

Aquest text explora algunes nocions d'*affordances* estètiques desenvolupades recentment des d'aproximacions enactives incorporades a l'experiència estètica per Maria Brincker o Shaun Gallagher, així com les similituds i diferències entre elles i respecte a la idea d'affordances afectives presentada per Joel Krueger i Giovanna Colombetti. Aquest article pretén respondre à la pregunta de què ofereixen d'especial les affordances estètiques respecte a les afectives. Ens centrarem en les affordances que percebem durant certes experiències estètiques en les quals ens sentim més commoguts del que esperàvem per l'objecte, succés o persona(s) que causen l'experiència. Argumentarem que aquestes experiències emergeixen com a oportunitats per dur a terme una exploració activa d'aspectes del nostre jo narratiu que sentim interpel·lat per elements d'aquesta experiència, i que un circuit cerebral que probablement està involucrat en aquestes experiències —la xarxa neuronal per defecte— podria ajudar-nos a comprendre com algunes d'aquestes

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

canvien d'una manera significativa la nostra relació amb nosaltres mateixos i amb el context social del qual formem part.

Paraules clau: affordances; experiència estètica; enactivisme; cognició; afectivitat

Summary

1. Introduction

5. Aesthetic experiences as opportunities to rewrite our world

2. Affordances

6. Conclusion

3. Aesthetic affordances

Bibliographical references

4. Aesthetic reconfiguration of the self

1. Introduction

The conception of aesthetic experience that runs through the following pages is enactive, naturalistic, and pluralistic. Let me explain what I mean by this. First, I oppose the enactive conception of aesthetic experience to the debate between externalist and internalist frameworks that privilege either the features of an object, event or activity as those driving the experience (Dickie, 1988) or some particular mental capacities able to regulate the ensuing experience (Beardsley, 1958). According to Gallagher, an enactive theory of aesthetic experience "is neither externalist nor internalist", because it involves "both a range of embodied experiential factors, and an arrangement of material, social, cultural, normative factors" (Gallagher, 2021: 137-138). Second, by naturalist I intend to place the discussion in the tradition of various key ideas introduced by Dewey's "cultural naturalism"; 1 namely, his rejection of physicalism and reductionism in favor of a continuistic stance based on the idea that "rational operations *grow out* of organic activities, without being identical with that from which they emerge" (Dewey, 1938: 19). This cultural naturalism aims to replace a linear conception of causality with a more complex view of mutually conditioning processes that, in some way, can be regarded as a forerunner of enactive and other embodied and situated frameworks of cognition such as ecological psychology (Rockwell, 2005; Gallagher, 2017). Finally, by stating my pluralist point of view, I want to make clear that I do not believe in the existence of a unitary type of aesthetic experience. I do not think that there is a specific experiential quality or neural fingerprint common to all instances of aesthetic experience. I take this to be nothing but a logical conclusion of embracing the two previous points. If aesthetic experiences are subject to bodily factors and socio-cultural constraints, and they cannot be reduced to the elements from which they emerge, it seems difficult to assume that all these different aspects would lead to a conserved experien-

1. See Dewey (1934) for his ideas on aesthetics and Dreon and Vara Sánchez (2022) for an analysis of various naturalist trends in current aesthetics.

tial, social and biological construct common to every type of experience that we regard as aesthetic.

Assuming this perspective, I will discuss the role of affordances in some type of aesthetic experiences. There have been several recent papers on aesthetics that have touched on the notion of affordance (Gallagher, 2011; Prinz, 2011; Brincker, 2015; Brinck, 2018; Burnett and Gallagher, 2020; Vara Sánchez, 2022). Yet, I think that the idea of affordance is so rich and powerful that it still presents untapped potential – specifically when focused on discussions regarding the continuity between certain aesthetic experiences and everyday experiences, as well as the ways in which the aesthetic becomes a vehicle for changes with social impact. A thorough theory of aesthetic affordances would give us a theoretical and empirical meeting point that connects aesthetic experiences and other dimensions of our daily life. This goal exceeds the scope of this paper, but I intend to contribute to laying some of the foundations.

However, saying that the concept of affordance is rich does not mean that it can be used carelessly. Precisely, the growing use of this term requires us to be extremely careful. Otherwise the concept will become meaningless. To this end, I will start by introducing Gibson's notion of affordance, and some recent developments that have expanded this influential notion, particularly Krueger and Colombetti's work on the affective dimension of affordances. Then, I will present relevant work on the role of affordance during aesthetic experiences. I will propose that, following this line of research, we can speak of an aesthetic reconfiguration of the self that takes place during certain aesthetic experiences as an active exploration of narrative features of the self of which we do not know the expected outcome.

2. Affordances

James Gibson coined the notion of affordance as a way to explain our relationship with the environment. It was a key concept in his understanding of a perception of the world as action-oriented. For Gibson, that means that when we see the environment that surrounds us, what we perceive are potential actions specified both by the features of things we experience and by the structure and capacities of our body. More specifically, he introduced affordance in these specific terms:

The affordances of the environment are what it offers the animals, what it provides or furnishes, either for good or for ill. [...] I mean by it something that refers to both the environment and the animal in a way that no existing term does. It implies the complementarity of the animal and the environment. (Gibson, 1979: 127)

For example, when we see a bottle full of water, what we perceive is the possibility to carry out the action of drinking, both because of the capacity of the bottle to contain water and because of our ability to grasp the bottle

with our hands and bring it to our mouth to drink the liquid. This banal example shows one essential feature of affordances: its relational nature – the complementarity of the animal and the environment, in Gibson's words. That is, affordances do not depend exclusively on either the objective properties of the environment or on the subjective features of the agent. We perceive the word in relation to our sensorimotor skills. For an animal to perceive the bottle as a way to drink, it has to have a way to meaningfully interact with the bottle.

Yet, the environment is not exclusively physical, but also culturally and socially defined. It seems that Gibson was open to the idea of "social affordances" when he claimed that a postbox "affords letter-mailing to a letter-writing human in a community with a postal system" (Gibson, 1979: 130). Following this lead, it has been argued that affordances are multidimensional phenomena that also include sociocultural information (Heft, 2003).

In recent years, there has been a growing interest in the notion of affordance, which has led to several relevant contributions. Among those of particular interest for this paper is the discussion on the dynamics that take place between the interactions of different affordances. Depending on whether we consider the individual as part of an ecological niche, or in a particular situation, or as subject to changes coming from the body or the environment, we have, respectively, the notions of "landscape of affordances" (Rietveld and Kiverstein, 2014), "field of affordances" (de Haan et al., 2013), and "affordance space" (Brincker, 2014; Gallagher, 2018). Considering the dynamic and evolving nature of certain aesthetic experiences, I will focus on the latter two interrelated concepts.

The field of affordances has been defined as:

[T]he relevant possibilities for action that a particular *individual* is responsive to in a concrete situation, depending on the individual's abilities and concerns. The field of affordances is thus a situation-specific, individual "excerpt" of the general landscape of affordances. (de Haan et al., 2013: 7)

The field of affordance is the here and now of our action-oriented perception of the world, which changes both because the environment changes and because we change; it is a snapshot of the relational tensions between perceiving and acting that constrain our engagement with our surroundings. Therefore, it has proved useful to understand how psychological changes affect our physical, affective and social interactions in terms of changing our perception of affordances.² Yet, when speaking of the changes that take place for a continuous period of time, we need to resort to the notion of affordance space. This includes all the present affordances – i.e. the field of affordances – plus

2. See de Haan et al. (2013) for an interesting account that pictures the differences between subjects with depression or obsessive compulsive disorder, compared to typical normal individuals, in terms of our perception of affordances.

any possible changes due to changes in cognitive and physical skills or environment. In other words, the affordance space of an individual at a given time is affected by the habits, abilities and skills relevant to their current activity, bodily states such as hunger, thirst, energy levels or emotional states, and any changes in the environment during these actions.

Let us consider a singer during a concert. Her affordance space will depend on factors such as previous rehearsals, the reactions of the audience, her levels of concentration during the performance, or her willingness to explore the limits of her abilities beyond expectations. On a more general note:

The affordance space for any individual is defined by evolution (e.g. the fact that she has hands), *development* (her life-stage – infant, adult, aged), and *social* and cultural practices (including normative constraints), as well as the individual's experience. All of these factors enable and constrain the individual's action possibilities. (Gallagher, 2018: 722)

In other words, the affordance space of a primate will be different to that of a similar-sized bovid, due to their evolutionary differences. But the affordance space will differ between two human beings because of factors such as their different skill levels, cultural backgrounds and education, and extremely changeable aspects such as the degree of attention, emotional state, or physical needs such as hunger or thirst.

However, our actions are not exclusively driven by explicit practical purposes. We act moved by affective goals. How do we integrate these common situations within a theory of affordances? To begin to solve this issue, Joel Krueger and Giovanna Colombetti have presented the notion of affective affordance. They contend that:

We perceive people, places, and things as affording regulative opportunities to amplify, suppress, extend, enrich, and explore the phenomenal and temporal character of our affective experiences. When we are upset, for example, we may seek the comfort of friends, a familiar environment (a favorite park, cafe, or worship space), drink some Belgian beer, read poetry or a religious text, practice yoga, or listen to a specific playlist on our MP3 player. We do these things not merely out of habit but also because these practices and resources afford regulating our mood toward a desired end-state. (Krueger and Colombetti, 2018: 224)

They argue that our daily life involves instances in which we engage with activities that have a clear and explicit "affect-regulatory" goal. In these situations, we experience things, persons and objects as mainly affording us the possibility of regulating our affective state. According to the previously discussed criteria, these situations clearly qualify as affordances. First, they are relational, in that they afford affective regulations due to a dynamic relationship between the item or event's properties and our skills and bodily needs. Second, they are actionable. I can play the music I feel like playing; I can call the friend that I think will help me to get through this particular situation. As with the general notion of affordance, the specific concept of affective affor-

dance also runs the risk of being applied too widely. To avoid this issue, Caravà and Scorolli (2020) suggest using affective affordances only to refer to relationships with objects able to consistently solicit an emotional behavior over time.

In my view, the concept of affective affordance, although not without risks, might be helpful to understand the role of affectivity in shaping our interaction with the environment. I regard this as the most promising application of the term. However, I have to clarify that I do not think that there is a neat distinction between general affordances and affective affordances, since affectivity, as Colombetti (2014) suggests, cannot be separated from cognition. Accordingly, my view is that the situations described by Krueger and Colombetti are events in which the affective is the dominant aspect of our perceptions and actions. For me, speaking of affective affordances does not mean that there are non-affective affordances, but that certain engagements are mainly driven by affective goals. This same reasoning should be applied to the notion of aesthetic affordances that I will discuss in the next section. They are not an isolated type of affordance, but the affordances we perceive during certain experiences that take place in specific contexts.

3. Aesthetic affordances

What does the concept of affordance offer to the discussion on aesthetic experiences? Maria Brincker has recently published an interesting framework for aesthetic perception from an embodied and situated point of view. She characterized several key dynamic aspects that constitute an "aesthetic stance", the theoretical construct with which she intends to capture the specific, temporally extended processes of perceptual engagement that characterize the broad embodied conditions of aesthetic experiences and responses (Brincker, 2015). For Brincker, this aesthetic engagement brings us to an "edge of action" that is characterized by "an affordance of perceptual engagement but yet non-action, which opens up possibilities for using our minds – and brains - in ways we do not in our regular, practically engaged modes of perception" (Brincker, 2015: 123). These "un-actable" affordances open us up "to an otherwise difficult intimacy with the perceptual experience and virtual other" (Brincker, 2015: 125). In other words, Brincker contends that artistic images, and some elements from nature, constitute a specific mode of presentation that "not only has different affordances, but affords a sort of "halt" to our own ongoing environmental interactions" (Brincker, 2015: 122-123). This is because the enactment of a non-interactive mode of perception in which the beholder perceives the beheld but not the other way around. Brincker's idea resonates with Shaun Gallagher's characterization of the perception of certain artworks as involving non-realizable, non-practical, and non-interactionable affordances able to come back and make the person having the experience aware of her possibilities, by disrupting ordinary engagements (Gallagher, 2011: 109).

It should be stressed, though, that Brincker's focus is on the experience of disengaged beholders who look at artworks or nature as images without practical goals. Accordingly, she makes it clear that "aesthetic affordances of non-interaction" belong to the aesthetic stance, but are not constitutive of all instances of aesthetic experience. They are "neither necessary nor sufficient for aesthetic engagement: e.g. we daily look at images with goal-directed eves, and often take an aesthetic stance towards practical objects" (2015: 124). In fact, many artistic and non-artistic aesthetic experiences require an overtly active engagement. Do the affordances shaping these experiences have any particular feature?

To address this issue, Gallagher (2021) followed his initial work on the affordances offered by artworks to, on this occasion, address the aesthetic experiences of performers – i.e., musicians, actors, actors and, according to Gallagher, perhaps also painters and sculptors. This theory explores a more active view of aesthetic affordances. 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 form part of the factors that come together during the dynamic and cohesive gestalt that constitutes the experience of an artistic performance (Gallagher, 2021: 136). Given the explicitly active nature of artistic performance, the affordances that are present in these situations do not revolve around ideas such as the disengagement, suspension or short-circuiting of perceived action possibilities. Kronsted and Gallagher contend that:

Each 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. In other words, we see possibilities in the material as we engage with the material. (Kronsted and Gallagher, 2021: 38)

According to the authors, "dance training teaches its participants to explore and generate new affordances through four bodily practices: empathy, affordance exploration, attention change and habit breaking" (Kronsted and Gallagher, 2021: 41). This exploration of affordances takes place mainly during improvisation. It is improvisation that allows trained dancers to react to their unfolding actions, in a way that "the body both creates affordances for itself and explores those affordances. The dancer is exploring by seeing where they can go next within the possibility space, and, for each exploration, a new possibility space is created" (Kronsted and Gallagher, 2021: 41). Although in this case they refer specifically to dance, I think that the idea of affordance exploration can be extrapolated to other practices, and also to some types of aesthetic experience.

Elsewhere I have characterized a view of aesthetic affordances as those affordances that invite us:

not so much to a goal, but to an unfolding that becomes an opportunity for us to explore and reconstruct ourselves by going beyond what we usually do, beyond our habits, beyond what we are usually comfortable with. We are not invited to a sensorimotor engagement in order to get something specific, but to experience this engagement in its uniqueness. (Vara Sánchez, 2022)

This theory presents a nested model of aesthetic experiences, in which engagement with the perceived affordances marks thresholds between different types of aesthetic experience and between different stages of the same evolving aesthetic experience. What an agent explores during these aesthetic experiences is the experience itself as it unfolds. The aesthetic affordances we perceive during these events are influenced by previous experiences, interests, bodily states and the environment; in my view, however, it is relevant that there is no way to completely anticipate if we will perceive certain affordances during an aesthetic experience before it starts to unfold.

Accordingly, my theory presents connections with Kronsted and Gallagher's study of the exploration of affordances during dancing. I also speak of an exploration of the affordances perceived as a result of the relational interaction between bodily capacities and skills and the responsive environment. However, there is one relevant difference: in my account, I do not speak of necessarily trained subjects who explore the affordances previously acquired through rehearsal. For that reason, I think that my notion of aesthetic affordances should be more easily applicable to discuss the role of the affordances we perceive during certain aesthetic experiences in shaping our vision of ourselves within the social context of which we are a part. For the same reason, we can put it side by side with Krueger and Colombetti's affective affordances, for both speak of affordances in everyday life situations. Based on what we have already seen, I think that although there are some differences, the two theories do not contradict each other at all. However, it is not unreasonable to address these contrasts and ask ourselves whether we should speak of different types of affordances or, instead, should regard one as a subtype of the other, separated by just some qualitative differences. In the next section, I will explore the second scenario. After all, it seems difficult, even counterintuitive, to argue that the affordances we perceive during aesthetic experiences are not affectively driven.

4. Aesthetic reconfiguration of the self

Krueger and Colombetti's definition of affective affordances partially relies on Krueger's previous work on a theory of a "musically extended mind" (Krueger, 2014). He suggests that, sometimes, music works as an external resource that augments, and ultimately extends, endogenous capacities. This happens because "musical affordances provide resources and feedback that loop back onto us and, in so doing, enhance the functional complexity of various motor, attentional, and regulative capacities responsible for generating and sustaining

emotional experience" (Krueger, 2014: 4). He supports his theory by empirical work on the capacity of listening to music and other music-related practices, as well as other activities and social dynamics, to carry out affective regulation. Coming back to Krueger and Colombetti's definition of affective affordances, we perceive actions such as drinking a beer, listening to a specific song or meeting a particular friend as opportunities to amplify, suppress, extend, enrich and explore the phenomenal and temporal character of our affective experience. We find the verb "to explore" among those that they regard as possible goals to act upon an affective affordance. This suggests a connection with my notion of aesthetic affordances. However, Krueger and Colombetti argue that we engage with affective affordances because they allow our mood to be regulated towards a desired end-state. This goal is absent in my account, and points to an important difference. Do all affective affordances have to offer a mood-regulating outcome to be appealing to us? It seems that one thing is to listen to a record you love and you know has the capacity to make you feel better, while a completely different situation is to decide to attend a concert because you feel that you might like it but the event ends up being an experience that shocks you to the core.

My point of view is that both scenarios should be regarded as instances of situations in which we perceive affective affordances, but they present very different aesthetic intensities. This amounts to saying that these affordances have diverse transformative potentials for those who perceive them and act upon them.

Combining Gallagher, Kronsted and my own views, I suggest that some moving aesthetic experiences involve an opportunity to explore the experience you are having as a narratively important and transformative event that unfolds within a specific sociocultural and material context. And this, from my perspective, will be more likely if the expectations of the outcome are not so solid as to constrain the final result. When we do something with a clear intention in mind and our experience is more or less what we were hoping for, the aesthetic impact, arguably, is not so strong. This event will play out as a pleasant and reassuring experience. An aesthetic one? It certainly can be. A powerful aesthetic experience with the capacity to shape our view of ourselves as part of a sociocultural and material environment? I am not so sure.

In the case of the examples of affective affordances offered by Colombetti and Krueger, in my view, these are mainly what I will refer to as instances of "pre-emptive aesthetic regulation". For example, let us look at Gabriel Betteredge, one of the main characters of Wilkie Collins' *The Moonstone*. He is a devotee of the novel Robinson Crusoe, and whenever he finds himself in need of guidance, he resorts to reading some random fragment of Daniel Defoe's novel. Mr. Betteredge uses *Robinson Crusoe* both as a way to restore some order to his daily business and, more importantly, as a way to unwind. This is a clear example of what I mean by pre-emptive aesthetic regulation. When you find yourself in need of affective fixing, you carry out an action that, mostly by habit and repetition but also due to suggestions or advice from others, you

perceive as likely to confer on you this soothing effect. When you embark on pre-emptive aesthetic regulation, you do not want to know yourself or the world that surrounds you better; you just want to be comforted. You want to be the person you used to be when everything was ok. During pre-emptive aesthetic regulation, affordances are not perceived as offering some generic action, but as a means through which an action intends to restore a backup of a previous version of the person having the experience, who was more at peace with herself and her world. These affective affordances do not just loop back onto us; they loop back onto an aspect of ourselves that needs to be enhanced, fixed or soothed. I take my point of view to be consistent with Caravà and Scorolli's theory of affective affordances as an "affective relation [that] involves physiological reactions due the agent's perceptual engagement with the object, but also a broader affective incorporation that pertains to the agent's self-narrative. This affective integration is indeed enabled by the agent's affective episodic and autobiographic memories." (2020: 3)

Engagement with an affective affordance aimed at pre-emptive aesthetic regulation can be considered to be one pole of a continuous aesthetic gradient determined by two variables: exploratory potential and the constraining weight of expectation. More specifically, it is a pole with low exploratory potential and a high constraining element of expectation. At the other end of this aesthetic gradient we will find other, highly transformative and integrated aesthetic experiences with contrasting values of the weight of expectation against exploratory potential — in other words, experiences that allow us to actively explore aspects of the unfolding experience because they are not limited by having a clear, pre-conceived goal in mind. We embark on these explorations mainly for the sake of them. Certainly, it is possible that we perceive these experiences as something that will regulate our mood, but this goal cannot be so strong as to limit the exploratory potential.

These experiences with a high degree of exploratory potential and a low degree of constraining expectation require a willingness on the part of the person having the experience to investigate the opportunities to reconfigure aspects of the narrative self. These possibilities to delve into specific aspects of our narrative self and, in a sense, rewrite them will be perceived as affordances that become more salient as the experience unfolds. The reconfigurations of the narrative self can take place at many different levels: individual, social, oriented toward past experiences, anticipating potential situations, etc. Let me offer a prototypical example of this situation. I decide to go to a movie because I miss the comforting experience of being in an actual movie theater: the popcorn, the big screen, the loud music. What I am describing up to this point might be regarded as pre-emptive aesthetic regulation. Yet, depending on the film, it may be the case that as it progresses, I am progressively absorbed by a particular aspect of the plot. Maybe this particular film presents a situation that resonates with what I am currently going through. In this situation, the film suddenly and unexpectedly offers an opportunity to understand myself better. I did not anticipate it but, nonetheless, here is this new affordance:

exploring myself in relation to the film. If I act upon this affordance by asking myself questions about what this means for me, or just by dropping my affective defenses and letting myself be deeply moved by the film, when it ends, I will feel, albeit only slightly, a different person. I will not be a restored backup of a previous self. It may be that I feel at peace with myself, or quite the opposite; it may be that I have enjoyed the experience or that it stirred too many feelings for me to feel good about it. In any case, what I will certainly be is a "reconfigured" me. The results of this exploration may be trivial or life-changing, they can only be meaningful for me or shape the way I interact with other people; but, in any case, a change has happened. Simply put, some transformative aesthetic experiences may start by acting upon an affective affordance but, at a certain point in the course of these experiences, we might perceive that one or several affordances bring about a narrative rewriting of ourselves. This last type of affordance is what I take to be an aesthetic affordance. Considering that a narrative rewriting of ourselves is certainly a type of affective exploration, I would say that an aesthetic affordance is a particular type of affective affordance, for every aesthetic experience is also an affective one, but not vice versa.

In the next and final section of this paper, I will focus on certain dynamics with a potential role in these experiences. I will discuss certain processes registered in the brain but influenced by the body and the environment which seem to be involved in the integration of change at the level of perception and action, as well as at the level of situated and social processes. By doing so, I intend to suggest how certain aesthetic experiences can contribute to shape our vision of the world in ways that we cannot always anticipate.

5. Aesthetic experiences as opportunities to rewrite our world

In recent years, there has been growing interest in studying the interaction between cognitive, affective and sensorimotor processes at the level of brain networks. Brain networks are groups of widespread areas of the brain that are regarded as functionally related because neurons in these regions fire together when we experience a specific type of stimulus or carry out a particular task. The different areas are believed to contribute different functions to the integrated and emergent properties of these brain networks, in a way that is highly flexible and context-dependent (see Pessoa, 2014 and Kiverstein and Miller, 2015). However, even if we do not know the precise dynamics, borders or even number of different networks present in the brain, most researchers agree that the interactions between these networks play an essential role in scaffolding cognition (Bressler and Menon, 2010; Petersen and Sporns, 2015). Different brain networks present specific patterns of correlation and anti-correlation with one another, depending on aspects such as the predominant cognitive process, body-related circumstances and the current task. In other words some areas of the brain that are part of these brain networks will be activated and others deactivated in non-random pat-

terns depending on whether I am at a talk paying attention to the discussion, for example, or if I am at the same talk but, instead, remembering the events of last night.

I will focus on one particular brain network that is believed to play a significant role in certain aesthetic experiences: the default mode network (see Raichle, 2015 for a review). This brain network was initially believed to be active only when inner-oriented processes took place, such as mind wandering, remembering events of the past, or anticipating the future. Hence the name "default". It was considered to be the brain network at work when nothing relevant was going on around a person and she was free to focus on her own business. However, although the name remains the same, our understanding of its role has critically expanded. The default mode network is now known to be active in many situations when we actively pay attention to things, persons or events around us. One of these situations is when we engage with images that we experience as aesthetically moving. For example, Vessel et al. (2012) have shown that six-second engagements with representations of intensely moving artworks are enough to provoke activation of the default mode network. Following the same line of inquiry, Belfi et al. (2019) have studied how different exposure times (of 1, 5 and 15 seconds) to high, medium and low moving images affect regions of the default mode network. They have concluded that the registered "dynamics suggest that the DMN [default mode network] tracks the participant's internal state during continued engagement with aesthetically pleasing experiences, as well as during disengagement from non-pleasing stimuli." (p. 595)

What does the default mode network's activity contribute to certain moving aesthetic experiences? First, circumstances such as the activation of this network when subjects relive the past or imagine the future, as well as studies on the topography of the brain, suggest that "the DMN [default mode network] integrates moment-by-moment external information with prior information over seconds to minutes, as events unfold over time" (Yeshurun et al., 2021: 1). This would mean that while sensory areas of the brain answer to fast changes in stimulus, the activity of the default mode network integrates information from different sensory modalities, in much longer spans of time. In other words, the default mode network in an aesthetic context would allow present sensory information to resonate with narratively relevant experiences. Second, the default mode network seems to be responsive to the sense of an experience but not so much to its form. This has been suggested by studies that show similar responses in its pattern of activity when the same narrative fact is presented as a film or read in a script (Tikka et al., 2018) or when Russian and English speakers see the same film translated into their respective languages (Honey et al., 2012). However, changing just one word in a text that critically affects the sense of the narrative (substituting "he" with "she", or "sobbing" with "laughing') is enough to trigger different patterns of activity in the default mode network (Yeshurun et al., 2017). Therefore, another relevant aesthetic role of this network would be to make sense of the experience as a whole. Taken together, these two features suggest that the default mode network could be one key factor in the perception of affordances that offer us the possibility for rewriting our individual narratives. The correlated activity of brain regions involved in processes of sense-making, remembering or imagining allows for unexpected connections that open possibilities to explore how the sense we make of what we are experiencing resonates with our individual stories. These unexpected sparks of sense that emerge during transformative aesthetic experiences could mean that we perceive a new affordance to rewrite some personal narrative.

Yet there is another relevant aspect regarding the default brain network. Several recent findings (Schilbach et al., 2008; Mars et al., 2012) have found that this network is deeply involved in our social life. One relevant study showed that the pattern of activation of the default mode network in a group of people listening to a talk correlated with the pattern of this same network in the person giving the talk. Moreover, the better the individuals understood the speaker, the bigger the correlation was (Stephens et al., 2013). In the light of these and other results, it has been suggested that:

Our thoughts, feelings and actions are constantly being shaped by actions, memories and stories of others. At the same time, our actions, memories and stories shape and influence the thoughts, feelings and actions of the people to whom we are connected. [...] [W]e argue that we are able to shape and be shaped by others in part because activity in the DMN is capable of both shaping other brains' responses and being shaped by the actions of other brains during social interaction. (Yeshurun et al., 2021: 9-10)

Although I agree with the idea that our actions, memories and stories shape each other reciprocally, I do not think that the activity in our default mode network shapes and is shaped by the activity in other people's default mode network. This would mean attributing to the brain a capacity to act upon other brains, which sounds too radical even for the most cognitivist palates. Rather, following Shaun Gallagher's enactive interaction theory (2020), I would say that when we interact with other people our actions, movements and expressed emotions may become progressively attuned, and if this happens while there is a similar pattern of activity in their default mode networks, this may indicate that they are making a similar sense of this particular experience.

Coming back to the discussion of how aesthetic experiences change our world, the activation of the default mode network during some of these situations would suggest that the sense we enact in these experiences is the result of the interaction between what we are currently perceiving, what we have lived and the people we are with. The default mode network seems to be the crossroads where social, perceptual, affective, attentional and narrative aspects meet and mix, and where, in accepting the affordances that emerge shaped by this brain network, we explore ourselves as a part of the world within which we live. Thus, certain aesthetic experiences could be regarded as situations in

which we are given an opportunity to know ourselves better. And when this opportunity comes and we are surrounded by other people sharing the same experience, what we will discover of ourselves will be shaped by the actions, emotions, and movements of the persons around us, particularly if they undergo a similar process. The activation of the default mode network during aesthetic experience seems to mark an increased capacity to affect and be affected by the world. Maybe this has something to do with the strange sense of community that is sometimes experienced by people who accidentally watch together what turns to be an historic football game, or by those who enjoy a concert together, even if they did not know each other before. Some of these results and theories suggest that when we are deeply affected by an experience to the point of changing our vision of ourselves, as in the case of some aesthetic experiences, there would be no way of separating the person being affected from the social context.

To conclude, to the question "What do aesthetic affordances afford?" An answer could be that they offer an opening that, for good or for ill, we cannot control. Those aesthetic affordances that emerge as the experience unfolds are perceived as opportunities to soothe, modulate or rewrite some aspects of our narrative self, but our sustained exploration of these affordances entails a reciprocity: we become open to the things and people that are part of this specific situation. When we are moved, we cannot decide to be open just to one side of the experience. Every aspect of it becomes capable of moving us.

6. Conclusion

In this paper, I have provided a discussion of aesthetic affordances as a particular type of affective affordances that allow us to carry out a narrative rewriting of ourselves, with potentially unexpected consequences for our social context. I started by presenting the general framework of these pages; that is, an enactive, naturalistic and pluralistic perspective on aesthetic experiences. Once the conceptual coordinates of the paper were introduced, I went on to discuss the Gibsonian concept of affordances, Krueger and Colombetti's view on affective affordances, and several recent works on aesthetic affordances. I then focused on the differences and similarities between affective and aesthetic affordances, presented some potential dynamics behind the differences in what they afford, and concluded by opening some tentative ways to understand the unpredictable impact of the aesthetic on other aspects of our life. I will now summarize what I consider to be the main conclusions of the discussion.

The concept of affective affordance is helpful to better grasp the constitutive role of affectivity in shaping our interaction with the environment. Yet, this does not mean that "Gibsonian" and affective affordances should be regarded as two distinct types. I take Krueger and Colombetti's notion as an account that describes some affordances that emerge during specific situations in which the affective regulation drives our perceptions and actions. Following

the same line of thought, I propose that aesthetic affordances, in turn, should be considered a subtype of affective ones, separated by just some qualitative differences.

I established an aesthetic gradient in terms of the transformative potential for those who perceive these affordances and act upon them. In the case of the examples offered by Krueger and Colombetti as prototypical affective affordances, I referred to them as instances of "pre-emptive aesthetic regulation". I suggest that, in these situations, affordances are not perceived as offering some generic action, but as a means of restoring a backup of a previous version of the person having the experience, one who was more at peace with herself and her world. These experiences present a low exploratory potential caused by a high constraining role of the expectations. At the other end of this aesthetic gradient, we find what I consider to be the aesthetic affordances. They afford experiences with a high exploratory potential due to being barely constrained by expectations. These aesthetic affordances are perceived as possibilities to engage with our narrative self.

I proposed that some dynamics with a potential role in this narrative rewriting could be found at the level of the default mode network. This embodied and situated brain network is known to be active during some aesthetic engagements that are experienced as intensely moving. Moreover, the default mode network seems to be in charge of integrating information from different sensory modalities across long spans of time, is believed to play a role in the emergence of sense during experiences, and also appears to be relevant in shaping the dynamics of social interactions. This position of the default mode network at the crossroads of social, perceptual, affective, attentional and narrative aspects might be the reason why certain aesthetic experiences are perceived as situations in which there is an increased capacity to affect and be affected by the persons with whom we share those experiences.

To sum up, this exploration of the notion of aesthetic affordances has revealed some connections with other types of affordances, as well as some particularities. These results support the adoption of naturalistic frameworks as necessary to advance our inquiry into the impact of different types of aesthetic experiences in our relationship with others and the world we share.

Bibliographical references

Beardsley, Monroe (1958). Aesthetics. Indianapolis: Hackett.

Belfi, Amy M. et al (2019). "Dynamics of aesthetic experience are reflected in the default-mode network". NeuroImage, 188, 584-597.

https://doi.org/10.1016/j.neuroimage.2018.12.017

Bressler, Steven L. and Menon, Vinod (2010). "Large-scale brain networks in cognition: emerging methods and principles". Trends in Cognitive Sciences, 14, 277-290.

Brinck, Ingar (2018). "Empathy, engagement, entrainment: the interaction dynamics of aesthetic experience". Cognitive processing, 19, 201-213.

Brincker, Maria (2014). "Navigating beyond 'here & now' affordances—on sensorimotor maturation and 'false belief' performance". *Frontiers in Psychology*, 5, 1433.

http://dx.doi.org/10.3389/fpsyg.2014.01433

- Brincker, Maria (2015). "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. Dordrecht: Springer, 117-138.
- Burnett, Mia and Gallagher, Shaun (2020). "4E Cognition and the Spectrum of Aesthetic Experience". *JOLMA. The Journal for the Philosophy of Language, Mind and the Arts*, 1 (2), 157-176.
- CARAVĂ, Marta and SCOROLLI, Claudia (2020). "When Affective Relation Weighs More Than the Mug Handle: Investigating Affective Affordances". Frontiers in Psychology, 11, 1928. https://doi.org/10.3389/fpsyg.2020.01928>
- COLOMBETTI, Giovanna (2014). The Feeling Body. Affective Science Meets the Enactive Mind. Cambridge: The MIT Press.
- DE HAAN et al. (2013). "The Phenomenology of Deep Brain Stimulation-Induced Changes in OCD: An Enactive Affordance-Based Model". *Frontiers in Human Neuroscience*, 7, 653. https://doi.org/10.3389/fnhum.2013.00653>
- Dewey, John (1934). Art as Experience. New York: Minton, Balch and Company.
- (1938). *Logic. The Theory of Inquiry.* New York: Henry Holt and Company.
- DICKIE, George (1988). *Evaluating Art*. Philadelphia: Temple University Press. Dreon, Roberta and Vara Sánchez, Carlos (2022). "Naturalist trends in current aesthetics". *Studi di Estetica*, 22, 221-244. https://doi.org/10.7413/18258646200
- Gallagher, Shaun (2011). "Aesthetics and kinaesthetics". In: J. M. Krois (Ed.). Sehen und Handeln. Weinheim: John Wiley and Sons, 99-113.
- (2017). *Enactivist Interventions: Rethinking the Mind.* Oxford: Oxford University Press.
- (2018). "The Therapeutic Reconstruction of Affordances". *Res Philosophica*, 95 (4), 719-736.
- (2020). Action and Interaction. Oxford: Oxford University Press.
- (2021). Performance/Art: The Venetian Lectures. Milan: Mimesis International.
- Gibson, James. J. (1979). *The Ecological Approach to Visual Perception*. Boston: Houghton-Mifflin.
- Heft, Harry (2003). "Affordances, dynamic experience, and the challenge of reification". *Ecological psychology*, 15 (2), 149-180.
- HONEY, Cristopher J. et al. (2012). "Not lost in translation: neural responses shared across languages". *Journal of Neuroscience*, 32 (44), 15277-15283.

- KIVERSTEIN, Julian and MILLER, Mark (2015). "The embodied brain: towards a radical embodied cognitive neuroscience". Frontiers in Human Neuroscience, 9, 237.
 - https://doi.org/10.3389/fnhum.2015.00237
- Kronsted, Christian and Gallagher, Shaun (2021). "Dances and Affordances: The Relationship between Dance and Conceptual Problem-Solving". The Journal of Aesthetic Education, 55 (1), 35-55.
- KRUEGER, Joel (2014). "Affordances and the musically extended mind". Frontiers in Theoretical and Philosophical Psychology, 4 (1003), 1-13.
- KRUEGER, Joel and COLOMBETTI, Giovanna (2018). "Affective affordance and psychopathology". Discipline Filosofiche, 2 (18), 221-247. https://doi.org/10.2307/j.ctv8xnhwc.14
- Mars, Rogier B. et al. (2012). "On the relationship between the 'default mode network' and the 'social brain'. Frontiers in Human Neuroscience, 6 (189).
 - https://doi.org/10.3389/fnhum.2012.00189
- Pessoa, Luiz (2014). "Understanding brain networks and brain organization". *Physics of Life Reviews*, 11 (3), 400-435.
- PETERSEN, Steve E. and Sporns, Olaf (2015). "Brain Networks and Cognitive Architecture". Neuron, 88 (1), 207-219.
 - https://doi.org/10.1016/j.neuron.2015.09.027
- Prinz, Jesse (2011). "When is Film Art?". Revue internationale de Philosophie, 4, 473-485.
- RAICHLE, Marcus E. (2015). "The brain's default mode network". Annuals Reviews of Neuroscience, 38, 433-447.
- RIETVELD, Erik and KIVERSTEIN, Julian (2014). "A Rich Landscape of Affordances". Ecological Psychology, 26 (4), 325-352. http://dx.doi.org/10.1080/10407413.2014.958035
- ROCKWELL, W. Teed (2005). Neither Brain nor Ghost. A Nondualist Alternative to the Mind-Brain Identity Theory. Cambridge: MIT Press.
- Schilbach, Leo et al. (2008). "Minds at rest? Social cognition as the default mode of cognizing and its putative relationship to the 'default system' of the brain". Conscious Cognition, 17 (2), 457-467.
- Stephens, Greg J.; Honey, Cristopher J. and Hasson, Uri (2013). "A place for time: the spatiotemporal structure of neural dynamics during natural audition". Journal of Neurophysiology, 110, 2019-2026. https://doi.org/10.1152/jn.00268.2013
- Tikka, Pia; Kauttonen, Janne and Hlushchuk, Yevhen (2018). "Narrative comprehension beyond language: Common brain networks activated by a movie and its script". *PLoS ONE*, 13, e0200134.
- VARA SÁNCHEZ, Carlos (2022). "Enacting the aesthetic: A model for raw cognitive dynamics". Phenomenology and the Cognitive Sciences, 21, 317-339.
 - https://doi.org/10.1007/s11097-021-09737-y

VESSEL, Edward; STARR, Gabrielle and RUBIN, Nava (2012). "The Brain on Art: Intense Aesthetic Experience Activates the Default Mode Network". Frontiers in Human Neuroscience, 6, 66.

- https://doi.org/10.3389/fnhum.2012.00066
- YESHURUN, Yaara; NGUYEN, Mai and HASSON, Uri (2017). "Amplification of local changes along the timescale processing hierarchy". *Proceedings of the National Academy of Sciences of the United States of America*, 114 (35), 9475-9480.
- (2021). "The default mode network: where the idiosyncratic self meets the shared social world". *Nature reviews Neuroscience*, 22 (3). https://doi.org/10.1038/s41583-020-00420-w

Carlos Vara Sánchez's main research interests are aimed at exploring the temporal dynamics of individual and intersubjective experiences shaping different cognitive processes from an interdisciplinary perspective that combines philosophy and cognitive sciences within an enactive framework. He has been a Marie Skłodowska-Curie Postdoctoral Fellow and afterwards a postdoctoral researcher between June 2018 and May 2021 at the Philosophy and Cultural Heritage Department of Ca' Foscari University of Venice where he conducted a project on the role of rhythm and entrainment in the pre-reflective and reflective dynamics of certain aesthetic experiences.

Carlos Vara Sánchez investiga principalment l'efecte de les dinàmiques temporals d'experiències individuals i intersubjectives sobre diferents processos cognitius des d'una perspectiva interdisciplinària que combina la filosofia i les ciències cognitives dintre d'un marc enactivista. Ha estat becari postdoctoral Marie Skłodowska-Curie i investigador postdoctoral entre juny de 2018 i maig de 2021 al Departament de Filosofía i Patrimoni Cultural de la Universitat Ca' Foscari de Venècia, on ha dut a terme un projecte sobre el rol del ritme i l'entrainment en les dinàmiques prereflexives i reflexives d'algunes experiències estètiques.