

ABSTRACT LIFE

Practices of Abstraction in Deleuze, Whitehead and Bergson

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In his lectures on Kant Gilles Deleuze tells us that once you reach the abstract you reach the most fully living core of experience. «True lived experience», Deleuze says, «is an absolutely abstract thing»¹. Abstraction is a fundamental process of life. It is not opposed to the concrete but is the becoming concrete – the «concrecence», the extraordinary English word that Whitehead presses into circulation again - of reality. In what follows I will argue that Deleuze, Whitehead and Bergson share a similar approach to abstraction, an approach that is fundamentally «pragmatist» (broadly construed, close to James Williams' «fantastic» pragmatism²). Leaning on William James one name for this shared approach methodologically is radical empiricism and is best understood in my view in the context of process philosophy. Although they share a similar approach, I will point out some differences between the radical empiricists in the way they think about some of their own key abstractions engaging the themes of relation, becoming and time. All three thinkers give us abstractions for thinking life as the creation of the new.

1. The Abstract Image

In the Western philosophical tradition the key image for thinking the abstract is the taxonomic tree of kinds, classes and types. One moves up through levels of generality to the highest abstracta and then down to ever more concrete particulars, instances or tokens. Perhaps our best-known example of this is the movement of the dialectic that Plato associates with Socrates: one must track down the higher Forms or Ideas in the things which participate in them, ensuring that the lines are pure and unmixed. This procedure operates in accordance with the fixed classes and divisions of the tree and is guided by the question «*What is X?*». One of the first examples of this in Plato is in the *Phaedo* where Socrates shows his interlocutors how unequal sticks or logs communicate with the «equal itself». For our radical empiricists modern philosophy tends to continue a Platonism of the abstract whether an emphasis on the reality of wholes, totalities and conditions of a broadly construed rationalism, or, in the centrality of atoms, parts and individuals for empiricism. Modern science, likewise, often announces its ideas in the abstractions that it seeks to overturn. Dewey's essay *The Influence of Darwin on Philosophy*, for example, turns on this.

The radical empiricists give us another image of abstraction, perhaps we should say an imageless image, not just a reversal or an inversion but an overturning and a flattening out of the Platonic image. Perhaps William James' notion of «pure experience» gets close to this in some ways. Instead of an arborescent model (as Deleuze and Guattari would call it) or form that subjects its contents to fixed

¹ Gilles Deleuze, Seminar on Kant, 3/21/1978 online at <https://deleuze.cl.purdue.edu/seminars/kant-synthesis-and-time/lecture-02> (Trans. Melissa McMahan).

² See J. Williams, *Fantastic Pragmatism*, in this *Nóema* Issue, and also the following link: <https://www.jamesrwilliams.net/fantastic-pragmatism/>

movements of ascent (to the genera or the totality) and descent (to particulars or the discrete) guided by principles of similarity, resemblance and identity the radical empiricists construct a different kind of abstract space, more rhizomatic, anterior to the up/down and high/low of the Platonic tree, compelling its components into movements of endless divergence and continuous variation. In place of starting with abstract Forms and asking how they are realized in the world, or extracted from it, the radical empiricists ask under what conditions something new comes into the world. Rather than a process of extracting a pure form or emptying a space of its concrete content Deleuze, Whitehead and Bergson rethink the notion of the abstract as a living practice of philosophy, a mixing and growing together of abstract elements in which the «And» (Deleuze), «actual occasions» (Whitehead) or «durations» (Bergson) create «a line of variable direction, that describes no contour and delimits no form»³.

There are then at least two types, models or practices of abstraction: the first type that begins with Plato (and behind him Parmenides and the Eleatics), and remains more or less in place in much of modern philosophy. I will call this «spatial abstraction». Spatial abstractions tend toward stasis, separability, identity and the discrete. The second type could be traced back to Heraclitus and others besides (more recently, some of the pragmatists and post-structuralists), I will call «temporal abstraction». Temporal abstractions tend toward change, relationality, continuity and difference. These two practices of abstraction do not exist apart from each other (to treat them as if they did would be an abstraction in the ordinary sense). They are not oppositions as such but inseparable forces or tendencies toward stasis and change at work within any experience. Thus, we postulate a third type of abstraction – spatio-temporal abstractions. One way to describe spatio-temporal abstractions or multiplicities is in terms of a becoming-space of time and a becoming-time of space. Bergson's famous term for this is «duration» which Deleuze glosses in his *Bergsonism* as the division of the present moment into two asymmetrical jets, «one oriented and dilated towards the past and the other contracted, contracting towards the future»⁴. This splitting of time is present in most of the radical empiricists, in different ways, and each will insist that the splitting is an ongoing activity which cannot be recomposed from the two jets and added together; nor can the splitting be understood independently of space. The splitting of time is necessarily spatial since succession tends toward extension for the relation between past and future to be expressed. This opens the possibility of a radical reconceptualization of abstraction and life along a spatio-temporal continuum. However, for the most part for the radical empiricists Western philosophy has favored practices of abstraction of the first and second type at the expense of the third. The basic principle at work here for the radical empiricists is that philosophical problems exclusively conceptualized in terms of either spatial or temporal abstractions must be rethought and re-articulated as spatio-temporal abstractions in order to avoid all kinds of «illusions» (Deleuze and Guattari), «fallacies» (Whitehead) or «false problems» (Bergson).

³ G. Deleuze and F. Guattari, *A Thousand Plateaus*, Athlone, London 1988, p.499.

⁴ G. Deleuze, *Bergsonism*, Zone Books, New York 1988, p.52 .

2. Deleuze, Guattari and the «And»

In Deleuze's work, and in his collaborations with Guattari, one way this gets worked out is in terms of a thinking with 'And'. Deleuze and Guattari claim that philosophy is encumbered with the problem of being, of the abstract 'Is'. What is this problem? The problem of being is the idea- the «dogmatic image» as Deleuze calls it – of taking what is represented as all that there is, of taking the image of thought for the whole of thought. A simplified version of this is that the world consists of independent individual beings, things or substances that are embedded in space and time (understood as two separate abstract forms rather than co-implicated). On this view things are individuals because they have spatio-temporal location, they are the subject of the predication of properties and there are some properties that distinguish one thing from another. These properties are basic or qualitative and internal. Internal or intrinsic properties are basic to the thing, give it its essence, and make it the kind of things it is. All other properties are external or relational. The metaphysics of being is also foundational for common-sense. Perhaps the key claims are that relations exist but they require *relata*, that is things, beings or objects that stand in relation and that these things must have properties that stand over the relations. Therefore, there must be things in themselves. This metaphysics is internal to thought, a default or illusory image enabling the recognition of itself and things.

Deleuze and Guattari problematize this metaphysics of the Is with a dynamic relational ontology of the And in which there are no things in themselves with intrinsic properties over and above the relations in which they stand. This means that in the domain of the And there are no *relata*. As Deleuze says in an interview, «you see, I don't believe in things»⁵. Relations by definition are not in themselves – they are external to their terms as Deleuze and Guattari say – they are rather in between. For the And it is relations all the way down. Deleuze and Guattari try to effect a decisive break with the ultimate abstraction: the verb to be and its attributes, so that finally Is yields to And. As Deleuze says, «empiricism has no other secret: thinking with And instead of Is. It is quite an extraordinary thought, and yet it is life»⁶.

The paths underlying the spatialized philosophical abstractions of the Is lead back to life and experiences in their wild state. This is the heart of Deleuze and Guattari's process metaphysics. As they say this kind of conceptual experimentation and creativity seeks to «undermine being, make it topple over»⁷ creating a thinking outside of Is, a thinking with the And. In several texts Deleuze and Guattari explicitly contrast the Is and the And and connect this to a new type of empiricism. For example, in his *Dialogues* with Claire Parnet Deleuze says that «in Hume there is something very strange which completely displaces empiricism, giving it a new power, a theory and practice of relations, of the AND»⁸. The new power that Deleuze speaks of here is the autonomous power of relations freed from their subordination to Is, freed from the verb 'to be'. The And is not a specific relation but

⁵ Id., *Negotiations*, Columbia University Press, New York 1995, p.26.

⁶ G. Deleuze and C. Parnet, *Dialogues*, Athlone Press, London 1987, p.57.

⁷ *Ibid.*

⁸ *Ivi*, p.15.

subtends all relations giving them another direction «outside everything which could be determined as Being, One, Whole»⁹. The And is not just an example of a conjunction but a special form of every possible conjunction, constituting its own logic. For Deleuze and Guattari the And is always in between things, freeing up relations from their static terms, enabling conjunctions to escape from their «dominant and conformist use based on the verb ‘to be’»¹⁰. As Deleuze says

when you see relational judgments as autonomous you realize that they creep in everywhere, they invade and ruin everything: AND isn’t even a specific conjunction or relation, it brings in all relations, there are as many relations as ANDs, AND doesn’t just upset all relations, it upsets being, the verb¹¹.

In short, one must actually practice a «thinking with AND, instead of thinking IS, instead of thinking for IS»¹². Thinking with And is learning to creatively think with and alongside becomings.

The key idea that motivates Deleuze’s critique of the «traditional image of thought»¹³ is its commitment to and grounding in the notion of a relatively static, timeless and self-same being, a world of beings or things in themselves supported by a certain conception and use of language (the verb ‘to be’) and judgment (the judgment ‘is’). Here language and judgment conspire together and reinforce each other in the assumption that being, or what the world is like, consists only of identifiable essences, things or objects each of which has a definite spatio-temporal location and a set of determinate intrinsic properties. Such objects causally interact with each other and can, in principle, be fully accounted for in a complete description. This image, for Deleuze, covers over and distorts the operation and genesis of the relations, processes and becomings that constitute thought, experience and life. In place of this image Deleuze proposes a thinking with becoming that «substitutes the And for Is»¹⁴. Thinking with the And provokes the «simultaneously contrary perceptions» of becoming that underlie the model of judgment, a thinking with the intensities and differences that produce being in itself as effects of their functioning.

In other words when Deleuze and Guattari propose to «reverse ontology»¹⁵ they have in mind a certain conception or image of an abstract static being and its attributes that acts as a ground, foundation and network of presuppositions for an explanation of what is. As Deleuze says: «all our thought is modeled, rather, on the verb ‘to be’, IS»¹⁶. For Deleuze the history of philosophy is encumbered with the

⁹ Ivi, p.57.

¹⁰ G. Deleuze, *Negotiations*, cit., p.44.

¹¹ Ivi, p.44.

¹² G. Deleuze and C. Parnet, *op cit.*, p.57.

¹³ G. Deleuze, *Difference and Repetition*, Athlone, London 1994, p. xvi.

¹⁴ G. Deleuze and C. Parnet, *op cit.*, p.57.

¹⁵ G. Deleuze and F. Guattari, *op cit.*, p.25. Deleuze & Guattari write «renverser l’ontologie». Massumi has «overthrow ontology».

¹⁶ G. Deleuze, *Negotiations*, cit., p.44.

whole problem of being in itself and the question of the 'isness' of things. Philosophers «discuss the judgment of attribution (the sky is blue) and the judgment of existence (God is), which presupposes the other. But it is always the verb to be and the question of the principle»¹⁷. If the dogmatic arborescent image with its tree-like structures and branches imposes the verb 'to be' on thought, it is through the rhizome image subterraneously operating through the conjunction 'and...and...and' that thinking makes its escape. This conjunction And, Deleuze and Guattari claim, «carries enough force to shake and uproot the verb 'to be'»¹⁸. Thus, Deleuze and Guattari offer a genetic account of a whole network of interconnected arborescent and spatialized abstractions (substance, individual, universal, particular, identity, similarity, thing, person, subject, object) modeled on the logic of changeless being and the grammar of the verb 'to be' as well as create a new image and plane of thought – Deleuze and Guattari's well-known «plane of immanence» - as much creating new dynamic abstractions (e.g., rhizome, smooth space, body without organs) as revitalizing and transforming traditional ones (becoming, event, difference). As Deleuze and Guattari put it, the point is to «move between things, establish a logic of the AND, [overthrow] reverse ontology, do away with foundations, nullify endings and beginnings». This is, they say, to «practice pragmatics»¹⁹.

3. Deleuze, Guattari and Life.

One of Deleuze's, and Deleuze and Guattari's, best examples of a spatio-temporal abstraction that operates with 'And' is life. For them we can live nothing but the abstract. As Deleuze says «the abstract is lived experience»²⁰, a lived experience that represents nothing. What I live is a thousand spatio-temporal lines, plateaus, intensities or dynamisms that are «completely abstract» and one way that these abstractions are expressed is through what Deleuze, and Deleuze and Guattari, call rhythms. As Deleuze says, «what could be more abstract than a rhythm»²¹. Abstract rhythms are constitutive of organic and non-organic life. They are variable degrees of contraction and relaxation, territorialization and deterritorialization, that range across the strata of the physical, including the most elementary physical events (as Deleuze says «one should therefore conceive of microintervals even in the primeval soup»²²), as well as all the differential levels of consciousness and beyond. Deleuze and Deleuze and Guattari constantly return to this idea of life – both organic and non-organic – as constituted by abstract space-times, movements or rhythms throughout their work.

For example, in the opening pages of Chapter 2 in *Difference and Repetition* Deleuze begins by citing Leibniz's famous thesis of the *mens momentanea*. For Leibniz matter is «instantaneous mind» without recollection of a preceding moment. The nature of the physical for Leibniz is that at each moment it is external to the past

¹⁷ G. Deleuze and C. Parnet, *op cit.*, p.56.

¹⁸ G. Deleuze and F. Guattari, *op cit.*, p.25.

¹⁹ *Ibid.*

²⁰ G. Deleuze, Seminar on Kant, cit.

²¹ *Ibid.*

²² Id., *Cinema I: The Movement Image*, Athlone, London 1986, p.63.

and to the future. Leibniz contrasted this with mind as a present that merges with immediate memory or a mind that repeats the past with a difference. However, by calling matter instantaneous or momentary mind Leibniz points to, but without taking up, a possible new conception of the relation between the physical and the mental, the inorganic and the organic. Deleuze picks up this notion and, in *Difference and Repetition*, considerably deepens it in terms of a repetition for itself that takes place in the mind prior to any active memory or reflection. This is what Deleuze calls a lived or living present, a synthesis of time that contracts the supposed successive independent instants into one another so that the past and the future are not separate instants distinct from the present, but dimensions of the present itself. Every organism is the sum of its contractions, retentions and expectations and is defined by the problem of «habit», the habits that we contract and that we are, but also for Deleuze habits are contractions in the contemplating mind: «it is simultaneously through contractions that we are habits, but through contemplation that we contract»²³. The abstract spatio-temporal rhythms of organic life vary «according to the natural contractile range of its contemplative souls»²⁴. Deleuze describes here rhythms of an organic present that varies from species, individuals, organisms and the parts of organisms. Deleuze uses the example of wheat as a contraction of earth and humidity bound to rhythms of contemplations just as the lily of the field sings the glory of the elements that it contracts in contemplating. Deleuze writes:

All our rhythms, our reserves, our reaction times, the thousand intertwinings, the presents and the fatigues of which we are composed, are defined on the basis of our contemplations. The rule is that one cannot go faster than one's own present – or rather one's presents²⁵.

Much of this analysis is carried through, with little change in terminology, to the conclusion of Deleuze and Guattari's final book *What is Philosophy?* But what we also find in the texts of the seventies and eighties is that Deleuze, and Deleuze and Guattari, increasingly insist on speeds that do exceed one's presents and, indeed, surpass the movements of organic life. Such speeds tend to expand the rhythms or spatio-temporal multiplicities that structure abstract life away from the extensive pole without ever leaving it behind completely. Rather than presents dividing into more extended or overlapping presents the present intensifies and its volumes would become more and more contracted, interpenetrating and distended as the tendency toward heterogeneity and novelty becomes more pronounced and as substance and form become more destratified. From this perspective the organism, Deleuze and Guattari claim, is a limitation of life, «that which life sets against itself in order to limit itself»²⁶. In the deterritorializing movement between organisms an abstract line emerges, a «streaming, spiralling, zigzagging, snaking, feverish line of

²³ Id., *Difference and Repetition*, cit., p.74.

²⁴ Ivi, p.77.

²⁵ *Ibid.*

²⁶ G. Deleuze and F. Guattari, *op cit.*, p.503.

variation {that} liberates a power of life»²⁷ that organisms had confined. This non-organic life that grips the world remains a spatio-temporal multiplicity that pushes the abstract rhythms to new expanded thresholds. In the *Cinema* books Deleuze connects non-organic life to the crystal image and the splitting of time that we described earlier as at the heart of abstract movement. In *A Thousand Plateaus* Deleuze and Guattari tend to emphasize the spatial destratifications that characterize the smoothing of space and the abstract lines, «ceaselessly bifurcating and diverging», that cut across assemblages. In all of these cases we see stratifying movements of the inorganic and the organic and destratifying movements of the organic and the non-organic along a spatio-temporal continuum. In effect, Deleuze and Guattari redefine life as new type of abstract movement, space and time.

4. Whitehead, Actual Occasions and the Becoming of Continuity

This sense of pragmatics and the idea that the abstract does not explain but must itself be explained is, as Deleuze tells us, derived from Whitehead. For Whitehead the explanatory purpose of philosophy is often misunderstood. «Philosophy», Whitehead writes, «is explanatory of abstraction»²⁸, not the other way around. As with Deleuze, philosophy for Whitehead must be the «critic of abstractions» revising them as we go. One key abstraction that requires critical revision for Whitehead is «simple location». Simple location is the idea that an object or a thing can be understood as a clump of matter that exists independently, at any one point, in a single time and space without reference to any other regions of space-time. In particular, simple location presumes that if a thing exists during a portion of time, it exists equally throughout that portion of time. Dividing the time does not divide or reduce the material. But, if a thing exists in any volume of space, dividing that space would divide the material. This idea is key for what Whitehead calls «scientific materialism» where matter is conceived on the basis that time doesn't bite into it, and is merely an accidental feature of a stuff that is fully itself in any period. For scientific materialism or mechanism matter is a succession of instantaneous or simply located configurations impervious to transitions in between. If matter is the substance of a thing, then simple location is one of its primary qualities. Movement, understood as the succession between simply located configurations, is another primary quality, as is mass which is what is moving. Other qualities, for example, sound, scent and color are secondary; they are projections or «psychic additions», as Whitehead calls them, produced from the mind's interactions with nature. Thus, nature «is a dull affair: soundless, scentless, colorless; merely the hurrying of material, endlessly, meaninglessly»²⁹. Simple location and substance/quality metaphysics underpin an entire image of thought, what Whitehead calls a «bifurcation of nature» in which «we have mistaken our abstraction for concrete realities»³⁰. In order to challenge the bifurcation of nature for Whitehead we need a new understanding of what thinking and

²⁷ Ivi, p.499.

²⁸ A. N. Whitehead, *Process and Reality*, Free Press, New York 1929, p. 20.

²⁹ Id., *Science and the Modern World*, The Free Press, New York 1925, p.55.

³⁰ *Ibid.*

abstraction can be in which time is reconnected to space and quality reconnected to the processes of experience. We can explore this in relation to what is Whitehead's best known spatio-temporalized abstraction: the actual entity and how it is explained in relation to becoming and continuity.

In both *Science and the Modern World* and *Process and Reality* Whitehead describes time as a «becoming of continuity» and it is Zeno (and William James) who provides the guide. The structure of continuity can be traced to the condition of time since its general function in Whitehead is to mediate between past and future. For one element to be continuous with another it must conform to the immediate past and anticipate the immediate future. Continuity necessarily occupies a duration in which the present is immediately divided by conforming with a past that is preserved in the present and a future that is anticipated, invoked or elicited. Whitehead is very close to William James' famous descriptions of a «specious present», albeit generalized beyond the stream of consciousness, to indicate that experience never captures the individual present moments of a now, or a simply located present, but only a present that stretches back into the past and forward into the future. The present is «specious» in that it is never immediately available in an instantaneous now-moment, knife-edge or atomic sensation as such but only in a block or epoch that stretches through a continuity of immediate past and future moments. However, like James, the block or durational act itself for Whitehead is not a continuity; only the moments in the duration are felt continuously. Whitehead not only adopts the phrase «specious present» and the idea that individual units of experience come in epochs but he also accepts James' view that although the percipient event is temporally extended the act of perceiving is itself a unity that is unextended and indivisible. In other words the content of the units of experience or actual occasions undergo temporal extension but the form remains unextended.

For Whitehead conformation combines a spatializing moment which retains the immediate past and anticipates the immediate future but as a formal whole the experience is given as a unifying epoch or indivisible «living presence» that doesn't have temporal extension. This is Whitehead's (and James') response to Zeno. As Whitehead puts it,

If we admit that «something becomes», it is easy, by employing Zeno's method, to prove that there can be no continuity of becoming. There is becoming of continuity but no continuity of becoming³¹.

Units of experience or actual occasions become and they constitute together an extensive world in which only extensiveness becomes «but “becoming” is not extensive»³². Becoming occurs within the process but the act of continuity occurs all at once so that reality grows for Whitehead, just as it does for James, by «buds or

³¹ Id., *Process and Reality*, cit., p.35.

³² *Ibid.*

drops of perception»³³. You can divide the experience analytically upon reflection but as it is immediately given it's all or nothing. Thus, Whitehead writes,

the conclusion is that in every act of becoming there is the becoming of something with temporal extension; but that the act itself is not extensive in the sense that it is divisible into earlier and later acts of becoming which correspond to the extensive divisibility of what has become³⁴.

Whitehead distinguishes the form of becoming, the structure of the act of experience, from the content in which something becomes in order to shore up the infinite regress that Zeno's paradox threatens. The epochal structure of occasions is supposed to put an end to temporal regression by being constitutive of itself and providing a unity and synthesis to the becoming that mediates reference. The act of becoming, as a non-temporal unity, thereby ensures that the chain of continuity doesn't continue without origin or end.

Thus, Whitehead insists in several texts, especially *Process and Reality*, that time is atomized and epochal. As we've seen, and following James, for Whitehead reality grows in drops and buds and so time cannot be thought as a continuity. As Whitehead says, «temporalization is not another continuous process. It is an atomic succession. Thus time is atomic (i.e., epochal), though what is temporalized is divisible»³⁵. Whitehead arrives at this position as a result of his analysis of Zeno. If we analyze the act of becoming with the premises that something becomes, and that every act of becoming is divisible into earlier acts of becoming, then we end up in the contradiction of an infinite regress where nothing becomes. To use Whitehead's example, if we take an act of becoming during one second we can divide that act into two, namely, the act of becoming in the first half of the second and the act of becoming in the second half of the second. Operating with the above premises

that which becomes during the whole second presupposes that which becomes during the first half second. Analogously, that which becomes during the first half second presupposes that which becomes during the first quarter second, and so on indefinitely³⁶.

If we consider the process of becoming up to the beginning of the second in question and ask what becomes Whitehead concludes that «no answer can be given»³⁷. Infinite regress leads to a contradiction in the notion of becoming because if the act of becoming is itself temporally divisible it cannot act as a synthetic unity for something to become but must itself be subject to further acts of becoming. Fundamentally, for Whitehead, no movement or process of reality can be self-constituting if it is subject to the temporalization of pure becoming. Indeed, as

³³ Ivi, p.69.

³⁴ *Ibid.*

³⁵ Id., *Science and the Modern World*, cit., p.126.

³⁶ Id., *Process and Reality*, cit., p.68.

³⁷ *Ibid.*

Whitehead puts it, «these conclusions are required by the consideration of Zeno's arguments»³⁸.

We can summarize Whitehead's argument for the becoming of continuity in two key philosophical moves:

- **P1.** Zeno's valid argument. Whitehead argues that although some of Zeno's paradoxes are mathematically inadequate with some modification one can find, for example in 'The Arrow' paradox, a valid argument. The valid argument is:
 - a) in a becoming something becomes.
 - b) becoming is divisible into earlier/later phases that go on indefinitely.
 - c) therefore, nothing becomes.
- **P2.** Whitehead's response to Zeno's valid argument is to generalize James' notion of the «specious present» beyond the stream of consciousness to all actual occasions. James' notion operates on the basis of an intuited duration within a non-extended or momentary act of awareness. For Whitehead the deployment of the specious present is a solution to what we can call the «paradox of becoming» found in Zeno's valid argument. It is a solution because with this move actual occasions can be construed as becomings whose data can be synthesized and unified in an epoch without infinite regress.

5. Whitehead and interstitial life.

Thus, Whitehead's spatio-temporal abstraction is a becoming of continuity perhaps best visualized as a drop, bud or quantum of experience. One example is life in living societies or occasions in which lower levels of experience interpenetrate and are integrated into higher levels all the way up and down. Life exemplifies spatio-temporal abstraction in the becoming of continuity. Like Deleuze and Guattari's «And», life moves in between. As Whitehead puts it: «Life is a characteristic of "empty space" [...] and not of space occupied by any corpuscular society [...]. Life lurks in the interstices of each living cell, and in the interstices of the brain»³⁹. Life lurks in the abstract empty space-times between material bodies, an originaive element that is «canalized» in material bodies and, in its higher forms, productive of intensities that draw out novelties in the satisfactions of the occasions involved. Life is a «bid for freedom»⁴⁰, as Whitehead puts it, freeing itself from the shackles of mere repetition but, without its canalization in material form, too much originality of conceptual response would spell disaster⁴¹. Thus, life in its essence gains intensity through freedom of originality but in its passage through material form it benefits from order. How much freedom or originality and how much order condition the «grades» of structured societies but without what Whitehead calls «anarchic appetition» lurking in the interstices to counter the relapse into matter, there would be only a race to the grave. Life is a movement from physical order to mental originality and mental

³⁸ *Ibid.*

³⁹ *Id.*, *Process and Reality*, cit., pp.105-106.

⁴⁰ *Ivi*, p.104.

⁴¹ *Ivi*, p.107.

originality is bound in physical form with each bud, drop or quantum exhibiting a dipolar range of physical and mental tendencies. At one end matter is a conformity to and repetition of what is with the originative element approaching zero, the «same» eternal objects repeated with negligible variation, yet remaining a capacity for mentality. «Mere repetition», Whitehead claims, is the «baffling of opportunity»⁴² but, as he insists, it is a capacity for mentality rather than mentality itself and in this capacity «it is mentality»⁴³. At the next step, as the past is carried into the present, life lures a potential or difference from matter providing a basis for a reaction. The potential or difference expands with greater activity at the mental pole generating phases or stages of cyclic variation and novel contrast which culminate at the other end for Whitehead in God. In several books Whitehead calls this interstitial or abstract movement «rhythm» and «it pervades all life and indeed all physical existence»⁴⁴. Thus, there is a tendency of descent to the narrowing of space-time toward matter where organic life shades off into the inorganic and slow decay; but there is also what Whitehead calls a «counter-agency» that ascends or pushes toward more complex forms of mentation and life. These two tendencies, rhythms or spatio-temporalities can be followed up or down the life/matter scale but the more complex forms are able to sustain broader and more intense rhythms just as the less complex exemplify briefer rhythms approaching zero intensity.

Life is a tendency toward originality or novelty of reaction through a «capture of intensity»⁴⁵. We can describe the capture of intensity as a three-fold process: firstly, the occasions (or societies) in becoming appropriate the processes of others that have achieved satisfaction and they are fused, in a second step, with unrealized potentials that in a (third) moment produce what Whitehead calls variously «vivid immediacy»⁴⁶ or «immediate self-enjoyment»⁴⁷. The immediacy or enjoyment of the capture of intensity integrates the inheritance of the past with a novelty of definiteness not found in that past, adding depth to the satisfaction. But, in the account in *Modes of Thought* Whitehead insists on yet another factor: «we must yet add another character to our description of life. This missing characteristic is aim»⁴⁸. The aim is the enjoyment of those data in that particular way, what Whitehead in *Process and Reality* calls «subjective form». This brings out another element: the aim includes that particular conceptual novelty with that data but it also excludes a «boundless wealth of alternative potentiality»⁴⁹. Life as the capture of intensity requires the exclusion of possibilities and the destruction of other living societies. The achieved satisfactions of the other are appropriated into the living reality or immediate self-enjoyments of the societies in becoming which are then absorbed into the «consequent nature» of God. In *Modes of Thought* Whitehead doesn't linger on this point but in

⁴² Id., *The Function of Reason*, Beacon Press, Boston 1929, p.23.

⁴³ Ivi, p.33.

⁴⁴ Ivi, p.21.

⁴⁵ Id., *Process and Reality*, cit., p.105 (1929).

⁴⁶ *Ibid.*

⁴⁷ Id., *Modes of Thought*, The Free Press, New York 1938, p.151.

⁴⁸ Ivi, p.152.

⁴⁹ *Ibid.*

Process and Reality it is developed in detail in relation to the idea of «negative prehensions». Negative prehensions are eliminated from the inheritance although they remain part of the bond that life has with the universe. Negative prehensions remain part of the emotional complex that is included in the satisfaction. Whitehead sums this up by saying that «life is robbery»⁵⁰, a stealing away of the living present, capturing its intensities and separating it from its power to aim and to act. In its bid for freedom life is always subject to the possible capture of its immediate intensities, necessarily open to the «robbery» that may alter or destroy it. This is not an accidental feature of the living but a necessary condition or «law» for its becoming.

6. Bergson, *Durée* and the Continuity of Becoming

Whitehead's becoming of continuity can be usefully contrasted with Bergson who argues that the key to processual time is the continuity of becoming. The continuity is construed in such a way that the paradox of becoming for Bergson is a false problem. In treating this problem, we will also be able to highlight one of the key illusions of abstraction that underpin what Bergson calls the «logic of solids»: that we can think the mobile by means of the immobile.

Bergson's continuity of becoming is based on a rejection of Whitehead's two key philosophical moves identified above. Firstly, Bergson rejects P1. Bergson's challenge is directed if not at the validity of Whitehead's Zeno argument then at the truth of its premises. The premise that «something becomes» is directly challenged by Bergson's conception of duration as a pure movement without an underlying «thing» that becomes. The premise that becoming is infinitely divisible is, for Bergson, to treat becoming in terms of a mathematical instant or a geometric point. These latter are spatialized abstractions, good for utility but not speculation. Secondly, Bergson rejects P2. Duration is an indivisible continuity that doesn't require a non-temporalized atomic act to hold it together. Rather, as we shall argue below, temporal features of becoming – continuity, heterogeneity, in short «qualitative multiplicity» – give duration its degrees of intensive unity and synthesis.

Bergson realized early on that mechanistic systems, and more generally «positive science», could not come to terms with real duration⁵¹. Positive science is rooted in a metaphysics that goes back to the school of Elea which tends to substitute spatialized abstractions, or the Idea, for the percept. If the earliest thinkers attempted to break with action by turning away from the percept to the Idea, for Bergson they did so on the basis that they could grasp movement directly. At the beginning of Western metaphysics, Bergson claims, it is Zeno who, by drawing out the contradictions of movement and change, «led the philosophers – Plato first and foremost – to seek the true and coherent reality in what does not change»⁵². But why did they turn to what does not change? For Bergson it is because these philosophers believed that in its ordinary operations perception and consciousness operating with spatialized abstractions deliver change and movement to us. From there it can be

⁵⁰ Id., *Process and Reality*, cit., p.105.

⁵¹ Henri Bergson, Letter to William James, 9th May, 1908 in *Bergson: Key Writings*, ed. by K.A. Pearson and J. Mullarkey, Continuum, London-New York 2002, p.362.

⁵² H. Bergson, *Creative Mind*, Citadel Press, 1946, p.141.

shown easily that change leads to insoluble contradictions and the creation of the paradox of becoming.

Zeno's paradoxes for Bergson all attempt to show that movement and change lead to insoluble contradictions but all trade on an illusion whereby real movement is confused with immobilities or static self-identical units. For Bergson this is because we associate the movement with the line or spatial trajectory that comes in the movements wake. As Bergson puts it, Zeno's

illusion arises from this, that the movement, *once effected*, has laid along its course a motionless trajectory on which we can count as many immobilities as we will. From this we conclude that the movement, *whilst being effected*, lays at each instant beneath it a position with which it coincides⁵³.

What Bergson means here is that we think of movement and change in terms of immobile states that are pieced together to constitute the change or movement. Although we talk about change Bergson thinks that we «reason and philosophize as though change did not exist»⁵⁴. The example Bergson returns to again and again is the simple movement of my arm from A to B. Our habits of thought are such that to understand this movement we divide the space between A and B into so many immobile points in between. But, Bergson says, change and movement cannot coincide with the immobile and simply present points of the space through which my arm moves. This habit of thought may be good for action but not speculation. If we apply this habit of thought to speculation Bergson says that «you at once cause insoluble metaphysical problems to arise»⁵⁵. In other words, Zeno creates these contradictions out of his paradoxes because he transfers to the moving body the properties of its trajectory. In the interests of utility, common sense and language collude in this transfer by treating movement and change in terms of space. As Bergson says common sense and language have a right to do this since «they have no more concern with the interior organization of movement than a workman has with the molecular structure of his tools»⁵⁶. This is what Bergson calls «spatialization» and has been the source of much confusion and misunderstanding, not least on the part of Whitehead. That Whitehead misunderstood aspects of Bergson's spatialization is clear when Whitehead says that «Bergson went further and conceived this tendency as an inherent necessity of the intellect»⁵⁷. Whitehead goes on to say that he «doesn't believe» Bergson on this point. However, spatialization cannot be an «inherent necessity of the intellect» for Bergson because it would undermine various aspects of his own thought. For example, intuition could not get off the ground if spatialization were an inherent necessity because intuition relies, in part, upon a transformed mode of intellectual activity. In addition, Bergson's claim that the intellect has evolved, and continues to evolve – and spatialization is a product of that evolution – would

⁵³ Id., *Creative Evolution*, Dover Publications, New York 1911, p.309.

⁵⁴ Id., *Creative Mind*, cit., p.131.

⁵⁵ Ivi, p. 147.

⁵⁶ Id., *Matter and Memory*, Zone Books, New York 1988, p.251.

⁵⁷ A.N. Whitehead, *Process and Reality*, cit., p.209.

not make any sense. The whole of Bergson's thought is grounded in the claim that there are no inherent necessities in the universe. In addition, Whitehead is critical not just of Bergson's alleged focus on inherent necessity but also his focus on the intellect. This is a more interesting criticism particularly if we make a distinction in Bergson between intellectualized matter and matter itself. For Whitehead, spatialization isn't just a «distortion introduced by the intellect»⁵⁸. Rather, «spatialization is a real factor in the physical constitution of every actual occasion belonging to the life history of an enduring physical object»⁵⁹. It appears that for Whitehead spatialization is an inherent necessity at least as far as it concerns the physical constitution of every actual occasion of an enduring physical object. But, for Bergson also, spatialization is inherent in both the physical and the mental, matter and memory.

(In fact it is Deleuze who argues for necessary or transcendental illusions, inevitable illusions that come from within thought itself).

It is intuition in Bergson that struggles with spatialization. Deleuze has stressed that intuition is a method in Bergson. It is, as he puts it, «one of the most fully developed methods in philosophy»⁶⁰. Thus, as a fully worked out method intuition ought not be contrasted with intellect as such. Rather it should be contrasted with the habitual and spatialized modes of intellect. Intuition is a labor or effort to discard the common-sense forms of intelligence tied to the spatializing abstractions of utility in favor of new fluid forms of conceptuality capable of engaging «the immediate data of consciousness»⁶¹. The immediate data or content of intuition is of course *durée*. In response to Zeno, and P1 above, Bergsonian change needs to be conceived as pure mobility without a self-present underlying thing or substratum that supports the change and this is what duration is. Perhaps the key feature of duration is that it is an indivisible continuity and so this continuity cannot be conceived as a succession of self-identical and externally related units. Rather, without distinct elements there is just the continuity or flow of becoming. As Bergson puts it, «this indivisible continuity of change is precisely what constitutes true duration»⁶². For Bergson *durée* has a continuity, both a continuity that becomes *and* a continuity of becoming. Such a continuity cannot be represented by mathematical continuity, or the idea of indefinite divisibility – on this both Bergson and Whitehead agree. However, for Bergson becoming and continuity cannot be qualified by a non-temporal form. Such a form would itself require explanation and simply return us to the Eleatic paradoxes. Rather, the features that explain coming to be or becoming cannot be presupposed because they are in the making.

This leads me to the second key feature of duration: it is heterogenous. It is this feature that challenges and overturns P2 by showing how a multiplicity of elements in becoming form a temporal unity. In other words, if the continuity of becoming implies creativity, novelty and the new there must be qualitative or

⁵⁸ Ivi, p. 321.

⁵⁹ *Ibid.*

⁶⁰ G. Deleuze, *Bergsonism*, cit., p.13.

⁶¹ H. Bergson, *Time and Free Will: On the Immediate Data of Consciousness*, Dover Publications, New York 1913.

⁶² Id., *Creative Mind*, cit., p.149.

heterogeneous differences in the continuity. Some may claim that an indivisible continuity of becoming eliminates distinctions between the phases of duration. But this would be to confuse an absence of divisibility with an absence of difference. Bergson's suggestion here is that there appears to be a contradiction between continuity and heterogeneity only if we insist on understanding the terms mathematically, quantitatively or in terms of certain presupposed logical principles (in Whitehead's case the principle of non-contradiction). But clearly Bergson wants to get at experiences that resist translation into mathematical, arithmetic or presupposed rational terms. One of Bergson's favorite examples is our experience of a melody. In listening to a melody we have an experience of a change that endures. Although the tone, the pitch and the timbre might be the same as a second ago what enables novelty to emerge is that the antecedent phase is still there providing a qualitative difference in our experience of past and present. Thus, continuity and heterogeneity of becoming are fused in the experience of the melody surviving in the past and emerging in the present. Equally, when we think about our inner life, Bergson says, there is no ego or self which functions as a substratum upon which a succession of states pass; rather «there is simply the continuous melody of our inner life, a melody which is going on and will go on, indivisible, until the end of our conscious existence»⁶³.

7. Bergson and Creative Life

However, perhaps the best-known example of duration in Bergson is the movement of life. «Wherever anything lives there is, open somewhere, a register in which time is being inscribed»⁶⁴. The inscriptions of time or duration within life involve the prolongation of the past into the present and the anticipation of the future. The syntheses of prolongation and anticipation can be highly variable with variations of greater width or narrowness corresponding to life in its different forms as well as across individuals of the same species and within individuals. Life enacts differing degrees or «rhythms» of duration, for Bergson, but the more complex levels contain the less complex. In its contact with matter life is an impetus or an «elan vital» but in itself it is an «immensity of potentiality»⁶⁵, a multiplicity of tendencies that encroach upon and interpenetrate each other. In its contact with life matter divides and unfolds actually what is virtually manifold or indivisible. On the one hand life is a tendency toward matter, toward space, inert juxtaposition and externality. On the other hand, life is a tendency toward mind or consciousness in which dynamic states are mutually implicated and folded. This process of folding and unfolding operates through varying degrees of tension and release or relaxation. Life elaborates matter and requires it for its own creation and invention just as matter always shows some «elasticity», as Bergson puts it, for life to install itself and go about its work. «Life would be an impossibility were the determination of matter so absolute as to admit no relaxation»⁶⁶. Without some relaxation or tension, however small, there would be no memory or will, no consciousness. As Bergson says, without some

⁶³ *Ibid.*

⁶⁴ H. Bergson, *Creative Evolution*, cit., p.16.

⁶⁵ *Ivi*, p.258.

⁶⁶ *Id.*, *Mind Energy*, Henry Holt and Co., New York 1920, p.18.

tension there would be only a perpetual present that dies and is reborn. Although matter inclines in this direction, that is, the direction of spatiality, it remains composed of «elementary vibrations» the shortest of which are vanishingly small but «not nothing»⁶⁷. Corresponding to an instant of our duration Bergson tells us there are «thousands, millions, trillions of events taking place in the enormously less drawn out duration of things»⁶⁸. Life and matter are differing tensions or rhythms of duration, spatio-temporal multiplicities which measure exactly «the interval between physical determination and human liberty»⁶⁹. Life is a tendency of matter toward the creative and the new but matter's tendency is the inverse with respect to life, exerting a pull towards the inorganic. Bergson writes,

in vital activity we see, then, that which subsists of the direct movement in the inverted movement, a reality which is making itself in a reality which is unmaking itself⁷⁰.

Vital activity is making itself in a reality which is, «simultaneously», unmaking itself. Bergson associates the movement of vital activity with freedom, spontaneity, liberty and indeterminacy and matter with necessity, efficient cause, physical law and determinacy but these associations are always co-implicated and mutually reciprocal. In formulations that could have been written by Whitehead, Bergson says that «life is freedom inserting itself into necessity»⁷¹, a «bid» or search for sites of indeterminacy within matter with which it can create. Drawing from the resources of these sites of indetermination life extracts from matter just what it needs for its own guidance, utilizing the resistance of matter to proceed by dissociation, heterogeneity and division.

We mentioned earlier that one of Bergson's favorite examples of duration and change is the movement of my hand from A to B. Bergson makes use of this example to illustrate the creative structure of freedom-resistance, or tension-relaxation, in life-matter. Instead of a movement of the hand from A to B with only the resistance of the air, Bergson asks us to imagine a hand plunged into compressed iron filings. The path of the hand through the iron filings will meet resistance in proportion as it moves forward, finally coming to a halt. Like the movement of the hand the forward effort and momentum of life will be restricted, limited and canalized by the matter of the iron filings. For Bergson, «life is, more than anything else, a tendency to act on inert matter»⁷². The direction of this tendency is not predetermined. It is contingent but also involves an element of searching and choosing among possibilities. Bergson sometimes describes this process in terms of an imagery of aerial height, elevation or ascension and of descent, gravitational pull and reversion to the surface or ground. In Chapter 2 of *Creative Evolution* one image that

⁶⁷ Id., *Creative Evolution*, cit., p.201.

⁶⁸ Id., *Creative Mind*, cit., p.59.

⁶⁹ *Ibid.*

⁷⁰ Id., *Creative Evolution*, cit., p.248.

⁷¹ Id., *Mind Energy*, cit., p.18.

⁷² Id., *Creative Evolution*, cit., p.96.

Bergson uses for this process is the explosive force of a shell bursting into fragments in all directions with each fragment, in its turn, exploding into new forms. The way the shell bursts is explained both by the explosive force it contains and the resistance of the metal. This is so with life:

it depends we think on two series of causes: the resistance life meets from inert matter and the explosive force- due to an unstable balance of forces – which life bears within itself⁷³.

The resistance that matter exerts and the unstable balance of forces that life carries within itself both bear the marks of duration.

8. Similarities and Differences

All three of our philosophers are radical empiricists; that is, they are committed to the methodological dictum that the abstract does not explain but must itself be explained and all three are committed to the idea that life - in the form here of relations or the temporal - is an expression of the abstract. But they do this in different ways. Perhaps these differences between Deleuze, Whitehead and Bergson are a reflection of their differing methods and approaches to speculative metaphysics and empiricism. Bergson's true or superior empiricism, as he sometimes calls it, is premised on a movement of experience (intuition) that takes one inside the thing so that one might know it immediately and absolutely. As Bergson says we enter into these states of a thing – its becoming and continuity - through an effort of the imagination guided by intuition. This movement and sympathy, what Bergson calls the “inner life” of experience, is the unrepresentable movement of the abstract. Although this movement is a «simple act» Bergson emphasizes the «extreme difficulty» of this effort because for each object of intuition or duration one must cut a concept for that experience. Bergson's empiricism is a kind of custom metaphysics that tailors the concept for each experience rather than utilizing a ready-made garment «off the peg».

For Deleuze philosophy's task – «transcendental empiricism» as he calls it in *Difference and Repetition* – is defined less by Bergson's arduous labor of the intuiting subject and more by a violence that thought is itself subject to or must undergo. The dogmatic image of thought is internal to and constitutive of thought. It essentially takes extensive differences and explains them through the (spatialized) abstractions of Being, One, Whole. This is more than simply the error of mistaking the abstract for the concrete. In Deleuze's deeper renewed sense of the abstract the And must force relations outside, «outside everything which could be determined as Being, One, Whole»⁷⁴. As Deleuze writes, «one must make relations the hallucination point of thought, an experimentation that does violence to thought»⁷⁵. This forced and experimental displacement to an «outside» is the condition for the construction of a

⁷³ Ivi, p.98.

⁷⁴ G. Deleuze and C. Parnet, *op cit.*, p.57.

⁷⁵ Ivi, p.55.

field that produces experience. Such a field or plane cannot be traced from the empirical in terms of identities or spatialized abstractions but is directly expressed through passive syntheses: temporal abstractions which act as so many Ands that constitute qualitative relation, movement and continuous variation. As Deleuze and Guattari say, «such a plane is perhaps a radical empiricism»⁷⁶. The ceaselessly modulating And of pure relation communicates with the «flashing world of intensities, difference of differences and differences between differences»⁷⁷ so that there are no *relata* or transcendent things in themselves. In this sense, only when immanence is immanent to itself can a new plane of thought be created. In his last work Deleuze says «we will say of pure immanence that it is *a life*, and nothing else»⁷⁸. However, the key idea here is that the «plane is surrounded by illusions», illusions that are necessary or inevitable. A life is concealed in its actualized forms, or the And is inevitably covered over by the Is. For Deleuze we must go beyond experience and raise ourselves to transcendental lived conditions. Access to such conditions is via the shock of encounter or an event that effects a counter-actualization or counter-effectuation of the Is. The shock of an encounter produces an event that gives form to a virtual that eludes actualization in being.

In contrast for Whitehead spatial abstractions like simple location are caught up in fallacies that are errors and mistakes, «accidental errors» of subjective thinking raised to a level of abstract presupposition that characterizes a philosophical and scientific epoch. In response to this Whitehead's empiricism is more indirect, speculative and approximate making use of off the peg concepts but modifying and transforming them in accordance with experience. Language and concepts are stretched beyond their ordinary use to generate ever more refined descriptions of the larger generalities. Whitehead's radical empiricism cannot take us directly and immediately inside experience because it constructs a set of general concepts for a mediated and relative interpretation that asymptotically approaches the real. Although we are to keep renewing these concepts, descriptions and interpretations, to believe they give us the final reality or the absolute is folly for Whitehead. As a set of descriptions and interpretations that revolve around the thing *ad infinitum*, rather than entering into it, Whitehead's speculative empiricism is perhaps closer to what Bergson calls analysis. In Whitehead's empiricism the imaginative effort or leap doesn't produce a shock to thought or take us inside the experienced thing but is directed toward conceptual creation guided by a set of principles that enable the generalization of specific notions beyond their immediate field of application. One key component of Whitehead's speculative method is that it relies upon what he calls a «rational side» that places constraints on how we understand the empirical content. Although Whitehead is critical of the dogmatism involved in beginning with axioms which are supposedly clear, distinct and certain and then building a deductive system upon them, speculative philosophy is still guided by what he calls «logical perfection»⁷⁹ and «speculative boldness must be balanced by complete

⁷⁶ G. Deleuze and F. Guattari, *What is Philosophy?*, Verso, New York 1994, p.47.

⁷⁷ G. Deleuze, *Difference and Repetition*, cit., p.117.

⁷⁸ Id., *Pure immanence: Essays on a Life*, Zone Books, New York 2001, p.27.

⁷⁹ Whitehead, *Process and Reality*, cit., p.6.

humility before logic»⁸⁰. In addition to abstracting from specific instances the generalizations are schematized into a coherent system that ranges beyond their immediate application such that they all presuppose or imply each other. With this the general concepts are applied to all of experience and the «empirical side» (applicability, adequacy) of the method comes into play. Not only must the rational side exhibit logical consistency and coherence but Whitehead assumes that experience is also coherent such that there is some application. This assumption, a presupposed correlation (albeit approximate and indirect) between logical form and temporal process, is a default setting in Whitehead's method and so the contradictions of Zeno's valid argument are given an elevated role in the construction of becoming and continuity. Whitehead utilizes the principle of non-contradiction to reject the continuity of becoming but what if our best empirical observations and descriptions are in tension with or resist logical perfection?

In contrast, Bergson's empiricism can more readily support an ontology that conflicts with *a priori* reasoning because it follows the contours of the real in search of a unique intuition. And it does so by avoiding one of the «great illusions» fostered by the intellect: that we can think the mobile by means of the immobile. Thus, Bergson can say that Zeno's Arrow presents a valid argument only «if we suppose that the arrow can ever *be* in a point of its course»⁸¹, valid only if we presume that the movement of the arrow coincides with a position which is immobile. «But», Bergson writes, «the arrow never *is* in any point of its course»⁸². To think that the arrow is at a point in its course is, as Bergson says, to cut the course in two at this point and make two lines out of one. The illusion, as we've seen, consists in applying the movement to the line traversed but this possibility exists only for a detached observer who posits so many possible stops along the line and then tries to reconstruct real movement with these immobilities. This illusion is part of Bergson's critique of the logic of solid bodies that we referred to earlier and what he calls the «cinematographical method»⁸³ and is carried right into the very notions of identity and contradiction. The contradiction disappears, Bergson says, when we place ourselves inside the movement and adopt the continuity of becoming through intuition. For Deleuze we cannot place ourselves inside the movement through intuition as such but must be compelled or provoked into thinking in order to problematize the abstract illusions of the dogmatic image. In the encounter we experience the indirect effects of the «virtual» or duration and must fashion a concept immanent to that experience.

In short: if Deleuze's abstractions are the product of an encounter or an event that opens up the lived depths of experience then Whitehead's metaphysics is a set of abstractions for indirectly plumbing those depths beneath subjective errors or accidents, whereas Bergson's abstractions would have us plunge in and immerse ourselves in the life of the real. For all three our practices of thinking – especially our abstractions pertaining to life – tend to cover over or conceal process,

⁸⁰ Ivi, p.17.

⁸¹ H. Bergson, *Creative Evolution*, cit., p.308.

⁸² *Ibid.*

⁸³ Ivi, p.306.

K. Robinson, *Abstract life*

movement and space-time. For all three this isn't just a metaphysical or cognitive mistake but an existential and pragmatic failure. In transforming our abstractions we open up new practices of thinking and new modes of life.