

Ami Clarke
Author of the BLANK Swan

The End of Probability

Ami Clarke, Author of the BLANK Swan. 2016.

Published by Banner Repeater
Platform 1, Hackney Downs train station
London E8 1LA
www.bannerrepeater.org

1st edition paperback of 200 copies printed 2016
in the United Kingdom.

A catalogue record of this book is available from the
British Library.

ISBN 978-0-9929176-3-0

Published by Banner Repeater in conjunction with a talk
by Elie Ayache author of *The Blank Swan: The End of Probability*
(ISBN: 978-0-470-72522-1) and artist Ami Clarke, for
Technology Now series at the Institute of Contemporary Arts.

Kindly supported by Arts Council England for the
Banner Repeater *Publishing as Process* arts programme 2015/16.

Designed by Ami Clarke.
Cover printed by Aldgate Press,
Bow Triangle Business Centre, Eleanor Street, London E3 4UR.
Printed and bound by Radclyffe Culross & Sproston Ltd
6 Glebe Road, London E8 4BD.

Many thanks to Elie Ayache author of *The Blank Swan*
for his engagement with the conceptual conceit of this project.
Many thanks to Matthew Stuart for format advice.
For more copies of this book, please email:
info@bannerrepeater.org



Writing and the Market

a process of differentiation of the writing kind

At no point is my task predictable to me and I must endure it (and suffer from it) exactly like history. A re-duplication of the past; the re-writing of a past text. *A risky enterprise.* A process that unfolds in contingency. A process of writing, of the third kind, no less, and as I write, I cannot think of anything else.

For if my writing weren't the same, my work couldn't be different. The content is the identical, the self-same and the replica. This excess, this material, is what differentiates writing from reading, and offers the capacity of the exchange. As a simultaneous encounter of the difference that the trader brings through writing, and forgetting, to the difference that the market is. The internal difference, infected by the empirical, unfolding like a surface in intensive time. Faster and harder than possibility, and altogether much sadder. Much darker and more hopeless too. I endure and suffer the most trivial of tasks, without a possible, expected result. And through my writing, do not expect me to remember a word of it.

*Following in the footsteps of the market,
as a small noise following the last clash of cymbals...*

a. clarke

4.1 PIERRE MENARD

4.1.1 The reality of contingency

Possibility is a metaphysical notion. It does not exist. It is based on the assumption that the world (or that part of the world under scrutiny in the given experimental set-up or investigation domain) is imaginable in a different state than the one actually obtaining. Or rather, the assumption is that different states of the world, what the metaphysicians call ‘possible worlds’, can be imagined beside the present one and surveyed as we speak.

That the world, our actual world, could be different, or may become different, is for its part perfectly acceptable. It happens all the time. The world keeps changing, as well as our conceptions of how the world is and how it might be. This is called history, or radical novelty, or contingency.

Contingency is the instantaneous and ‘differential’ definition of history (as opposed to ‘integral’); it is the generator of history, so to speak. Contingency is the notion that different things *may* and *can* happen all the time and that things are not what they are by necessity. Contingency is real and it exists. It is not metaphysical. Let us call contingency the *capacity* of the world to turn out differently (other than expected?) at every juncture, for there is no necessity to hold it. Its archaeological counterpart is the thought that the world could have been different. This capacity is inherent in the

world, and the thought that the world could have been other than it is reaches beyond the circle of thought or awareness of the world to the thing in itself (see the factual speculation of Meillassoux in Part II).

The world harbours this capacity like a container. To be more exact, capacity is itself another word for the ‘power of containing’ (*contenance*). A better wording would thus be that the world contains the possibility of becoming different; therefore this possibility is not located outside the world, under the guise of other possible worlds. In this, we see how the possible ways that the world *can* be or could have been are a different notion than the *other* possible worlds, or the other states of the world, that metaphysically exist as we speak, for then the latter are conceived outside the world.

This is what is so difficult to imagine. That the world may itself turn into a different way is perfectly alright and imaginable. That it could have been different is perhaps the first thought one must entertain about the world, even *before* the thought of its actual existence in its actual state (Meillassoux). What is not alright is the notion of states of the world that are given without the world, outside the world, or independently of the world; literally, other worlds. That the world *could* have been different or that it *can* be different is first and absolute. It does not necessarily entail the representation, or even the idea, of what the *other* possibilities the world could have been. For all we know, these possibilities may only be variations of the way the world actually is; that is to say, they are derivative on its existence and are consequently situated at two removes from its initial and absolute contingency.

What makes possibility a metaphysical notion is the *reviewable* character of the states of the world. In Chapter 2, we called this the ‘reciprocal play’ of beings and of the states

of the world: the interiority of the relation that closes them off to internal difference. Who gives us permission to extract those possible states of the world from the world, and to pin them on our representational board? What if the future possibilities were not extractable from the world; not extractable from its internal difference and differentiation; not exchangeable against the external representation of distinct and measurable states of the world? What if future history had in store for us events whose possibility of occurring were not imaginable or even representable before the event actually occurs? If the world must be *seriously* changing, then it cannot only be changing as a result of its actual 'marker' moving across the collection of different and perfectly identifiable possible worlds. What if the different sets of imaginable, possible worlds were to change with the changing world – which means, since a changing world is essentially a world moving through its history and history is made of events, that events shall occur, which not only produce new imaginable worlds that follow them or follow from them, but imaginable worlds that are at one, both in time and in meaning, with the event itself: worlds such that the imaginable event becomes only imaginable, that is to say, possible, in them?

Events that are really unexpected create their own possibilities. Only *by* occurring (and not before they occur or regardless of whether they occur) do they create the path that the meta-physician, if he wishes, can retrace in order to see how they possibly occurred. In other words, they create their own causes or, to be on the safe side of the metaphysics of possibility, their probable causes. This entails the thought that 'worlds' (to speak the language of the metaphysician) where different events may have taken place at some point of their history may never find themselves sharing the same

state again or may never meet again in a common, future, possible world.

That events create their own possibilities (or sets of possible worlds) introduces path-dependency. Thus a world will no longer be *possible* without its whole history, and this burdens the metaphysician who is still willing to pin down the possibilities on his representational board with the daunting task of reviewing all possible histories. The consequence of path-dependency is that a possible world, or a possible state our world can be in, is no longer a specific and instantaneous configuration of matters of facts (what the empiricists call the 'state of affairs') that only has notable differences with other worlds, other things being equal ('other things' meaning here, the entire history). A possible world, or our new state variable, is now the whole history path of successive changes and successive worlds.

Formally representable as this path-dependency may be, the metaphysical notion of possibility in fact reaches its limits here, for it is no longer events, or contingencies, happening along the path of history that make us fork into different possible worlds. There is now but one, single fork taking place at the 'absolute beginning' of history (whatever this means). From the start, our whole possible world (i.e. our whole history) is 'selected', and events that later unfold create their own, proper possibilities along that path, without any communication with the alternative histories that we could have selected at the origin. These are not really possibilities because the event creates them; therefore the future world where such an event is about to take place cannot pick its occurrence from among possibilities that are offered to it beforehand. The pick has occurred once and for all at the beginning.

Another way of stating our paradox is to observe that, since historical events (so *historic* indeed that they create

their own possibilities) create their own possibilities, the metaphysician must first run the whole series of events (i.e. unroll the entirety of history) and then retrace the path by graphing, in parallel to each event, the possibilities it has created and that might have, in theory, led to a different event. In fact, however, we know that those possibilities cannot possibly lead to another event, or events, because the whole series of events has already taken place. The conclusion is that the notion of events that create their own possibilities is incompatible with the metaphysical notion of possibility, which, as far as it is concerned, presupposes a certain fixity and settlement of the possible worlds and which unreels the thread of history only afterwards. As Bergson would say, possibility is a fabrication; it is derivative on the real and it doesn't precede the real: it is made up after it.

4.1.2 The im-possibility of history

The metaphysician will tend, however, to turn the paradox against my own premise, namely against the hypothesis that there might exist something like an event that creates its own possibilities or an event so extreme that the notion that it may be so much as possible can find its support only after the event. He will argue either that such events do not exist or that I am confusing the possibility of such events with their conceivability. That they may be imaginable only after they occur is no reason to think they were not possible before. The world may harbour possibilities way beyond our conception or imagination. Also, the metaphysician adds, if such events were literally im-possible (i.e. their impossibility was unthinkable or, worse, unavailable) before they occurred, what were they then? Someone like Alan Badiou would answer that they didn't exist; that they were an

‘impasse of being’ and did not belong to the situation or to the ontology.

To the metaphysician, I may counter-object that such events are literally im-possible before they occur in other worlds, that the possibilities that will have led to them were no part of our map of possible worlds and that if he, the metaphysician, thinks they should not exist for this reason, it is because he is precisely locked in the metaphysical/ontological notion of possibility and because events that have no possibility of occurring in his metaphysics will never occur or will never have occurred; that is to say, they never existed and will never exist. The metaphysician denies the possible occurrence of such events because they are simply *inconceivable* in his metaphysics (not by him), which is, by the way, precisely their point (and my point). Such events are characteristically inconceivable. If a metaphysician thinks they do not exist or, better, will never exist, simply because they cannot not have their possibilities open to them before they occur, then this is all the more reason to expect those events to be truly unexpected to the metaphysician’s mind and therefore to occur with a vengeance and with all the greater compliance with their hidden agenda: namely to occur when even *their possibility is impossible*. The metaphysician says: ‘They aren’t possible, therefore they will never exist.’ Badiou says: ‘They aren’t possible and they don’t exist, therefore they will have been possible *when* they exist.’ (It is not possibility that throws them into existence; it is something else.) If these events create their own possibility, then they do not care, in the space of meta-possibility, whether the metaphysician’s possibility itself is defined in their respect or whether it is a valid notion before they occur. They escape the metaphysician at any level that he cares to think about possibility.

All the same, we are left with the question of what to call

those events before they occur. I propose to call them ‘contingent’, and contingency will thus be a much more powerful notion than possibility. These events are truly unexpected. Only history can make them happen. Possibility cannot. Thus, in a way, history itself is not *possible*. Shall we call it im-possible (where im-possible is not the negation of possible, but what lies beyond possibility, what creates that space or excess where history is not possible yet it takes place)? This space, or room, which is better characterized by the term ‘capacity’ than the term ‘possibility’, is what contingency has over and above possibility. I will repeatedly characterize it as the very *space of writing*, where derivatives (to name only those entities that populate this model of the world known as the ‘market’) are no longer thought as merely derivatives on the possible states of the underlying but recognized as *contingent claims* proper and where their writing/trading, or their market, or *the market*, is recognized as the very *process of history*.

Contingent events are unthinkable prior to their occurring and no probability can be assigned to them, because probability is only defined over existing and perfectly charted possibilities. The real underlying reason why the metaphysician and I are in disagreement on the possible existence of such possibility-creating events is that my philosophy is ultimately hermeneutical (or ‘subjective’, in the sense that only a subject can name the event) while his is only rational. I do not believe in a fixed, meaning-independent range of possibilities and events that carry enough impact and significance to have eluded our whole idea of what ‘possible’ might have meant until then are *reinterpretive* events. They redefine life and its meaning. They change history: they are history-changing events.

History is the thread of unfolding such crises, that is to

say, of its own changes. In this, we see that it cannot be ruled by possibility and has itself to rule possibility. (As a matter of fact, it has to rule the very thread of history-changing events. So how could a notion, in the order of history, ever be superior to history in order to rule it? There may not be such a thing as history after all, but only 'histories'.) Therefore, it is rather the opposite. I should not say that the history-changing events carry so great an impact and significance that they have to affect our whole representational schema (for then it would be as if we could measure the significance of the event prior to its occurrence, when the event is supposed to be of such a nature as to redefine meaning and signification). Rather, the correct phrasing should be that the event carries such an impact *because* it redefines meaning and changes the range of conceivable possibilities.

Metaphysical possibility, seen as the availability (for review) of possible worlds whose successive actualization materializes the unfolding of history, is in fact a completely ahistorical notion. History is hermeneutical through and through because it is only from within the unfolding thread of events significant enough to change the course of history and to change meaning (of historical events, properly so called) that meaning can be reconstituted, that the event (and therefore history) can be reinterpreted and that new contexts, i.e. whole new ranges of possibilities, of languages and of prospects, can emerge. The unfolding of history (i.e. of events that are historic enough to change the conception of what future possibilities might be, as well as what past possibilities might have been, leading to those events) can only be understood from within itself, from within the hermeneutical circle (Badiou would say the 'enquiries') that makes us re-interpret ourselves and our lives and our history against the happening of the history-changing event, and from out of the new, previously unthinkable, context.

4.1.3 Writing history

Still, the question remains of the representability of the space, or rather the 'room', where history is happening. What room or what choices are open to history? From what range is history picking its occurrences? At this point, we see that possibility, or rather meta-possibility, the possibility of representing such a room where history can make its choices, is primarily a matter of convenience – the convenience of representation. Nobody said that history should be contained in a room. Maybe history is the only room that we have and that it itself has. The pressing question of what could be conceived *prior* to history and to the historic event (what extension or stretch of the imagination, or range of possibilities, in a word, what extensive space) in order that history may *then* take place might simply receive as answer that the sequence which structures this question, the 'prior-then' arrow, cannot be meaningful and cannot basically take place in a question, prior to history. In a word, there is no transcendence of historical change, but only immanence.

History is what primarily takes place and generates the sequence of 'prior-then'. It cannot itself therefore be preceded or prefaced by a question that hinges on this sequence. The answer to the pressing question may just have to be to see what room is open *after* history and after the historic event (*after* in the sense of following their style). Probably the image of the surface is better adapted to immanent change than the image of the room, for the surface has no extra dimension overlooking it, which may be suggestive of transcendence. Instead of saying that a room opens itself after the historic event, all we have to say is that the event *unfolds* like a surface.

There is no *a priori* stretch of space or of the imagination where we can stand and review the possibilities that are open

to history. This only means that the notion of metaphysical possibility has to be abandoned *before* history (and I mean it in both senses of the term), not that nothing can be done about history (or rather, after history). All we have to realize is that what *can* be done (the ‘can’ of capacity not of possibility) after history is no longer a *possibility* (is it an impossibility?). It has to be something else. We may no longer have the space available to stand and predict or preview history, but there might be a room available after history after all (the room of unfolding of the surface): what I would like to call a capacity of writing (hence the surface) and a trading room (or the surface of the market).

No conceptual tool is available to stage the possibilities open to history, so maybe a non-conceptual tool or medium can avail itself to us in order that we do something about history. Not that we would predict it, for it is now too late and the historic event has occurred, but maybe we could write it or trade it.

I wish to argue that trading, and immersion in a market, is what we *can* do to get as close as possible to the process of history, even, in the limit, to be almost writing it *as* it unfolds. However, we cannot cross the limit and predict history. This writing activity, which may have a different significance altogether from that of predicting history (it is not epistemological) and a different substance and point from merely ‘copying’ or replicating history, is what the market can avail to us. Or so I will argue. What technology is available to get inside the process of history and do something that is at once more active than to passively watch history unfold, and altogether different from the conceptual activity consisting in predicting and outguessing history, is the writing/trading of derivatives. Prediction is not the only room history leaves us.

4.1.4 The very sad writing of Pierre Menard

History is faster than possibility and harder than conceptual thought, which knows only possibility. So something faster than possibility and harder (i.e. more material, more contingent, Derrida would say ‘more infected by the empirical’) than conceptual thought may just have to deal with it. This is something I will call *pricing* or, alternatively, *writing*.

By its very definition as the series, or process, of history-changing events, i.e. events that change the nature of possibility and the contexts where ranges of possibilities can be reviewed, history cannot obey the order of possibility, and no probability can be applied to it. Likewise, I shall argue that the market, or the price/pricing process, although seemingly a historical process, does not occur *in* history but is akin to history. It is the process *of* history, so no probability can be applied to it either. In Part IV, we will see that the process of the market takes place in *intensive time* or in the *virtual*, not in the extensive time of temporal or stochastic processes (or in the extensive space of possibilities).

The philosophy of being in Heidegger (what someone like Richard Polt calls the *emergency of being* and what, he argues, calls for a philosophy of possibility) leads to the thought of the inception (what Polt calls the ‘event of thinking the event’) and to the arrest of history. I hold that the market is the morrow of this event. The market is the end that *can* begin. It occurs after the finitude of the Event whereby being is appropriated by man or by thought (what Meillassoux will call the ‘finitude of the correlational circle’). There is sadness and almost a feeling of being out-of-topic (out of range, out of possibilities, what Derrida calls ‘overflow’), a feeling of being off the mark (beside the subject) in the market, and this contrasts with the grandeur of the inception. The infinity of the market is not a ‘great’ infinity, but the sad infinity that

counters the grandeur of Heidegger's finitude of being. It brings it down to earth with, at the last minute, a slight change of subject and a slight feeling of irrelevance: with a displacement. The infinity, here, is just the sad thought of the infinitely many ways in which one can change the subject and be irrelevant, yet have the prosaic privilege of advancing history. The market is the small noise following the last clash of cymbals, which usually announces the takeover of representation by performativity. It is the end of representation (usually pictured as the beginning of performativity) that *can* begin. (The end of representation begins with the market, thus preventing that which usually begins after representation, in the usual order of philosophical discourse, namely performativity, from beginning. The market is therefore located neither in the relaxed present of representation nor in the pressing and dramatic present of performativity. It is sadder and more prosaic than both.)

To be able to conceive of the material that can be harder and faster (and altogether sadder) than possibility, think of the work of Pierre Menard. Pierre Menard is the writer whose writing activity takes place entirely in capacity and not in possibility. So much so that, when possibility is finally understood as being parasitic on the writing process (parasitic, for the simple reason that writing, in most cases, is a forward-advancing activity and hence it is tempting for conceptual thought to project it in possibility), Pierre Menard's writing will appear as the paradigmatic case of writing: as definitional of writing.

From the point of view of possibility and the finished and perfectly reviewable states of the world, Menard's work is empty. Once finished, it looks exactly like the *Quixote* and is just its replica. Interpreters who hold that texts are not just the finished assemblage of words that they seem to be on the

surface but hermeneutical objects that engage the reader at least as much as the writer understands Borges' novel as an allegory of reading, of which Pierre Menard is only the embodiment, or the facilitator. Because he has written the *Quixote* with the concepts and the context of a twentieth century writer, his text is a different text from the original. Thus when we, the subsequent readers, consider Menard's text, we should look at it with different eyes and read it as the different text that it is. However, as readers, we can only read the written words, which are the same as Cervantes' original and it hardly matters to us that a certain contemporary writer, Pierre Menard, has spent his entire life trying to deliver those exact same words. It is only when we authentically read the *Quixote*, and by that I mean that we ourselves espouse its writing thread and re-live it from the inside, really feeling its inner *risk*, i.e. the change that the next word might not turn out to be, *in our present experience*, the same as the word printed on the page; it is only when we read the *Quixote* as the contingent text that it is and renegotiate it as we go, not from Cervantes' point of view or from his own risk of writing – because his epoch is, of course, definitely gone and risk can only be contemporary – but from our point of view and our own risk, by really wondering and pondering what it would have meant if a different word had followed the previous one and by immediately making the necessary adjustments *in order* that the right word may follow; it is only when we engage in the living experience of the text and do not just 'take a look' at it as a historic document merely testifying to Cervantes' past experience and simply displaying its result, only then would be we writing it ourselves (or rather reading it) with our own concepts and own context.

Thus Pierre Menard is just the personification of the re-lived and authentic reading experience. He is not the writer of the *Quixote* as Borges title claims; he is the text itself:

the text's own version and own repetition, the text's own contingency. For this reason, he did not re-write the *Quixote*. He truly wrote it. His text is profounder than Cervantes' because it is written *after* and from within the depth of the *Quixote*, whereas Cervantes' *Quixote* is written from scratch.

This is the orthodox interpretation of Borges' novel. According to that view, Pierre Menard is the dramatization of the paradox of reading texts, and generally, of hermeneutics, namely that the text should always present itself to us differently and be different, yet at the same time be the same: the very paradox of the univocity of being. Creative reading is at once repetition and difference. The time of reading (time as internal difference) is not a chronological process that takes place in extensive space as the reader goes over the words of the text in succession; rather, it is the intensive process of recapturing the entire and undivided time of the text (what Hallward calls 'creative time') in a single intuition.

The logical conclusion may just have to be that texts do not obey the rule of classical existential quantification (i.e. extensional). They do not come to exist and their being is not complete at the time when their original writer finishes writing them (although it is of crucial importance that they exist and that they be finished and available when the reader takes up their reading; indeed Borges' novel would lose all its bite and its whole point if Pierre Menard did not set out to write a perfectly and entirely *existing* text). Their being is a *process*, not a finished substance; it is a becoming of which the state of writing and the state of reading offer only partial and, for this reason, improper perspectives. This, in itself, may be already pointing to the view that texts escape the metaphysics of settled states of the world and fixed possible worlds. Deleuze would say that texts are not actual creatures but 'creatings' that virtually eternally return. They are pits of

meaning, places of intensive difference. They create their own possibilities, even their own existence.

4.1.5 The differential definition of writing and the unpredictability of the *Quixote*

If Pierre Menard's work is truly a reinterpretable event, then we can argue, in the limit, that it did not only create the possibilities leading to it but that it took special care, in its continual exploration of these possibilities, to reduce them systematically to a single one, to the unique possibility of the *Quixote* (which is another way of saying, in the metaphysics of traditional ontology and linear time, that the *Quixote* already existed). In this, Pierre Menard's work and whole push would not be so much concerned about possibility (since it snubs possibility to the point of collapsing it into the single spot of the existing *Quixote*) as it would be about the capacity of *recreating* possibilities. It would extend in what we shall recognize, after Bergson and Deleuze, as the *virtual*.

In order that the capacity of recreating possibilities, which is truly the place of the virtual and the signature of contingency, may not be confused with the created possibilities and be purified of them, Pierre Menard went as far as severing possibility altogether, leaving out only the recreation, or contingency, or the trading room. He minimized the creature and maximized the creation, somebody like Hallward (the interpreter of Deleuze's philosophy as a philosophy of creation) would say. He went as far as turning the activity of writing a text that already existed into a creative activity and a *risky enterprise*. This is something, thanks to Borges' talent as a writer, that we are totally enticed to believe while reading *Pierre Menard*.

The problem with history is that it is enmeshed with the

future and that the metaphysics of possibility can only ever deliver a *representation* of the future. What can presently matter, in the future, other than its representation and its knowledge? What else is there to care about in the future other than to predict it? (By contrast, a nonmetaphysical attitude towards the future, an attitude relieved of possibility and even at variance with it, would be the writing attitude or the immersion in the market). When the future is represented as an object of knowledge, when it is represented at all, it cannot but fall into the domain of metaphysics. We cannot but represent it as a range of possibilities. Thus, that which is proper to history, namely the capacity of changing the range of possibilities and of begetting truly historic and history-changing events, is continually diluted and covered up in the profusion of possibilities. This is why Borges' novel, so parsimonious in terms of possibilities that it reduces them to only one, is extremely relevant.

So the essential question, as regards history, seems to be: What 'possible' account or thread can be given to history, without possibility taking part in it and without the metaphysical future? If history were not concerned with the metaphysical future (a counterfactual proposition that, obviously, will never take place in the real world but perhaps only in fiction) or rather if, *though impossible*, somebody's penetration into history could be orientated in such a way and in such an angle that all possibilities ahead of them (seem to) reduce to only one, then that which their path into history would be traversing, experiencing and picking up would be the *transversal, nonmetaphysical effect of history*, namely its context-changing capacity: its writing capacity.

Pierre Menard's task is futural and historical, yet not in the metaphysical sense. His metaphysical future reduces to a re-duplication of the past, to the re-writing of a past text.

However, his true future, the one that is contemporary with his writing and not with its *expected* result (for expectation belongs in the calculation and in metaphysics), is totally open, not totally closed, and it truly carries risk. This is *creative time*; this is becoming; this is the eternal return of the creating finally made visible, finally making a difference, in an economy or a reorientation of the perspective in which the outward journey of possibility and actualization of the finished creature has been reduced to a negligible spot.

For this reason, I do not consider *Pierre Menard* to be an allegory of reading but the very definition of writing. It is the differential definition of writing. The idea, here, is to take Borges' novel literally – to really think what makes it so original and so credible.

What makes it original is Menard's life. If Menard's life were to disappear in its finished result, in the *Quixote* replica he has produced with concepts we know *a priori* to be different than Cervantes', then his work might be deemed an allegory of reading, as Genette claims. Menard actually wrote the *Quixote*, however. There is a materiality in writing that is altogether absent from reading and that ought to make a difference. Compare a situation where Menard's re-living of Cervantes' text takes place entirely in Menard's head (like in any authentic reader's) and does not result in actually producing a written text.

Nor did Pierre Menard 'metaphysically' explore all the alternative possibilities to the *Quixote* (i.e. in the metaphysical tradition of reviewable states of the world that are independent of the actual unfolding of history and of events that might have produced them) and, once his mind was set on the recognizable choice of the existing *Quixote*, embark on writing it, or rather on transcribing it from the possibility that was already settled and present in his mind.

Although the *Quixote* existed prior to Menard's life and

enterprise (and most of the impact of Borges' novel lies in just this assumed existence), it was not available for review by Pierre Menard outside his writing process and its actuality, outside the actual *enduring* of Pierre Menard within that process. Pierre Menard really endured pain while writing the *Quixote*. He is a patient, perhaps the patient *par excellence* and the incarnation of patience itself. Hence he affords us, by reaction, an alternative definition of the metaphysics of possibility. Metaphysics is writing turned impatient, i.e. *immaterial*. By contrast, Menard's patience is the definition of immanence: a life. We have to imagine that Menard's *writing was truly a process* (not occurring in chronological time, perhaps); we have to imagine that the totality of the work did, at no point, make itself available to him, but that it went into successive stages and stations and junctures, at each one of which Menard had to revise and reconsider the whole enterprise.

I am not saying that Menard wrote his *Quixote* linearly, as if the words of the original *Quixote* were revealed to him one after the other. The *Quixote* was not *revealed* to him, because he knew it existed and even had knowledge of the work beforehand. Yet it was not *present* to his mind either, when engaging in his writing process. The relation between Pierre Menard and the original *Quixote* has nothing to do with knowledge or revelation or expectation or chronological time. There is no interiority and no reciprocity to their relation: it is a nonrelation. It has nothing to do with possibility either, as the *Quixote* is the only available possibility. In this sense, Pierre Menard's *Quixote* is truly unexpected and truly im-possible. It lies beyond, or rather outside, possibility or expectation. I wish to argue that the *Quixote* is *history* to Pierre Menard and that his relation to it is one of writing, not of knowing or predicting.

At no point was Menard's task predictable to him and he had to endure it (and suffer from it) exactly like history. History is unpredictable because it changes the contexts (it is history-changing) and produces events that create their own possibilities. In *Pierre Menard*, history is also unpredictable because we are preventing Pierre Menard from predicting the *Quixote* (otherwise, Borges' novel would lose all its originality and whole point) and for the additional reason that there is no point in predicting it anyway since it is already past. The unpredictability of history, which is due, in the real world, to its capacity to change the contexts and to redefine possibility, *not to some irresolution between foreseeable possibilities*, is simply replaced in *Pierre Menard* by a strange unpredictability, which is due to the irrelevance of possibility altogether, better, to the *past* character of the *Quixote* and, by way of consequence – which is here forced by a rhetorical *a priori*: by the ruling that Borges' novel must retain its force and originality – to its complete severance from Menard's knowledge.

In a way, I am saying that the context-changing character of history, which makes its unpredictability in the real world, is as detached from possibility and as uncorrelated with it as if it would be if the possibility were already settled and already past. (Possibility is only a fabrication; hence history is perfectly indifferent to it.) Just as I claim that the market doesn't predict history but offers the trading room, or the perfect unfolding surface; where we can do something about history, or after history, something that does not come down to simply replicating it or passively watching it unfold (something that does not come down to knowledge), just so the unpredictability of the *Quixote* leaves no choice to Pierre Menard but to actually yield to its ruling and to its word, even embrace it as the only possibility open to him – yet leaving him a room where his writing capacity can be exer-

cised, a capacity totally purified from possibility, as there is only one possibility left, that is to say, none.

I am not trying to make the character of Pierre Menard sound more realistic or even credible. I doubt that such a character, and such a life, may ever exist in any of the metaphysical possibilities open to our world (it only exists in writing, in Borges' capacity). Rather, my strategy is to take Pierre Menard for granted, as well as the rhetorical force of Borges' novel, and *to try to redefine writing from it, as if logically*.

There is, in writing, something that exceeds possibility and there is, in trading and the market, something that exceeds the dilemma of having either to predict the content of history (which is impossible) or to replicate history and 'back-trade' it (which is empty). There is an excess, or a capacity, or a trading room, which is im-possible because it lies outside possibility and outside its correlate, the metaphysical future – a room that involves risk. This space, which is neither full nor empty, neither black nor white, I call 'blank'. Thus this trading room is not only a capacity, a volume in space, but is also inscribed in time and is truly futural – only time, here, is not metaphysical time, because the metaphysical future can only offer possibilities, and in *Pierre Menard* it can offer none.

4.1.6 The past of possibility

Writing is a process that takes place outside possibility; however, due to the improbability of Pierre Menard and to the mundane fact that writers tend to write new texts, the capacity of writing and its process are usually confused with the possibilities of the resulting text and with its future. Likewise, the market price process takes place outside possibil-

ity in a medium that is at once real yet is not actual, which eternally returns from the outward journey of actualization, what we will call the *virtual*. However, this distinction is also obscured by the fact that history (of which the market is the process) is almost always future, not past, almost always unknown; therefore the capacity that accompanies the price process, the trading room, is usually confused with the possibility that the metaphysicians project before it and that mathematicians tend to model through stochastic processes, thus missing the whole point. Doubtless the fact that the market possesses a single metric, the metric of prices and price movements, is the cause of this confusion. (This confusion, or rather this coincidence, which occurs in the market, will later even appear as an opportunity.)

The trading room is the renegotiation or redistribution of possibilities, which goes hand in hand with the commitment of the market-maker over what I shall call the 'last line of writing': over the prices of the one-touch options (or American digital options), which the market-maker has no choice but to personally publish and to subjectively name (thus materializing the 'torsion' that Badiou would say is characteristic of the intervention of the subject). The reality of the market cannot be reduced to possibility or to a stochastic process because such a reductive view can only take us as far as dynamic replication and its other face, the calibration of the valuation model to the market prices of derivatives. Only because of the implicated trader is this reversal (which, from the point of view of theory, we may also call a reversion) possible, even necessary, and the consequence is that the real market process is constantly rejected outside possibility, back on the surface of writing, on to the last line of writing, the prices of the one-touches that the market-maker has no choice but to publish himself in order to lift the indetermina-tion of the smile dynamics.

This is how the virtual differentiates: through writing and through writing still, not in possibility. This is what's so *unexpected* from the point of view of possibility; for how could the pricing of derivatives, which the metaphysics of possibility and valuation theory thought would only depend on states of the world and dynamic replication, virtually depend on the more involved, more differentiated and altogether more *written* one-touches?

Possibility doesn't exist. The metaphysician can always argue that it does, and we can argue with him that it doesn't. However, we can only argue with him metaphysically. How can we argue that possibility, *really*, doesn't exist? How can we argue so in a nonmetaphysical way (unless we redefined metaphysics like Bergson did)? How can we argue that possibility doesn't exist without falling into meta-possibility (the possibility of possibility?)

Only the record of actualized events actually exists. Unfortunately for possibility, this record emerges only when it is too late for possibility. Therefore, one way of proving that possibility exists is to see what it would look like to dwell and endure in it: it is to create somebody whose existence, or world, or horizon would be all absorbed by possibility, somebody who really knows possibility before the fact, or even better – since we don't know what this means, that somebody may *know* possibility and since knowledge is immaterial anyway – somebody who predicts the fact (if this person demonstrably predicts the fact, then we will be inclined to think that his dwelling place and dealing place, or even better, that his domain of activity is indeed possibility). This somebody would write down the events for us before they occur and would time-stamp their record or trust it to a notary in order that we may compare it to the actual record of events when they finally occur, and recognize that

our man has indeed predicted it, that is to say, that he had nothing but possibilities to deal with at the time he wrote his record. (Imagine that he writes tomorrow's newspaper for us every day.)

In order that we may believe in the originality of this person's record and his mastery of possibility, it is essential, therefore, that time lapses between his record and the actual, historical record of the events. However, time, chronological time, is made up of possibilities. This, at least those possibilities separating his record from the actual record have to elude him, by the necessity of showing that he has indeed dealt with possibilities. While we try – as we are tempted indeed – to shrink this time interval to zero in order to bring all possibilities within the compass of our man, we wonder what difference it would make, in the limit, if the record of events he is supposed to write down before the fact were actually a record of *past events*, not of future events. Does it really matter, considering the *capacity* we are in the course of attributing to our man, the *capacity of dealing with possibility*, whether he knew the events had already occurred, and what's more, knew so externally, through that minor brand of knowledge that consists in simply taking note of the record of events from outside?

The capacity of dealing with possibility is not a possibility; it is intensive and it is stronger than possibility. It is internal, whereas the space of possibilities is external. So how could it matter, considering this intensive capacity, that the realization of possibilities, which is every bit as external, should be in parallel noted by our man? (In fact, we will later recognize that our man doesn't reside in the possible, but in the virtual, in which the past and future of chronological time makes no difference.)

In other words, we are looking to illuminate the capacity of dealing with possibility *from inside*, from the material

room that somebody all absorbed by possibility would be inhabiting. Hence it doesn't matter, from the point of view of such a capacity, what history looks like from the outside; it doesn't even matter what history looks like from *its* own outside – from the point of view of the record of events that history itself would have, by now, projected outside, i.e. the events that are now past.

The reason why we don't shun the extremity whereby the scope of our man ends up encompassing all the possibilities, up to and including the very limiting one that may separate his record of future events from turning into the record of past events, is that we know that his capacity for dealing with possibility *does not* lie in knowledge ultimately and that we know so, not only in the limit but from the beginning. This capacity is something else. In fact, it lies in the virtual, in the dealing of the intensive pit. It lies in writing, in the pure past of possibility as a whole. (Our man inhabits the market, the empty square that redistributes all possibilities and, for this reason, lies in their absolute past.)

Possibility exists, or doesn't exist, metaphysically speaking (this age-old metaphysical debate). In *Pierre Menard*, possibility doesn't exist *nonmetaphysically* because the Quixote is past. This is why *Pierre Menard* is all about writing, not about metaphysics (where writing is conceived as a material medium and as the capacity at variance with possibility; where writing is conceived as the resistance to metaphysics and as its exchange). Writing is the pricing, the floating, the materializing of metaphysics. Yet the idea is that this existence/nonexistence of possibility should really be indifferent to somebody who is supposed to *materialize* the capacity to deal with possibilities. He has to be faster than possibility anyway and his record of achievement does not belong to the domain of possibility. It properly exceeds this domain, because it doesn't just consist of the record of

events that he manages to write down before the fact, but of the higher-order fact that a segment of metaphysical time and a bunch of possibilities exceeding his written record *have* to lapse between his record and the actual record. His achievement belongs in the domain of genesis of possibility, what we will later recognize as the dimension of intensive time, or, the virtual, or again, the market.

What we are really looking for is somebody who dwells in the future and who is attuned to the future, yet not in the metaphysical sense of foreknowledge. He must be-in-the-future at all times, even at the limiting instant when the future is already present and even at the further instant when the future is already past. (This direction, which cuts intensively through extensive time and its distinction between the chronological past and the chronological future will be recognized as the virtual.)

If the emphasis is on the materiality, i.e. on what can materially be done (or lived) in order to *get ahead* of possibility, then it won't matter whether the event has already taken place. *What can be done about possibility takes place in capacity, not in possibility.*

The really interesting question is not whether possibility exists or doesn't exist. It is how to exist *in* possibility. This 'hard' and material existence is a matter of dwelling and being-in-a-place; it is not just metaphysical but it has to involve being-there (or Heidegger's *Da-sein*) (in our example, it had to involve a man). What capacities it involves in that being have nothing to do with knowledge but with something this being can produce or span. (At this stage, knowledge itself is but a metaphor, especially when it is reduced to being the mirror of possibilities. We really don't know what the knowledge of the future, or of possibilities, can look like!) These capacities have to do with a room or an opening, which is at once temporal and spatial, yet is in-

dependent of chronological time and of the extensive space of possibility - an intensive opening, or a pit, which ultimately surpasses and exceeds possibility. The material that our man produces in that pit - writing - merely resembles a process of possibilities (in the case of Pierre Menard, it is even the replica of the one and only possibility that is available to him) but is in fact different. This is so because it has no other choice but to be projected back in chronological time.

Writing is faster and harder than possibility; it crystallizes in materiality, whereas possibility is always ethereal. At the same time, it is much darker, because it is hopeless. No possibilities are open to it, no naive future. It endures and suffers (like Menard) without a possible, expected result.

4.2 READING AND WRITING

4.2.1 The significance of replication and the turn to the virtual

Let us note, for the moment, that possibility is the easy part. Possible worlds are quite straightforward and Borges did not take much trouble to produce a full thread of possibilities for his character Pierre Menard, that, from the point of view of the latter, were all the more taken for granted because these possibilities were already settled and known to be those of the *Quixote*. Borges' novel is all the more a disparagement of possibility as it is credible (I still wonder in what mysterious way) despite the fact that the *Quixote* is no possibility at all because it is past. It is credible that somebody, Pierre Menard, would spend his entire life and capacity in a room that is totally at variance with possibility and almost orthogonal to it (to the point where the 'projection' of possibility on it reduces to a single dot). It is credible because the really

serious and engaging part (i.e. the hard part, not the easy part) is history, not possibility, and because the story of a life, Pierre Menard's, or, even better, its rehearsal by the reader who is re-living it through his readings of Borges, is *adapted* to history.

The life of Pierre Menard is so adapted to history that even when the actual imprint of history is reduced, by the force of Borges' novel, to the replication of an existing text, the mere holding sway of Pierre Menard's life is sufficient to guarantee that something historical is still going on: the writing of Pierre Menard as it proceeds through its history-changing events. These are events, we said, that are really historic in the sense that they redefine the meaning of possibility and change the previous context or previous range of imaginable possibilities. What is really historical in *Pierre Menard* and takes place almost invisibly (invisibly to the surfacing of possibilities, which are trivially the possibilities of the *Quixote*) is the *thread of changes of contexts*.

If we define *context* as a range of possibilities, then different contexts can admit the same possibility as their intersection or as a common element, and we can say that Pierre Menard is simply following a thread of changes of contexts, which, by the power of Borges' novel, end up always instantiating the one possibility of the *Quixote*.

Let us retain that what really matters (what is material) is the room, the life, the capacity, not the process of possibilities. This is what Borges' novel has managed to do: to show us what it takes to insert somebody in history and to show it to us all the more sharply and differentially since the insertion in the process of possibilities is, on purpose, specifically trivial and null. It takes a life and a capacity (creative time) for someone to be inserted in history. This creative process can't be carried by a process of realization of possibilities, even though the process of history will almost always (apart

from Pierre Menard's improbable existence) be confused with such a process. At this point, we may start wondering what the category of possibility is good for. What could be the use of possibility if the only thing that matters is history, or contingency, or the room at variance with possibility? The answer is *replication* or what Bergson would call 'repetition' or 'fabrication'.

I take the whole point of Borges' novel (and consequently, of Pierre Menard's existence) to reside in what he has done, while writing the *Quixote*, which was different from the *Quixote* and totally at variance with the possibility of the *Quixote* (a possibility, as we all know, already settled and pinpointed). It is essential, in order to preserve the value and whole meaning of Pierre Menard's life and achievement (the value of his writing), that he should have done something different from the *Quixote* all the way and that he should have indulged at no point, in merely copying the *Quixote*, yet *at the same time*, that what he ends up producing should be exactly the same as the *Quixote*. The differential nature of Pierre Menard's life and writing, of his life and lifespan, emanates at bottom from the 'sameness' of the work that has been produced.

If the *Quixote* weren't the same, Pierre Menard's work wouldn't be different. This differentiation or intensive difference which cuts at the heart of the same without separating it and replicating it in external difference, is the way of the virtual, or the market, or the differential definition of writing. Strangely, it is situated in the pure past of the *Quixote*, in what gives it at once its sense and contingency. How to discern this pure past from the chronological past is first to notice that it succeeds to the *Quixote* in chronological time, for what Menard did, he did after the *Quixote*, and yet to notice, for all that, that it *does not* lie in the chronological future or in some possibility that Menard has fabricated, for then it

would reduce to a replica of the *Quixote*.

The only possibility is the reality of the one and the same *Quixote*, not the replica of it. Menard needs this folding back of possibility into the one and only reality in order that his creative time, the virtual he lives in, be turned back in the direction of the pure past: he needs it in order that his present of action turn its back on the creature, on the actual being, and to return with the creating. The ontology of Pierre Menard is an ontology of becoming, not of being. Possibility is needed as a fiction, to make it look as if Pierre Menard is after something possible; it is needed in order to make Borges' novel work and to make it seem to follow the course of chronological time. However, possibility in *Pierre Menard* is soon to turn us back to the virtual, to the space where no actual living being can reside but only fictional characters like Menard, or, even better, characters who embody something altogether more material than fiction or possibility or the chronological future, something more past: writing. Possibility, this settled and perfectly foreseeable state of the world which is none other – and could be no other – than the written record of the *Quixote*, is thus essential to the significance of Pierre Menard's work, that is to say, to its variance and differential character.

Possibility does not just take its leave like that, and we are far from dismissing it. Usually, possibility and capacity are confused and the material process, which I call 'writing' and which is the true conductor of history and contingency (the process of changes of contexts, the sequence of history-changing events), is not disentangled from the purely conceptual, representational process (the process of possibilities). So while Borges' novel has managed to disentangle the two processes and has shown that history and risk can truly lie in the material process of writing at exactly the

moment when the process of possibilities is blocked and possibility is tirelessly reduced to the same and only one, it has also shown the importance of possibility. To repeat, there would be no point to Pierre Menard's enterprise if his work was not systematically collapsing to the existing *Quixote*.

Now, we know that part of the price to pay is that Pierre Menard may not be aware of the *Quixote*. Of course, he knows the *Quixote*, word by word (and this is what is so essential and what is so different about his work), yet he is not using that knowledge in his work. To repeat, his work is, at no point, a copy of the *Quixote*. We may never be able to solve the mystery of the cognition of Pierre Menard (what really, psychologically, went through his mind while processing his work), and this, by the way, is totally beside the point. Borges' novel is not about Pierre Menard, the psychological case or the psychotic character, but only about writing. The argument to writing is, as I have said, logical. It is logically (not psychologically) essential that the universe of possibilities should always be reduced to only one and that the meaning and import of Pierre Menard's work should always be flirting with replication pure and simple, for this is what will afford us the logical flight towards the (differential) definition of writing. Without the pre-existing possibility of the *Quixote*, Pierre Menard wouldn't be immersed in writing. He wouldn't be writing the *Quixote*; he would be doing something else, something irrelevant to writing, as if free-floating. The existing possibility of the *Quixote* is what allows *us* (in our logical derivation of writing), not what allows Pierre Menard (in his inscrutable state of cognition), constantly to fold back the writing process towards the *Quixote*, in order that we may speak of writing it. It allows us constantly to 'conditionalize' on the existence of the *Quixote*, in order to let it become apparent what, conditionally on this known existence, the writing material, the

writing necessity, may add.

In order that Pierre Menard may produce that which is so different and so variant in his enterprise and writing process, it is essential that he be involved in an *existing* possibility and that he may not be distracted in producing his own; otherwise something other than writing will get mixed up in this work. It is essential that the replication argument of the *Quixote* be available to him in order that he may get involved in the ‘market’ of the *Quixote* in the *first place* (the market is but a place) and subsequently produce his ‘trading’, i.e. produce his variance, (that which will be so different and ‘original’ in his work), yet produce this ‘original’ *Quixote* only insofar as it is given by the market – for, of course, the *Quixote* empirically exists. When I say that the replication argument is available to Pierre Menard, I don’t mean that the possibility of replicating the *Quixote* is open to him (because this is forbidden by the whole point of Borges’ novel) and nor, for that matter, that the original text is present to his mind in any way. As I have said, Pierre Menard does not count, psychologically. The replication argument, is really available to us, in order that *we* get the point of Pierre Menard’s enterprise. The replication argument, or the pre-existence of the *Quixote*, is what *we* logically require in order to get the sense of immersion in the market of the *Quixote*. (This means that I am taking Borges’ point no more and no less than literally.)

4.2.2 Writing as forgetting

If you now ask, ‘In what way is this any different from saying that Pierre Menard has only rehearsed the reading of the *Quixote*, and simply interpreted it differently, as we all do and are supposed to do: differently than Cervantes’ initial “intention” (whatever that means, and no matter how

irrelevant)?’ I shall answer that indeed reading is essential to writing and may even serve as the ‘identical’ basis on which to capture the proper ‘variance’ and proper ‘movement’ (*le bougé*) of writing, yet that writing brings something more: an excess. As a matter of fact, I shall attempt the definition of writing from the opposite direction to what is normally referred to as ‘original writing’ – from the direction of immersion in an existing text.

When somebody asks you, ‘What have you just read in that book?’, you may be shocked that this person might so much as expect the question to admit of an answer, as you first wonder how it is at all conceivable that you might answer, ‘*This* is what I have read,’ as if ‘this’ was reviewable in a kind of space extending between you and your questioner or ‘this’ was something you could report. Indeed, what you have read belongs definitely *inside* the book and cannot be pointed to, or recollected, or even conceived of, anywhere outside the book. So complete is the disappearance and the immersion, inside the book, of what you have read that a perfect answer may be that you have no recollection, that you have, literally, no memory, of what you have read. (This means that you have to open the book again, and read again, in order to know what you have read.)

Now, let us pursue the thread of memory for a while (or rather, the thread of losing, *to the book*, the memory of what we have read) and let us pretend that you are so willing (the very act of reading is nothing but this will) to forget what you have read, that you are so much impressed by what you have read (impressed beyond memory or, rather, impressed in the direction *opposite* to memory: literally impressed, like an imprinted character you have become yourself, as if you didn’t want to recoil from the page and withdraw in order to recollect and take away what you have read, but wanted literally to *continue* in the forward direction, to traverse the page

and penetrate below its surface, i.e. to write), that not only do you not want to keep it and retain it and memorize it but that you want literally to *give it away*, to give it yourself, to write it yourself (I mean, to write that very book you are reading), *because one writes when one forgets*.

In this, I wouldn't be exploiting the usual transition from forgetting to writing according to which one writes because one forgets, i.e. in order not to forget. What I want to express is the fact that one forgets because one writes, and by this, I wouldn't want to mean, either, that one may *now* forget because what ought to be remembered has been written down and trusted to writing. What I mean is that one forgets, one forsakes, *when* one writes. *Writing is forgetting*. One *should* be forgetting, that is to say, one should be writing. Therefore, by writing, you are even *more* than entitled to reply to your questioner that you don't remember what you have read and that the reason for your forgetting it is that you have *read* it and that it is contained in the book and can be found nowhere outside the book; now you can answer that you have forgotten it because you have written it. This is even worse (or better) than saying that it belongs inside the book, because, even then, the book belonged to you in the last resort. This is saying that it doesn't even belong to you any longer, because you have given it away, because you have written it. You have discharged of it. It now literally belongs to the other, to the written material.

Thus writing is going even beyond reading in the direction of forgetting, which is the direction of immersion in the text. This excess, this material or materialization, is what differentiates writing from reading, yet requires reading as the logical argument of pre-existence of the text. Reading presupposes the existence of the text and therefore the possibility of replicating it. Reading is the guarantee of the pre-existence of a text (as opposed to an original text, un-

known, and yet to be produced) and for this reason, it is the guarantee of immersion in the text – an immersion that is the necessary preliminary of the trading and variance that will ensue, and that I call writing.

Reading is the necessary preliminary of the text-as-market. To really capture the meaning and significance and variance of writing (what it takes to write, what capacity this means, what I have called the ‘differential definition’ of writing), it is therefore essential (in the logical, not chronological nor psychological, order) to start from replication and to write an existing text. Reading is essential to writing in order to furnish the direction of forgetting, the direction in which writing will make a difference and an excess. Similarly, I will argue that possibility, or the replication argument, is the necessary preliminary of immersion and involvement in the derivatives markets. It is the preliminary before the trading and the variance of derivatives, properly so called, may take place.

Am I then implying that, even when the writer writes an original text, there is something like a universe of foreseeable possibilities, something easily reviewable and representable and conceptualizable, that should first open itself to view in order that, second, the writer may distinguish himself from it, write at variance with it and literally *surprise* himself by producing the material thread of writing when, previously, his thread was only conceptual, that is to say, unsurprising? Am I maintaining this differential character of writing despite the fact that, in the limit, the material thread may end up reflecting, word for word, the envisioned conceptual thread? Yes, I am implying something like that. We already know, from the perspective of the ontology of texts, which is not orthodox ontology anyway, that a written thread, even reproducing word by word a conceptual one, is not equivalent to it but harbours a capacity and an excess. When I say that the

writer surprises himself *with* the written thread (so he is at the same time the giver and the recipient of the surprise gift), it is literally because he has lost himself and lost his personality, and has now traced it back in writing.

4.2.3 Anti-memory as trading and literary creation

Conceiving may reside in possibility, but writing is in history. The history of his writing surprises the writer. He can only write contingently and with im-probability. Writing – this necessary passage in the materiality of the written thread (as opposed to the ‘coincidence’ of the conceptual thread) – is a substitution of identity. This is why we essentially forget when we write. We forget; we lose our ‘thread’. We substitute the written material for our selves. It replaces our body. We may lose conscience and then regain it, by surprising ourselves with what we have written. Writing is a capacity because it weighs as much and spans as much as the amplitude of this forgetting – as much as the identity it has been substituted for.

Writing has its *finish* in forgetting. By this I mean that forgetting is the last stage of the transformation whereby the writer’s immersion in the text turns into the materiality of writing. This doesn’t necessarily require reading as the prior and ‘softer’ stage of immersion. Writing and reading do not necessarily follow each other in the same biography. Rather, reading was only meant to set the stage – the logical stage, if you will – of the text and its possibility. Reading was just the way of pointing already to the fact that the text is detached from the author – as if the author was its reader – therefore that it is nothing personal, or subjective, or even belonging to the domain of possibility or transcendence that the author is going to bring to the text, in the last instance, in order to

transform his relation to it into writing. This idea, of forgetting being the end of writing (its finish and its purpose), is expressed by Paul de Man in his reflection on Maurice Blanchot's conception of reading and writing.

Like us, Blanchot 'deduces' the stage of writing from the stage of reading (again, not from within a single biography but from within a single textography, from the single point of view of the text itself, what he calls the 'work'). He first considers the *impossibility* of the writer reading his own work. Not that this situation should ever occur, but, in my opinion, Blanchot makes this move just for the sake of illuminating the idea of forgetting. Just as I have argued that writing was the ultimate stage of forgetting and of paying its 'due' to the text, Blanchot argues that the writer cannot read his work because his constitutive relation with his work is one of forgetting:

...the writer can never read his own work. ...The impossibility of self-reading coincides with the discovery that, from now on, there is no longer room for any added creation in the space opened up by the work and that, consequently, the only possibility is that of forever writing the same work over again. ...The particular loneliness of the writer ...stems from the fact that, in the work, he belongs to what always precedes the work.

This, which always precedes the work, this pure past – the sense of the work – will of course remind us of the virtual. For now, let us note that the reason why there is no longer room for any added creation is that the written text has substituted the body of the writer (the writer has forgotten and forsaken himself in his work) and that the text now occupies all the space there is. This forgetting and this substitution are irreversible; for this reason, the writer is said to 'belong to what always precedes the work'.

Note that the modalities that Blanchot uses ('impossibility

of self-reading' and 'the only possibility is that of forever writing the same work') do not correspond to the modalities of traditional metaphysics. For, surely, there is still room for added creation in the traditional space of possibilities of which the text is only a specific instance, and it is always possible that the writer writes a different work or varies the work. Rather, Blanchot's modalities correspond to our 'capacity'; they don't correspond to the extension of possibilities but to the intension of the virtual. They are modalities inscribed in the space of writing, not in metaphysical space – the special modalities that made it *possible* for Pierre Menard to produce an im-possible work.

Thus Blanchot seems to confirm the view that Pierre Menard is not the archetypal reader but the archetypal writer, caught precisely in that defining moment where he finds no other possibility but to write (not re-write) the same work over again. If Blanchot's argument was taking place within a biography, then we could say that Pierre Menard is actually none other than the reincarnation of Cervantes, whose only way of approaching his work is to write it again. The problem with Cervantes, however, is that, although what Blanchot says of the writer applies to him too and Cervantes also belongs to what always precedes the work, there is a stage, in Cervantes, where the work did not exist for the simple reason that Cervantes is its original author. Although this seems to vindicate even better the claim that the author precedes the work, for in this case he precedes even its existence, the chronological precedence of Cervantes really defuses and diffuses Blanchot's argument; it diminishes the *precision* of the argument (as Bergson would say), for precisely the reason that the work is no longer here for us to distinguish exactly that which precedes it.

Blanchot's turn of phrase is revealing. He did not say: "The author always precedes the work." He said: "The author

belongs to *what* always precedes the work.' 'What always precedes the work' is *relative* to the work and presupposes the work. It is commanded by the work. There is *first* the work, *and then* what always precedes it. This is the place of the virtual.

I am not uttering a temporal paradox, here, but simply expressing the fact that the precedence in question does not occur in chronological time. In the language of probability, we would say that the space of possibilities that Blanchot wishes to explore is conditionalized on the existence of the work. They are the possibilities that *will* have led to the work, and the virtual is the dimension where the future anterior meets its reality. Borges seems to have 'anticipated' that wish in Blanchot, which is why his choice of an author who succeeds to the *Quixote* in chronological time and presupposes it, yet definitely belongs to what always precedes the work in literary or textual time (the time of the work, the time of creation, the virtual) and cannot go past the work in the space of fabricated possibilities (for the work is the only possibility there is), is the best expedient to deliver Blanchot's point and to tighten the argument.

Again, if what is definitional of the relation of the writer to his writing is that his only possibility is forever to write the same work over again, then it is parasitical on this definition to go and check whether we are talking of the original biological author. We may as well pick a different author. It is even *better* to pick a different one. For this reason, I do not take Blanchot's claim to be a negative claim about the capacity of the author to read, or reconsider, or re-approach his own work. For the point is about writing, not about reading. Rather, Blanchot's claim is a positive claim about something the author does, even must do, not about something he cannot do. What he positively does is to forget. Writing is forgetting, as I have said, and Pierre Menard, in my view, is the

allegory of that anti-memory. He forgets so well that he forgets the *Quixote* has already been written. (But again, the whole point of *Pierre Menard* is not to produce the *Quixote* – a trivial outcome – but the moment of forgetting, a writing so pure, so purely defined through its differential characteristic, that its originality consists in its unoriginality.) Pierre Menard might not find a room for added creation in the space of possible worlds and possible alternative texts, but he definitely finds the trading room, the writing capacity, or the writing characteristic (the virtual), which Blanchot did not fictionally explore and open up as Borges did and which, therefore, he could only project as the capacity to forever write the same work over again. To repeat, this capacity is not negative but positive. It is an im-possibility, because possibility doesn't apply, yet it is a reality. In it lies the differential, the margin, the interval, where the work can properly exist. Forgetting is the positive engagement of the writer. As de Man writes:

The will to forget enables the work to exist and becomes a positive notion leading to the invention of an authentic language. Blanchot's recent work compels us to become aware of the full ambivalence of the power contained in the act of forgetting. It reveals the paradoxical presence of a kind of anti-memory at the very source of literary creation.

This anti-memory that de Man is referring to, we interpret as the loss of the memory of possibilities, as the variance and the departure from the replication plan. However, it is soon replaced by the virtual, by what someone like Bergson calls 'pure memory'.

Immersion in the market is also forgetting, in the sense of substituting the trading material (i.e. the variance of trading) for the initially foreseen or glimpsed possibilities (what I call the intital 'replication plan'). It is to be able always to go

back to the surface and forget about the possibilities, *as* one writes them. Trading/writing is the continual resurfacing *from* possibilities. Implicit, here, is the idea that possibilities are *deep*. One has to operate this substitution of possibilities because the trading/writing process is their exchange and history is their change anyway.

Trading is writing in the sense of the differential definition of writing. The market is a text, not an original script, and immersion in the market is immersion in a text. Original traders might exist out there (the likes of Cervantes), but their originality will tend to obscure the essential nature of their trading (what trading is really about). The possibilities they produce will mask the trading room and the differential nature of trading. It is better to define the trader (and the subsequent trading activity) as unoriginal and as a *derivative* trader. There is no origin in the market (hence no originality) and, to be truly trading, one has to be already immersed in the market.

As in Pierre Menard, we may be in a better position to define trading and to capture its sense and significance if we suppose that the market is not what it is fated to be by dint of metaphysics, i.e. chiefly concerned with the future, and that possibilities are, in the limit, already all-settled (as if the trader were literally back-trading). In other words, we may be in a better position to understand trading and give it its correct place between history and project if we suppose that history is all-shaped and all-fashioned already and that the only room left is the trading room that occurs *after* history, the pit where the trader stands and acts, neither replicating history nor predicting it.

In order to be immersed in the market, it is essential to be constantly surprised by the market. Here, being surprised does not only mean that we are overwhelmed by the history-changing character of the events that make history and make

the market, but that we, as if in response to that, constantly surprise ourselves by the written material that we produce. It means that we surprise ourselves by the materiality of what we produce, which acts here as the substitute of our ‘coincidence’ and conceptualization. What is *material* in the market, that which is opposed to metaphysics and to ethereal possibility, are the prices and the price processes.

4.2.4 The resurfacing of writing

Prices are a matter of writing, not of metaphysics or projected possibilities. Prices do not fit into the format of stochastic processes, which is why the modelling of price dynamics as a stochastic process is only one side of the problem or, rather, merely its beginning. In the last part of the book, it will even appear that a stochastic process is a nonstarter, even a complete misinterpretation, as far as the price process is concerned. The ‘beginning of the problem’ will then mean the ‘beginning of our trouble and our puzzlement’. If anything, possibility and stochastic processes will appear to be second and derivative on contingency and on the primary and unmediated translation of contingency into prices. In the last part of the book, however, we will be concerned with retrieving the genesis of market and of price through the conversion. For now, let us stick with the traditional sense of the argument, the sense in which derivatives derive from the underlying and are valued (and subsequently traded) derivatively, in the space of possibilities. Let us reserve the term ‘contingent claim’ and the primacy of contingency for later, for the last part.

Theoretical price dynamics is what sets the replication argument and what presents the market as text we think we can read and conceptualize – when what is so essential is to

immerse ourselves in it and what is so essential about this immersion, what follows from it and defines it, is that we may forget all we have conceptualized and read and that we may have no choice but to immerse ourselves again in it, if we wish to know ‘what’ we have read. Better, what is essential about the immersion is that we may end up writing instead of reading, that we may write as a complication and furthering of reading, and that we may end up writing ourselves, that is to say, pricing ourselves.

From *reading* prices and projecting them as metaphysical possibilities and as a stochastic process – an essential working part, I remind you, because the replication argument is what enables market immersion – to *writing* prices, there is thus this substitution and literal surprise whereby the mind of the reader is no longer sufficient but his full body is required. This is the surprise whereby the material excess of contingency over possibility is required and a material life and existence are summoned, regardless of whether their ‘mind’ or inner or deeper metaphysics (in a word, the interiority of a relation) will amount to a repetition of the same. The surprise is of such order that, even though the trader may be writing the ‘same’ and history may be but one settled and perfectly known possibility, there would still be a trading room and a material the trader is producing. All this is required in order that immersion in the market may truly end up as it should be, as a due forgetting and a loss of memory – which is just another word for the *surfacing of writing* or the inscription of the trader in the impossible direction of the virtual, that is to say, it is the equivalent of pricing. Better, the capacity of writing prices (this resurfacing from possibilities) is the ultimate form of market immersion, and this, as I have said, requires possibility and the attached replication argument, but it can only exceed them and traverse them as its very forgetting.

The replication argument engages the trader. Without the existing *Quixote* and its replication argument, i.e. without its perfectly reviewable and totalized possibility, Pierre Menard wouldn't be engaged in his 'risky' enterprise – what I have called the 'market' of the *Quixote*. Yet possibility is dismissed in the last instance and what is needed then, in replacement, is the body of the trader, not his mind. The figure of writing (this *other* material thing) resurfaces then as the substitute for that body, in other words, as its sign.

4.3 APPROACHING THE MARKET

4.3.1 Univocity of the market

On the face of it, the market may appear as the domain of possibility *par excellence*. Given the boom of quantitative finance and derivative pricing theory, markets may strike us as the perfect evidence and the perfect laboratory for stochastic processes and their applications. So how am I dismissing possibility? Indeed, the proponent of possible worlds and their metaphysics will want to argue that the really attractive characteristic of markets is their *single metric*. No matter what happens to history and what novelty the history-changing events may bring, and no matter what the reasons are that make a case for the unpredictability of history and for the unavailability of possibility before events that create their own possibilities and that change the previous context, what happens in the market, by contrast, can only be a change of price of the traded assets. Thus the next context will always fall within the previous one and no event will have created its possibilities, because the range of possibilities, i.e. the spectrum of prices, will have already been there.

Yet I insist that the case of the market is an even purer and more pressing case for the disparagement of possibility, and its replacement by capacity (or the intensive space of the virtual) than history. If anything, the market is quintessential history; it is the very process *of* history. The market is a case of writing even more directly and forcefully than history, because the *historic* and really written and material thread (as opposed to conceptual and merely possible) is actually inherent in the market and is what the market is all about. *It is the thread of prices and of pricing.* Because of the single metric, the univocity of contingency and the impossibility of rephrasing it in possibility are even better expressed. The market-maker can truly insert himself on that thin surface, be traversed by univocity and earn a living, not by a machination of possibilities or by imperfections of some kind, not as a result of arbitrage or algorithm, but as an original writer and creator – by creating his work.

Given the surface of pricing (as opposed to the depth of possibility) to which we must always be connected and always reconnect back (otherwise we lose the market), I shall argue that it should have literally sounded amazing and unacceptable from the start that something like a stochastic process might have been conceived as a candidate for representation of the price process. As we will see in the last part, the differentiation of the market process cannot take place in possibility. When we come to understand that pricing is all about writing (and not just about reading or conceiving or projecting possibilities) and about forgetting, it will amaze us that the notion of stochastic process may have so much as taken off in the theory of pricing.

Markets exist. Prices are material; possibilities are not. Markets exist and are inhabited by traders, yet what is so amazing is that there is still no account available of what traders do in the market. Do they act or react? Do they read

or do they write? Do they conceive and project or do they forget and forsake? What do their capacity and their lifespan amount to and what does their body amount to, immersed in the market as they are?

Markets are history, perhaps the purest case of history. Accounts of the vision or of the sense that those inhabitants have of the market, i.e. of history, have only consisted, so far, in two almost opposing views. Either the trader is not supposed to conceptualize the market because it fluctuates like history and the trader surrenders to its empirical ruling or the trader conceives of the market as a stochastic process and a probability distribution, and his sole engagement with the market and his whole take on it reduce to those projected possibilities. This whole conceptual category is vulnerable to the critique of the Black Swan: to the observation that the events really matter and really carry impact are precisely those that fall outside the range of possibilities, either because they are assigned almost zero probability on the metric of price changes or, more challengingly, because their occurrence was altogether inconceivable.

In other words, both views come down, in the end, to the unpredictability of history and of the market, with just the difference that the second has helped itself, in the meantime, to an arsenal of probability distributions and to a plethora of results that ultimately appear to be more relevant to probability theory and stochastic calculus than to the market. All in all, the conclusion is that there is nothing we can do about history and, consequently, about the market, and the metaphysical notion of possibility, which the market seemed to have so encouraged at first thanks to the purity of its samples and to the unity of its metric, is unable to flow back to the market. The trader, as I have said, is left unarmed in a market that, because it has inspired possibility so purely and rejected it all the more purely, appears now as the finest

(i.e. sharpest and deadliest and most trenchant) *thread* of history.

Markets exist and for this reason they require an ontological foundation. They exist by virtue of the traders who inhabit them (which is what makes their materiality, as opposed to a fleshless process of possibilities or to all the lottery examples or illustrations that litter the books of economics or game theory – processes and lotteries which I am not even sure really exist at all), and yet the traditional ways in which markets have been founded ontologically exclude their inhabitants altogether. Either the market is conceived as a resulting consensus, where each individual view or projection of possibilities is false *by necessity* (indeed, it doesn't matter whether the market, by chance, accords, one day, with the anticipation of a particular individual; by definition of the market, it has to be essentially divergent from it and from any other individual's, otherwise all the market participants will aggregate on that winning view and the market will collapse), or it is conceived as a generating data process, which is essentially hidden and independent of all individuals and which they all try to discover, as if from outside.

In order to bring the ontological foundation of the market in line with the reason why it exists, this foundation has to involve the market inhabitant. Yet it cannot involve him in the sense of involving his conception, for his conception (as opposed to his body) is only capable of possibility and possibility is inadequate for the market and for history. The market is material and for this reason it exists (as opposed to not existing, like a process of possibilities that is but a copy of the real) and is in need of ontological foundation that involves what is so material about it, i.e. the very body of the inhabitant. Yet it cannot involve the conception of the inhabitant for the reason that this conception can only result in possibility and no materiality.

The market is a writing process by virtue of the materiality that makes it harder than possibility, i.e. by virtue of the seriousness bestowed on it by the hard and bodily existence of its inhabitant. However, as writing and as history, the market excludes the conception of the inhabitant as well as the conception (ours) of how the inhabitant could be included in the market altogether. The trader is excluded from the market because there is no *possibility* in which he may be included. He makes the writing (his existence makes it) and the writing excludes him. This is what forgetting is all about. Writing precedes him (or is substituted for him); there is nothing he can do about writing unless trading is construed as something the trader does *after* writing and after history. We have to elaborate a notion of trading that is in line with writing and its constant resurfacing from possibilities, and yet can produce the market and be its inner process (i.e. be included in it, not excluded from it).

Yes, the idea here is to really open a *third way*, a third kind of temporal process, which is identified neither with the empirical series of unconnected facts (Hume) nor with the probabilistically lawful series that is conceptualized as a stochastic process and always falls inside the depth of possibility. We have to invent a new sense for the market such that, whether the market is said to include the trader for the needed materiality or whether it is said to exclude him for the needed forgetfulness, it is said in one and the same sense. When one is writing (writing without the depth of possibilities or even of inspiration; writing solely at the surface; writing, literally like Pierre Menard who inspired us with the idea that writing may be differentially, that is to say, essentially, defined by what he has achieved) and when one is trading (i.e. writing at the surface of pricing or at the surface of the market, writing without the depth of possibility that definitely goes the wrong way and offers no choice

for the conception of what the trader is doing but to declare that he is necessarily wrong - in trying to predict history - or essentially empty - in replicating history and submitting to it), my claim is that one is thus advancing through time, *following a different channel than empirical history or theoretical process*. This metaphysically new kind of process, I offer to call the *writing process* or the *pricing process*, i.e. the process of prices, or, literally, the market process. This is the process of differentiation of the virtual.

This differentiation process advances through virtual time; it is temporal yet at its very heart it features something different from the traditional mechanism of projection of possibility and *recovery of possibility* by the coincidence of the conception (what Badiou has called the ‘reciprocal character of possibility’). At its very heart lies the idea (which I may not have succeeded in explaining metaphysically, of course, or never stood a chance of explaining, and which I thus take as my postulate) that Pierre Menard has achieved something *different*, that he has *traded* and that he has done something about history, yet without necessarily predicting it or trivially replicating it. This excess and materiality of writing (an excess over possibility and chronological time) is also featured in prices.

When one makes prices, one also does something utterly unoriginal (as Pierre Menard’s *Quixote*), yet one doesn’t stop merely at the replication plan. One does something more and something different. There is something in the nature of ‘price’ that is akin to the materiality of writing, and for this reason may not be captured by a process of possibilities. Price is traversed by the univocity of contingency and by its unexchangeable character. This we will learn in the last part.

4.3.2 Immanence of the market

Definitely, the thrust of my argument hinges on difference and identity, on originality and replication. Let us see how this applies to 'price'. We may be tempted to think that the price process is 'greater' than possibility and conception (and altogether irreducible to their plane) simply because it is the product of the market and because the market is precisely not reducible to the intellect, the conception, perhaps even the transcendence (subjectivity?), of the single individual, simply because the market is so complex. However, the market is definitely inhabited by the trader and, in my opinion, it is essential that we advance through history (for only this advance will unfold the nature of the price process) and that we thus advance *through the trader*.

The trader is indispensable to couching the market in a process. Indeed, our aim, here, is not to reflect on the intractability, from the individual trader's point of view, of the computational or epistemological problem that the market, as a whole, poses and solves. Our point of view is not the economic point of view of general equilibrium: the bird's eye point of view of the market and of the unspeakable complexities that are adjudicated in it. Our point of view is that of the price process, and the body of the trader (which grants the materiality of the process, as opposed to mere possibility or conceptuality) is only here to remind us that it takes something more than mere conceptions and projections of possibilities, that it takes bodies of traders actually trading and exchanging, to produce the price process. If the price process were just representable as a stochastic process, why bother with the presence of a trader?

My aim is not sociology or psychology of the market, even less so probability theory or the games of chance; mine is a philosophical-logical (even ontological) point of view. I

need the body of the trader as an ‘attachment’ to the process in order to stress how different this process is. Why does the process need to be so different? Because it is a market process; because it is the process of history. True, it may seem as though I were reasoning circularly and arguing that the price process is different by virtue of the attached body and that the attached body is required in order to make the price process different. But then, why should we think that there is any logical hierarchy or derivation involved here? We shouldn’t expect the market (i.e. the difference of the price process to other kinds of processes) to be derived from the difference that the presence of the trader makes any more than we should expect the presence of the trader to be derived, i.e. required, from the difference that the market is. For all we know, derivation, hierarchy and grounding may all have to be dismissed, in the end, as transcendent categories themselves. The immanent philosophy of the market and of the univocity of contingency is incompatible with the category of ‘result’. Perhaps the relation between the market and the trader shouldn’t be a relation of hierarchized spatiality, the one grounding the other or requiring the other, but simply and symmetrically, of a *place of encounter*. The market takes place in the encounter of two differences, which advance towards their meeting place in concert, so to speak: the difference the body of the trader makes and the difference the market is.

In this shift of emphasis from the relation of transcendence – whereby the trader would be ‘grounding’ the market on his way back to the world from the difference his body makes in exchange and substitution (in much the same way that being-there is said to be the transcendence that affords the grounding of being in Heidegger’s early philosophy) to the immanence of place and marketplace, where the encounter would no longer require hierarchy or logical priority, I

would be following Malpas's re-reading of Heidegger's philosophy as the topology of being. As a matter of fact, this may not just be an analogy, but a strict correspondence. Maybe the market is so *different* that it doesn't fall under the category of a transcendent being at all but itself qualifies as a 'different' or 'other' category of being, one whose founding partner (or, rather, whose meeting partner) is Derridean at heart, rather than Heideggerian, i.e. a being-there, a trader, whose 'purpose' is not to dwell there and *be* there (with all of the implications of the word "to be", already criticized by Derrida) but to be exchanged-there, to be substituted-there, to be replaced-there by his body, to be forgetting-there and to be writing-there (later to be ruined-there).

The individual trader is needed as an attachment to the price process, in order to stress its variance with a process of possibilities and to pin history on it, yet ultimately the goal is to conceive of the price process within a materialist philosophy – absolutely, so to speak, and independently of this or that particular trader or any trader, almost like the data generating process that is merely theorized and that traders and econometricians alike are supposed to discover. In this absolutization, the trader will make no difference to the process.

As I have said, the differential nature of 'price' hinges on the play of the notion of difference: the trader makes all the difference (and all the materiality) to the price process as bodily attachment to the process *and* the trader makes no difference. The market hinges on this equivocation, yet it is univocal and must be said in one sense. The trader is as contingent to the market as the contingent claims that make the market. What the trader does is utterly unoriginal, yet it is utterly original. The trader is required in order to stress how different the writing or pricing process is, yet the 'no difference' the trader makes is also required in order that the process may qualify as a *third kind* of process (at least com-

parable to the first two in their detachment and ‘objectivity’).

This may sound like an incompatibility; however, it is an impossibility that should be pointing beyond the realm of possibility, not merely playing a negative role *in* it. This is the same sense of im-possible as that in which Pierre Menard’s work was said to be im-possible (as Pierre Menard is both required to make all the difference to his work and to make no difference at all). In fact, my proposed *novel metaphysics of the price process* leans on the (possibly forever enigmatic) case of Pierre Menard as a precedent, rather than as a positive proof or explanation. My claim is in fact the following: to the extent that Pierre Menard has credibly accomplished something different and something variant, to that extent, i.e. in the extension (or rather, intension) of that space he has opened, which cannot be a space of possibility or even a stretch of chronological time but something else, the price process can open a way that falls neither in possibility and expectation nor in passivity and replication, a way that neither needs the trader nor can dispense with his body, a way where the modality of possibility and necessity are at variance with the traditional, metaphysical ones and where, just as they have enabled Pierre Menard to write with certainty yet with risk, with total foresight yet with total forgetfulness, just so they enable the trader to *write history*, i.e. to prescribe it, to ‘guess’ it, to ‘anticipate’ it, to ‘get ahead’ of it, to replace its contingency by a necessity (by the ‘fatal necessity of the single dice throw’ – see the last part), in a word, to trade it, yet without this forward action having to take place in knowledge of any sort or even in epistemology.

4.3.3 The sense of the market

The notion of ‘price’ is the key notion here, allowing this metaphysical subversion of the traditional metaphysics of process. It is predicated on exchange and substitution, not on coincidence and conception. Recall that the reason why it was not enough to say that Pierre Menard had just read the *Quixote* (the reason why what he did exceeded possibility and replication) was the ultimate substitution of identity and the passage from Menard’s body to the written material. The written material was required over and above the mere ‘conceptual’ rehearsing of the possibility of the *Quixote* in order to take Menard to the stage of forgetting, to the stage where the trading room can open itself despite the narrowness and single-mindedness of the single possibility of the *Quixote* and where history can write itself (through Pierre Menard) despite the fact that it is already written.

Writing is material and is an exchange. It is material *because* it is an exchange; the exchange may, by the way, be definitional of writing (Roland Barthes). Only the exchange can open the adequate gap inside which the material body can fit. No body can fit in coincidence and pure conception. For this reason, the materiality of writing is required as an exchanging partner. Even if the ‘content’ is the identical and the self-same and the replica, to *write* that content is to offer the additional excess or capacity of the exchange. In the room that is opened thus and in the debarring of metaphysics that is achieved thus, it won’t matter whether the original may have preceded the replica in chronological time and what causal mechanism may have led from one to the other. (Deleuze calls the channel of communication that is at work in the virtual, in intensive rather than extensive time, the ‘quasi-casual operator’.) That Menard’s *Quixote* is literally the same as that of Cervantes becomes irrelevant. History is

made in the space of the exchange, not on the spot of coincidence or in punctual time (I am tempted to say that history is a geographical process, not a temporal process); therefore possibility and replication don't matter any more. Possibility is itself but a fabrication.

Now the point of 'price' is that, just as bringing Menard's *Quixote* to the surface of the written material made all the difference (even when, or especially when, it made no difference from the point of view of possibility and was just the replica of the original), just so *pricing* is the operation of bringing the trader's 'work' to the surface of prices, to the material surface of the market, and it will make all the difference. Embracing a price, or taking a position, is *material* and it involves more than just thinking that the price will go up or go down. Traders are material thinkers. They venture their work outside their thought; they go outside; they meet somebody; they don't just *think* of the possibilities, they bet on them; and I am inclined to say that they go even further than this; they embed and couch themselves in the price; they trade themselves; they exchange themselves *for* the price. The price (this written material thread) becomes the substitute for their bodies (this is why we talk of a position). With price, they *inscribe* themselves in the market and in history and are now ready to go to places and to explore the realms where possibility can never take them as possibility. From the point of view of possibility, they wouldn't see the difference between thinking the possibility and taking the position, any more than we see the difference between Cervantes' *Quixote* and Menard's. Yet there is a big difference.

How is the trader's work continually brought back to the surface? How is pricing a continual resurfacing from possibilities? How is the disparagement of possibility finally achieved in the market and how is the trading room finally made apparent, out of (the variance of) which it becomes

irrelevant whether the trader's product metaphysically consists in a replica of history or whether history has chronologically preceded the trader? This is achieved through the derivatives. Derivatives and their replication plan are the things that produce, in the market, the staging of the two acts, that have led us, in *Pierre Menard*, from the thought of the replica to the thought of the difference and the variance, from the thought of unoriginality (and to be unoriginal is literally to be derivative) to the thought of originality. These are two acts, I must insist, whose articulation and play shouldn't be thought chronologically but simultaneously, not extensively but intensively, as Pierre Menard's originality *consists in being unoriginal* and is not a subsequent discovery.

The process of differentiation of the virtual doesn't take place in chronological time. The trading capacity of any derivative instrument (i.e. its market, that for which it is intended and which intensively differentiates it), although chronologically posterior to its valuation, is always virtually situated in the *past* of any framework of extensive possibilities and of any stochastic process that we may have actualized in order actually to value the derivative. No sooner is the derivative valued than it is *priced*; this means that its destiny has yet to be different from the prescription of the actual replication plan and that the stochastic process has yet to be different. The sense of the market, that which will come to be actualized in chronological time as the next transaction, is in reality something we have always already traversed (for this is what it means to be in a market), something that is always virtually past. It is always 'that which we place ourselves in at once'.

Simply, the first thought (which I will technically elaborate later) is that, with the underlying price process conceived as a process of possibility as well as a trading process, the derivative trader is able to replicate the derivative perfectly

and therefore to value it by arbitrage (as in the derivative pricing theory). The second act of the thought is that this derivative valuation wouldn't qualify as *pricing* and wouldn't connect back to the surface of pricing (what I have called the resurfacing from the depth of possibility) if the derivative weren't intended – even designed – to trade on its own and to be *priced* in the market – if, in other words, the derivative weren't intended to change the context and the states of the world where its replication plan and valuation actually took place.

4.3.4 Announcing the genesis of the market

The logic of writing/trading of derivatives is implacable. As soon as the purity of the underlying price process and its single metric tempts you to conceive of it in possibility and to project states of the world from it, you can do one of two things. Either you follow that route and represent a stochastic process for the underlying market while retaining its nature of 'price' (i.e. while retaining the capacity to trade it) or you refrain from doing so because you somehow sense that the price process, or the market process, is too serious a process – it is the process of history – to be couched in possibility. Moreover, the mere sight of the underlying price process as a stochastic process inspires the fabrication of derivatives whose payoffs are contingent on future realizations of the price process. The thought thus becomes irresistible that those derivatives were created in order to be valued as of today, most probably through the theory of stochastic processes, which is, of course, readily available. The conjunction of possibility (i.e. the fixity of states of the underlying and their probability assignment) and of the capacity of trading the underlying process thus leads inexorably to the

replication plan of the derivatives and to their subsequent no-arbitrage pricing.

I want to stress at this point, that it is the mere exploitation of possibility (i.e. of the stochastic process and of the underlying metaphysics that grants its conception) *in a market environment* that is leading us to the pricing of derivatives. Derivatives, I hold, were both invented and replicated and priced as a consequence of the immixture of possibility in the market. This can be radicalized in an equation: possibility + market = pricing of derivatives. Now, what is wrong with the pricing of derivatives, conceived as a consequence of possibility, is that it occurs irresistibly by the force of this equation and that, once it occurs, it irresistibly takes you outside possibility. It takes you back to the surface of pricing, inside the trading room of the derivative, which is bound to be at variance with its replication plan and, consequently, with the very schema of possibility.

The derivative trading room is the outside of possibility. The pricing of derivatives, though it may be the direct and maximal consequence of the conjunction of possibility and trading, is not complete unless the derivatives are priced on the surface of pricing, outside the depth of possibility, i.e. priced at variance with the assumption of constant volatility (to cite the simplest case of the vanillas). This is saying that the machination and fabrication of possibility are exposed by going down that route and that the flight through possibility and the corresponding genetic sequence of the derivatives market are not in the right order. We will have to wait until the last part of this book before we put the genesis of the market in the right order, by which time *contingent claims* will have taken precedence over *derivatives*, both terminologically and ontologically.

Note, however, that the replication of derivatives and their pricing by arbitrage is the cause of the growth of the deriv-

atives markets. This is their chronological cause, and it still influences the way we think of derivatives as *derivatives*. Only in the morphogenetic reconstruction of the market that we will undertake in the last part will contingent claims, rather than derivatives, precede the whole idea of stochastic process and dynamic replication. For the time being, let us observe that it is not just incidental (or accidental) that the trading of derivatives in their market and in their trading room should be correlated with their replication. The overturning of the argument – to be later elaborated – holds that derivatives were created *in order to* trade and to be priced, not in order to be valued (and even less so, replicated); that the process of their writing, in ever more complex payoff structures, is the real market process, which is in a way dual to the temporal conception of the market as a data generating process; and that the episode of replication and temporal process is only here to *implicate* the dynamic trader.

The extreme form of the thought is even to argue that the market was altogether created in order that derivatives may resurface from possibility and in order that possibility, as a mere tool, may introduce us to contingency. The market is ultimately the medium of prices of contingent claims. For this reason, derivatives, which are merely the intermediate reduction of contingent claims in possibility, must be surpassed. Another way of arguing that *valuation* has to be surpassed towards *pricing* is to remark that derivatives are bound to trade by the operation of their dynamic trader. Indeed, this trader finds himself already there, and already trading, by the mere imperative of replication of the derivative – so how can he possibly stop short of trading the derivatives he is anyway replicating from within the seas of trading?

4.3.5 Originality of price and of the market

The mere exploitation of possibility in the market environment thus leads to the overturning of possibility by the trading room of the derivative, which is tantamount to a change of context and of the range of possibilities. In other words, possibility is overwhelmed or overtaken by capacity (the writing/trading capacity of changing the context), when couched in the market and in the price process. This is a very bad outcome for possibility. What is bad is not possibility in itself – indeed, it is required as a tool – but the immixture of possibility in the market. Maybe what renders possibility so unstable and untenable in the market is the incompatibility of the market with the metaphysical underpinning of possibility.

The market is real and is materially the medium of contingency, whereas possibility is merely fabricated after the real. The deduction of the market and contingency has to take place as one and the same movement, *independently* of possibility. To repeat, the mere fact of laying down the price process as the starting point leads, all by itself, to the defeat of possibility (through the stages, all potentially inscribed in the starting point, of the writing of derivatives, of their trading and all of their pricing). In other words, as soon as one follows the price process *consistently* (consistently with the imperative to always re-surface from possibility in order to trade), one is led to the demise of possibility and to the necessary inscription (ex-scription?) of the price outside metaphysics.

Note that the insertion of the dynamic trader is what allowed the pricing thread to swing back to the surface. Only because the trader was able to replicate the derivative did its market bloom and only because he was caught trading the underlying as a replicating strategy did he have no choice

but to subsequently trade the derivative. The hinge of the dynamic trader is not a conceptual hinge; it is not through his conception (or ours) or through his projection of possibilities that the trader finds himself spawning the derivative market and trading the derivative. This is not a logical derivation and, as a matter of fact, the logic of the Black-Scholes-Merton model is absolutely silent on the subsequent trading of the derivative. (The theory ends with the valuation of the derivative, not its pricing). My derivation literally leans on the body of the trader – on his capacity to act as a hinge: his *exchanging capacity*. This is the capacity of writing resurfacing thanks to substituting the trader's body. His body is the guarantee that the surface of writing will not be trivialized in the same way the work of Pierre Menard would be trivialized if it were conceived as a mere replica.

Ultimately the trader makes no difference to my opening this third channel of process; however, his 'substitution' is needed in the derivation. We can remove him and argue that the price process (of underlying and derivative alike) is the price process it has always been and that the market never went through the distinct stages (like Pierre Menard) of replication and writing, or unoriginality and originality; in a word, it never went through the distinct stages of derivative writing, replication and subsequent trading because the very meaning and 'originality' of the market require that *all* these stages and 'variances' should be given and be present from the start. (Following the conversion, which – as we will see in the last part – creates the contingent claim and engenders the market, the market folds in intensive time, not in chronological time, and its infinite differentiation takes place in the virtual.) There is no fiction and no dramatization in the market as in *Pierre Menard*. If anything, we may argue that while Pierre Menard ended up delivering an exact replica of the *Quixote*, the trader – if indeed we insist so much on

involving him in the price process – will not deliver an exact replica of the derivative in the end, for he basically trades it. He himself ‘writes’ it at variance with the replication plan and with possibility. So how is the trader’s role comparable to Pierre Menard’s?

The answer is that replication, either in *Pierre Menard* or in the derivatives market, has no other purpose than to implicate the trader/writer in the process. As I have said, *Pierre Menard* is not an allegory of reading but the true, *differential* definition of writing. Pierre Menard does not stand for the true reader (supposed to create and produce a different text and a different reading than the original) but for the true writer. The whole point of the replica is to insist that, even though, in the limit, the writer may be producing an existing text that literally had no future, no metaphysics and no possibility because all it had was a past, still he would be producing something in excess of reading and of possibility, through the substitution of his body, which is basically a forgetting. In this respect, Borges’ novel might have as well involved an original writer rather than a ‘copyist’, except that the originality of writing would have been confused with its novelty. The whole idea is that the writer substitutes his writing for his body and that there is no proper definition of writing without this extra attachment of the body of the writer, in excess of possibility (and of the possibilities of the novel work, whatever it may be). This body, this exchange, this ‘place’ is the mark (later, the market) of contingency.

In the market, there is truly no replica because the writing/trading of the derivative is, from the start, evolving at variance with its replication plan. (Otherwise there would be no point in trading derivatives and no derivatives market. To repeat, my point is philosophical, not historical or sociological; I am not trying to describe the historical unfolding of

the market but its morphogenesis.) The text of the market is truly 'original' (that is to say, it has no conceivable origin or narrative; it is unexchangeable, even against the idea of origin) and there never was a chronological stage, as in Pierre Menard, where some original text was given and a later stage where its exact replica, or a replica at variance with it, was supposed to be delivered. The only thing that matters in the market is the characterization of the price process as a writing process as opposed to a process of possibilities – a process that unfolds in contingency not in possibility, a process that is harder than possibility (the virtual is all at once in a single place). The insertion of the body of the trader is what makes it such, whether we 'fictionalize' it and dramatize it through the replication of derivatives or not. (See the narrative of dynamic replication and of the October 1987 crash in the last part.)

As a matter of fact, even derivatives are not required in order to pronounce the written character of the price process. Derivatives may only be a fiction or a dramatization whose only purpose is to stage the replication and the difference that price *still* would have to make. Since the writing, replicating and pricing of the derivative are virtually all contained in the mere givenness of the price process of the underlying, the whole point can be folded back into the starting point and the argument reduced to claiming that the price process, simply by virtue of the nature of 'price' (i.e. of the *virtual* derivative, its *virtual* replication and *virtual* pricing), is a process of differentiation of the writing kind. It differentiates intensively, in the virtual, not extensively, in possibility. To compress the argument even further, simply think that the price process, *by virtue of the tradability* lying at its heart (and tradability now means the virtual dynamic trader dynamically replicating the derivative, pricing it and trading it at variance with the replication plan), is a different kind of process altogether, what

we have called a process of the ‘third kind’.

Tradability and exchangeability lie at the heart of price, not outside it. Price is not just a number; it is not the *result* of a general equilibrium problem-solving algorithm that we suppose has taken place somewhere outside, some time ago (albeit the previous instant), and has exhausted the exchange as the simple, invisible, undifferentiated and indistinct mechanics that we suppose the exchange will have always been, and leading to the levelling out of the equation of supply and demand. Price is not rejected (some say projected) as a *result*, as a residual on the periphery of an always past and, for this reason, always inexistent exchange (or, rather, of a formal and uninteresting exchange, only conceived as the convergence towards equilibrium and towards a solution, as the exchange of trial and error leading to the result – in other words, an exchange that is merely the levelling out of an algorithm). Price is the *material* of the exchange; it sets the plane where the exchange takes place and is a material *made of* the exchange, not resulting from it. (As we will see in the last part, the exchange is *shot through* into the price.) If price were a result, it wouldn’t be material but would be punctual or coincidental. In other words, it would be conceptual and no body, no matter and no material would fit in it. Thus, the unsettling and exchanging power of the exchange (not its settled result) must lie inside the price: disequilibrium, not equilibrium.

4.3.6 The Blank Swan

The price, the market, is always what happens next, not what is settled and what happens once, or happens *once and for all* (as Zourabichvili would say). If price were a *result*, then it would happen once and for all, even though the algorithm

may be reiterated and the result re-computed. It is inscribed in the nature of the *result* – and neither the price nor the exchange have the nature of a result – that the result must happen once and for all because this is what we aim for and tend towards when we expect a result – the ending of a sequence, a settlement, an event that answers all and pleases all, a happening, unique, determined, once and for all. (On the contrary, Bergson and Deleuze, as we will see, seek the internal difference of things. They seek the pure infinite past that the virtual is, not the actual finished past that is always overtaken by the actual present.)

Note that I didn't say 'the price is what always happens next', for then the price would never be. You mustn't look for the price in the future. The price is present, yet you can find it only by elimination of what happens and settles at present. I said: 'The price is always what happens next.' I exchanged the places of 'always' and 'what'. To say *what* the price is, to understand its nature and find its place, to question its standing as being or entity, you need first to exchange the 'what' and the 'always'. The price is *always* something; it is continually something; it is continually happening; it is a process; yet this is not the 'always' of temporal continuity or frequency, and the process is no ordinary process (of possibilities). Our 'always' is the 'always' of elimination. That which must happen in order to be what the price is, always, is what happens *next*. The 'what' is permuted behind the 'always' (as soon as the 'always' is no longer conceived as the 'always' of permanence and continuity of metaphysical time, but as the 'always' of elimination) to no longer be the 'what' of entity or substance, no longer the 'what' of possibility and essence, but the 'what' that is beyond their end and their exhaustion, a subtracted 'what', the 'what' of capacity and of *the end that can start* – the 'what' of the re-surfacing from possibility.

Similarly, the ‘next’ is not the ‘next’ of temporal succession and ordinance of possibility; it is not the ‘next’ of a series of ‘nexts’ that all precede, and announce, the end – the end of completion and saturation of possibility. It is a ‘next’ that takes place *after* the end – not *suite et fin* but *fin et suite*. It is a largely unpredictable (almost hopeless) ‘next’. It is the ‘next’ of the derivatives market, of the writing capacity, of history. When all is done and replicated and possibility has achieved its metaphysical target, that of replicating and literally computing a *present value* for that which was destined, immemorially, without origin (unoriginally?), to never be present or admit of a present value but to trade, to differ, to have a variance (and in this, as we know, possibility is already committing a mistake, the mistake of its immixture in the market environment), when all is done and you wonder ‘What next?’, the price, the market, is the answer. After you are finished with the ‘result’, with what happens now, once and for all, you start looking for what happens next, as if *by elimination*. Now this, what happens next, is what the price is always. If you are looking for what the price might be, finish looking here and now; start looking for what happens next and the price is always that.

The traditional exegesis of price is that the exchange uses it and traverses it until it is settled and complete. This leaves the price as just the curve that the exchange travels until it reaches equilibrium, and from here, as the answer, as the number that is dropped by the algorithm solving the general equilibrium problem. I propose to reverse this. What I claim is not that the exchange is completed or not yet completed, but that the *price* is not complete until the exchange, taking place inside of it, is itself traversed once and then traversed again in the opposite direction, i.e. truly exchanged, as exchange. The virtual, as we will see, commands such a reversibility and double trajectory.

We left the material exchange hanging with the body of the trader, which, we said, was attached to the price. The price, we said, wouldn't become material (as opposed to being merely possible or conceptual) and wouldn't become a fitting place for the exchange unless a space was opened up and hollowed out *which possibility would otherwise depict as null*: the space that *translates* (also in the sense of 'moving from one person, place, or condition, to another' – *The Oxford English Dictionary*) a mere replica like Pierre Menard's work (what would qualify as a mere 'result' in possibility) from being trivial and empty to being *different*, in the sense of writing and trading. This we recognized as originating in the unoriginality and derivative character of the trader (or of Pierre Menard) who is in need of possibility (in Pierre Menard's case, it reduced to only one) in order to get involved in replication, and consequently to be immersed in the market or in the text.

Possibility, when it interferes and mixes itself up with a trading environment, becomes attached to a trader who is *able* (i.e. for whom it is now a possibility) to translate the process of possibilities and the trading ability of the underlying into the replication strategy of the derivative (itself a conceptual 'result' of possibility, whose other side or 'next' side, as we know, is 'price' – whose other side is its trading destination or the market as its destination and almost as its equivalent, the market as another word for it, the market as its progeny), a trader who, by virtue of this ability and of his attachment and especially by virtue of the pricing surface, of the forever appealing and necessary 'floor', which is always here because it is always what happens next, is then *capable* (i.e. he now has this capacity) of pricing/trading the derivative, thus resurfacing from possibility and thus opening the trading room and commencing contingency proper, i.e. the market proper, or history.

The attached body of the trader is what enables this non-logical, nonconceptual, *translation* from the valuation of the derivative (by possibility and replication) to their pricing (to their own trading room and market). The body of the trader is here the guarantee of a forgetting, the forgetting of what he has read and conceptualized and planned (as replication strategy); it is the forgetting of possibility in order to bring about the surprise of trading and writing. In this imperceptible interval, in this blink (so narrow in *Pierre Menard* that it doesn't even distinguish between Menard's work and Cervantes), in this memory *blank*, there is the space of translation of im-possibility into writing (and by this I mean that which falls beyond possibility, the existence of Menard's work which never was a possibility because there was only one, which is to say there was none), the space where the surpassing of possibility and the resurfacing from possibility can turn into material and become writing. Also, this space is blank because the event has been relieved of its prediction.

The Black Swan is now truly *blank* and only writing can fill in that blank: writing, or the market, that direct medium of contingency. Now that the space of possibility has shrunk to null behind the writer in *Pierre Menard*, or has been saturated by replication behind the derivatives trader in the market, the surpassing of possibility has no other space to be produced into, going forward, but the space of materiality. It has no other choice but to turn into writing; that is to say, it simply has no other becoming, it simply has no counterpart to be released into, it has no *other* (no future) but to be exchanged, and the exchange, we said, is what is material.

Writing, we said, is an exchange, for then the algorithmic *result*, the result in possibility, which we have called the 'replica' (for the result is the exhausting and the finishing – it is the end – of possibility and is therefore the replica, by Menard's equation), is exchanged for the surprise of writing.

The writing now becomes the material and the given. In this, we see the *work* of the trader (or rather, the work of his body, the body of the translation from unoriginal to original), for the *result* of the replication algorithm, the result of his derivative pricing ability, becomes a *price*. As a derivative price, it resurfaces from possibility and becomes itself a material, a market given. In this translation and forgetting of the replication plan, the trader's pricing ability is transformed into a pricing capacity, the capacity to trade the derivative at variance with possibility and the replication plan. The trader's body, now attached both to the price process of the underlying and to the pricing process of the derivative, acts as the hinge. The category of *result* is thus exchanged for the category of *given*, or output for input. In other words, possibility is exchanged for materiality, reading for writing, mind for body, etc., and this is the market's *true act of exchange*. This is the highest form of exchange, which is due to the crucial nature of *price*.

Inside the price, the exchange is thus traversed, once, in the direction of translation of possibility into capacity and of exchanging the result for the material and it is traversed again in the opposite direction, for then the nature of *price* (this time the price of the derivative) is now to be appropriated in turn. We are then looking at the change of context, that other side of the exchange.

Many thanks to Elie Ayache author of
The Blank Swan – The End of Probability
for his engagement
with the conceptual conceit of this project.

Banner Repeater paperbacks take their cue from early innovations in publishing in the 19th Century, during industrialisation and the development of the railway network. These innovations enabled publishers to mass-produce cheap paperbacks and distribute them across the UK and Ireland, via the ubiquitous W H Smith & Sons newsagent found at most urban British Railway stations.

Banner Repeater is enmeshed within the public transport networks on a train station in Hackney, London, a site rich with historical precedents, as well as providing an opportunity to reflect on more recent writing and publishing technologies, their distribution and dissemination. New publications, both digital and print, as well as other hybrid productions, are published by Banner Repeater, adopting this lead in the distribution of new artists' works, from the platform at Hackney Downs train station.

The BR paperback series focuses on experimental writing that comes of critical research, exploring conceptual and structural devices that reflect on the conditions of an evolving subjectivity.

“technology is not merely a medium to represent thoughts that already exist but is capable of dynamic interactions producing the thoughts it describes”

(N. Katherine Hayles. 1999)

Banner Repeater
Platform 1, Hackney Downs train station
London E8 1LA
www.bannerrepeater.org

For more information:
info@bannerrepeater.org
www.bannerrepeater.org

Ami Clarke, author of the BLANK Swan,
is published in conjunction with Technology Now at the
Institute of Contemporary Arts, London, 2016.

Technology Now: Elie Ayache and Ami Clarke.

Elie Ayache, former options trader and writer on the philosophy of contingency and technologies of derivative pricing, and artist Ami Clarke in discussion.

Through the publication of her 'writing' (as a direct copy) Chapter 4 of Ayache's influential book *The Blank Swan: The End of Probability*, Ami Clarke and Elie Ayache discuss the contingency of writing, as equivalent to pricing in the market. They explore how Jorge Louis Borges' story of *Pierre Menard; Author of the Quixote*, central to Ayache's philosophy, differs from previous ideas of copying and appropriation, to *repeat the contingency of the text*.

Ayache's *Blank Swan* is a book about writing, pricing and contingent claims. As part of this discussion he will expand on his understanding of the writing process and the pricing process, as two special kinds of processes that do not take place in time or in probability, like traditional stochastic processes. By thinking through the derivative markets with regards to what technology is available to get inside the process of history - to do something that is at once more active than to passively watch history unfold, and altogether different from the conceptual activity consisting in predicting and outguessing history - he claims prediction is not the only room history leaves us.



