

**Proceedings of the
European Society for Aesthetics**

Volume 9, 2017

Edited by Dan-Eugen Ratiu and Connell Vaughan

Published by the European Society for Aesthetics

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Proceedings of the European Society for Aesthetics

Founded in 2009 by Fabian Dorsch

Internet: <http://proceedings.eurosa.org>

Email: proceedings@eurosa.org

ISSN: 1664 – 5278

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The European Society for Aesthetics

Department of Philosophy

University of Fribourg

Avenue de l'Europe 20

1700 Fribourg

Switzerland

Internet: <http://www.eurosa.org>

Email: secretary@eurosa.org

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The Temporality of Aesthetic Entrainment: an Interdisciplinary Approach to Gadamer's Concept of Tarrying

Carlos Vara Sánchez¹

Independent scholar

ABSTRACT. The influence of aesthetic experiences over the consciousness of time is a topic which has not received much philosophical attention, Hans-Georg Gadamer being one exception. However, in the last years, there has been several neuroscientific publications arguing for the capacity of aesthetic episodes to activate particular brain networks related to temporality. In order to make progress on the topic, in this paper I will follow an integrative approach combining philosophy and neurosciences. I will defend that Gadamer's concept of tarrying can be extremely useful when trying to understand the dynamic nature of aesthetic experiences and, particularly, their effects on temporality. With this end in view, I will explain the main features of the tarrying, the phenomenon of the entrainment and its importance in social, aesthetic and everyday interactions, as well as the differences between two of the main brain systems: the default mode network and the central executive network. These notions will be integrated in the suggestion that tarrying can be considered as a particular type of entrainment triggered by aesthetic experiences that activates our default mode network which, in turn leads to a distinct temporality.

1. Introduction

The main aim of this paper is to explore some aspects of how aesthetic experience affects time manifestation in human existence, that is, our temporality. It will be done through an interdisciplinary point of view that will merge, into a loose phenomenological framework, Hans-George Gadamer's concepts of tarrying and the while, and recent results on neuroscientific research. With this integrative approach my intention is the same one expressed by Dan Zahavi and Shaun Gallagher when speaking of

¹ Email: carlosvarasanchez@gmail.com

naturalized phenomenology: “that the influence [should] go both ways, [...] letting phenomenology profit from –and be challenged by– empirical findings” (Gallagher 2013, p. 34). In this effort to find common ground between science and philosophy I also follow the cue of Giovanna Colombetti and Ingar Brinck. These interdisciplinary philosophers have recently explored, through their books and papers, a way to develop the path opened by Francisco Varela: dynamic systems theory (DST) as a useful conceptual tool to mediate between phenomenology and neurosciences. DST is a branch of mathematics used to study how systems maintain unity and generate patterns through reciprocal influence; that is, it seeks a flexible, time-dependent, and integrated view on processes. However, I will not offer a full mathematical model; rather, as Colombetti says, “it is possible to regard various aspects of dynamical systems (states, attractors, trajectories, etc.) as having some kind of representational status, and this may be useful” (Colombetti 2014, p. 57). This is so because DST’s focus on interactions between different systems, allows to fully acknowledge circular causation, casts light on potentially unified consequence of collective causes, and characterises phenomena in its progressive unfolding. These features are extremely useful when discussing cognitive processes from an interdisciplinary and integrated point of view that intends to leave behind aporias and dualisms. Ingar Brinck has applied these tenets to her studies on aesthetic experience, defending that: “aesthetic experience emerges when the viewer engages with the artwork in physical and material space via the processes of bodily and emotional engagement. These processes permit the viewer to move with, be moved by, or move to be moved by the artwork, all of which promote perceiving, acting and feeling with the artwork” (Brinck 2017, p. 11).

But, how does this relate to my intention of discussing aesthetic experience conditioning of temporal consciousness? I do not believe that the only thing affected during aesthetic experiences is our temporality; however, what I do believe is that aesthetic experiences are able to trigger an experience of time with some particular features that need to be taken into consideration. In order to affirm this, I follow Gadamer’s radical idea that “art’s superiority over time, is a superiority that defies all restrictions”

(Gadamer 2007, p. 200). Nonetheless, it is important to consider that these words refer to the presentness of art, that is, its ability to build bridges that reach beyond the enclosure of space and time in which it was originated. My intention here is much more humble, for it will be focused on the relation between an artwork and a subject and how the potential aesthetic experience that is born out of this interaction has, in my opinion, the capacity of expanding the reach of our usual field of presence, generating an openness of dialogic nature. I hold this change in the temporality as major responsible of the transformative capacity often attributed to aesthetic experiences. But, in order to clarify my posture, it is necessary to share what I understand by aesthetic experience. Here I follow the ideas compiled by Ingar Brinck, according to whom aesthetic experiences triggered by artworks are characterized by a qualitatively distinct high arousal, increased attention, and personal engagement both cognitive and emotional (Brinck 2017, p. 2). In addition to this, I would further add that aesthetic experiences are able to affect temporality.

2. Gadamer's Tarrying as a Form of Temporal Entrainment

From a phenomenological point of view, temporality is a fundamental constituent of human consciousness and, consequently, it has been thoroughly discussed. Particularly since Edmund Husserl judged temporality to be an exceptionally important and complex form of intentionality, involved in virtually every aspect of consciousness. However, its potential particularities during aesthetic experience have been barely analysed. Indeed, there are some philosophers who have dwelt on this subject –namely Mikel Dufrenne, Jan Patočka, Maurice Merleau-Ponty or Peter de Bolla–, but there is a general lack of concepts as well as of in-depth study on the subject.

One term which could prove to be useful to fill this gap, thanks to the increased attention which is getting, is that of entrainment. Entrainment was coined in the realm of physics to name the phenomenon by which two adjacent pendulums tend to move progressively into the same swinging rhythm. In dynamic systems theory, it refers to the progressive

synchronization between two or more systems. Therefore, broadly speaking, it can be considered the mechanism by which a rhythm of a system influences and is influenced by other rhythms from other systems in a unilateral or reciprocal way. This feature is to be found in most of the systems including biological entities such as ourselves. There are countless examples of well-known cases of entrainment. For example, as two persons walk along, they tend to fall into the same pace; sometimes we surprise ourselves involuntarily mirroring the intonation, accent and body gestures of our interlocutors. These would be examples of social entrainment (Knoblich 2008). But entrainment has been also discussed in aesthetics, particularly in music aesthetics (Nozaradan et al. 2012), for musical rhythms are more easily measurable. Entrainment, thus, would be the underlying reason why we involuntarily surprise ourselves tapping our finger while listening to certain songs, but it also is the reason behind the capacity of certain musical patterns to encompass our heartbeats, blood circulation or breathing (Merker et al. 2009). This is not surprising, cronobiologists have long known it: we are a compendium of temporal patterns which are continuously affected by the surrounding world, and for that reason we are exposed to entrainment by a myriad of different attractors and repellers. Even colours, geometrical forms and proportions have been proven to affect our biological rhythms (Vartanian 2007). However, this extreme pervasiveness of physical entrainment is a reason to believe that it is not something specific of aesthetic experience, but a by-product of every interaction between two systems. Nonetheless, since an aesthetic experience can be understood as an interaction between two systems –object and agent- we could say that physical entrainment is a necessary but not sufficient condition for us to enter into a proper dialogue with an artwork. I have introduced this phenomenon because my hypothesis is that Gadamer’s concept of tarrying could be understood as a particular and powerful type of entrainment.

Gadamer discussed many different aspects of time in some of his most famous texts, however the temporal dimension of the experience of art was specifically addressed in short late writings such as ‘Text and Interpretation’ or ‘The Artwork in Word and Image: ‘So True, So Full of Being’ (Gadamer 2007). It is precisely in this last one when he elaborated, from a

phenomenological point of view, on the Heideggerian concepts of ‘tarrying’ [*Verweilen*] and the ‘while’ [*Weile*]. Both of them are inextricably correlated, but the former points to the temporal disposition by which one attunes himself to an artwork and the latter to the temporal span in which the diverse senses and meanings emerging from the artwork move us and change us. This ‘temporal structure of tarrying’ would be, thus, an important affordance of artworks. It is necessary to precise that tarrying should not be mistaken with a mere passive lingering over a work, on the contrary, it requires a willingness to pay attention:

To tarry is not to lose time. Being in the mode of tarrying is like an intensive back-and-forth conversation that is not cut off but lasts until it is ended. The whole of it, is a conversation in which for a time one is completely absorbed, and this means one is completely there in it (Gadamer 2007, p. 211).

Therefore, tarrying, is as an active process in which the spectator’s increased attention grants to the artwork the possibility to come to presence stretching time and creating the ‘while’ and, as a result of that, a more complex temporality emerges: “The while in tarrying” Gadamer says “has this very special temporal structure –a structure of being moved, which one nevertheless cannot describe merely as duration, because duration means only further movement in a single direction” (Gadamer 2001, p. 77). Gadamer also defends that tarrying has a dynamic nature, for “tarrying is a growing fascination that hangs on and even hangs through temporary disruptions because the harmony with the whole grows and demands our agreement” (Gadamer 2007, p. 211).

With this in mind, when speaking about tarrying we have to be aware that we are facing a somehow paradoxical ecstatic dynamic temporality –one in which the usual flow of time is disbanded-, that allows for a kind of reciprocity, a dialogue between artwork and the subject of progressive nature, an entrainment. Gadamer’s vocabulary emphasizes the reciprocal influence, for he uses expressions like ‘back and forth’, ‘conversation’, ‘harmony that grows’, etc. The point of connection that I see

between Gadamer's ideas, dynamic systems theory, and the phenomenon of entrainment comes, on the one hand, from this circular, almost reciprocal interpretation of an aesthetic experience, and, on the other hand, from his efforts on sewing together tarrying and the while. My reading of his texts is that we are supposed to pay attention to the artwork in an active way but at the same time we have to leave room for a passive response to what it tell us. In Gadamer's words "we learn from the work how to tarry with it" (Gadamer 2001, p. 77). This 'with', in my opinion, is extremely important. The structure of tarrying is a dynamic and progressive kind of aesthetic experience because the more we tarry, the more we –hopefully- participate of the artwork and, as important as that, the more we will understand ourselves through the artwork. Because, as Gadamer says: "To understand what the work of art says to us is therefore a self-encounter" (Gadamer 2007, p. 129). The aesthetic experience caused by tarrying requires, therefore, of an entanglement between the artwork and the individual who explores it, and also from the existence of a reciprocity between them. From my perspective, thus, it could be defended that Gadamer, despite not strictly using the word, acknowledges the potential emergence of a process of entrainment between artwork and subject as a means to come in contact with the radical presentness that the artwork carries within itself; this complex entrainment –with cognitive, emotional, and bodily components reciprocally affecting each other- would be characteristic of an aesthetic experience. It would be akin to the 'growing fascination' to which Gadamer referred. The entrainment, assumed as a multilayer engagement, could be understood as an important feature of the process of an aesthetic experience. Nonetheless, Gadamer says that tarrying is a fascination that keeps growing through temporary disruptions. This leads to the following question: beyond the possibility of the entrainment, which other temporal consequences does tarrying have?

In Daniel L. Tate's paper 'In the Fullness of Time: Gadamer on the Temporal Dimension of the Work of Art', he defends that "the work thereby enacted joins past and future in a unique present that arrests our ordinary experience of time. Paradoxically, then, time is brought to a standstill within time by the distinctive temporality of the artwork" (Tate 2012, p. 113).

However, it is important to note the fact that Gadamer does not defend tarrying as a time out of time, but rather as an opposition to the utilitarian physical time, which he defends to be ‘non-primordial’ (Gadamer 1970, p. 343). The dialogical time structure of the tarrying is able to take us from undergoing time as a succession of fleeting empty moments to experiencing time as an openness full of sense. This sharp distinction is expressed by Gadamer with the following terms: “I call ‘empty time’, the kind of time in which things [...] are measurable. ‘Filled time’, on the other hand, cannot be measured, because, it seems not to last long nor pass away. And yet all kinds of things happen there” (Gadamer 2007, p. 217). Tarrying would, therefore, afford an experience of time in which an artwork increasingly fulfils every moment of its duration for as long as it lasts. Whether it be until a random thought crosses our mind, because the song ends, or because our mobile phone buzzes.

3. Gadamer’s Tarrying and the Default Mode Network

To sum up, according to my interpretation of Gadamer’s words, we could think of two opposed poles of human time-consciousness –empty time and the filled one of the while in which we tarry–, and the shift from one to the other can be triggered by an artwork through a process that entails an entrainment of a multi-layered and progressive nature. According to what have been exposed, this could be considered an incipient model of dynamic aesthetic experience. But, in relation to this, what can neurosciences offer to the discussion? Recent research shows the existence of two brain’s major networks, one of them is referred to as the central executive network (CEN), while the other has been coined as the default mode network (DMN) (Menon 2011). They act as communicating vessels: when engaged in goal-directed externally driven tasks the CEN activity is higher, when thoughts are directed internally the DMN rises. However, what seems interesting is that, on the one hand “DMN function has been linked to the recollection of past episodes and the simulations of future episodes, theory of mind and tasks involving social content” (Simony et al. 2016, p. 2), while, on the other hand, “the CEN [...] has been implicated in cognitive functions

including reasoning, attention, inhibition and working memory” (Mohan et al. 2016: 51). Therefore, succinctly, the DMN leaves us more freedom to mind wander around the past and the future without constraints, while the CEN is what gets activated when in need of attending to something specific. In my opinion this resembles in a remarkable way Gadamer’s theory about the *energeia* of the distinct temporality triggered by the tarrying. On this subject, he expresses that “Aristotle described *energeia* with the word for ‘at the same time’ (*hama*) in order to point to the immanent temporality of its duration. In other words, this is not a one-after-another sequence but an at-the-same-timeness that belongs to the temporal structure of tarrying” (Gadamer 2007, p. 210-211).

However, I have explained that the DMN is thought to decrease its activity when we are focused in externally oriented tasks. And experiencing an artwork certainly requires from us to pay attention to an external object. But the research team formed by Edward Vessel, Nava Rubin and Gabrielle Starr have made a recent discovery: the DMN registered increased activity when undergoing intense aesthetic experiences (Vessel et al. 2012). A fair question would be: how they judged that someone was having an intense aesthetic experience? The subjects who participated in the study that led to these results were shown a vast and diverse array of artworks from different cultures and epochs (from Japanese Edo stamps, to Ruben’s paintings including Bacon’s portraits and recent abstract artworks), and they were asked to evaluate how strongly each artwork moved them using a scale from 1 to 4, being ‘1’ the least moving experiences and ‘4’ the most intense. The results were surprising. Only when engaged with the works which were rated with a four, the DMN activity was statistically significant greater. In the other cases, the activity of this brain network was as low as expected when facing external stimuli. That is, only the most aesthetically moving artworks for each subject led to differential and widespread activation of regions constitutive of the Default Mode Network.

In Edward Vessel’s words: “The DMN activity therefore suggests that certain artworks, [...] obtain access to the neural substrates concerned with the self –access which other external stimuli normally do not get. This mediates a sense of being ‘moved’, or ‘touched from within’” (Vessel 2013,

p. 1). However, it could be argued that is not the artwork what obtains access, but us who grant it. In other words, it could be defended that this study presupposes the capacity of certain artworks to trigger an experience, while neglecting influential factors such as our emotional state, moods, the effect of our attention, or our willingness to connect. Because for an artwork to be felt as extremely moving, most of the times, there seems necessary to be a previous predisposition by ourselves. This and other criticisms could be made, and should be properly acknowledged when developing a full theory of dynamical aesthetic entrainment. Nonetheless, at the time being, what I would like to emphasize is the fact that their research proved the capacity of artworks to change our brain activity in a very significant way through triggering the DMN during what they classified as intense aesthetic experiences. According to Gabrielle Starr: “The involvement of the default mode network indeed suggests that aesthetic emotions make us newly aware of being ourselves and being in the world. Aesthetic experience works to produce new value in what we see and what we feel” (Starr 2013, p. 66). This is, in my opinion, a reasoning close to Gadamer, as we can verify by comparing Starr’s statement with the following words from Gadamer: “The work of art that says something confront us with ourselves. That is, it expresses something in such a way that what is said is like a discovery, a disclosure of something previously concealed. [...] Everything familiar is eclipsed.” (Gadamer 2007, p. 129).

4. Conclusion

To conclude, in my opinion, if we relate tarrying episodes with the activation of the DMN, we could certainly defend that some aesthetic experiences present the differential feature of being able to elicit a particular experience of time, since “default modes of cognition are characterized by a shift from perceiving the external world to internal modes of cognition that simulate worlds that are separated from the one being directly experienced” (Buckner 2006, p. 54). Furthermore, the self-related nature of the DMN supports the idea that artworks which succeed at engrossing our attention and at creating an entrainment, or what Gadamer refers to as the ‘back-and-

forth conversation’ of the tarrying, not only disclose themselves, but are able to affect us intimately and change us in profound and not predictable ways. However, one of the things that I find more appealing of Gadamer’s temporal structure of the tarrying is the way he relates tarrying and while. For the while to happen, the tarrying is previously needed, and for as long that dialogue in-between the two systems keeps going, there is a growing and unfolding influence between them until ‘the aesthetic reservoir’ is depleted or suddenly the experience comes to an end. I am not interested in what comes before, the tarrying –which would mean our attention to a particular artwork- or an invitation to the while by the artistic creation which captures our attention. There can be no tarrying without the while. By following these ideas, I think that can be defended the notion of aesthetic experiences as dynamic episodes in which an entrainment between two systems –artwork and subject- takes place. An entrainment with the capacity to provoke changes in temporality with consequences in our relation with the environment and ourselves. Further study of this aesthetic entrainment and its components will bring us closer to understand how and to what extent aesthetic experiences affect us.

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