

The Dialectic of Duration

GASTON BACHELARD

*Translated and annotated
by Mary McAllester Jones*

*Introduction
by Cristina Chimisso*

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McAllester Jones, *Gaston Bachelard. Subversive Humanist. Texts and Readings* (Madison, 1991), pp. 29–35.

It should be noted that in Bachelard's phrase 'sugar in granulated form' there is an implicit cultural reference: in France in his day, lump sugar was more usual and he thus differentiates himself clearly from Bergson by using this phrase. In *L'Intuition de l'instant*, Bachelard had in fact referred to Bergson's sugar ('le sucre') as a lump of sugar ('un morceau de sucre').

- 2 Bachelard's phrase here 'en deux temps' is an example of his humorous – and untranslatable – word-play since it refers to a two-stroke internal combustion engine, while also enabling him to maintain his focus on the discussion of time.

Chapter Four

Duration and intellectual causality

I

Our intention in taking the problem of temporal effectiveness into the domain of physics was simply to confront possible objections and to conform to philosophical custom: it is in fact usual to want time to be, to begin with, an objective power and to see movement as giving us the clearest measure of duration. It seemed to us that in this domain itself, temporal links were neither as strong nor as uniform or general as they are said to be. The thread of time has knots all along it. And the easy continuity of trajectories has been totally ruined by microphysics. Reality does not stop flickering around our abstract reference points. Time with its small quanta twinkles and sparks.

It is not though by reflecting on physical phenomena that we can really feel the metaphysical duality of duration. In objects, in fact, breaks remain accidents and elude all attempts to systematise them. In higher psychic activity, breaks are on the contrary inseparable from reasons; or better, the small variations in energy involved in higher psychic activity bring about new ideas. Here we can say that small variations have great effects. Our mind, in its pure activity, is an ultra-sensitive time detector. It is very good at detecting the discontinuities of time. For this to happen, all we need do is turn aside from all practical chores and all social cares, and listen to time's cascades within us.

Furthermore, physical or physiological phenomena would always teach us to submit to time and be an object among

objects. A whole aspect of the phenomenology of time is obscured when we limit ourselves to reflecting on the development of phenomena. Their kinematics can so easily be described that we come to believe that their dynamic character is less certain, less general, and more concealed. In actual fact, the history of science shows fairly clearly that dynamics is added to kinematics as secondary and derived knowledge, which is harder and more fallacious.

Yet if we leave objective reflection and come to our own innermost experience, everything changes and what was obscure becomes clear; the experience of inner dynamics now moves to the fore while that of our movements seems derived and secondary. From this standpoint, movements seem to us to be simply the consequences of our decisions, taking into consideration – which is very important – the *difficulties* of carrying out our decisions. We must not neglect this very first and wholly intellectual aspect of the difficulty of our acts. It is this aspect that can best teach us about active time. In any case, when the dynamic and the kinematic are studied in ourselves they should give two very different impressions of time.

And there is more besides. In us, the dynamic initially appears in the form of impulses, jerks, and rushes of feeling, in short in a discontinuous form. And to illustrate the dialectic of the continuous and the discontinuous in relation to time, the simplest is perhaps to confront our movements and the original order of the will that governs them. The dualism of the continuous and the discontinuous is then homologous with the dualism of things and the mind. Having already argued in a previous chapter that continuous effort is behaviour that is secondary, learned and difficult, we need only look now at the impulse in its dynamic aspect as an active element. Yet if continuous movement is a physiological consequence and if the essential element of an act is the impulse, is it not in the organisation of impulses that the control of intelligent action must be sought? We should therefore establish, as Paul Valéry has so well put it, *an algebra of acts*. An action thus appears as having a necessarily complex formula with many articulations, and having between the impulses well-defined dynamic relations.

Intensity then has a primary meaning and no longer just one that is derived, as in Bergsonian theories. Quantification happens at the level of the will and no longer at that of the muscles. In this indirect way, the intellect acquires real causality. It is the intellect that turns away contradictory actions and determines active convergences. This intellectual causality must doubtless take account of both physical and physiological causality, but there is even so a place for psychological rationalisation that will give particular effectiveness to the intelligent act.

II

It is by analysing the complex of strength and skill that in our view a first assessment can most easily be made of this clearly determined effectiveness, which is already visible at the level of the will. A skilful psyche is one that has been educated. It manages energy. It does not allow it either to flow away or explode. It proceeds by making small, very separate movements. With consciousness of skill there comes an entire geometry that is necessarily composed of straight lines and edges, in contradiction to the sweet unconsciousness of grace.¹ Grace must not be wished; it has lines, not axes. It is pure quality; it condemns quantity. It does its best to erase the discontinuities of the learning process and gives unity to the most varied actions. Skill must on the contrary keep the fundamental hierarchy of many movements. It is kaleidoscopic. It is strictly quantitative. Grace has the right to make mistakes; for grace, error is often a whim, an embroidery, a variation. Skill must not amuse itself. And why should skill seek to combine together the decisions composing it? It indeed runs a risk in moving away from the pure arithmetic of separate wills. From its standpoint, these curves with their lazy inflections are lines of lesser thought, of lesser mental life. They appear when there is a subsiding, when the conscious being is returning to reverie, allowing itself to be overcome and vanquished by external resistances. These curves could doubtless be regarded as more *natural*; but this is precisely the proof that they require less consciousness, less supervision, and less mental input. For skill, nature both within us and outside us, is first and

foremost an obstacle. It is the innermost obstacle especially that makes skill a real energetic controversy, a real dialectic.

Rignano has very perceptively indicated this fundamental dualism in the perfecting of certain skilful movements. Let us for instance look again, as he does, at the skills involved in a game of billiards; we shall see this psychologist concerned not with peripheral descriptions of effort, but instead with describing the *central* structure, just at the level of the dialectic of more and less:

The billiard player who has already aimed his cue at the ball is impelled above all by the desire to make his stroke and he prepares himself for this. But too much tension in his arm muscles leads him to fear making too strong a stroke as he has already done a short time before this; then, thanks to this antagonistic activity, his muscles relax a little. But the lessening of tension that the player then feels taking place which, in its turn, is linked to the memory of some previous stroke he bungled by not giving the billiard-ball a sufficient turn of speed, awakens the contrary fear in him of using too weak a force. The to and fro movements as his arm brings the tip of the cue either closer to or farther from the ball before the stroke is made will be seen by someone watching the game as reflecting the very swift succession of conflicting feelings produced one after the other. These feelings grow weaker or stronger by turns in order to reach the end result of imparting the required force to the ball.²

Rignano has only studied the quantitative framework of muscular energy here; but he has clearly shown that the intelligent use of strength needs *two* contrary reference points, more and less. He has also clearly shown that the impression carried to the centre for an over-tense muscle determines, through reflection, a relaxation that is exactly the opposite of the action prepared by physiological causality. Physiological causality ought not to wait; it ought to initiate the stroke that is too strong. Yet reflection imposes an interval of inaction and then an opposite conclusion. The action takes place through a contradiction. Skilful will is never good will; in order to act, skilful will has to go through bad will. Skill can really not be conceived as something unitary, taking place in an unbroken duration. We do not really have at our disposal a substantial, positive, and unified

memory that would allow us to reproduce exactly a skilful action. We must first weigh up contradictory memories and achieve the balance of opposite impulses. These discursive operations make time uneven; they break the continuity of natural development. There can be no real certainty in the success of a skilful action without consciousness of errors that have been eliminated. Then thought time takes precedence over lived time and the dialectic of reasons for hesitating is transformed into a temporal dialectic.

III

If we do not always see the importance of the role played by the hesitation imposed by reflection at the threshold of actions, this is because we rarely study the psychology of actions which have been well learned and well understood, and which are fully conscious of their success. Usually in fact, we endeavour above all to link the psychology of intelligent behaviour to that of behaviour that is more or less instinctive, more or less natural. This is no doubt a useful thing to do. Yet in making it the only thing psychology does, we may be led to disregard the specific meaning of certain problems. In particular, artificial action, action that is marked by reflection, is often action with no stimulus or even against the stimulus, or simply when there is a stimulus. It therefore introduces a whole range of stimulating events in which the most diverse causalities interfere. We thus begin to see how a whole psychology of mental liberation could be worked out by disentangling all these interferences. In order to study the first stage of this liberation from the stimulus, we could look again at everything Rignano has to say about senses that act without making any contact, far from the insistent hostility of the world of objects. We would see that these senses 'most often give rise to the particular state of an affective tendency that is initiated and held in suspense' (p. 45). Here we have a kind of false equilibrium uniting opposites and permitting almost instantaneous effectiveness to be given to a decision that has been well prepared, but left waiting to be implemented. Starting from this stage, which is still entirely physiological, we

realise that what initiates action is not just the effectuation of physiological coincidences. There has to be permission to act, and the mind must lend its full support to being. We only feel this support, we only feel the mind's presence, in the repose that precedes action, when the possible and the real are clearly compared. The mind's support is therefore strictly contemporaneous with an impulse or better, with a kind of impulse, the impulse of an absolute beginning. Consequently, while in its elementary form behaviour relative to beginning was still dependent on objective signs, in a purely intellectual form the will to begin appears in all its gratuitousness, and is fully conscious of its supremacy over the mechanisms that have been set in motion. The physiological causes of the sequence of actions cannot therefore be confused with the psychological causes of its initiation. A philosophy that erases this duality in causes is based on a dangerous metaphysics, on a unity that is not sufficiently discussed.

Were our criticism accepted, we would suggest that a schema of initiating acts should double every motor schema. The psychology of a composite action could not in fact be taught unless the order and dynamic importance of decisive instants had first been fixed. The action will then be executed more or less swiftly. Order thus dominates duration. Order really gives us the algebra of action: the figure follows from it. An *analysis situs* of active instants can disregard the length of the intervals just as the *analysis situs* of geometrical elements disregards their magnitude.³ The only thing that counts is the way they are grouped. There is thus the causality of order, the causality of the group. We are all the more aware of the effectiveness of this causality as we move higher up towards actions that are more composite, more intelligent, and that we keep under close surveillance.

When a motor schema is seen to be dominated by its schema of initiating acts, it is soon nothing more than an unconscious system. Its functioning can be slowed down or impeded by tiredness, wear and tear, and illness, and Bergson has proved with great clarity that these kinds of destruction do not in any way entail the ruin of pure memories. Our conception of a rationalised memory, made more alert by the elimination of all

memories of duration so that only the memory of the order of elements is preserved, would lead us to conclude that pure memories remain valid not just in themselves but in their grouping. The schema of initiating acts would allow us to become aware of the preservation of composite memories, of functional memories. We can also understand that a schema of initiating acts is able to transfer its power from one mind to another. Through this schema, we suggest, we keep close watch and we command. The importance of this action of interpsychology must not be underestimated since this aspect is reflected in every human being, and an inner dialectic of command and execution makes us see very clearly within ourselves the supremacy of willed time over lived time.

IV

It is in fact when we become aware of the order of initiating acts that we achieve self-mastery in a complex, difficult action. When we entrust ourselves in this way to the supremacy of intellectual over physiological causality, we are protecting ourselves from indecision and mastering the hesitation to which every detail of the act could give rise. The whole is in command of the parts. Rational coherence gives cohesion to development. For instance, a long speech will be held together by the rational coherence of its well-ordered reference points. Should there be a moment when language is unclear, or when an obscure detail or an anacoluthon⁴ in expression occurs, the confusion will only be short-lived and will not destroy the continuity of the whole. The plan of this speech acts as a unifying principle, as a formal cause. It is a schema of initiating acts. It is held in the mind through a whole which is made up of brief, simple signs.

Moreover, this oratorical schema provides an excellent illustration of the causality of order. We also know that a whole speech can be distorted when the order of two arguments is reversed, even when these arguments are very independent of one another. In the same way, we realise when we think about it that what makes the best links is not a continuity that advances by degrees, that is contemporaneous with real and more or less

contingent development. Looking for this gradual continuity would mean putting ourselves on the level of an inattentive, unintelligent audience that cannot really appreciate intellectual continuity. No, good links are those established between arguments which are clearly distinguished and carefully categorised, in accordance with the admirable principle of dialectical rationalism so well expressed in Jacques Maritain's maxim: 'Distinguish in order to unite'.

When action, thought, and speech are gathered in this way on their successive summits, they therefore take on a continuity of composition that very obviously commands the subordinate continuity of execution. Yet this continuity is even more appreciable and appears even more effective when we are no longer content to present it as a gradation that is entirely logical and static. It has indeed a dynamic quality. It brings with it *rapidity*. This is a point of view we too often fail to study. Experimental psychology no doubt takes many measurements of reaction times, but these always concern reflex acts or simple acts. It does not turn its attention to the duration in which rather more complex problems are resolved. This duration of composition seems in fact to have no objective meaning; a thousand incidents may occur which slow it down, and in particular intervals of leisure or nonchalance between the composing acts seem to go on *ad libitum*. In short, the *continuity* of composition remains logical and we do not think of bringing out its psychic value as we ought to do when we consider the psyche as clearly engaged in an effort to attain maximum consciousness. And yet if we are willing to reflect on ourselves, we shall soon be aware of a very particular characteristic given by the *rapidity* of discursive thought as it links the stages in a well-made argument. This rapidity is not just speed. It also has the characteristics of ease, euphoria, and momentum, characteristics which could give a very precise meaning to a truly specific kind of energy that might well be called rational energy. This dynamism of understanding requires consciousness of the possession of a form. We are not aware of it at a first attempt and do not at first see its value. Intellectual causality must indeed be set in place. This dynamism is contemporaneous with a new beginning. It is therefore

structure and construction. It is a cause that has the ability to start all over again after it has had its effect. It is a rhythm. We master it by preparing the succession of intellectual events, attaining in this way what is truly succession in itself, totally emptied of the durations of development and expression and relieved, as far as it is possible to be, of the burden of all physiological obligations.

All psychological durations, clearly represented as they are in carefully thought out convictions, are constituted in this way, thanks to the heterogeneity of form and content and to a rational law that experience endlessly confirms. Durations are first of all *formed*. They are fleshed out and filled later. What is in them is not always what really constitutes them. At the very most, the apparently continuous duration of the subordinate psyche, the monotonous and formless psyche, consolidates the more broken form of intelligent thoughts and actions, broken by all its lacunae. Yet willed order remains quite plainly the antecedent temporal reality. When we ignore this essential distinction, we lack the hierarchical principle we need in order to analyse temporal knowledge correctly. We do not see that the story of a journey is a function of its geography. It is not possible to describe something properly if we do not already possess a pre-existing principle for finding reference points. Nor is it possible to describe temporal psychology if we do not give decisive instants their major causality.

A theory of filling of this kind does not moreover mark a return to a metaphysics of fullness, since there is always the heterogeneity of container and contained and also the supremacy of the form. The fundamental nature of this duality will perhaps be better understood from examples of temporal consolidation in which the heterogeneity of container and contained is especially clear. In dealing with this problem, we shall draw on a theory of consolidation developed by Dupréel in work that is of great significance. This theory provides us with good examples of the active constitution of duration. It shows very clearly that duration is not a datum but something that is made. We shall devote a chapter to this theory in order to preserve its unity.

NOTES

- 1 With this reference to grace, Bachelard reminds readers of Bergson's view of grace, developed in the first chapter of his *Essai sur les données immédiates de la conscience* (Paris, 1889), implicitly arguing against him.
- 2 Bachelard's footnote: Rignano, *La Psychologie du raisonnement*, p. 51.
- 3 *Analysis situs*, meaning 'analysis of place', was the traditional name for what is now known as topology, the geometry of place which studies the qualitative and the relative positional properties of geometric objects, irrespective of their form and magnitude. The homology to which Bachelard refers in this book is an aspect of topology.
- 4 An anacoluthon is defined as a lack of grammatical sequence.

Chapter Five

Temporal consolidation

I

Dupréel's argument starts from the same point as ours, from the opposition of instants and intervals. In other words, he distinguishes between the time we refuse and the time we use, between on the one hand time which is ineffective, scattered in a cloud of disparate instants and on the other, time which is cohered, organised, and consolidated into duration. Dupréel rightly takes it to be a fact both fundamental and patent that when we describe the psyche temporally, we have to postulate lacunae. We can subsequently study how these lacunae are filled, and we can claim that they were made to be filled; obviously though, a void must be postulated between the successive states characterising the psyche's development, even if this void may be simply a synonym for the difference between states that are differentiated. There is moreover a metaphysical reason that backs up this methodological need for intervals: directly or indirectly, we must give way to finality, that is to say to the determination of the present by a future which is by no means close and to which we ascribe above all a certain depth. If we are ready to accept the existence of a hierarchy of active instants we shall come, quite naturally, to accept the fundamental reality of a temporal framework. The adaptation of subordinate psychic events to this framework will thus be a recurrent adaptation. This kind of adaptation with its orderly sequence and strict hierarchy will not be subject to the objections raised to an

adaptation that is continuous and obscure, in which there is nothing to indicate the importance played by instants that are really active. It is akin to that adaptation through the formal cause which is fundamental to Bergson's theory of creative evolution. And it is this recurrent adaptation that Dupréel so aptly describes as *consolidation*, studying it in a most thought-provoking book.¹ Anyone reflecting on Dupréel's method will soon be convinced by the clarity that familiar examples bring. We ourselves have been encouraged by our reading of his works to go on with our own apparently perilous method, which amounts to explaining the lower by the higher and lived time by thought time. If Dupréel takes certain social forms to be 'the biological in its nascent state', then we may be correct in carrying out a similar reversal with reference to the psychology of duration and in affirming that thought time is lived time in its nascent state; in other words, thought is always in some respects a trying-out of or a first move towards a new life, an attempt to live differently, to live more or even, as Simmel has argued, a will to go beyond life. If we think time, it means that we place life in a framework; it does not mean we take a particular aspect of life that will be better understood the longer we have lived. This almost always means intending to live differently, to rectify life first and enrich it later. Thus criticism is knowledge, and criticism is reality. We shall see these two moments of a meditation on time clearly apparent as we follow Dupréel's philosophy of time which is so simple yet at the same time so profound.

II

If we are to understand Dupréel's book properly, the best thing is to start with the image he has suggested in order to define 'that which coexistence consolidates' since the latter will also be very helpful in enabling us to grasp the reality of 'that which succession consolidates' in which we are especially interested:

Generally speaking, whenever something is made there are two very clear successive states: first of all, the parts of the object to be constructed are assembled and placed in the order in which they should remain. At this point though, this order is only maintained

by external and provisional means. Only in a second, definitive state will the parts themselves, through an internal adjustment, keep the position in relation to each other that is in the finished object. When for instance a crate is to be made, for a few moments it is the maker's hands which hold the pieces of wood against each other that he is going to nail. Once these have been hammered in, the crate holds together all by itself: it has gone from the first to the second of the two states to whose succession we have just referred. This is clearer still in the moulding process; the duality of time in this process is marked by the duality of the mould and the object that is moulded. Before the cement is poured in, the object's parts are already placed in the correct order, but the force maintaining this order is external to them, it is the solidity of the mould (p. 11).

We thus pass from an ephemeral order to one that lasts, from an entirely external and contingent order to one that is internal and necessary. Dupréel therefore puts forward his argument concerning *that which succession consolidates*:

Is it not the case that what happens with regard to spatial relations also happens with regard to temporal ones? Are not certain orders of succession first secured by an external cause and then later come to hold together, that is to say come to reproduce themselves, through an interaction of conditions which is less foreign to them, through a cause which has in some way become internal? (p. 16).

This very pertinent question immediately suggests to us the possibility of a theory of the gradual interiorisation of life and thought. In our view, this kind of inside made from the outside – the very opposite of what happens when a substance expands – is particularly suited to giving us the schema of a duration that is enriched with events and that constitutes distinct temporal realities.

Let us therefore see the constitution of all that succession consolidates, of all these *objects* of the psychology of duration; let us see how duration is moulded in precise temporal forms. Here again, the best thing is to start with the very simple, very clear example that Dupréel gives:

Industry in the true sense of the term, the activity of humans who are associated and directed by aims, furnishes us at once with examples of *things that succession consolidates*. A clock is simply and solely one of these. By the time the person who made it thinks

about setting it correctly it is already something that coexistence consolidates and that in addition has now to be made into something succession consolidates. For the finger of the clock to move round the dial twice every day, no more and no less, the clock-maker must speed up or else slow down the clock's ticking in accordance with a chronometer that is itself adjusted to the earth's rotation. Here, the external order of support is the earth, the chronometer, and the clock-maker all combined. Once the movement has been duly perfected, the order to which it corresponds has become internal to the mechanism; the operation that transfers and fixes has been completed and an order of succession has been *consolidated*.

This order has indeed been brought from the outside, going from the whole to the part.

We can now find this process of temporal consolidation every time an order stabilises, be this in society, memory, or reason. Thus Dupréel shows us that the transition from a social custom to a truly moral dictate takes place through consolidation: 'the external order of interests has been replaced by the internal order of conscience'. Interiorisation is again seen very clearly here. When we move on to the psychology of individuals, interiorisation may well be harder to discern, but if Dupréel's schema is kept in mind we shall, even so, be able to see it at work. For example:

When children learn a fable by heart, they first find the order of its lines on the pages of their reader. Every time memory fails them, they glance at the text; they read and bit by bit every lacuna disappears from their memory. The order of the printed word is banished. *Knowing* means that we have learned; the order of what we know was first upheld by a force external to our understanding, the latter having consolidated this order for itself, thus making any external pattern superfluous (p. 19).

We can see very plainly here that order is not purely and simply registered but reconstructed with a faithfulness which has been thought out and willed, and sustained by reasons for coherence which are specific to the learner. Were we to take examples where the mind is more free, we would see that consolidation takes place on more subjective hierarchical bases.

A whole theory of knowledge could easily be developed by emphasising the process of consolidation. We would see in particular that, as Dupréel points out in a note, induction is a consolidation of experience and deduction a consolidation of induction. This general application would, we believe, also lead to a conclusion we wish to indicate: all the means by which we consolidate, however *artificial* they may appear, are in the end entirely *natural*. They seem artificial to us because we still see in them the mark of our own effort; we indeed feel that the given comes to us in temporal and spatial disconnectedness, or at least that its original solidity is shattered by the very slightest precise use; we therefore come to consolidate the given; we consolidate it in our own way, using mnemonic methods and rational ones equally. We readily accuse these attempts to consolidate of deforming nature. In making this kind of criticism, we do not see that nature always needs to be *formed* and that it seeks forms through human activity, in fact. If, as we ought, we put human activity back into nature's line of action, we shall acknowledge that intellect is a natural principle and that what is formed by reason is quite obviously formed by a force of nature.

We can therefore affirm that consolidation applies naturally in the realm of knowledge as in the realms of life and social activity. This consolidation really does govern the constitution of forms. To be very exact, it is the sum of formal and material causality. We shall understand it still better when we have reflected on this highly significant corollary stated by Dupréel: '*there is only growth through intercalation*'. It is impossible to attach too much importance to this principle which in our view casts an unexpected light on all theories of evolution. All that grows is first enriched within itself. It is this inner enrichment that determines growth. Growth is but a consequence. As Dupréel says very perceptively:

Life has not moved from an original nucleus towards an indeterminate development; it seems to have resulted from an advance from the external to the internal, from a state of dispersal to a final state of continuity. It has never been like a *beginning* from which a *consequence* results, but it was from the first like a framework that is filled, or like an order that has gained in

consistency through, if we may be permitted to use the expression, a kind of gradual stuffing... Life is certainly *growth*, but all growth that is *in extension*, like fabric that stretches or individuals that proliferate, is only a particular case; life is essentially growth through *density*, an *intensive progress* (pp. 38-9).

One might be tempted to see this intensive progress as a substantialisation of intensity, but we must be very clear that in Dupréel's theory there is nothing at all mysterious about it. Indeed, this intensity is analysed from a standpoint that is clearly formal and, so to speak, geometrical. Its development is presented in a totally discursive way, in both its detail and its rectification.

If we thus consider a temporal movement in its analytical aspect, it will not at first be correct to describe it as *continuous*; or at least if the continuity of a temporal movement is to be truly reliable, truly real and sure, then the *intervals* must be properly *organised*. Without this internal organisation, the form will not hold; it will disappear like some failed first attempt at something. Continuity must therefore always be upheld by solidity. We shall then come to discover variety in continuity itself, just as there is variety in the process of consolidation. For example, we shall give continuity to a temporal movement either by increasing the density of intercalary acts or else by regulating when these intercalary acts appear. Basically, rich duration and regular duration are two very different types of continuity. If our argument is correct, disturbances of temporal psychology may be of two principal kinds according to whether the frameworks of temporal consolidation are affected or, on the other hand, to whether the internal organisation of intervals is disturbed. There will thus be two kinds of bradypsychy² according to whether the cells remain empty or are shattered by a disordered organisation.

In any case, it seems to us that this metaphysics of consolidation and intercalation legitimates and completes our fundamental intuition that all progress takes place in two times: the posing of a form and material intercalation are the two inevitable moments of all coherent or rather cohered activity, of all activity that is not purely and simply made of accidents. Only this kind of cohered activity can be renewed and can constitute a precise temporal reality.

III

In addition to this attempt to describe the constitution of something succession consolidates, that is to say the determination of a real temporal *object*, Dupréel's philosophy also examines the precise nature of the fabric of time. Here, Dupréel develops a critique of causality and reveals that it is, of necessity, full of lacunae. He then shows the intervention of probability in the lacunae of the causal sequence. He thus prepares a renewal of probabilism to which we wish to draw attention. The foundations of this new probabilism will be found in two works, a book and an article.³

Dupréel in fact argues that between cause and effect there is always a necessary distinction; even when this distinction would simply be the result of the need to put forward two definitions to determine the two phenomena under consideration, it would nonetheless still establish the existence of a *logical distance*. To this logical distance there always corresponds an interval of time. And this interval, even where causality is concerned, is fundamentally different in essence from causality. Indeed, it is in the interval of time that impediments, obstacles, and deviations *can* intervene and these will sometimes shatter causal chains. This possibility of intervention must be wholly regarded as a pure possibility and not as a reality we do not know. It is not because we do not know what will intervene that we fail to predict the absolute effectiveness of a given cause; rather, it is because there is between cause and effect an entirely probable intervention of events which are not in any way at all connected to the causal datum. In particular, we shall never have the right to *give ourselves* the interval. In science, we can construct certain phenomena, we can protect the interval from certain disturbances, but we cannot get rid of every intervention of unforeseen phenomena in the interval between cause and effect.

We are well aware, up to this point, of the close connection between Dupréel's ideas and those of Cournot.⁴ But in Dupréel there is an added nuance which is decisive. Here, what determines chance is not, as in Cournot, the *accidental* crossing of two causal lines which each have rigorous continuity. Indeed, chance conceived according to Cournot's intuition would not in

any way be open to probability information; it would be pure accident. Dupréel's theory sheds light which helps us to understand that the probable already stems from any causal chain taken in isolation:

Cournot's way of speaking is too dependent on traditional language and still gives the impression that chance or the fortuitous is itself only an accident, and that as the exception to the rule there are sequences of facts that are possible without it intervening, and that are complete without it. The fortuitous fact is for him constituted by two elements of another nature, by facts that are caused and by their encounter. This is the preconception we must avoid; the fortuitous is not a parasite of causality, it is by rights in the very texture of reality...

In fact, all known reality is known in the form of a series of successive or concomitant events, that are perceived as regular terms of a same order and between which there is an interval that is always taken up by events of some kind or other. If events are only considered at the ends of the ordinal series, we in no way reach a reality but only an abstract schema, since it is bad metaphysics to postulate an *ad hoc* bridge, as causality in itself would be, which would join the ends of the series closely together by missing out the interval of time or space that is always there between them. If on the contrary we say we can reach and define the pure interval, that is to say a kind of reality beyond any ordinal series in which it is framed or with which it contrasts, then this would mean we were chasing shadows: we cannot grasp hold of the indeterminate as such (*La Cause et l'intervalle*, p. 23).

Thus, Dupréel has no trouble proving that his argument takes proper account of *all* reality, that is to say of, at one and the same time, cause and obstacle, fact and possibility, what happens and what could happen. If we only stress the necessity of causes and mentally get rid of accidents that really do hamper the development of this necessity, then we are indeed going in for scholasticism and realising an abstraction. If we take a cause that is as effective as we could wish, there will always in the development of its effectiveness be free scope for possibilities of halts or deviations. We must take account of these possibilities where they are encountered, in the forms in which they are encountered, and in the intervals in which they intervene so as to

modify the expected effect statistically. Even more important, we must take account of them in the description of reasoned behaviour in which possibilities become the elements of decision.

Lastly, to take a new concept of Dupréel's, this possibility which is taken in the causal sequence without going outside the causal chain appears as a very simple, very pure probability, as *ordinal probability*. A purely ordinal probability is intrinsically marked by the simple interaction of plus and minus signs. The event it indicates just seems more probable than the opposite event. It is not quantified. The quantification leading to the calculus of probability only appears when we can enumerate possible cases, for example in the case of the most schematised phenomena such as those produced by combinations of interactions. Where phenomena separated by a great logical distance are concerned, as in the phenomena of life and of the psyche, the question arises as to whether it will ever be possible to calculate them. In fact, it is *ordinal probability* that determines the processes of an individual psyche.

With just this ordinal probability, we have the link that will enable us to understand temporal sequences in higher and higher 'emergence'. Indeed, whenever an emergence, a phenomenon that goes beyond its given, makes its appearance, we can see that evolution is ever more clearly determined by probability and not by causality alone. In other words, we see that the living being and the thinking being are less involved in necessities than in probabilities. And this involvement safeguards freedoms precisely because it is only ordinal probability that is concerned here. Quantified probabilities, accounting for results in retrospect, can be expressed in the form of laws which are apparently necessary. Before a decision is taken, ordinal probability faces the alternative presented by behaviour that is still to be initiated: it inclines, but does not necessitate.

Once probability in this very simple form of ordinal probability has been re-established in behaviour, then as Dupréel has in fact said, considerations of finality are no longer to be banished from ideas about life. Even when the end may not be clearly seen, ordinal probability is clarified to some degree by the end we glimpse. The end has an ordinal probability that is

stronger than just any chance whatsoever, and a stronger ordinal probability is already an end. The two concepts *end* and *ordinal probability* are closer to one another than *cause* and *quantified probability* are. With this new concept, many contrasts between vitalism and mechanism grow blurred. Followers of Dupréel's philosophy find it gives them schemas that are sufficiently flexible for them to understand the connections at the different levels of emergence. We shall now pose the problem in a slightly different way by studying temporal superimpositions.

NOTES

- 1 M. Dupréel, *Théorie de la consolidation. Esquisse d'une théorie de la vie d'inspiration sociologique* (Brussels, 1931). Bachelard's quotations in sections I and II of this chapter are from this book; he omits some page references.
- 2 'Bradypsychy' appears to be one of Bachelard's neologisms; 'brady' is derived from the Greek 'bradus', meaning slow, Bachelard's word being modelled on French terms such as 'bradycardie' (bradycardia, a slowing of the heart) and 'bradypepsie' (bradypepsy, a slowing of the digestion).
- 3 M. Dupréel, *La Cause et l'intervalle ou ordre et probabilité* (Brussels, 1933); 'La Probabilité ordinale', *Recherches philosophiques*, 4 (1934-5). Bachelard's own article 'Idéalisme discursif' appeared in the same volume of this journal. *Recherches philosophiques* was founded in Paris in 1931, and set out to encourage new directions in philosophy, giving preferential treatment to phenomenology in the wake of Husserl's Paris lectures of 1929 and the publication of his *Méditations cartésiennes* in 1931. Bachelard contributed to volumes 1, 3, 4, and 6, and there are several references in his books to articles published in this journal: see for example chapter 6, notes 3, 4, and 8.
- 4 Bachelard refers here to the applied mathematician and philosopher of science Antoine-Augustin Cournot (1801-77), who is best known for his work on the interpretation of the calculus of probability.

Chapter Six

Temporal superimpositions

I

If we study the aesthetics of music and poetry from the standpoint of time, we shall come to recognise the multiplicity and truly reciprocal correlation of rhythms. In exactly the same way, if we make a purely temporal study of phenomenology we shall come to consider several groups of instants, several superimposed durations, which sustain different relationships. While it may until now have seemed to physicists that there is one single, absolute time, this is because they initially took up a particular experimental stance. With relativity has come temporal pluralism. For relativity, there are several times that doubtless correspond to one another and conserve objective orders of sequence but that do not however keep *durations* which are absolute. Duration is relative. Even so, the conception of durations in relativity theory still accepts continuity as an obvious characteristic. This conception is in fact based on intuitions of movement. The same is not true in quantum physics. Here, physicists are on a new level and what determines their intuitions is not *movement* but *change*. All the problems we encounter in assimilating quantum theory stem from the fact that we are explaining a change in quality with intuitions of a change in place. If we try to think about pure change, we see that here continuity is simply a hypothesis – and a very bad hypothesis – since a continuous change can never be experienced. It can therefore be presumed that the development of quantum

physics will necessarily lead to the conception of discontinuous durations which will not have the linking properties illustrated by our intuitions of continuous trajectories. Qualitative becoming is very naturally a quantum becoming. It has to move through a dialectic, going from the same to the same via the other.

Were we able to found a wave and quantum biology on the basis of wave and quantum mechanics, we would soon find ourselves confronting pulverisations of time which, in order to determine temporal effectiveness, would require special statistics relative to the microphenomena of life. Lecomte du Nouy's book has a number of interesting suggestions to make regarding this.¹ For Lecomte du Nouy, the time of physics is simply what enwraps individual biological times in the same sense that a light wave enwraps a multitude of elementary wavelets. Continuity would therefore be the result of temporal superimpositions. We could go further and say that the time of a tissue is continuous because of the statistical regularity of the necessarily irregular times of its cells.

Yet philosophers do not have to go deep into these provisionally forbidden regions in order to accept both temporal pluralism and temporal discontinuity. The difficulty they have in keeping to one particular line of thought shows them fairly clearly a time that is made of accidents and far closer to quantum *inconsistencies* than to rational *coherence* and real *consistencies*. This mental time is not, we believe, just an abstraction from life's time. The time of thought is in fact so superior to the time of life that it can sometimes command life's action and life's repose. Thus, the mind's time pursues its action deep down, acting at levels different from its own level of sequence. It also of course acts at a purely mental level, as we have tried to establish in our study of intellectual causality. These small glimmers of light do not indeed suffice to clarify for us the multiplicity of our experiences of time. They can though let us glimpse an aspect of our argument: time has several dimensions; it has density. Time seems continuous only in a certain density, thanks to the superimposition of several independent times. In the same way, all unified temporal psychology is necessarily full of lacunae, necessarily dialectical. This is what we shall again try to prove in this chapter, using new arguments.

II

Were we to venture to relate our own views to a major theory, it is here that we should recall a number of Hegel's themes. Our wish having been to write as a teacher, teaching how to make a first attempt at sketching temporal waves, we did not want to start with metaphysics as difficult as Hegel's. We also feared that we would be accused of tending towards logicism and of having a dialectic that was more logical than temporal. And yet how inappropriate such an accusation is when we turn to Hegelian method! This is what Koyré has recently shown in a short article that is as good as a whole book.² The concrete character of Hegelian idealism has never in fact been so well and so quickly established:

What Hegel seeks to give us... is by no means an analysis of the *idea* of time. Quite the opposite, it is the *idea* of time – an abstract, empty idea – that Hegel undertakes to destroy by showing and describing to us how time is constituted in the living reality of the mind. Is this the destruction of time? Is it its construction? Both these terms are inappropriate. It is not a matter of destroying, even dialectically, or of constructing. It is a matter of bringing out and discovering – and not postulating hypothetically – in and for consciousness itself, the moments, stages, and mental acts in and through which the concept of time is constituted both in and for the mind ('Hegel à Léna', p. 444).

Koyré goes on to show the actual, active character of Hegelian dialectics. The latter are not logical terms limiting one another and offering us, as from the outside, the contradiction of their aims. It is indeed the mind that grasps itself in the two associated dialectical actions. This being so, we can understand that in trying to move up to pure mental time we reach the regions of both inner contradiction and the contraction of being and nothingness. As the soul thinks of itself, it makes itself adopt the attitude of refusal since it rejects objective kinds of thought; it therefore goes back to nothingness within itself, returning to that fundamental disquiet of the mind which Hegel has so clearly described. A further lesson of Hegelian metaphysics is that in giving ourselves being by refusing being, our restoration is assured, together with the automatic recovery of minimum

repose. Lastly, the whole problem of the aggregation of dispersed and disparate mental acts is posed in Koyré's striking conclusion here. In describing 'the constitution of time or more accurately the self-constitution of the concept of time', Hegel does not envisage:

an analysis of the idea of time, an abstract idea of an abstract time, of the time we find in physics, Newtonian time, Kantian time, the strictly linear time of formulae and of watches. Something else is in question here. Time itself is in question, along with the mental reality of time. This time does not flow in a uniform way, nor is it a homogeneous medium through which we would ourselves flow; it is neither the number of movement nor the order of phenomena. It is enrichment, life, and victory. It is itself mind and concept.

Here we glimpse the superimposition of concept and life, of thought and time. Were we able to make beautiful temporal figures from our psychic activity, if we could in other words *really consolidate* the temporal structures of the mind, there is no doubt that we would ease that Hegelian disquiet born at the level of mental time with the awareness of how difficult it is to remain at this level. This disquiet does not have its roots in life, for submission to life at a lower level, to the flimsy continuities of instincts, would at once erase it and would give us that lower form of repose in which we cannot remain when once we have left it. It is indeed the prerogative of thought to ease this disquiet and grant us true repose. Our sense of a duty to seek the higher, rare and pure rhythms of mental life is therefore reinforced.

III

We shall therefore try to explore superimposed times psychologically. Simply because they do not have the same principles of sequence, thought time and lived time cannot be postulated as being naturally synchronous. There is a kind of vertical relativity that gives pluralism to mental coincidences and that is different from the physical relativity which develops at the level where there is the passage of things. It is very hard to define this cohesion of coincidences but a number of psychologists do have some inkling of it. Thus, Alexandre Marc writes that:

Pragmatists are apt to proclaim the primacy of action while in reality subordinating action to the category of the useful, or else – which amounts to the same thing – reducing the person to life alone. From this point of view, no *essential* distinction can be established between humans and animals. Now, what is in fact missing in animal 'action' is this possibility of 'deepening', this ability to make breaks and to oppose, in a word this *vertical* dimension – which is also the dimension of the intellect – that appears as both the particular attribute of humans and the indelible quality of the real present: *even 'in' time, humans remain upright*.³

This line running perpendicular to the temporal axis of life alone in fact gives consciousness of the present the means to flee and escape, to expand and deepen which have very often led to the present instant being likened to an eternity.⁴

Work by Straus and Gebattel, to which Minkowski has so effectively drawn attention, clearly shows certain consequences of this temporal superimposition. Basing himself on Höningwald's distinction between immanent time and transitive time, or more simply between the time of the self and the time of the world, Minkowski establishes the duality of sequences as well as the very variable relations of dependence going from one time to the other. Even in normal life:

there may be discord between them. Sometimes the time of the self seems to go faster than the time of the world and we have the impression that time is passing quickly, life smiles at us and we are full of joy; sometimes on the contrary the time of the self seems to run more slowly than that of the world, time therefore drags on for ever, we are gloomy and world-weariness takes hold of us.⁵

Were we to see this as but a trite analysis of the feeling of languor that makes us 'find time too long', we would not have fully grasped Minkowski's intuition. We are not in fact dealing with an *illusion* here but with a psychological reality evident in the analysis of pathological cases. Thus, in some states of endogenous depression:

the contrast between the two modes of time becomes striking. Here, immanent time seems to go markedly more slowly and even to stop, and this modification of temporal structure comes to be

inserted between on the one hand the underlying biological disturbance and on the other the current clinical symptoms; in Straus's view, this modification is the direct consequence of the biological disturbance, which here consists of an inhibition.

It seems that in some way, such patients are disconnecting. They make a perpendicular escape from the duration of the world. In order to set immanent time in motion, particular rhythms of transitive time are then needed. The case of a woman patient of Straus's is very instructive in this respect, for she 'only felt time move forward when she was doing her knitting'.

IV

Let us now offer an example of superimposed time taken from our own experience; it comes from a dream in whose structure we can distinguish between the different kinds of superimposed time and the parts they each play. I had bought a house, and I fell asleep one night thinking of some of the things still to be done. In my dream, my continuing worries meant that I met the owner of my old home. I took the chance therefore of telling him about my new acquisition. I spoke kindly as I was about to give him a piece of bad news; could anyone fail to regret the loss of a philosopher-tenant, one who is ever content and uncomplaining, who combines all the integrity of a moral principle with a hermit's frugality! Then slowly, and with a skill that revealed the striking continuity of capitalist time within me, of which I was entirely unaware, I suggested to my landlord all the many ways in which we might mutually agree to end the contract binding us. I spoke at some length, with sweet words of courtesy and persuasion. My little speech was well organised: the fact that my aim was clear meant that my arguments were produced at exactly the right moment. Suddenly, I looked at the person to whom I was speaking; he was now listening to me very calmly, and he was not my landlord. He had certainly been my landlord to begin with, this I realised through some strange kind of recurrence; he had then been my landlord in his younger days, and afterwards had turned into someone progressively more different until I suddenly realised that I was telling all this to a

complete stranger. This piece of bungling on my part annoyed me so much that I flew into a temper over this fresh evidence of my absentmindedness and of the temporal discords that I had allowed to occur within me as a result of my having 'superimposed time.' I was awoken by the anger that so often, in our dreams, disrupts and shatters time.

Do we need any further proof that verbal time and visual time are in fact only superimposed and that, in all our dreams, they are independent of each other? Visual time passes more swiftly, and it is for this reason that they fall out of step. Had I been able not only to free myself of my financial worries but also to speed up what I was saying, I would have maintained complete synchronism with what was happening visually. Dreams are indeed extremely changeable horizontally, that is to say along the plane of the normal, everyday incidents of life, yet even so, my dream would at least have retained its vertical coherence, that is to say the form of normal, everyday coincidence. In my conversation with the stranger who took my landlord's place, I would have chosen words which were *appropriate*. I would not have *continued with* my story: I would have *modified* my confidence the moment my confidant began to change.

If we agree to analyse complex dreams from the standpoint of these differences in temporal rate, we shall see that there is much to be gained from the concept of superimposed time. Many dreams will seem incoherent simply because there is a sudden, instantaneous loss of co-ordination between the different times that we are experiencing. It would appear that when we sleep, our different nerve centres pursue their own autonomous development and that they are in effect time detectors, each with its independent rhythm. Let us say in passing that these isolated detectors are particularly sensitive to temporal parasites. Indeed, often in the peaceful repose sleep brings I have the feeling that parts of my brain are crackling, as if the cells were exploding or some kind of partial death were rehearsing its disasters. If we consider time in the context of cellular activity, we must see that it is closer to the time of a moth or an amoeba, any coincidences there being exceptional. When like a beehive, the whole of our brain comes to life, it is

statistical time that restores both regularity and slowness. Moreover in waking life, reality offers grounds for agreement. Reality makes what we see wait for what we say, and as a result of this we have objectively coherent thought, a simple superimposition of two terms which mutually confirm one another and usually suffice to give an impression of objectivity. We then say what we see; we think what we say: time is truly vertical and yet it also flows along its horizontal course, bearing with it the different forms of our psychic duration, all according to the same rhythm. Dreaming is the very reverse of this, for it disengages these different kinds of superimposed time.

V

We have probably now adduced sufficient evidence, evidence drawn moreover from sufficiently heterogeneous sources, to have some kind of certainty that with this temporal superimposition, we are touching upon a natural problem. Let us suggest then how we personally would wish to direct research in order to solve this particular problem.

The temporal axis that lies perpendicular to transitive time, to the time of the world and of matter, is an axis along which the self can develop a formal activity. It can be explored if we free ourselves from the matter that makes up the self and from the self's historical experience, in order to consolidate and sustain aspects of the self which are progressively more formal, and which are indeed the truly philosophical experiences of that self. The most general and the most metaphysical method of approach would be to build up tiers of different kinds of cogito. We shall return later to particular examples of this that are closer to everyday psychology. Let us now turn without further delay to this attempt to create a compound metaphysics, a compound idealism, which will put in the place of *I think, therefore I am* the affirmation that *I think that I think, therefore I am*. We can see even now that *existence* as it is averred by the *cogito cogitem* will be much more formal than existence as it is implied by thought alone; if eventually we can manage to reveal what we really are when we first establish ourselves in the *I*

think that I think, we shall be less inclined to say that we are 'a thing which doubts, understands, conceives, affirms, denies, wills, refuses, which also imagines and feels'.⁶ We shall thus avoid settling into a phenomenal existence which needs permanence in order to be confirmed. The Cartesian cogito is necessarily discursive for it is entirely horizontal, and this fact has been made abundantly clear by Teissier du Cros in an article that we consider to be quite unusually profound. He argues that:

between the *I* and the *am*, there is the relation of affirmation and confirmation. Where the self is concerned, the judgement of existence is, in the end, a *repetition*: if we take both of them from the same standpoint, that of realities, and compare the specific experience of the self with the specific experience of things, it will be said to be the same thing as this.⁷

If however we can rise to the *I think that I think*, we shall already be free of phenomenological description. If, continuing a little further, we reach the *I think that I think that I think*, which will be denoted by (cogito)³, then separate, consecutive existences will appear in all their formalising power. We have now embarked upon a noumenological description which, with a little practice, will be shown to be exactly summable in the present instant and which, by virtue of these formal coincidences, offers us the very first adumbration of vertical time.

What we are doing here is not in fact thinking ourselves thinking *something*, but rather thinking ourselves as *someone* who is thinking. Indeed, with this formalising activity, we watch the person being born. This formal personalisation takes place along an axis whose direction is entirely opposite to substantial personality, the personality that is supposedly original and deep, although in reality it is encumbered and weighed down by passion and instinct, and imprisoned by transitive time. Along the vertical axis we are suggesting, being is made mind in accordance with the degree of its awareness of this formal activity, of the power of the cogito it is using, and also of the highest exponent of the compound cogito to which it can go in its attempted liberation. Were we to overcome the difficulties surrounding the first severance, and then reach for example (cogito)³ or (cogito)⁴, we should immediately recognise the great

value of this strictly tautological psychology in which being is really and truly self-concerned, that is to say the value of repose. Here, thought would rest upon itself alone. *I think the I think* would become the *I think the I*, this being synonymous with *I am the I*. This tautology is a guarantee of instantaneity.

It will however be asked in what way this sequence of forms can acquire a specific temporal character. It can do so because it is a becoming. This becoming is doubtless peripheral to the becoming of things and independent of material becoming. Clearly then, this formal becoming rises above and overhangs the present instant; it is latent in every instant that we live; it can shoot up like a rocket, high above the world and nature, high above ordinary psychic life. This latency is an ordered succession. Any alteration in the order of the various tiers is inconceivable. It is, we can be sure, a *dimension* of the mind.

Someone is bound to ask whether this dimension is infinite. To draw such a conclusion would be to yield far too quickly to the seductions of logic and grammar. We therefore refuse to go on lining up our subjunctives indefinitely. In particular, we refuse to imitate those writers who talk so vaguely about *knowledge of knowledge...* precisely because the subjective factor of formalisation is not always clearly implicit in *knowledge of knowledge...*, in (knowledge)ⁿ. We ourselves have found it exceedingly difficult, psychologically speaking, to attain to (cogito)⁴. We believe that the true region of formal repose in which we would gladly remain is that of (cogito)³. From the researches into compound psychology which we shall be outlining later on, we shall see that the power of three corresponds to a state that is sufficiently new for us to have to exert ourselves considerably and for a long time there before we can go beyond it and proceed with our construction. (Cogito)³ is the first really unballasted state in which consciousness of formal life brings us a special kind of happiness.

These different temporal levels can, in our view, be rather schematically and crudely characterised by a number of different mental causalities. Thus, we consider that if (cogito)¹ is implied by efficient causes, then (cogito)² can be ascribed to final causes, since if we act with an end in view, then we are acting with a

thought in view while being at the same time conscious that we are thinking that thought. Only with (cogito)³ will formal causality appear in all its purity. This division into things, ends, and forms will of course seem artificial to any linear psychology that seeks to place all entities on the same level, making them part of a single reality, beyond which there can only be dreams and illusions. Yet the discursive, hierarchical idealism for which we are arguing is not limited to this one realist point of view.⁸ If we take Schopenhauer's fundamental axiom as our starting point and say that the world is my representation, then it seems acceptable to attribute ends to the *representation of representation* while forms that are constituted in those mental activities which imply both things and ends must be attributed to the *representation of the representation of representation*. Psychologically speaking, if we follow the axis of liberation and free ourselves of all things material, we shall then no longer determine our own being by referring to things or even to thoughts, but rather by reference to the form of a thought. The life of the mind will become pure aesthetics.

Finally, the time of the person, vertical time, is plainly discontinuous. Were we to attempt to describe the passage from one power of the cogito to the next as a continuous process, we should realise that we were placing it along the familiar axis of time, and by this we mean vulgar time. This would lead to a complete misunderstanding of temporal superimposition. We would be starting from the mistaken belief that all psychological analysis is necessarily temporal, in other words that all psychological description is historical, and that it is because we are following the hands of the clock that we can successively *think*, then *think that we think*, and then *think that we think that we think*. We would be disregarding the principle of the fundamental instantaneity of all well-ordered formalisations. If we take psychological coincidences not simply in the instant but also in their hierarchical form, we shall receive far more from them than potential linear development. We remain entirely convinced that the mind thrusts far beyond the line of life.

Let us live temporally at the power of three, at the level of cogito cubed. If this third state is examined temporally in relation

to the first state, that is to say in relation to transitive time, it will be full of lacunae, broken up by great intervals of time. Here, quite unmistakably, we have the dialectic of time. And once again, continuity must be sought elsewhere, in life perhaps or perhaps in primary thought. Yet life and primary thought are so devoid of interest for anyone grown familiar with that formal state in which we seek repose from life and thought that as a result, this purely material continuity will pass unnoticed. What we need then is some kind of rational coherence to replace material cohesion. In other words, if we wish a purely aesthetic thought to be constituted, we must transcend the temporal dialectic by means of forms, by means of the attraction of one form to another. Were we to retain our ties with ordinary life and thought, this purely aesthetic activity would be entirely fortuitous, lacking any coherence or any 'duration'. In order that we may have duration at the third power of the cogito we must therefore seek reasons for restoring the forms we have glimpsed. This will come about only if we can teach ourselves to formalise a wide variety of psychological attitudes. We shall now outline some applications of this compound psychology, emphasising the homogeneity of certain textures of time that are very full of lacunae.

VI

Let us first consider an intellectual attitude in which there are a large number of periods of inhibition and few really positive actions. Let us for example study the temporal texture of pretence and see that this has already become detached from the continuous pattern of life: pretence is already a temporal superimposition. Indeed, even when we first consider it, we cannot but be struck by the fact that the texture of pretence is full of lacunae. A continuous pretence cannot really be imagined. Moreover, we must not exaggerate if we wish to pretend successfully. The principle of necessary and sufficient reason is carefully applied when we pretend, with the result that we try to balance inhibitions and actions. Pretence curbs natural expansiveness and cuts it short; it obviously has less density than a feeling that comes straight from the heart. Pretence is no doubt

inclined to make up for what it lacks in number by intensity. It reinforces certain characteristics and increases susceptibilities. It brings both invariability and inflexibility to attitudes that are naturally more mobile and more flexible. In short, the temporal texture of pretence is both full of lacunae and also uneven.

If we are to pretend successfully, we must indeed make what is essentially discontinuous and disparate appear to be continuous. The density and regularity of its temporal texture must be increased or, as Dupréel would say, this texture must be consolidated. Acting appropriately does not suffice for this to happen. It only leads us to use circumstance, to constitute from the standpoint of worldly convention and with the world's time an emotional form that cannot really be described as psychologically 'consolidated'. Successful and active pretence that is no longer fortuitous requires that it be incorporated into the 'time of the self'. For it to be truly constituted the following paradox must be resolved: pretence has to be attached to the 'time of sincerity', to the time of the person almost to the point when we are deceived by our own deception. It is in this way, in fact, that some pretences at neurosis do in reality come about. More simply, it is by attaching them to the 'time of the person' that we can pretend to feel those false rushes of enthusiasm that sweep others along synchronically with our dynamism. For lying to have its full effect, the different kinds of personal time must as it were mesh with one another. In the absence of this application on to our own rhythm, pretence cannot be given dynamic conviction.

These observations may well seem both superficial and artificial. Where the psychology of an attitude as precise as pretence is concerned, people want psychologists to depict a particular kind of pretence and not 'pretence in itself', and especially they want psychologists to describe to them how truth is turned into falsity and also to let them experience the ambiguity of meaning. We ourselves though are looking for grounds for establishing an abstract psychology and thus in our view, it is precisely because meaning is ambiguous that we can cut ourselves off from it more effectively; pretence seems to us a good example of abstract psychology, of psychology that is formal and artificial, in which time will show itself to be an

important characteristic. Indeed, if we take away the double meaning of pretence and consider neither what we are pretending nor why we are pretending, then what is left? Many things: there is still the order, place, density, and regularity of instants in which the person who is pretending decides to exaggerate nature. The schema of initiating acts is all the more important here because it is artificial. The purely temporal aspect of deceit must catch the attention of deceivers themselves. Those who pretend must remember they are pretending. They must feed their pretence. Nothing urges them on or forces them to act, but they still know that it is once again time to pretend. Missing a chance to pretend sometimes – not always – means that pretence is shattered. However full of lacunae it may be, pretence would by virtue of this partial forgetting lose its 'continuity', proving fairly clearly that there can be 'continuity' without a real continuum. In the context of the artificial feeling of pretence, continuity does not need the entirely natural continuity of life that natural feelings have.

When we arrange all that can connect us to others in a close series, when we carefully adapt to fit the time of other people and if at all possible predict others' capriciousness, then all this does not require that we and others share the same substance. Enabling us to share the same time is now though one of interpsychology's main aims. Once this synchronism has been achieved, that is to say when correspondence has been established between two superimpositions of two different psyches, we realise that here we have nearly all the substitutes for a sharing of substance. The time of thought marks thought deeply. We may not perhaps be thinking the same thing but we are thinking something *at the same time*. What an amazing union! All interpsychology ought first to pose the problem of temporal correspondence and not take synchronism to be an effect without discussing it. It is often a convention; it is sometimes calculated; it can always be something that is well made and economically organised. In any case, for artificial feelings, for all feelings we pretend to have, the problem of synchronism is in our view a primary one: time must not be allowed to destroy the work of time. Nor indeed must time be forced.

With pretence, we have seen an attitude which is sustained in a time full of lacunae and already very free of all the obligations of the time of life, a time that is in a way superimposed on the time of life. To give a better idea of our dialectical stance and of the importance of inhibitions that intervene and refuse life's suggestions and connections, let us ask ourselves whether we could by increasing the actions of inhibition reach attitudes which are ever more full of lacunae, in times that are superimposed on one another. Could we for example pretend to pretend, and if the answer is yes, then what would be the temporal form corresponding to pretence at pretence which we shall denote as (pretence)²?

It would not be difficult to find a good number of literary texts to show that pretence at pretence has not escaped novelists' attention. George Sand refers to it explicitly in chapter 13 of her *Horace*. We would find that it has left its mark on very many pages of Dostoyevsky's work, to the extent that the question arises as to whether his psychology is not a systematically 'compound' one, a psychology that reflects back on itself and is made up of feelings which are raised to 'exponents'. We have only to reread *Crime and Punishment* in particular to see many examples of (pretence)², and if we agree to use the schemas of temporal analysis suggested here we realise that these schemas can bring out characteristic features. Thus, (pretence)² will appear as much fuller of lacunae than pretence pure and simple. This will be seen if we make even the very slightest attempt at statistics and compare among the instants of pretence those that go from (pretence)¹ to (pretence)².

Yet the problem is not of course just a problem of literary psychology. In speaking to different people – to women especially – about the pretence of pretence, we have been surprised at how quickly they understood us. The question as to whether one can pretend to pretend elicited the immediate response: but of course. On the contrary, as soon as we asked the question whether you can pretend to pretend to pretend, everything grew confused and brought on a kind of mental vertigo. Simply because of this confusion, (pretence)³ poses an interesting problem for compound psychology and temporal superimposition.

However hard it may in fact be to establish oneself in this very unstable state, we believe that with a little experience it can be studied. We must not of course put our trust in a purely verbal process and imagine it is enough to give a name to a state for it to be known. For anyone who thinks this can be done, it will be an easy matter to define (pretences)⁴, (pretences)⁵ and so on. In our own personal experience, we have never really been able to go beyond (pretence)³. Pretences that go beyond this seem to us to go through grammatical intermediaries that have no psychological value. They cannot in our opinion become temporal in the sense we shall shortly explain.

Having rejected states with too high an exponent, we must now respond to objections we have come across from those who refuse to accept the psychological reality of psychology to the power of three. (Pretence)³ is often attacked using the objection that since (pretence)² is already a return to what is natural, (pretence)³ is therefore just pretence. Objections like these amount to psychology being associated with logic. Pretence is seen as related to definite truths and two negations are too quickly thought to make one affirmation. Once we have freed ourselves from these automatic inversions and reached real psychological inversions, then many interacting nuances appear and give sufficient pretexts for diversity. We had only just finished giving a lecture on (pretence)³ when a number of those present were kind enough to give us some interesting notes. One set of notes from Mr L. Thiblot seems so clear to us that we reproduce it here without making any changes:

A first hypothesis. Simple pretence. A lecturer's class is boring me stiff. But as I am keen for this lecturer to have a good opinion of me, I simulate great attention while he is speaking. I hope he will be duped by my pretence.

A second hypothesis. Pretence to the power of two. The lecturer's class is boring me stiff and as I have reasons for wanting to be nasty to this lecturer, I simulate such exaggerated attention and enthusiasm that he is obliged to say to himself 'this is too good to be true; this student is making fun of me!'. I therefore only pretend to pretend. I pretend but hope the lecturer will not be duped by my pretence.

A third hypothesis. Pretence to the power of three. I am finding

the lecturer's class very interesting. Yet as I have had a bet with other students that I shall be nasty to him, I want him to think his class is of no interest to me. I use exactly the same means I have just described in order to do this. I make the pretence of such exaggerated attention and enthusiasm that he is obliged to take them by antiphrasis, as it were. Here there is pretence to the power of three: I give a semblance of working so as to make a pretence of having a feeling (the lack of interest is itself only a sham).

If moreover we consider the problem from a temporal point of view, we shall see that the accusation of being merely logical artifice does not hold water. Indeed two negations would make one affirmation if all the first states were to be transposed. This would be the case if we only had one temporal level, one single texture, with everywhere the same continuity. But just as (pretence)² is more full of lacunae than (pretence)¹, so (pretence)³ has even more lacunae than (pretence)². In order for the influence of the rare and chosen instant to be fully understood, let us adopt a totally analytical approach that should help us learn the art of pretending to pretend to pretend. Since everyone has knowledge of pretence at pretence, let us entrust this (pretence)² to speech and then ask the eyes to take charge of (pretence)³. This they do, as they wink or flash at the right moment. Here again we see the same temporal dissociation, only this time deliberate, that we pointed out with regard to a dream of ours. Superimposed times can each be consolidated by particular kinds of behaviour in which different emotional processes may be involved.

Lastly, those present at this lecture made other suggestions, most of which amounted to bringing more and more speakers into play. We would thus have the opportunity of varying our social times as much as we wished, attaching a time to each distinct society. Every state of pretending would be determined by one particular witness. A would not be the same for B as for C or D. Temporal superimpositions would be easily obtained but they would not really be in a hierarchy. Finally, we do not accept those different pyramidal constructions that are all too easily made; we ourselves return again to an entirely temporal superimposition in which emotions that come into some kind of

combination with each other appear as real 'formalisations'. It is a process that can only be fully clarified by real reflection in which form recognises its independence from matter. Then the temporal schema truly marks the form and appears as a characteristic aspect of the psychological element envisaged.

VII

Many other psychological compositions could of course be studied: the joy of joy, the love of love, the desire for desire, and many more superimpositions too, a large number of examples of which could be found in the contemporary philosophy of emotion. In particular, it seems to us that a study of Paul Valéry's work from this standpoint would be fruitful. Jean de Latour's fine book on him gives rethought values, re-evaluated values, and re-formed forms their rightful place.⁹ This truly is the dynamic secret of Paul Valéry's active idealism.

In such psychological compositions, difficulties will again appear starting from the power of three; we in fact attain pure idealism starting from the power of three. Thus in (love)³ the ever fickle, the systematically fickle pleasure of (love)² is seen to disappear. Moreover, this (love)² is still involved in varieties of (love)¹. Adherence to the *object* only disappears with (love)³ which is at last free and faithful, and the pure art of love.

Our task though is not to make a thorough study of exponential psychology, and these brief notes are only intended as suggestions for future work. What we would like to draw attention to in concluding this discussion is the value for those conducting work of this kind of taking temporal characteristics as their starting-point. This is where we ourselves would begin such a study: it is obvious that attitudes at the power of two are temporally more full of lacunae than are primary attitudes. Generally speaking, when coefficients are raised we move into times which are increasingly full of lacunae. We believe that despite these increasing voids, a psyche can maintain itself in exponential attitudes without being dependent on the primary psyche. *Idealised times are therefore consistent without however having continuity.* This is one of the principal arguments of the

philosophy of time that we are proposing. It would no doubt seem simpler to postulate the continuity of the primary attitude as being fundamental and to consider escapes from this as like rockets which are separate from it, shooting up from time to time along the length of natural development. But this simplest of solutions is not ours. It does not take into account the fact that some minds can maintain themselves in exponential thought, in thought of thought for example and even in (thought)³. It therefore seems to us that time in the second or third superimposition has its own grounds for making a sequence. Everything we have already said about psychological causalities being regarded as different from physiological causality could be repeated here in order to prove that reasons and forms can stabilise attitudes which do not really rest on any deep foundation. In superimposed temporal developments we see that, if we examine the higher lines of our mind, events that are very infrequent indeed do suffice to sustain a mental life and to propagate a form. Unfortunately psychologists have no interest in working in this field – 'up in the clouds', as malicious critics will say. Contemporary psychology prefers to follow Freud in his acherontic explorations, seeking to feel thought at the sources of life and from the standpoint of life's urgent flow. Even though pure thought is revealed as clearly discontinuous while at the same time remarkably homogeneous, psychologists still want the psyche to be a form which is equivalent to life and always contemporaneous with a development of life. And yet the more full of lacunae a psyche is, the clearer it is; the more concise its orders, the more they are obeyed. Times that are truly active are times that have been emptied out in which conditions of execution only appear as subordinate conditions. When we have studied artificial psychology and exponential attitudes, we shall see that the times of action are isolated and that their repetition is not totally conditioned by execution but indeed first of all by higher and more mental necessities. The coherence of reasons for acting will determine the cohesion of real actions. Continuity at the higher levels of time will become a metaphor. It will be all the clearer for this, more thought-provoking too and finally more easily restored.

This admission that continuity is a metaphor should not, in our view, be seen as an objection to our argument since this is in fact the case for all durations. To prove this, we shall now study some of the most common metaphors serving to depict the constant action of duration. We shall see from these metaphors that continuity is always bound up with a point of view, or in other words that it is purely and simply a metaphor.

NOTES

- 1 Bachelard's footnote: Lecomte du Nouy, *Le Temps et la vie* (Paris, 1936); see in particular chapter 9.
- 2 Bachelard's footnote (amended): A. Koyré, 'Hegel à Iéna', *Revue d'histoire et de philosophie religieuses*, (1935).
- 3 Bachelard's footnote (amended): A. Marc, 'Le Temps et la personne', *Recherches philosophiques*, 4, (1934-35), 132; for information regarding this journal, see chapter 5, note 3.
- 4 Bachelard's footnote (amended): cf. A. Rivaud, 'Remarques sur la durée', *Recherches philosophiques*, 3, (1933-34), 19ff.
- 5 Bachelard's footnote: E. Minkowski, *Le Temps vécu* (Paris, 1933), p. 278.
- 6 Haldane and Ross, *The Philosophical Works of Descartes* (New York, 1955), 1, p. 153. Bachelard refers here to Descartes's *Méditation II*.
- 7 Bachelard's footnote: Ch. Teissier du Cros, 'La Répétition, rythme de l'âme, et la foi chrétienne', *Etudes théologiques et religieuses*, (Montpellier, May 1935).
- 8 There is an implicit reference here to Bachelard's article on discursive idealism, 'Idéalisme discursif', first published in *Recherches philosophiques*, 4, (1934-35), 21-29, and subsequently published in G. Bachelard, *Etudes*, (Paris, 1970), pp. 87-97.
- 9 Bachelard's footnote (amended): J. de Latour, *Examen de Paul Valéry*, (Paris, 1935).

Chapter Seven

Metaphors of duration

I

If readers have followed our argument that connections between truly active instants are always made at a level different from that at which action is executed, they will not be far from concluding as we do that, strictly speaking, duration is a *metaphor*. This makes the ease of illustration that is one of the charms of Bergson's philosophy much less surprising. Indeed, it is not in the least surprising that metaphors can be found that illustrate time if we make them the single connecting factor in the most varied of domains, in life, music, thought, emotion, and history. We think that by superimposing all these more or less empty, more or less blank images, we can make contact with the fullness of time and the *reality* of time; from a blank, abstract duration in which just the possibilities of being would be found, lined up one after the other, we think that we can move on to duration that is lived, felt, loved, sung, and written about in literature. Let us again outline these superimpositions: when duration is regarded as life, it is the inseparability and organisation of a succession of functions – life when continuously conscious of something is reverie – reverie itself is a melody of the mind, its constituents paradoxically both free and merged together. If we go on to add that in the same way melody 'can be compared to a living being',¹ we have created a whole family, an entire closed cycle of metaphors that will constitute the language of continuity, the song and indeed the lullaby of continuity.