The Music of Memory
Gaston Bachelard on the Construction of Time and Memory

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Gaston Bachelard's philosophical exploration challenges conventional assumptions regarding the relationship between time and memory. Departing from the common perception of time as a passive container for memories, Bachelard introduces an idea of the past that is predicated on a relational understanding of time. This paper will begin by contrasting Bachelard's relational view of time with Henri Bergson's substantivalist stance. Bachelard's metaphysical position on time provides the conceptual groundwork for his challenging of the fixity of past temporal experiences, and his redefining of duration as a rational construct. Finally, this paper will explore Bachelard's concept of rhythmanalysis, or the process by which the individual is able to make sense of the different rhythms or frequencies of time. Bachelard does not define the past as a fixed temporal series of memories. Rather, memories and the past are fluid and continually open to interpretation by the individual. The relationship between time and memory, for Bachelard, is subsequently predicated on a constructive process which is characterized by the ability of the individual to reframe or reinterpret that process.

Keywords: Gaston Bachelard, philosophy of time, philosophy of memory, rhythmanalysis.

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Craig Callender, in *What makes Time so Special,* explains that manifest time is an understanding of time which «arises from a kind of regimented common-sense picture of the world»[1]. The connection between time and memory is an important aspect of manifest time. Accordingly, it's commonly assumed that an individual's memories forms and shapes their past. The natural assumption, therefore, concerning the relationship between time and memory, is that time is a sort of passive container or holder of memories. The French philosopher Gaston Bachelard presents a strikingly different picture of time and its relationship to memories. This paper will begin by contrasting Bachelard's relational view of time with Henri Bergson's substantivalist stance. Although illuding to Bachelard's writing on poetics, the primary focus will be his philosophy of time as outlined in his *Intuition of the Instant* (*II*) and *Dialectic of Duration* (*DD*)[2]. Bachelard's metaphysical position on time provides the conceptual groundwork for his challenging of the fixity of past temporal experiences, and his redefining of duration as a rational construct. Finally, this paper will explore Bachelard's concept of rhythmanalysis, or the process by which the individual is able to make sense of the different rhythms or frequencies of time. Bachelard insists that the past

[1] C. Callender, *What Makes Time so Special?*, Oxford University Press, Oxford 2017, p. 2.
[2] Zbigniew Kotowicz has noted that Bachelard's corpus may be roughly divided into three categories: epistemology, aesthetics, and time. While the concepts and ideas mentioned throughout these works overlap to some extent, there are distinct methodological differences and influences. Without a doubt, the two biggest influences on Bachelard's philosophy of time are Henri Bergson and Albert Einstein. Thus, this essay deliberately focuses on Bachelard's scientific, epistemological, and metaphysical concerns over other aesthetic considerations. In other words, while there is a poetic dimension to Bachelard's writing on time, this essay emphasizes Bachelard's reflections on the physical and metaphysical aspects of time. Additionally, the poetic dimension of time is more thoroughly explored in Bachelard's later work. In addition to the works on time themselves, this essay will largely draw from Bachelard's earlier epistemological work.

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1. Bergson and Bachelard on Time

Perhaps the most characteristic feature of Gaston Bachelard's philosophy of time is his insistence on the discontinuous nature of time. Bachelard begins his *II* by positing that «Time has but one reality, the reality of the instant»[3]. Being fond of dialectical reasoning, Bachelard situates his understanding of time in contrast to that of his primary interlocutor, Henri Bergson. While the precise extent to which Bachelard actually disagrees with Bergson is up for discussion[4], focusing on what Bachelard believes to be distinctive about his own understanding of time will be beneficial in framing the relationship between time and memory. Bachelard opens up the *II* by contrasting what he calls Bergson's «philosophy of duration», with his own «philosophy of the instant»[5]. The same opening maneuver is evident in his *DD,* where he begins with a reflection on what he calls Bergson's «philosophy of fullness», as opposed to his own philosophy «of negation»[6]. A robust analysis of Bergson's philosophy of time is beyond the scope of this paper[7]. However, Bachelard's critique of Bergson can be reduced to their disagreement surrounding the idea of duration.

Bergson begins the second chapter of his *Time and Free Will* by pointing out that, with quantitative analysis, there is an inherent «intuition of space»[8]. For example, in the simple act of counting to ten each number in the numerical sequence is distinguished from its predecessor by a sort of spatial separation. Bergson uses the example of sheep: If we think

[3] G. Bachelard, *Intuition of the Instant,* translated by Eileen Rizo-Patron, Northwestern University Press, Evanston 2013, p. 6.
[4] See for example J.F. Perraudin, *A non-Bergsonian Bachelard*, in "Continental Philosophy Review", XLI/4, 2008.
[5] G. Bachelard, *Intuition of the Instant*, cit., p. 8.
[6] G. Bachelard, *The Dialectic of Duration,* translated by Mary McAllester Jones, Rowman & Littlefield, London 2000, p. 15.
[7] For a general overview of Bergson's work on time see S. Guerlac, *Thinking in Time: An Introduction to Henri Bergson,* Cornell University Press, Ithaca 2006.
[8] H. Bergson, *Time and Free Will: An Essay on the Immediate Data of Consciousness,* Dover Publications, Mineola 2001, p. 77.

of fifty sheep, we are imaging fifty individual sheep; and as a result, «We involuntarily fix at a point in space each of the moments which we count, and it is only on this condition that the abstract units come to form a sum»[9]. Bergson argues that the association of quantitative analysis with space leads to problems. Bergson is reacting to a form of scientific reductionism in which our experience of time becomes quantifiable, and by extension, spatial. He warns that «by introducing space into our perception of duration, it corrupts at its very source our feeling of outer and inner change, of movement, and of freedom»[10]. With respect to time, the inverse ought to be true, and the experience of time should subsequently be treated qualitatively. Bergson's argument, according to Suzanne Guerlac, is that «it will be necessary to think about time without spatializing it»[11]. Quantitative time is appropriate in disciplines such as physics, which describe the physical world; but, it is not appropriate in descriptions of conscious experience. Considering time qualitatively acknowledges an individual's subjective temporal experience, thus leading to significantly different outcomes from the quantitative analysis. According to Bergson, the subjective experience of time is characterized by a unity of experience, connecting or threading together the individual's life events. Elizabeth Drumm explains that the conscious states of our temporal experience «are not separable but rather interpenetrate, moving indistinguishably one to the next»[12]. In other words, at the heart of our conscious experience of time is what Bergson terms «pure duration». We experience duration insofar as we experience time as *a whole*.

For Bergson, duration lies at the root of our experience of time. Due to the nature of duration, Bergson draws a distinction between mathematical, or "clock" time described by physics, and "lived" time. In his conversation with Einstein in 1922, Bergson emphasizes that the locus of his contention with relativity stems from his understanding of duration: «Each of us feels that we endure… there is no reason why our duration would not be the duration of all things as well»[13]. In other words, time is not a secondary or emergent

[9] H. Bergson, *Time and Free Will*, cit., p. 79.
[10] *Ivi,* p. 74.
[11] S. Guerlac, *Thinking in Time,* cit., p. 59.
[12] E. Drumm, *Henri Bergson on Time, Perception, and Memory and Ramon Del Valle-Inclan's 'La Lampara Maravillosa*, in "Anales de la Literatura Española Contemporánea", XL/3, 2015, p. 24.
[13] H. Bergson, *Remarks on the Theory of Relativity*, in "Journal of French and Francophone Philosophy", XXVIII/1, 2020, p. 167.

phenomena, as it appears to be in physical accounts, but it is rather the fundamental feature of our conscious experience. Conversely, our conscious temporal experience is not segmented. Rather, we are *extended* in time insofar as we have a *past* and subsequently a *future* that is characterized by possibility or freedom. Leonard Lawlor explains that Bergson's notion of duration can be summarized in two points. Firstly, «the past survives». Secondly, «the moment coming from the future is absolutely new»[14]. Contemporary discussions concerning the nature of time heavily revolve around ontological or metaphysical considerations. While Bergson is positing a form of tensed time, the emphasis is on conscious states. That is to say, Bergson's notion of duration is an attempt to capture the qualitative experience of time. From Bachelard's perspective, there is a sort of substantivalism at work in Bergson's position on time. Bachelard explains that «according to Bergsonism we are given over to an *immediate, deep* continuity», and this continuity is often perceived as the «flow» or «passing» of time[15]. For Bergson, time has fundamental characteristics. Even the subjective experience of time has certain qualities or properties, such as flow or movement, that are inherit to its structure.

Bachelard, of course, rejects Bergson's understanding of duration. «Of Bergsonism», he playfully states, «we accept everything but continuity»[16]. For Bachelard, there are not any inherent properties, characteristics, or metaphysically privileged positions in time. Bachelard denies even the most basic of temporal properties, such as the movement of time. According to Bachelard, «Life does not flow along a slope on the axis of objective time»[17]. He denies Bergsonian continuity even in the movement of time from past to present. One instant, or specified moment in time, is not metaphysically linked to the next. As Bachelard explains, «The instant holds no duration at its core; it does not thrust a force in one direction or another»[18]. If Bergson posits a form of substantivalism, then Bachelard is a stanch anti-substantivalist. Sean Power writes that, with respect to time, substantivalism is the position

[14] L. Lawlor, *The Challenge of Bergsonism,* Continuum, New York 2008, p. 80.
[15] G. Bachelard, *The Dialect of Duration,* cit., p. 19.
[16] *Ivi,* p. 20.
[17] G. Bachelard, *Intuition of the Instant,* cit., p. 12.
[18] *Ivi,* p. 28.

that time «is a substance»; that is to say, «time is independent of objects and events»[19]. The classic substantivist position was posited by Newton in his understanding of absolute time. Bachelard's anti-substantivist position prefigures his philosophy of time, and its origins can be traced back to his epistemological writings. In fact, in *Formation of the Scientific Mind* Bachelard lists substance as an epistemological obstacle to be overcome by the scientific mind. With respect to the history of chemistry, Bachelard notes that there has been a «myth of interiority» or «inwardness» in which different characteristics of an object are said to refer to that object's substance[20]. Substance, the notion that there is a sort of *container* for different properties or attributes of an object, is an idea that the scientist must overcome when studying an object. Bachelard further elaborates on his understanding of substance in his *Philosophy of No,* explaining that the traditional idea of substance in metaphysics usually referred to a sort of «geometrical solid characterized by general properties»[21]. Nevertheless, within the context of modern chemistry, «everything is not real in the same way»[22], which leads to what Bachelard calls a «pluralism» of substance. Simply put, a substance, such as gold, can be understood in a multitude of ways involving everything from its atomic make-up to its physical features such as color and size. While a chemist may use substance in a general sense, this renders the metaphysical connotations of the term superfluous.

Bachelard's rejection of substance does not stop with his epistemology. Questions relating to the substance of time are, generally speaking, asking about the ontology of time. For Bachelard, time has an inherently constructive nature. Conversely, in terms of the substance of time, Bachelard says that «it is discontinuous as being»[23]. Similar to chemistry, there are different levels of analysis with respect to time, but discontinuity at the metaphysical root of time. The constructive nature of temporal analysis stems from this inherent discontinuity. The perception of the continuity of time is embodied in the notion of duration; but, as

[19] S. Power, *Philosophy of Time: A Contemporary Introduction,* Routledge Taylor and Francis Group, New York 2021, p. 9.
[20] G. Bachelard, *The Formation of the Scientific Mind,* translated by Mary McAllester Jones, Clinamen Press, Manchester 2002, p. 104.
[21] G. Bachelard, *The Philosophy of No,* translated by G.C. Waterston, The Orion Press, New York 1968, p. 45.
[22] *Ivi,* p. 46.
[23] G. Bachelard, *The Dialect of Duration,* cit., p. 34.

Bachelard stresses, this duration «is only perceptible in its complexity»[24]. The complexity of duration stems from its composition of instances, and in this sense, duration emerges as a sort of epiphenomenon. As Kotowicz explains, if we consider the example of «the past» then duration «is not like some sort of ether of time in which we place memories»; rather, it is something in which the individual actively participates in, «something we get to»[25]. The target here is a time that moves an individual's life in a particular direction, so to speak. While there are certainly some ontological and metaphysical implications to what Bachelard is saying, the importance of this position comes in the psychological implications this position carries. However, before these implications can be developed it will be helpful to clarify what Bachelard says about the metaphysical foundations of time.

The metaphysical principles undergirding Bachelard's philosophy of time are derived from Einsteinian relativity. While a full exposition of Bachelard's relationship to Einstein exceeds the current context, its relevant to note that Bachelard credited Einstein for awakening him from his «dogmatic slumber» with his «critique of objective duration»[26]. Einstein, in his response to Bergson, claims that it was previously possible to extend the category of «simultaneity» from «perception», or psychological experience, to «objective events» outside the individual[27]. Different individuals could subsequently agree on these perceptions and take a step towards «objective reality»[28]. Nevertheless, as Einstein would demonstrate in his 1905 paper, «we cannot attach any *absolute* signification to the concept of simultaneity»[29], and consequently we must conclude that the simultaneity of events «are only mental constructions»[30], Bachelard concludes that, as a result of Einstein's findings, the Bergsonian notion of duration is untenable and in the place of duration he places the «well-specified instant»[31]. For Bachelard, the instant becomes the principle temporal category when

[24] *Ivi,* p. 44.
[25] Z. Kotowicz, *Gaston Bachelard: A Philosophy of the Surreal,* Edinburgh University Press, Edinburgh 2016*,* p. 176.
[26] G. Bachelard, *Intuition of the Instant,* cit., p. 16.
[27] H. Bergson, *Remarks on the Theory of Relativity*, in "Enactivism and French Philosophy" VIII/1, 2020, p. 171.
[28] H. Bergson, *Remarks on the Theory of Relativity*, cit., p. 171.
[29] A. Einstein, *On the Electrodynamics of Moving Bodies*, in "The Principle of Relativity: Original Papers", CreateSpace Independent Publishing Platform 2015, p. 5.
[30] H. Bergson, *Remarks on the Theory of Relativity*, cit., p. 171.
[31] G. Bachelard, *Intuition of the Instant,* cit., p. 17.

it comes to discussions of time. To use the words of Daniel Parrochia, Bachelardian time is both «discontinuous» and «quantitative»[32]. Bachelard argues in his epistemological writings that mathematical reasoning forms the basis for rationality and philosophical discourse. Here, the argument is taken a step further: mathematical rationality ought to instruct and inform our cognitive experiences. Bachelard does not deny the experience of duration, but by emphasizing the instant as the source of time «durations... Can no longer be anything other than sets of instances»[33]. Additionally, if time is to be found in the instant, then the organizing principle utilized to understand time must be grounded in the relation between instances.

Rejecting substantivalism results in embracing relationism. From a relational perspective, time «is just a property of or a set of particular relations between other things»[34]. The *reality* of time, in this view, is a product of the relational connections which exist between events or instances. While Bachelard rejects the notion of substance at an ontological level, its antithesis (relation), is posited in its place. The new sciences, specifically relativity, may be «constituted as a system of relations»[35], emphasizing «links rather than objects», and the creation of a methodology whereby content receives «meaning only through this relation»[36]. This notion of relation has a direct impact on Bachelard's understanding of time; it's relation all the way down, so to speak. Time, within relativity, is subject to the individual's frame of reference. This hold true metaphysically in the sense that there is no shared duration between individuals; but, it also holds true phenomenologically or psychologically. Even temporally tensed states like *the past* can be defined or even redefined by its relation to the present. As Teresa Castelão-Lawless explains, Bachelard derives from Einsteinian relativity the principle that «discontinuity existed in matter, in history, and in consciousness»[37]. It is the «in consciousness» portion that will be of special concern to this paper. Leaving aside the metaphysical and ontological questions related to relational models of time, the upshot of

[32] D. Parrochia, *Temps Bachelardien, Temps Einsteinien: la Critique de la Durée Bergsonienne*, in *Gaston Bachelard and Henri Bergson: Continuité et Discontinuité: Une Relation Philosophique au Coeur du XXe Siècle en France*, F. Worms, J.J. Wunenburger (ed. by), 2006, p. 155.
[33] D. Parrochia, *Temps Bachelardien, Temps Einsteinien: la Critique de la Durée Bergsonienne*, cit., p. 155.
[34] S. Power, *Philosophy of Time: A Contemporary Introduction,* cit., p. 10.
[35] G. Bachelard, *La Valeur Inductive de la Relativité,* Librairie Philosophique, Paris 1929, p. 68.
[36] G. Bachelard, *La Valeur Inductive de la Relativité*, cit., p. 68.
[37] T. Castelão-Lawless, *Is Discontinuous Bergsonism Possible?* In "AGTHOS: An International Review of the Humanities and Social Sciences", I, 2010, p. 31.

Bachelard's argument is really aimed at explaining temporal consciousness. Of special interest here is the relationship between time and memory. Yet, in positing discontinuity over and against Bergsonian continuity, Bachelard places a paradox at the heart of our temporal experience: although time is inherently discontinuous, we experience it as continuous.

2. The Construction of Past and Memory

The constructive nature of temporality is rooted in what Bachelard calls a «philosophy of repose»[38] or a «psychology of annihilation»[39]. Bachelard uses strong diction in an attempt to highlight the existence of temporal gaps. As opposed to the continuous unity of temporal duration found within Bergson's account of time, Bachelard argues that experiential time is rooted in the discrete instant. Kotowicz, commenting on this point, states that «the instant has no recourse to a previous instant, that is, to memory» and that «the instant does not anticipate its future either»[40]. In other words, successive states are found when we move from one point in time to another, but that does not imply that we are moving along a temporal continuum. To illustrate the discontinuous nature of time, Bachelard employs atomistic language to describe the instant. When describing the relationship between instances Bachelard outlines the «space» existing between temporal moments as «nothingness», or «the void»[41]. Much like the atomist's understanding of fundamental matter, the consequence of Bachelard's understanding of the relationship between instances is that this correspondence allows for a temporal swerve. Bachelard characterizes Bergson's philosophy as a «philosophy of fullness» because there is always «life behind our life»[42]. That is to say the Bergsonian past represents a temporal continuum in the life of the individual that is *moving* in a particular direction; i.e., towards the future. Here Bachelard is affirming the opposite. As Monika Wulz explains, the instant is «disconnected in a temporal dimension: there is no connection

[38] G. Bachelard, *The Dialect of Duration,* cit., p. 5.
[39] *Ivi,* p. 8.
[40] Z. Kotowicz, *Gaston Bachelard*, cit., p. 173.
[41] G. Bachelard, *The Dialect of Duration,* cit., p. 19.
[42] *Ivi,* p. 16.

between an entity and the past»[43]. Bachelard's understanding of the instant creates a «permission to act», or the ability of the individual to «think» over and against their preconditioned past or life's direction[44]. By denying any sort of ontological substantive nature to experienced time, Bachelard creates space for action that is not dictated by the past.

While the constructive nature of temporality may provide explanatory power, it also presents an intrinsic challenge to Bachelard's temporal philosophy. To use the words of Marc Richir, «the continuity of duration presents itself not as an immediate given», as it does with Bergson; but rather, it poses «a problem» for Bachelard[45]. The same repose or nothingness that gives the instant freedom, also raises the question of the intelligibility of a metaphysics predicated on discontinuity. In short, how is duration formed from isolated instances? Discontinuity is important to Bachelard's project because it is a catalyst for possibility and action. The conscious act takes place in this space between instances; a space, that allows for movement or creativity of thought because it is not inherently or causally linked to the previous instant. As a result, the instant «isolates us from ourselves» as it «breaks with our most cherished past»[46]. A synthesis happens in the inculturation of the conscious act, in which bonds and relationships are constructed between self-contained instances. The physicist constructs their theoretical framework on the basis of mathematical reasoning, which is employed to elucidate empirical phenomenon. In theoretical science synthesis occurs between rationalistic principles and the observations that they explain: Bachelard's merger of the «knowing mind and the known world»[47]. An analogous synthesis is at work in our conscious experience of time. Bachelard, borrowing an expression from Paul Valéry, refers to the psychological process of synthesizing temporal sequences as an «algebra of acts», wherein the individual imparts causal unity «to the most varied of actions»[48]. Bachelard

[43] M. Wulz, *Intervals, Possibilities and Encounters: The Trigger of a Ruptured History in Bachelard*, in *Conference History and Epistemology. From Bachelard and Canguilhem to Today's History of Science*, H. Schmidgen (ed. by), Berlin 2012, p. 78.
[44] G. Bachelard, *The Dialect of Duration*, cit., p. 28.
[45] M. Richir, *Discontinuités et Rythmes des Durées: Abstraction et Concrétion de la Conscience du Temps*, in *Rythmes et Philosophie*, P. Sauvanet, J.J. Wunenburger (ed. by), KIME, Paris 1998, p. 94.
[46] G. Bachelard, *Intuition of the Instant*, cit., p. 6.
[47] G. Bachelard, *The Philosophic Dialectic of the Concepts of Relativity*, translated by Forrest W. Williams, in *Albert Einstein: Philosopher-Scientist*, Cambridge University Press, Open Court 1949, p. 565.
[48] G. Bachelard, *The Dialect of Duration*, cit., p. 72.

details this further by stating «when I say that a phenomenon taken as a whole changes from state A to state B, what I mean is that between A and B there are myriad details and accidents which I ignore but which it is always in my power to indicate»[49]. As a result, Bachelard explains that, «Durations are first of all *formed*»[50]. That is to say, duration is formed or constructed through an intellectual act of the psyche, a «willed order»[51] which is externally imposed on temporal phenomena, and whereby the individual imparts causal significance on events.

For Bachelard, there are two characteristic features of time: the instant and duration. These categorizations of time are fundamental because they are structurally related to one another. The instant is metaphysically basic to the structure of time, while duration emerges through a process of rational construction, which occurs at a higher level. The status and role of the instant is unique in Bachelard's philosophy of time because, as Hashizume Keiko points out, the instant is «the only time when creation could happen»[52]. The status of the instant, specifically its «solitude»[53], or its temporal isolation from other instances, offers the individual freedom to act. The instant is a temporal location of change and creativity, an opportunity for newness, which allows the individual to reimagine, recreate, or change directions. Isolating the instant creates space for causal indeterminacy with respect to temporal sequences. The word indeterminate is used here because the culmination of a sequence of actions includes «myriad details»[54] which result in a blurred image of the past event. Invoking theological language, Bachelard calls this psychological blurring of details «grace». Grace «does its best to erase the discontinuities of the learning process and gives unity to the most varied of actions»[55]. The metaphysical ramifications of this position, leads Bachelard to ultimately depart from Bergson. In other words, the causal links which are established between instances are «examples of transitive states»[56] and not substantive

[49] *Ivi*, p. 65.
[50] *Ivi*, p. 78.
[51] *Ibid*.
[52] H. Keiko, *Bachelard's theory of time: Missing link between science and art*, in "Aesthetics: The Japanese Society for Aesthetics", XIII, 2009, p. 2.
[53] G. Bachelard, *The Intuition of the Instant,* cit., p. 6.
[54] G. Bachelard, *The Dialect of Duration*, cit., p. 65.
[55] *Ivi*, p. 73.
[56] *Ivi,* p. 64.

duration. They are transitive, tentative, and lacking any ontological primacy. The links individuals establish between instances are «not real»[57]. Rather, these links are perceived subjectivity and result in an «emergence, a composition»[58].

If the instant is defined by its discontinuity then, contrariwise, duration is characterized by its temporal extension or the psychological formation of coherent temporal sequences. Keiko explains that, for Bachelard, duration is a way «in which the past and the future could be divided <artificially>»[59]. In this respect, the critical difference between the two is the «reality of the instant» verses the artificial nature of duration[60]. Bachelard notes that human life is, «full of repetitions and anachronisms, full of trails, setbacks, resumptions»[61]. In many respects, the narrative that an individual constructs about themselves is structured temporally in a similar way to that of the history of science. «Current [scientific] knowledge», explains Bachelard, is the product of «polemical reasoning» or the uniting of dialectical movements in thought[62]. The story of science is the story of overcoming epistemological obstacles or hindrances to the *progress* of scientific development. Accidents, breaks with the past, or failures of continuity therefore «lie at the root of every evolutionary attempt» [63], whether we are talking about the history of science or the history of an individual. Although time is discontinuous, consisting of varying events, Bachelard claims that our sense of duration is based on these accidental events. Specifically, duration is based on the «density» of time. The closer the events occur to one another, temporally speaking, the fuller the time. From this proximity, the individual superimposes a sense of continuity on a period of time. As a result, Bachelard claims that continuity «is not given but made»[64]; meaning, any continuous event that we experience is a result of intellectual construction.

The artificial nature of duration carries important implications for our psychological experience of time. Furthermore, Bachelard's statements on duration are indicative of the

[57] *Ibid*.
[58] *Ivi,* p. 62.
[59] H. Keiko, *Bachelard's Theory of Time*, cit., p. 2.
[60] G. Bachelard, *Intuition of the Instant,* cit., p. 6.
[61] *Ivi,* p. 13.
[62] G. Bachelard, *The Philosophy of No,* cit., p. 119.
[63] G. Bachelard, *Intuition of the Instant,* cit., p. 13.
[64] G. Bachelard, *The Dialectic of Duration,* cit., p. 34.

influence of early psychology on his philosophy of time. Reflecting on the nature of time and memory Pierre Janet explains that «Duration is based on effort»[65], and as a result «time is nothing but a story»[66]. Time is a «story», a narrative told by the individual to explain «a relation between historical facts»[67]. In this respect, temporal sequences are malleable, and for Bachelard, this highlights the nondeterministic nature of psychological causation. Drawing a comparison to microphysics, Bachelard explains that «antecedent duration does not *propel* the present and that the past does not weigh upon the future»[68]. The future is not determined by the past in a strict deterministic sense. Successive states are found when we move from one point in time to another, but we are not moving along a continuum. Duration becomes a category which we impose upon a sequence of events and not a fundamental feature of the sequence itself. The malleability of temporal sequences has been expanded upon more recently by Hinton Ladson who states that the act of remembrance is the act of «continually recreating the past»[69]. Ladson goes on to explain that memories «can never be recovered in an unmodified form within the constraints of the present»[70]. Rather, the act of remembrance itself oftentimes shapes and recreates the past. All of this conforms to Bachelard's understanding of *past*, which he says consists of various fragmented instances of time. The act of remembering incorporates a sort of reintegration and construction of these fragments of time, which subsequently combines them into a recognizable whole. Regarding Bachelard's explanation of the construction of temporal duration, Kotowicz explains that «Just as perspective is a construct which assures that each object has a definite location in space, duration is a construct which enables us to link up memories and organize our narratives»[71]. Memory then, as a recollection of events which have occurred in time, is a dynamitic and ever evolving process by which we recall and reconstruct our past. Continuity

[65] P. Janet, *L'évolution de la Mémoire et de la Notion du Temps,* College de France, Paris 1928, p. 35. http://classiques.uqac.ca/classiques/janet_pierre/evolution_memoire_temps/evolution_memoire.html
[66] P. Janet, *The Evolution of Memory and the Notion of Time,* cit., p. 35.
[67] *Ivi,* p. 100.
[68] G. Bachelard, *The Dialectic of Duration,* cit., p. 65.
[69] H. Ladson, *Temporality and the Torments of Time*, in "Journal of Analytical Psychology", LX/3, 2015, p. 354.
[70] *Ivi*, p. 363.
[71] Z. Kotowicz, *Gaston Bachelard,* cit., p. 176.

or duration results from the individual consciously, or subconsciously, seeking to make sense of change.

Memories that stand out to an individual are largely subjective in terms of their perceived importance and, as a result, Bachelard claims that «we are free to decide what is urgent»[72]. According to Bachelard, the ascription of meaning to temporal sequences is ultimately the result of a second order rational process. Bachelard explains that «our personal history is therefore simply the story of our disconnected actions and, as we tell it, with the help of reasons»[73]. In other words, the individual imposes a form of continuity or duration on his or her past through the use of reason. We seek to explain and make sense of the events which have happened to us when, in reality, there is no unbroken causal linkage between these events. The self could be considered a rational construct, which shares the same sort of ontological reality as duration. For the most part, our sense of self lies in the past and according to Bachelard, «knowing ourselves means finding ourselves again in these scattered personal events»[74]. The meaning that the individual derives from these events is therefore dynamic and subject to change. Russell Meares explains that the narrative self is «defined by its form», but that this form is «interrupted from time to time… by another kind of narrative…[that] represents, in the present, a repetition of past impingements»[75], Bachelard does not focus on delineating temporal ontology, choosing instead to emphasize the relationship between self, time, and memory. He analyzes the dynamitic interplay between these three categories, resulting in a diachronic sense of self.

3. Rhythamanlysis

Bachelard's method of rhythamanlysis is introduced at the end of his *DD*. The method, initially developed by the Portuguese philosopher Lúcio Alberto Pinheiro dos Santos, is used by Bachelard to explain the «essential polarity of mental life»[76]. Given the metaphysical considerations outlined in the previous section, rhythm emerges as a means to explain the

[72] G. Bachelard, *The Dialect of Duration*, cit., p. 49.
[73] *Ivi,* p. 41.
[74] *Ivi,* p. 42.
[75] R. Meares, *Episodic Memory, Trauma, and the Narrative of Self*, in "Contemporary Psychoanalysis", Oct. 1995, p. 541.
[76] G. Bachelard, *The Dialect of Duration,* cit., p. 134.

structure of time, specifically psychological time. On a surface level, the time of our lives seems to develop in a certain direction; after all, our lives unfold from the past, to the present, and eventually into the future. Subsequently, it is natural to assume a simple temporal progression, directionality, or movement to time. Yet, the time of our lives also fluctuates and undulates with levels of intensity, action, and freedom. Rhythamanlysis, as Jean-Jacques Wunenburger explains, is a method that «makes possible a philosophy of the complexification of physical and psychic reality», which allows for transformation and change that is «not the result of a linear repetitive mechanism»[77]. Duration emerges from the rational linking of isolated instances. Rhythm, as an organizational method, allows the individual to establish links between instances, and even possesses the capability of linking those instances which have a distinctively vertical, or nonlinear, quality. The non-linearity of temporal rhythms also permits the individual to establish a connection between previously unrelated instances. That is to say, temporal rhythms may be subject to change and even reinterpretation. Bachelard, for example, claims that childhood «is the source of all of our rhythms»[78]. Childhood is the location where all of our rhythms start, and the memories of childhood tend to shape and inform the tone in tenor of our adult rhythms. Nevertheless, Bachelard claims these childhood rhythms continue to manifest as a «possibility for us», in that they are «always opening a limitless future to our dreams»[79].

There is a historical, as well as methodological, connection here between Bachelard's method of rhythamanlysis and early psychoanalysis. Bachelard's relationship with psychoanalysis is complicated. To begin with, several of his major works have an overtly psychoanalytical theme, such as *The Psychoanalysis of Fire* and *The Formation of the Scientific Mind*: *A Contribution to a Psychoanalysis of Objective Knowledge*. The tricky part of Bachelard's use of psychoanalysis, as is typically the case when he engages with various disciplines, is the way in which he reformulates concepts. In the forward of *The Formation of the Scientific Mind*, Bachelard argues that the «task» of the philosophy of science «is to

[77] J.J. Wunenburger, *Force et Résistance, le Rythme de la Vie Rythmes et Philosophie*, in *Gaston Bachelard and Henri Bergson: Continuité et Discontinuité: Une Relation Philosophique au Coeur du XXe Siècle en France*, F. Worms, J.J. Wunenburger (ed. by), 2006, p. 52.
[78] G. Bachelard, *The Dialect of Duration,* cit., p. 138.
[79] *Ibid*.

psychoanalyze interest» and «to turn them on for the real to the artificial, from the natural to the human, from representation to abstraction»[80]. An essential component that Bachelard borrows from psychoanalysis is the therapeutic component of identifying the root of problems in order to correct or heal them. In the *DD*, Bachelard associates Freud with what he calls the «cathartic method» in which «repression is either liberated or corrected»[81]. The cathartic method is, therefore, applicable to bodies of knowledge in the same way that it is therapeutically applied to the individual. As Kamila Morawska has pointed out, Bachelard uses psychoanalysis as «a method of access to both the level of science [epistemological obstacles] and the origins of images (art)»[82]. Yet, Bachelard will distance himself from pure psychoanalysis due largely to the metaphysical positions related to his philosophy of time.

Bachelard's primary criticism of psychoanalysis is that it «underestimated the conscious, rational life of the mind»[83]. As outlined above, a fundamental metaphysical component of time is its constructive nature. With respect to the individual, and the subjective experience of time, there is room for flexibility and freedom of interpretation of the temporal narrative. Cristina Chimisso has argued that there is an overarching moral component to Bachelard's work, and with respect to Bachelard's philosophy of time and the connection with psychoanalysis, we can surmise that Bachelard was positing «a kind of therapy»[84]. Psychological analysis of the experience, and significance, of time is placed seamlessly alongside logical and physical observations about the nature of time. While Bachelard does not explicitly engage with the ontology of time via physics, he often takes the implications of physical theories as a given. «When it comes to systems in motion», explains Bachelard, «the relativity of lapsed time is henceforth a scientific fact»[85]. Given this position, the problem that Bachelard is preoccupied with is how exactly this relativistic, or relational, understanding of time applies to the conscious experience of time. The emphasis here, in lieu

[80] G. Bachelard, *The Formation of the Scientific Mind,* translated by Mary McAllester Jones, Clinamen Press, Manchester 2002*,* p. 21.
[81] G. Bachelard, *The Dialectic of Duration,* cit., p. 133.
[82] K. Morawska, *Gaston Bachelard's problems with Psychoanalysis. Between Freud and Jung*, in "Bachelard Studies - Études Bachelardiennes- Studi Bachelardiani", II, 2022, p. 43.
[83] G. Bachelard, *The Dialect of Duration,* cit., p. 133.
[84] C. Chimisso, *Writing the History of Mind: Philosophy and Science in France, 1900 to 1960,* Routledge, London 2016*,* p. 123.
[85] G. Bachelard, *Intuition of the Instant,* cit., p. 17.

of the metaphysical and ontological positions Bachelard derives from physics, is on the psychological or conscious experience of time. Rhythamanlysis, in this regard, may be understood as a psychological model, a model meant to explain the conscious experience of time.

Temporal rhythms are important to Bachelard principally because of the composition of time. There is «layeredness» to time in the sense that «We weave the fabric of duration by placing concrete instances one after the other»[86]. Each instant contains its own «richness» in the levels of consciousness contained therein. The grouping of instances gives the individual a sense of duration and allows them to construct a temporal narrative. While this in no way constitutes an absolute category, we are able to realize that the «relative richness of instances sets up for us a sort of relative measure of time»[87]. The relativity of time, even the relativity of instances, is highlighted here, because even in the present moment there can be fundamentally distinct qualitative differences in the individual's experience of time. Namely, Bachelard makes a distinction between «horizontal» and «vertical» or «poetic» time. Horizontal time has several characteristics, or forms. Examples of horizontal time may include the time of «other people»[88]; that is to say, the «social framework of time»[89]. Incorporated within this category would also be the time «of the world», or the time of «things», as well as the time of our lives, or the individual's «own time»[90]. The *horizontalness* of horizontal time stems from the repetitiveness of its experience and the corresponding mundaneness resulting therefrom. When speaking about the nature of horizontal time, Bachelard often paints it in an overtly negative way, claiming that we are «imprisoned in horizontal time»[91]. Subsequently, horizontal time is something which we need to be «liberated» from, and our liberator comes in the form of vertical time. If horizontal time is characterized by its mundaneness, then vertical time is characterized by its «active» or

[86] *Ivi,* p. 50.
[87] *Ivi,* p. 27.
[88] G. Bachelard, *The Poetic Moment and the Metaphysical Moment*, in *The Right to Dream,* translated by J.A. Underwood, The Dallas Institute Publications, Dallas 1988, p. 174.
[89] G. Bachelard, *The Poetic Moment and the Metaphysical Moment*, cit., p. 175.
[90] *Ibid*.
[91] *Ibid*.

«dynamitic» nature[92]. As Jessica Wiskus explains, the verticality alluded to in the descriptor *vertical* is best thought of as a «fold» rather than a straight line. To use Wiskus' words, this is «not a thinking "above" thought, rather, a thinking folded through itself, as an additional dimension»[93]. Vertical time often involves a sort of self-reflection, and Bachelard characterizes this moment as a dialectical movement «between two opposites», or the «awareness of an ambivalence»[94]. Yet, despite the differences, Bachelard emphasizes that both horizontal and vertical time are brought together and rationally organized into a whole.

Throughout his *DD,* Bachelard is primarily dealing with the psychological construction of duration, or what he calls «duration through reason»[95]. He draws a parallel between duration constructed by reason and musical rhythm. Just as musicians develop a specific rhythm for a song, so human beings construct a rhythm (duration) out of instances. The musician strings individual notes together, which the listener interprets as a rhythm/melody. Conrad Russell points out that one of Bachelard's most famous analogies of duration comes from music[96]. Despite its instrumental composition, Keiko or its rhythm, when we hear a song, we think of it as a *whole*, or as a duration. Of course, Bachelard would not deny this perceived duration, but he would point out that the songs' harmony is a self-imposed construct. With respect to skill, the repeated performance of a song does not consist of simple repetition. At each moment of the repeated performance the musician strives to produce harmony because there's not a necessity to skill or duration. Likewise, and revisiting the connection with time, a skill or habit is not something which is simply repeated; rather, it must be performed again, revised, or «remade». As Russel argues, this moment of remaking «breaks the flow of time-repetition, to survive, must involve a negation, as well as an affirmation, of previous repetitions»[97]. Each instant presents the performer with a chance to break with the past, the opportunity to break the harmony. In this sense the struggle of the

[92] G. Bachelard, *The Poetic Moment and the Metaphysical Moment*, cit., p. 174.
[93] J. Wiskus, *Thought Time and Musical Time*, in "Angelaki: Journal of the Theoretical Humanities", XI/2, 2006, p. 181.
[94] G. Bachelard, *The Poetic Moment and the Metaphysical Moment*, cit., p. 174
[95] See especially chapter three of *The Dialectic of Duration.*
[96] C. Russell, *Fictive Time- Bachelard on Memory, Duration, and Consciousness*, in "KronoScope", 2005, pp. 3-20.
[97] C. Russel, *Fictive Time-Bachelard on Memory*, cit., p. 7.

performer is to keep, maintain, or create a harmony that is not inherently present within the fragmented notes. Sticking with this analogy, a musical composition, much like time, «refers to a discontinuous form which reconstitutes itself»[98]. Technical proficiency, in musical skill, comes from the ability to recreate or reconstruct a performance. Creativity, on the other hand, stems from the ability to depart from or reimagine past or traditional performances. A musical composition appears to the listener as if it were a unified whole, when in fact, it is not. Likewise, time, as experienced in day-to-day life, appears to us a continuous sequence of events, when in fact, it is not. Keiko explains that, for Bachelard, when we reflect on our lives we «unite instances and create false duration»[99].

It is through the use of metaphor that Bachelard believes we can reach «real time». Real time refers to those durations which are «lived, felt, loved, sung, and written about in literature»[100]. The rhythmic movement of a song is analogous to how the individual experiences the movement of time, and the superimposition of duration allows the individual to experience continuity. Of course, the metaphor of duration is limited in the same way that all metaphors are; namely, it is an abstraction which can only grasp reality indirectly. At the end of the day, the individual perceives continuity «only because of heterogonies that have become blurred»[101]. Once again, Bachelard returns back to this idea of density. The listener who hears a song perceives the notes as connected and as a result perceives the rhythm of the song. Individual notes form a rhythm because of their density, that is, their temporal proximity, and sequence. Bachelard explains that the «identity of a complex entity will transcend the diversity of detail; something will in a way be completed by their symmetry»[102]. The rhythm of the song emerges out of the individual notes, yet the notes themselves do not individually make up the rhythm. It is important to remember that density and temporal sequencing are not concrete categories even within the context of the individual's construction of duration. As Bachelard emphasizes, «music's action is discontinuous; it is our emotional resonance that gives it continuity»[103]. The logical force of relativity

[98] G. Bachelard, *The Intuition of the instant,* cit., p. 55.
[99] H. Keiko, *Bachelard's Theory of Time*, cit., p. 4.
[100] G. Bachelard, *The Dialect of Duration,* cit., p. 109.
[101] *Ivi,* p. 110.
[102] *Ivi,* p. 111.
[103] *Ivi,* p. 112.

reverberates down to the individual level. The significance of a piece of music is not determined by a concrete formula, but rather by the emotions that it evokes for the individual. A similar mechanism is at play with respect to the individual's experience of time. According to Bachelard, we must keep in mind that there is an «essential relativism of rhythmic superimposition»[104]. Rhythmanalysis, therefore, is not a straightforward measurement of absolute time or absolute duration; rather, the sense of time is derived from the synthesis of instances. Continuity, or the individual's sense of personal time, is formed by the individual bringing together two opposing instances into one new concept, duration.

Rhythm emerges as a sort of organizing principle which brings together disparate instances of time. In this way, rhythm can be understood as the recognition of patterns which emerge in the temporal landscape of the individual's consciousness. Sticking with the music metaphor, Bachelard makes another comparison of our temporal experience to that of an orchestra. As outlined before, there are various sorts of horizontal time such as the time of objects, of other people, and of ourselves. These different sorts of times can be thought of as different instruments. The «cadence» of the orchestra «is conducted in keeping with a musical measure imposed by the cadence of instance»[105]. Bachelard's understanding of temporal rhythm is analogous to the concept of cadence employed in this particular metaphor. Rhythm here provides a measure of consistency or cohesion to the experience of the various instances or different *types* of time. According to Kristupas Sabolius, Bachelard's understanding of rhythm may be understood as «the principal according to which all things undergo change in intelligible ways»[106]. Rhythmanalysis can be understood as the process whereby the individual organizes and attempts to make sense of their various temporal experiences. The logical process Bachelard derives from the natural sciences comes to the forefront here. As is the case with relativity, there is a synthesis happening between the internal and the external, or the time of the external world and the time of the individual. As Sabolius explains, «the rhythms of the imagining consciousness and the rhythms of matter reach the highest

[104] *Ivi,* p. 116.
[105] G. Bachelard, *Intuition of the Instant,* cit., p. 26.
[106] K. Sabolius, *Rhythm and Reverie: On the Temporality of Imagination in Bachelard*, in *Adventures in Phenomenology: Gaston Bachelard*, E. Rizo-Patron (ed. by), State University of New York Press, New York 2017, p. 64.

coincidence, amplifying the experience of the very given moment and creating a cosmological resonance that helps us to commune with the world»[107]. Rhythmanalysis is the embodiment of Bachelard's synthesis of the «knowing mind» and the «known world» and, as a result, is the way in which the individual comes to intelligibly understand themselves in relation to the world.

Returning to the quote by Janet mentioned in the previous section, we tend to think of our past as a story. «Time», with respect to memories and our past, is generally interpreted as «the whole that groups the stories»[108]. The story of our past is defined and contextualized by our memories, and the natural assumption of time is a sort of container of those memories. Janet refers to time in this view as a «basket» in which memories «are stored»[109]. The question posed by Janet, and developed by Bachelard, is whether or not this basket «is a real being», and not «a kind of story» itself? Bachelard's metaphysical argument, derived from the natural sciences, is that a rationalization takes place which brings coherence to certain brute facts. Duration, or extended temporality, is constructed through rationalization. In this respect, there is an intimate connection between time and memory. Yet, as Jordi Fernández points out, memories represent «intentional states» rather than passive ones[110]. «Memory experiences» in this respect are «similar to perceptual experiences»[111]. The experience of a memory, and its subsequent interpretation by the person who has experienced it, is consequently an active process. Rhythmanalysis acknowledges the dynamitic process of memory, and the time in which these memories rest. This is a time that «undulates like a wave» with its different levels or «frequencies»[112]. Most importantly Rhythmanalysis allows the individual to reinterpret the past, to pivot or swerve like Epicurus' atom. «What coordinates the world», explains Bachelard, «is not the force of the past» but the «harmony… the world is poised to realize»[113].

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[107] K. Sabolius, *Rhythm and Reverie*, cit., p. 68.
[108] P. Janet, *The Evolution of Memory and the Notion of Time,* cit., p. 38.
[109] *Ibid*.
[110] J. Fernández, *Memory*, in H. Dyke, A. Bardon, *A Companion to the Philosophy of Time*, John Wiley & Sons, New York 2013, p. 436.
[111] J. Fernández, *Memory*, cit., p. 436.
[112] G. Bachelard, *The Dialect of Duration,* cit., p. 124.
[113] G. Bachelard, *Intuition of the Instant,* cit., p. 54.

4. Conclusion

Gaston Bachelard's exploration of the relationship between time and memory challenges conventional notions that perceive the past as a mere container for memories. In turn, Bachelard presents a relational view of time, emphasizing the dynamic and constructive nature of the connection between memories and temporal experiences. His metaphysical position redefines duration as a rational construct, rejecting the fixity of past temporal events. Central to Bachelard's perspective is the concept of rhythmanalysis, a process that allows individuals to make sense of the diverse temporal experiences which they have experienced over the course of their lives. Unlike the common perception of the past as a fixed series of memories, Bachelard sees memories and the past as fluid entities open to continuous interpretation. Memories, for Bachelard, are intentional, active states rather than passive recollections, and the process of remembering involves a dynamic interplay between perception and interpretation. In essence, Bachelard's philosophy invites us to reconsider the traditional narrative of our past as a linear story contained within the framework of time. Instead, he prompts us to view the past as a dynamic and harmonious interplay of memories, where the individual has the agency to reinterpret and construct meaning. By challenging the fixity of the past, Bachelard opens up new avenues for understanding the intricate relationship between time and memory. The true essence of the past lies not in the deterministic force it exerts on the present, or future, but rather in our ability to continuality interpret and find new meaning in our memories.