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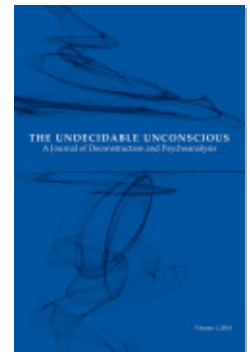
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Philosophy: From Sophocles to Freud to Derrida

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The Thinkable and the Unthinkable in Psychoanalysis and Philosophy

From Sophocles to Freud to Derrida

ARKADY PLOTNITSKY

The unthinkable, in its customary (essentially, metaphorical) sense of something terrible or horrible, is the bread and butter of, and even the ultimate *raison d'être* for, psychoanalysis, beginning with Sigmund Freud, or indeed Sophocles, who put this unthinkable in play (in either sense) in his tragedies, *Oedipus Tyrannus* most psychoanalytically famous among them. This, however, is not the “unthinkable” with which I will be concerned in this essay, although the psychoanalytic connections between these two senses of the unthinkable are intriguing, and I will indicate some of them as I proceed. My concern is the unthinkable in the literal sense of the term, the unthinkable, as that which is beyond the reach of thought altogether, closer to the ancient Greek sense of chaos as *areton* or *alogon*, which is at stake in the ancient Greek tragedy as well. This conception of the unthinkable implies that it cannot have a direct or literal sense either, any more than any other sense. Ultimately, it is unthinkable even as unthinkable.

This unthinkable makes itself felt at the deeper, even the deepest, level of thought, what Gilles Deleuze and Félix Guattari call, giving thought its irreducibly unconscious and irreducibly materialist efficacy, the “molecular” level, although “atomic” may be a better term (Deleuze and Guattari 1978, 283–96). The *parallel* (not merely an *analogy*) with atomic or, by now, quantum physics thus suggested is not casual. It is important for my argument, and it was used by Freud in defining the unconscious, whose German name,

das Unbewusste, means the unknown, even if not the unthinkable. While my subtitle alludes to that of Derrida's *The Postcard: From Socrates to Freud and Beyond* (1987), my title paraphrases that of John Bell's (of the Bell theorem fame) *Speakable and Unpeakable of Quantum Mechanics* (1987), although Bell himself, against the grain of his famous theorem, follows Einstein in his discontent with quantum mechanics and the philosophical position to be advocated here.¹ This position follows Niels Bohr, as does my emphasis on the difference between "parallel" and "analogy." In reflecting on this type of relationship between quantum physics and other fields, psychology and philosophy in particular, Bohr stressed that we are not dealing with "vague analogies but with an investigation of the conditions for the proper use of the conceptual means of expression" in different fields (1987, 2:2). I would add that we are also dealing with an investigation of the conditions of and means of conveying that which is impossible to express or even to conceive—the unthinkable—and it was this type of investigation that led Bohr to his epistemology of quantum physics. In accordance with Bohr's view here expressed, in their inquiry into the nature of thought, Freud and then Derrida were confronting the set of problems essentially parallel to and epistemologically nearly the same as those encountered by quantum theory in its attempt to understand nature, matter, although quantum theory must also confront, physically and philosophically, the problem of *thought*, unavoidably involved in any such attempt. But then, Freud and Derrida in turn had to confront the question of matter in confronting the question of thought.

In all of these cases we deal with a conception of ontology that involves and relates to the uncircumventably unthinkable. I will call this ontology nonclassical ontology. This ontology is defined by the skepticism concerning the possibility of capturing the ultimate workings of matter or thought (or their relationships) *by* thought, and, at the limit, by the assumption that this possibility is in principle excluded, an assumption that gives nonclassical ontology the corresponding epistemology, nonclassical epistemology. By contrast, classical ontological thinking, which has

been dominant from the pre-Socratics on, *always* allows that the ultimate nature of things may, at least in principle, be available to thought, even if not to knowledge, arguably the limit of classical thinking, as defined, for example and in particular, by Immanuel Kant (1997, 115). In countering Einstein's discontent with quantum mechanics because it lacked a classical ontology, Bohr argued that nature may just not allow us to have a classical ontology at the ultimate level of its constitution, a possibility Einstein was unwilling to entertain. "In quantum mechanics," Bohr said, "we are not dealing with an arbitrary renunciation of a more detailed analysis of atomic phenomena, but with a recognition that such an analysis is *in principle* excluded [beyond a certain point]" (1987, 2:62). The same, I will argue, is the case in nonclassical psychoanalytic and philosophical thinking in Freud and Derrida. It follows that, at the ultimate level considered, the term "ontology" or Being, or thought, would not be applicable either, any more than any other term, which, as I will explain, is nonetheless consistent with using the term "ontology," because ontological considerations do apply at intermediate levels in the situations defined by nonclassical ontology.

Beginning with the pre-Socratics, there emerged three forms of ontology, all of them defined by the relationships between causality and chance, central to both quantum theory and psychoanalysis, especially if one sees the latter through the optics of Derrida's philosophy, which has confronted the question of chance from Derrida's earliest works on (1978, 292–93). As a philosophical ontology, nonclassical ontology, it appears, emerged sometime around the time of Nietzsche, who expressly appealed to it, and it was arguably contemplated by several Romantics authors, such as Hölderlin and Kleist in Germany or Shelley and Keats in England. It does not appear to be found earlier, although some, Nietzsche, Hölderlin, and Kleist among them, do associate this ontology with the pre-Socratic thought, which is to say, their interpretations of pre-Socratic thought. What, I think, could be claimed with a greater degree of certainty is that, during modernity, this thinking stems in part from Hume's and Kant's phi-

losophy, and from taking their (still classical) thinking to its non-classical limits, which they appear to have been reluctant to do, although this, too, may be a matter of interpretation.

Before I outline the four ontological architectures in question, I will define my main terms. By “ontology” I understand a description or conception of what is possible to say or, at least, to think concerning the ultimate constitution of things in a given domain. Thus, ontology is not merely a claim concerning the *existence* of something, such as elementary particles in fundamental physics, neurons in neuroscience, or thoughts in philosophy or psychology, but is a claim concerning the *character* of this existence.

I understand “causality” as an *ontological* category. It pertains to objects (of nature, thought, or culture) or events that are governed by the assumption that all states of these objects or all events are determined by, and determinately connected to, each other: any given state or any given event determines all other states or events. Accordingly, the claim of causality is a claim concerning the character of the existence of the objects considered, and hence, again, an epistemological claim concerning ontology. Kant’s *principle* of causality, which states that a given event (an effect) must have a previous occurrence or set of occurrences (cause or causes) that led to it, implies a causal ontology (Kant 1997, 308). This ontology may or may not ultimately correspond to the nature of noumena or things-in-themselves, but it is possible as a decision of thought, a view on which I will comment below. I understand “determinism” as a more strictly *epistemological* category, which reflects our ability to predict, at least in principle, future events on the basis of our knowledge concerning previous events. The term “determinism” is sometimes used in the sense of, or interchangeably with, “causality” as just defined. However, a given ontology may be causal (and hence classical) without allowing us to predict exactly or even probabilistically the behavior of the entities considered, as is the case in ontologies established by classical statistical physics or chaos theory. Both are at bottom causal, but because of the complexity of the processes they theorize, neither is deterministic.

By “randomness” or “chance” I refer to a manifestation of the unpredictable. While closely related, randomness and chance are not quite the same, but I will put the difference between them aside, because it is not germane to my argument here, unless indicated otherwise. A random or chance event is an unpredictable event. It may not be possible to estimate whether it would occur or often to anticipate it as an event. Corresponding to, respectively, classical or nonclassical ontology, such an event may or may not hide some underlying causal dynamics that led to this event, and as I will argue here, the problematic of psychoanalysis is suspended between these two ontologies of chance.

It is important to distinguish between randomness or chance and probability. Probability, which I define, on Bayesian lines, as “degree of belief,” deals, theoretically or practically, with providing estimates, possibly numerical, of occurrences of future events.² It follows that the use of probability introduces an element of *order* into situations defined by the role of *randomness and chance* in them, and thus helps us to deal with such situations. In this context, when we speak of “taking chances,” we in fact imply probabilistic estimates, even though they may be extremely low.

The first ontology I would like to consider is classical ontology, and it is defined by the idea that at the ultimate level order and causality or (a related category) necessity rule, and all disorder and chance is appearance due to our lack of our knowledge of the functioning of this mechanism. A famous and spectacular example is Sophocles’s *Oedipus the King*, where the apparently random or chance events are ultimately determined, predetermined by the inescapable necessity of fate, no matter how one tries to circumvent it. Or, such is the case if a reading demarcates in this way the ultimate ontology of the events and temporality in the play, a demarcation that Hölderlin seems to have questioned, possibly also seeing this ontology as Oedipus’s own ontological decision, in confronting the horrible and the unthinkable, the unthinkable of horror, the horror of the unthinkable. Hölderlin brings out all these dimensions of tragedy, or life, in his analysis of the play and also of *Antigone* (Hölderlin 2009, 317–34). It is not

difficult to see why one could read Sophocles or, for that matter, Homer in this subtler way, even if the classical ontology might have been dominant or became dominant at a certain point, say, with Socrates and Plato, as opposed to the *tragic* Greek thinking, poetic and philosophical, which was more hesitant in assuming classical ontology even if it did not advance nonclassical ontology as such. The ancient Greeks complicated the management of fate beyond Zeus's power, given that the Moiras, the goddesses of fate, were primarily responsible for the apportioning of fate ("Moira" means "apportioning"), apportioning intricately distributed among three of them. In Orphic cosmogony, the mother of the Moiras is Ananke, necessity, which would define the causality behind a given sequence (connected or even connectable, or not) of events. In some cases, Zeus could override the Moiras' apportioning and reapportion the fate of an individual or a community, which may be what he is doing in this passage. Even a human being can on occasion influence fate within some cases. In sum, mechanisms of or behind fate were complex in ancient Greek thought, and sometimes they shift to the interplay of chance and causality, or necessity, to be discussed below. A particular conception of these mechanisms also depends on a given author and on a given interpretation of this author, such as of Sophocles by Hölderlin or of Heraclitus, conjoined with Homer, by Blanchot (Blanchot 1993, 91–93).

Consider an intriguing passage of book 8 of the *Iliad* with which Blanchot ends his reflection on Heraclitus, as illustrating the Heraclitean "difference itself," essentially entailing an ontology of nonclassical type, which placed this "difference itself" beyond the reach of thought (hence neither "difference" nor "itself" would apply). According to Blanchot, "from this difference, which makes it so that in speaking we defer speech, the most ancient Greeks drew the presentation that this was the hard, the admirable necessity in the name of which everything is ordered" (1993, 91). This necessity, it follows, is necessity and, hence, fate, which have no causality governing them. Blanchot brings up the passage from book 8 of the *Iliad* in which "Zeus, having decided

to bring the Trojan conflict that was troubling everything to an end [a hold, more accurately], brings the gods together and relieves them of all personal initiative (thus gathering unto himself all divine power)" (1993, 91; the translation follows that in the English translation of Blanchot's book):

As long as morning rose and the blessed day grew stronger,
 The weapons hurtled side-to-side and men kept falling.
 But once the sun stood striding at high noon, so
 Then Father Zeus held out his sacred golden scales:
 In them he placed two fates of death that lay men low —
 One for the Trojan horsemen, one for Argives armed in bronze —
 And gripping the beam mid-haft the Father raised it high
 And down went Achaea's day of doom, Achaea's fate
 Settling down on the earth that feeds us all
 As the Trojans' fate went lifting towards the sky. (book 8, 78–87)

In effect, this dramatic or narrative break is Hölderlin's caesura, a counter-rhythmic move, an effect of the irreducibly unthinkable efficacy, of "difference itself," *différance*, Derrida would say, or a Heraclitean, play invoked by Nietzsche, "the world is the game Zeus plays" (Nietzsche 1996, 58). Like the God of Einstein (famously invoked by him against quantum mechanics), Homer's Zeus does not play dice, but decides, at least, human fate by "playing" with scales. These complexities and qualifications notwithstanding, the classical ontology appears to have been dominant, even if understanding its ultimate working was beyond humans or even Gods.

The second ontology in question is defined, conversely, by the rule or misrule of chance, which makes all causality, necessity, and order apparent or illusory. This ontology, too, is found in *Oedipus the King*. It may be called "the Jocasta ontology," because it was assumed and was dramatically expressed by Jocasta, Oedipus's mother and wife: "Fear? What should a man fear? It's all chance, chance rules our lives. Not a man on earth can see a day ahead, groping through the dark. Better to live at random, best we can" (Sophocles, 1984, 146, ll. 1068–72). Not surprisingly, no ap-

peal to probability is made or is possible under these conditions: next to nothing can be estimated with any degree of belief; no bet on the future is more justified than any other. This view is proven illusory in the play, since the lives of the characters are ultimately ruled by fate and, thus, by the ontology of the first type, at least, again, in certain readings, as just explained. Although the ancient Greeks clearly entertained the possibility of this ontology, it does not appear that they created literary works based on it or favored it philosophically. Indeed, while this type of ontology is occasionally mentioned in philosophical literary works throughout Western history, thinking and works grounded in this ontology do not appear until the advent of literary and philosophical modernism in the twentieth century.

The third ontology found in the ancient Greek thought was introduced in the fifth century BCE in several forms, most famously as the materialist atomistic ontology of nature by Leucippus and his student Democritus, with whom it is usually associated, and it was developed by Epicurus and then Lucretius. Lucretius's *De Rerum Natura* (*On the Nature of Things*) remains its greatest literary and philosophical incarnation, based on an element of absolute randomness or chance, defined as "clinamen," the swerve of atoms, a concept not found in Democritus. The overall ontology envisioned by Lucretius is different from the Jocasta ontology, because Lucretius's universe allows for causal processes and ordered structures. However, in the absence of God, such structures are the results of the emergent processes of self-organization, once a sufficiently large number of atoms are brought together, which was a highly innovative conception. The universe itself has emerged through combining atoms (assumed to be infinite in number) in accordance with natural laws. This organization is, however, never guaranteed to be stable, since it can be disordered by swerves. In Lucretius's universe only atoms themselves are eternal, but not any given formation of atoms. While Leucippus and Democritus appear to have been the first to advance this type of ontology as a materialist atomistic ontology, the idea of the world as the interplay of chance and necessity is found

in other pre-Socratics. Thus, Heraclitus, who is often seen as a counterpart of Democritus and a target of an attack by Lucretius, pursued this idea apart from atomism, and by a very different way of philosophical thinking in general.

While found across the spectrum of nonclassical thinking, the ontology of the interplay and of play of chance and necessity plays a role in nonclassical ontology as well, but only as an effect-level ontology, and often, as in quantum theory or in Derrida, as the primary effect-level ontology. Indeed, following Nietzsche, Derrida defines play (*jeu*) as the nonclassical dynamics that produced the interplay of chance and necessity as one its primary effect-configurations (e.g., Derrida 1975, 51; Derrida 1978, 292–93; Derrida 1982, 7). However, these effects are now given the (a-causal) efficacy, defined by Derrida as *différance*, that makes this interplay ultimately incalculable, lost in the abyss of the unthinkable, which characterizes nonclassical ontology. This ontology is accordingly defined by the impossibility of capturing the ultimate workings defining the domain it considers by any given concept, including, it follows, causality or, conversely, randomness or chance, or any form of their interplay, and hence by the impossibility of ultimately applying any of the three ontologies outlined above. Although the concept of ontology is defined in this essay by assuming this possibility, there is no contradiction here, because under the conditions of nonclassical ontology, too, it is possible and necessary to use the concept of ontology at intermediate levels, which is why one could still speak of ontology. However, it is not possible to apply it at the ultimate level of thinking in the corresponding domain, which may be the world itself. Nonclassical ontology is thus “an ontology without the ultimate ontology.”

One can describe the architecture of nonclassical ontology more rigorously as follows. The ultimate constitutive entities of the domain, be they physical, phenomenal, psychological, or political, under investigation do exist, are *real*, as both Jacques Lacan (who expressly defines what he calls the Real accordingly) and Derrida (who avoids the language of “real”) would admit, many other, sometimes crucial differences between them notwithstanding. There are, however, uncircumventable epistemological lim-

its upon how far our knowledge and even thought concerning the nature of this existence can reach, even in principle. This circumstance precludes us from assigning, beyond these limits, any ontology or any terms, including those used at the moment — such as entities, constitutive, ultimate, workings, being, becoming, history, time, space, world, and so forth. The application of these terms is possible only at the level of effects, whose ultimate efficacy is beyond the reach of thought. Thus, as will be discussed in more detail below, Derrida argues, with and against Freud, that while we cannot speak of the unconscious, we can speak of its effects (Derrida 1982, 21). As I will explain, it might be more rigorous to say that we cannot speak of the ultimate *efficacy* of the unconscious, rather than the unconscious itself, but only of the effects, conscious or unconscious, of this efficacy. This efficacy, it follows, is without causality, because the suspension of causality, which is a thinkable ontological attribute, is automatic at the *ultimate* level, although causality is possible and necessary at intermediate levels. On the other hand, this efficacy is not entirely random either and, as I will explain, some its effects are in fact ordered, even if only statistically ordered or correlated. Recourse to probability is, however, unavoidable under these conditions, as Hume (although perhaps not Kant) acutely realized, even though Hume, too, assumed classical ontology at the ultimate level. According to Deleuze,

The first act of modern [Humean] skepticism consists in making belief the basis of knowledge. . . . The second act consisted is denouncing illegitimate beliefs as those which don't obey the rule that are in fact productive of knowledge ([via] probabilism, calculus of probabilities). But in a final refinement, or third act, illegitimate beliefs in the Self, the World, and God appear as the horizon of all possible legitimate beliefs, or as the lowest degree of belief. For if everything is belief, including knowledge, everything is a question of degree of belief, even the delirium of non-knowledge. (2005, 44)

This is a powerful point (on both Hume's and Deleuze's part), including as concerns the irreducible role of probability under these conditions. This view of knowledge and, to begin with, thought has important implications for psychology and psychoanalysis, because it radically questions the unconditional separation between legitimate and illegitimate assumption, belief, and logic, or thought, although I can only mention this point here, without elaborating on it. For the moment, this view suggests that ontology may be *inconsistent*: it may even be the delirium of non-knowledge, a form of madness. Kant would not have accepted this. One might even wonder whether Hume would have ultimately accepted this either. Nor would Kant have accepted the irreducible role of probability, irreducible insofar as any belief has a degree of its plausibility, which—the degree of belief—is arguably the most philosophically cogent definition of probability itself. For the moment, this argument leads Deleuze to locate in Hume the concept of the Outside that exceeds mere exteriority because it is defined by the concept of *relations*, rather than things: everything is a relation, even single entities or what so appears. However, this extra-exterior Outside can still be embodied in thought, given an ontology, perhaps by way of a delirium of non-thought, and hence ultimately remains classical, even though the full measure of causality governing this outside is seen beyond human ontological thinking by Hume, or perhaps even Kant. Kant, however, appears to give us more chance on this score.

The type of theoretical thinking (and all nonclassical thinking is, by definition, theoretical) reaches beyond Kant's ontology of noumena or things in themselves, at least as expressly detailed by Kant. For, while unknowable, Kant's things-in-themselves are still, in principle, thinkable, even thinkable in causal terms, which makes Kant's thought still classical on the present definition. According to Kant,

We have no concepts of the understanding and hence no elements for the cognition of things except insofar as an intuition can be given corresponding to these concepts, consequently . . . we have cognition of no object as a *thing in*

itself, but only insofar as it is an object of sensible intuition, i.e. as an appearance [phenomenon]; from which follows the limitation of all even possible speculative cognition of reason [*Vernunft*] to mere objects of *experience*. Yet the reservation must also be noted, that even if we cannot *cognize* [*kennen*] these same objects as things in themselves, we at least must be able to *think* [*denken*] [of] them as things in themselves. To *cognize* an object, it is required that I be able to prove its possibility (whether by the testimony of experience from its actuality or *a priori* through reason). But I can *think* whatever I like, as long as I do not contradict myself, i.e., as long as my concept is a possible thought, even if I cannot give any assurance whether or not there is a corresponding object somewhere within the sum total of all possibilities. But in order to ascribe objective validity to such a concept (real possibility, for the first sort of possibility was merely logical) something more is required. This “more,” however, need not be sought in theoretical sources of cognition; it may also lie in practical ones. (1997, 115)

Kant proceeds next to an example of the freedom of the human soul. For my purposes, this example is most significant insofar as it refers to mental, rather than material, things in themselves. While we may think more readily of things in themselves as material *objects* (also in Kant’s sense of “object”), for Kant the concept equally refers to mental objects and equally distinguishes them from appearances or phenomena, although in this case both the objects and the phenomena are mental. This view has significant implications for our understanding of the nature of thinking, specifically understanding versus reason in Kant’s sense of reason (*Vernunft*). Kant, I would argue, ultimately assigns reason to the unconscious, even if against his own grain, and against the grain of the history of philosophy, which has nearly always associated reason with consciousness and self-consciousness.³

In any event, just as Kant’s noumenal ontology or Freud’s psychoanalytic theory, and nonclassically in quantum theory or Der-

rida's philosophy, nonclassical ontology emerges from within a rigorous theoretical argumentation, which, as opposed to merely postulating the unthinkable, makes the unthinkable defined by means of, from within, this argumentation. In other words, the unthinkable is placed *inside* and is made a constitutive part of this theory, rather than positioned beyond the purview of or otherwise *outside* the theory. In this sense, the unthinkable is a product of theoretical necessity and not a matter of choice, a suspicious category in general, as Derrida noted (1978, 292–93). By the same token, the presence of unthinkable objects and the fact that they are unthinkable are essential to what the theory can do in terms of knowledge, explanation, prediction, and so forth. It also follows that, while always unthinkable, the field of the unthinkable is different each time, depending upon the theory in which it is established as unthinkable. Nonclassical theories, too, contain classical and even strictly knowable strata, hence, again, nonclassical ontology is ontology, an effect-ontology. They must do so, given that the existence of the unthinkable is rigorously derived by a given nonclassical theory, as opposed to being merely postulated. For such a rigorous derivation is not possible otherwise than on the basis of something that is known, even though it must also be seen as affected by what is not and cannot be known or thought of. We *know* of the existence of the unthinkable and *know* (rather than only think) it to be unthinkable through its *effects* upon the knowable, and only through these effects.

It follows, however, that the practice of thought must now advance under the assumption that there are uncircumventable limits upon how far thought could in principle reach. By contrast, classical thought only admits practical and, ideally, ever-diminishing limitations upon its reach. Nonclassical thinking and knowledge are, however, as rich or deep as those of classical theories, which are part of nonclassical theories in any event, and as such, or in their own right, could be as rich, deep, and important as nonclassical theories. It is not epistemological preference (or prejudice) but theoretical necessity that may compel us to classical approaches in some cases and nonclassical in others.

Nonclassical theories do expand our understanding of the nature of fundamental explanation in science, philosophy, psychoanalysis, and other fields. Indeed, when one says that nonclassical theories place their ultimate objects beyond any knowledge or even conception available to us, the terms “knowledge” and “conception” are used classically, which compels Derrida sometimes to speak of such formations as *différance* as neither terms nor concepts. One may, however, expand the conception of thinking to include the unthinkable and to allow for thought and knowledge to be conceived in terms of effects of this unthinkable upon what is thinkable and indeed knowable. This conception is still classical as a *conception*, and there is, by definition, no other way for us to conceive of anything rather than classically. What is different under nonclassical conditions is the *character* of thought and knowledge, phenomenally classical but making the unthinkable part of and the ultimate efficacy of thought and knowledge.

Freud invokes Kant’s argument for unknowable but thinkable *mental* objects, as things in themselves, now pertaining strictly to the human mind, in his analysis and his very definition of the unconscious. As he writes in “The Unconscious” (1915),

In psychoanalysis there is no choice for us but to declare mental processes to be in themselves unconscious, and to compare the perception of them by consciousness with the perception of the outside world through the sense-organs; we even hope to extract some fresh knowledge from the comparison. The psychoanalytic assumption of unconscious mental activity appears to us, on the one hand, a further development of that primitive animism which caused our own consciousness to be reflected in all around us, and, on the other hand, it seems to be an extension of the correction begun by Kant in regard to our views of external perception. Just as Kant warned us not to overlook the fact that our perception is subjectively conditioned and must not be regarded as identical with the phenomena perceived but never really discerned, so psychoanalysis bids us not to set conscious perception in

the place of the unconscious mental process which is its object. The mental, like the physical, is not necessarily in reality just what it appears to us to be. It is, however, satisfactory to find that the correction of the inner perception does not present difficulties so great as that of outer perception—that the inner object is less hard to discern truly than is the outside world. (1997, 121)

Freud's final assessment, made with atomic theory, as developed by then (1915), in mind, is remarkable in its optimistic view of the inner object as less hard to discern truly than the outside world, and he appears to have reconsidered this assessment later. The time, 1915, was of course a factor. By 1915, quantum theory, initiated by Max Planck in 1900 and then developed, with some major successes, by Einstein, Sommerfeld, Bohr, and others, was then entering a new crisis, of which Freud might have been aware. Nobody, moreover, anticipated that the resolution of this crisis with quantum mechanics in 1925, introduced by Werner Heisenberg and Erwin Schrödinger in 1925–26, will bring with it new epistemological complexities of the nonclassical type, because everyone, including Bohr before the rise of quantum mechanics, hoped for a classical-like resolution of these problems. On the other hand, it is understandable that Freud might have been more optimistic as concerns the unconscious at this relatively early point, although in its logical and textual movement the essay already exhibits more difficulties than Freud's assessment here may suggest. These difficulties compelled Freud to interminably multiply the complexities of his analysis and led Derrida to his nonclassical view of the unconscious as an effect of the radical, unthinkable alterity of *différance*.

First of all, all evidence concerning these unconscious dynamics is irreducibly indirect, or as Derrida was to call it, irreducibly "oblique," which, as Freud (rightly) argued, does not prevent the possibility of rigorous and indeed scientific investigation, which he undertook (Derrida 1995, 3–34). Derrida's analysis is no less rigorous, but it is philosophical. Indirect evidence is often

used by science, for example, quantum physics, where indeed, in a nonclassical view, all evidence concerning quantum objects themselves is irreducibly indirect. Nobody has ever observed a moving electron or photon as such, but only traces (ultimately in Derrida's sense) of their interactions with the measuring instrument involved, which, in effect, form *writing* in Derrida's sense. Nonclassical epistemology may be described as the epistemology of *irreducibly* indirect evidence, in which this indirectness extended to the point of the impossibility of knowing or even conceiving of the ultimate dynamics behind the evidence and yet deriving this inconceivability from this evidence. I take the nonclassical view concerning the *unconscious* character of thinking, which ultimately places the ultimate nature of thinking beyond thinking. I should qualify that I am not arguing that our neurological theory must be seen as nonclassical as concerns its treatment of the neurological processes, in the way, say, quantum theory is, although this is possible. My argument instead suggests that a psychological or philosophical theory of thinking processes (assumed to be the effects of neurological processes, but not considered as, reductively, defined by the latter) may be nonclassical, even if the neurological theory of the material processes responsible for thinking is classical.

In my view, consciousness has more, and perhaps primarily, to do with the *presence* of phenomena, including of itself as a phenomenon (the phenomenon of self-consciousness), and far less to do with *thinking*, at least as logic, understanding, reason, and so forth. Far less, but not nothing altogether! This type of unconditional separation, without mutual interaction and inhibition, may not be possible, as Freud tells us. Viewed nonclassically or even sufficiently radically classically, as in Kant or Freud, the unconscious is not some exterior reservoir that is fully outside consciousness and that may or may not, in part or as a whole, become available to consciousness, although this type of traffic between both domains plays a role. Instead, the unconscious refers to or, which I will explain may be more accurate, contains within itself the nonclassical efficacious dynamics that continuously shape,

have effects upon, both the unconscious itself and consciousness, and the reciprocal and mutually inhibiting interactions between them. I might note in passing that these interactions are analogous to those between quantum objects and measuring instruments or the classical macro world (or what we perceive as such) in the nonclassical view of quantum theory. Some among these effects compel us to theorize such unconscious processes nonclassically by placing the ultimate character of these dynamics beyond all knowledge and thought, just as certain experimental data compel us to place quantum objects and processes beyond the reach of thought.

While ultimately conforming to the same type of mutually inhabiting dynamics, the interaction between mental and material unthinkable objects or even (thinkable) things in themselves in Kant's sense is a more complex matter. For once the ultimate character of certain mental processes is that of things in themselves, in other words, something to be thought of but not to be known, we may also think of them as material (say, in terms of the brain rather than the mind), and they may in fact be material. But then this materiality, or any ultimate (such as quantum) materiality, may be equally or even further removed from our knowledge and thought. In other words, we may be able to *think* the mental things in themselves, the mental unconscious, but not the material one—physiological, biological, chemical, or physical. Indeed, Freud believed the material unconscious to be further away from our knowledge, if not thinking, than the mental one, and, on these grounds he suspended the material dynamics responsible for mental processes from the field of psychoanalysis, perhaps wisely, at least at the time (Freud 1997, 118). Here I take a more symmetrical view, in part by virtue of taking a more nonclassical view of both the material and mental unconscious, or mind and matter in general. In this view, neither one would be any more (or less) thinkable than the other.

On the other hand, the actual material, neurological dynamics responsible for mental processes (conscious or unconscious) remains a formidable problem, in spite of major advances of the last fifty years in several fields. Accordingly, it may be prudent

to exercise maximal caution in trying to bring them together and in making definitive claims concerning their relationships. To argue for a particular form of brain neurological dynamics as responsible for consciousness (or the unconscious) is a very difficult task already, and to capture it scientifically would be an extraordinary achievement. Still, this is not the same as to link the *actual structure and dynamics* of mental processes and those of the physical processes in the brain that are responsible for the mental ones. A very limited set of links may be sufficient to demonstrate that our mental life is the product of a particular brain dynamics, since to do so one might only need to establish a limited set of effects relating both without linking their structures. In other words, the ensuing biology or the underlying physics may conform to nonclassical ontology, but it might be unable to account rigorously for the connections between the architectures of both domains, beyond certain minimal links or correlations, or it may be classical and may be able to account for the nonclassical ontology of thought. This is why I prefer to respect the disciplinary boundaries involved, and, as Freud realized, these domains may be decoupled analytically and disciplinarily, although they are ultimately connected materially, and this materiality, which is ultimately the domain of biological sciences, may ultimately completely change our psychological theory, as Freud noted in *Beyond the Pleasure Principle* (1961, 54).

Nonclassical thinking can be argued to be consistent with other disciplinary requirements of either domain. Indeed, in quantum theory it appears, in contrast to philosophy or other nonscientific disciplines, that the use of this epistemology is facilitated by these disciplinary requirements, specifically by the mathematical-experimental character of the theory and of modern physics in general. We may use the mathematics of quantum theory to make excellent *predictions* of the outcomes of experiments, without making any claims concerning the *description* of the quantum physical processes involved. We may even rigorously argue that such a description or, again, even a conception of such processes is ultimately impossible, which is what nonclassical interpreta-

tions of quantum theory do. In any event, even though some, like Einstein, can raise philosophical concerns and even objections, it is still possible to do more physics, sometimes, it should be added, by simply disregarding the philosophical questions involved. Once we move to philosophical or psychological theories of human nature, this type of approach and attitude, which is, again, not always easily and sometimes not at all accepted even in science, encounters a much greater resistance and may indeed be less effective. The disciplinarity of philosophy tends, at least historically, to demand an epistemologically classical explanation, at least by way of thinkable, even if not ultimately knowable, things, in other words, Kantian things in themselves.

As noted above, Freud appears to be more optimistic than Kant (let alone than a nonclassical theorist of the unconscious would be) concerning a possible access to unconscious mental processes, even in terms of knowledge rather than only things in themselves, for example, in terms of their oedipal dynamics. Freud even seems to have argued that what we actually think (in our unconscious) is not what we (consciously) think we think and that psychoanalysis could classically, descriptively account for the former, rather than, as Kant did, to argue for the ultimate unknowability but possible thinkability of the unconscious, or, as I argue, for its ultimate unthinkability. For Freud, the psychoanalytic description of this dynamic could be ultimately made empirically confirmable on the basis of the available, albeit indirect evidence, evidence manifested only in rigorously established and confirmed effects. By contrast, nonclassically, while such effects are indirect, some of them also compel us to infer the workings of not only the irreducibly unknowable but of the irreducibly unthinkable behind these effects.

But then, one can never be sufficiently cautious in making claims concerning Freud's thinking. As indicated earlier, Freud never stopped stratifying his pictures and un-pictures, his visual and unvisualizable models, of consciousness and the unconscious, the knowable and the unknowable, the thinkable and the unthinkable, the material and the mental, and of the interactions

between and among them. Freud, even if against his own grain, may have been closer to nonclassical theory than it might appear. He certainly said on several occasions that consciousness may well be the ultimate enigma of human nature, which would make the program announced in the passages cited here more difficult to fulfill, as ultimately proved to be the case. Lacan, who entertained a nonclassical view of the unconscious and thinking, said: "Freud has told us often enough that he would have to go back to the function of consciousness, but he never did" (1981, 57). It may be that consciousness is in a certain sense more enigmatic than the unconscious, but the enigma or, nonclassical, beyond-the-enigma of the interactions between them (and none is possible apart of these interaction) is what is ultimately at stake in psychoanalysis and philosophy alike.

As I said, I primarily associate consciousness with phenomenal presence and hence with what is knowable in the sense of that which can be made present to consciousness, appearing, as it were, on the mental terminal screen of consciousness, rather than with the processes related to logic, understanding, reason, and so forth. I see the actual dynamics, mental or physical, governing these processes as fundamentally unconscious, hidden in the black box of our mental software and hardware, with the ultimate efficacy of the workings of this software and hardware placed beyond the reach of thought and, thus, subject to a nonclassical treatment. Any articulation resulting from our unconscious thinking concerning such processes, including in terms of logic, understanding, reason, or whatever, can be made available to knowledge, in the same way one can learn quantum theory or Derrida's philosophy. In other words, our ability to think of these things, including as concerns the unknowable or unthinkable, may result in knowledge. But that does not mean that we can *know* or even *think* how matter or mind actually works, including, in the case of mind, how it ultimately enables us to know these or other things, in other words, how it is that we can think about them. Rather than phenomena, which we can know, these may be Kantian things in themselves of which we can only think

or, at the nonclassical limit, ultimately something of which we cannot even think, as Gödel's theorems perhaps tell us in the case of mathematical thinking.⁴ In short, we might not be able to think how we think or how it is that we are capable of thinking.

This view may be seen as both extending and nonclassically radicalizing Freud, via Lacan and then Derrida. As Lacan says, crediting Freud with "truly unprecedented boldness,"

When Freud realized that it was in the field of the dream that he had to find confirmation of what he had learned from his experience of the hysteric, he began to move forward with truly unprecedented boldness. What does he tell us now about the unconscious? He declares that it is constituted essentially, not by what consciousness may evoke, extend, locate, bring out of the subliminal, but by that which is, essentially, refused. And how does Freud call this? He calls it by the same term by which Descartes designates what I just called his point of application—*Gedanken*, thought. There are thoughts in this field of the beyond of consciousness, and it is impossible to represent these thoughts other than in the same homology of determination in which the subject of the *I think* finds himself in relation to the articulation of the *I doubt*. (1981, 43–44)

Thus, the *psychoanalytic* unconscious, the unconscious as *theoretically* defined in the field of psychoanalysis, is primarily thinking—*Gedanken*—and reciprocally, thinking is primarily unconscious. This view does not imply any lesser significance of consciousness or self-consciousness than that assigned to them by classical theories. Quite the contrary, the role of consciousness is decisive in the human mind and indeed in human (and perhaps animal) life, from perception to theoretical, including scientific, knowledge. Consciousness and conscious knowledge are the necessary, inevitable starting point of any investigation of any perception and thinking (conscious or unconscious), as both Kant and Hegel, or most major figures before and after them, from Plato and Aristotle to Nietzsche and Freud to Husserl and Heidegger to Lacan and

Derrida, indeed *knew*. How else could we think of and theorize anything, classically or nonclassically, except by starting with one or another type of manifest conscious effects, just as in quantum physics we infer the unthinkable nature of quantum objects from what we observe, indeed consciously, in measuring instruments affected by quantum objects?

This unconscious, moreover, may need to be theorized nonclassically, beyond Freud and possibly Lacan, as containing as its efficacy, that of which even our unconscious thinking is only an effect. That is, it must be *thought* of as something that is ultimately beyond our ability to conceive of it, except for its actually or potentially manifest effects, which also make us infer this unthinkability. Freud and perhaps Lacan still think the unconscious and think it is thinking, closer to Kant, although Lacan's theorizing of what he calls the Real brings him, at least, close to nonclassical thinking. Here, however, I will consider this nonclassical theorization of the unconscious via Derrida. Derrida's commentary on the unconscious that is arguably most pertinent here occurs in "*Différance*," where the discussion of the unconscious, refigured in the nonclassical regime of *différance*, plays a central role. Derrida says:

If the displaced presentation remains definitively and implacably postponed, it is not that a certain present remains absence or hidden. Rather, *différance* maintains our relationships with that which we necessarily misconstrue, and which exceeds the alternative of presence and absence. *A certain alterity*—to which Freud gives the metaphysical name of *the unconscious*—is definitively exempt from every process of presentation by means of which we could call upon it to show itself in person. In this context, and beneath this guise, the unconscious is not, as we know, a hidden, virtual, or potential self-presence. It differs from, and defers, itself; which doubtless means that it is woven of differences, and also that it sends out delegates, representatives, and proxies; but without any chance that the giver of

proxies might “exist,” might be present, be “itself” somewhere, and with even less chance that it might become conscious. In this sense, contrary to the terms of an old debate full of the metaphysical investments that it has always assumed, the “unconscious” is no more a “thing” than it is any other thing, no more a thing than it is a virtual or masked consciousness. This radical alterity as concerns every possible mode of presence is marked by the irreducibility of the after effect, the delay. In order to describe traces, in order to read traces of the “unconscious” traces (there are no “conscious” traces), the language of presence and absence, the metaphysical discourse of phenomenology, is inadequate. (Although the phenomenologist is not the only one to speak this language.) (Derrida 1982, 20–21; emphasis added)

Derrida may be moving even further from Freud than he thinks, for it follows from the preceding analysis that Freud’s “metaphysical name of the unconscious,” while (Derrida is right) still metaphysical or, in the present terms, classical, unless, again, read against Freud’s own grain, refers perhaps to already an effect or set of effects of the radical alterity of *différance*. In other words, there are additional levels of the ontological and epistemological stratification involved here, which Derrida’s overall discussion or inscription of *différance* manifest more clearly. These more complex stratifications would, one might easily surmise, have implications for theory and perhaps the practice of psychoanalysis as well, but it would be difficult to address the subject beyond this surmise here. The radical alterity envisioned by Derrida, envisioned as unenvisionable, is not what Freud calls the unconscious, which, as explained earlier, refers to what is still thinkable and, possibly, even knowable. Rather, the unconscious as envisioned by Freud becomes in Derrida’s scheme an effect or set of effects of *différance* and the dissemination that *différance* makes unavoidable. In referring to this unthinkable alterity one could no more speak of the unconscious (or of it being woven of differences, traces, or whatever), but at most as the un-unconscious. This un-

naming name suspends the possibility of naming, although and because, while it is unnamable, unnamable even as unnamable, unthinkable even as unthinkable, *différance* is ultimately responsible for all nominal and thinkable effects, conscious or unconscious, *différance* itself included. As Derrida indeed says, in the context of Heidegger, but likely also with Blanchot's reading of Beckett's *The Unnamable* in mind (Blanchot 2002),

For us, *différance* remains a metaphysical name, and all the names that it receives in our language are still as names, metaphysical. . . . Older [pre-logically rather than ontologically] than Being itself, such a *différance* has no name in our language. But we 'already know' that if it is unnamable, it is not provisionally so, not because our language has not yet found or received this *name*, or because we would have to seek it in another language, outside the finite system of our own. It is rather because there is no *name* for it at all, not even the name of essence or of Being, not even that of "*différance*," which is not a name, which is not a pure nominal unity, and unceasingly dislocates itself in a chain of differing and deferring substitution.

"There is no name for it": a proposition to be read in its *platitude*. The unnamable is not an ineffable Being which no name could approach: God, for example. This unnamable is the play [jeu] which possible nominal effects, the relatively unitary and atomic structures that are called names, the chains of substitutions of names, in which, for example, the nominal effect *différance* is itself *enmeshed*, carried off, reinscribed, just as a false entry or a false exit is still part of the game [jeu], a function of the system." (1972, 26)

One could not, it follows, speak of *différance* as "play" either, although one can, again, speak of the effects of *play*, which produces further effects, and specifically nonclassical effects. Could one still read *différance* here as thinkable, even if unnamable? Perhaps one could do so if one reads this passage outside the chain of Derrida's inscriptions of *différance* in the essay and elsewhere,

but not, I would contend, within this chain: for one thing, such a reading would allow us to unconditionally separate thinking and naming, which might be possible for Kant, but not for Derrida.

Now, the nonclassical scheme outlined in this essay, or suggested by Derrida here, leaves space for differences in the structure or architecture of the effects considered, effects that are thinkable or knowable, even if the efficacy of these effects is beyond the reach of thought. The unthinkable nature of this efficacy does not mean that it is the same in all cases in which this type of scheme is used. This assumption would in effect amount to a classical-like ontological or ontotheological postulate, using (along the lines of Heidegger's and, more radically, Derrida's argumentation) the term "ontotheology" as referring to thinking that, while not necessarily theological, is modeled on theology by assuming a single entity that ultimately governs any possible ontology. By contrast, while always unthinkable, a nonclassical efficacy need not and in general should not be seen as the same even in the case of a single given ontological field, let alone as governing all possible ontological fields. That is, while this type of efficacy is each time unthinkable, it is also each time different, different in the case of each new effect or new set of effects. This fact reflects the essential connections between the irreducibly unthinkable and the irreducibly multiple, *différance* and *dissemination*, and we must keep in mind that there still other names referring to both nonclassical efficacies and nonclassical effects, and their relationships, in Derrida. This point has important connections to quantum theory, especially the so-called quantum field theory, but this subject would require a separate analysis.⁵

For the moment, in quantum mechanics the nonclassical situation plays itself out as follows. Once a given configuration of observed effects, manifest in measuring instruments, is considered rigorously at the ultimate *available* limit of its ontological constitution (the ultimate efficacy of this constitution is, again, never available to thought), individual events comprising this configuration are always irreducibly discrete or singular. That is, these events are always isolated from their background and

are discontinuous with respect to each other, without any causal or otherwise lawful connections between them, even when they occur in a temporal sequence, to the degree that the concept of sequence could apply to these a-causal and discontinuous occurrences or to their temporality. At this ultimate level of the constitution, composition of events, effects-events, any two events are always separated. Considered more coarsely, a given event-field may and usually does include intervals or trajectories of continuity, or what so appears, and such intervals may have a discrete structure. The possibility of such discontinuous but ordered sequences or continuous intervals and patterns that define them is important, also for the reasons to be explained presently. However, at the ultimate level of available resolution any such interval would always resolve into a multiplicity of discrete events that are very close to each other and that might, but need not, have occurred in close temporal proximity to each other. It is this proximity, whether temporally defined or not, that prevents one from perceiving their singularity and discreteness.

It also follows that under these conditions any actual individual event, at least in the ultimate available graining, is irreducibly singular and cannot be comprehended by law. That is, one cannot establish an expressible relation to any preceding event. However—*this is the most extraordinary and enigmatic thing about quantum phenomena!*—in certain circumstances, collectivities of events, either continuous or discontinuous, exhibit ordered patterns. One can put it by saying that the events involved are collectively organized but are not causally connected to each other; that is, the law or, as Hölderlin would have it, rhythm of this organization does not allow us put any single event in a determined or determinable relation any other single event. How is this possible? Well, we don't know, and it is indeed primarily in view of this circumstance (which defies any possible explanation) that we are compelled to understand the efficacy of such configuration of effects, nonclassically, as unthinkable, unthinkable even as unthinkable. And unlike classical physics, or even relativity, while quantum mechanics does not and cannot describe (nothing, it ap-

pears, can) or allow us to conceive how these effects come about, it does, luckily for us, enable us to predict these effects, albeit only probabilistically, which, however, is good enough.

Quantum mechanics has its very strict specificity, not the least, in view of its mathematical, or mathematical-experimental, nature, which defines all modern physics from Galileo, which is crucial insofar as nonclassical theory could satisfy the standard requirement of scientific rigor. A parallel point is maintained by Derrida as well in relation to philosophy, both in "*Différance*" and in his reading of Bataille in "From Restricted to General Economy," both of which pursue "a rigorous and, in a new sense, [even] 'scientific'" relating of nonclassical (general-economic) efficacy and classical (restricted-economic) effects (Derrida 1972, 19–20; Derrida 1978, 251–77). A similar argument can be maintained concerning the nonclassical scientific rigor of psychoanalysis, although in this case we confront a greater historical complexity, given the history of psychology and medicine preceding psychoanalysis. I presented the quantum-theoretical situation in general philosophical and strictly qualitative terms, without using any mathematics. This is because parallel configurations of effects combining the irreducible lawlessness of individual effects and, under certain circumstances, organized collective effects may in fact be found elsewhere, for example, although I can only mention it here, in Hölderlin's scheme of rhythm and caesura, and the corresponding temporality (Plotnitsky 2015). Of course, in this case we have no mathematics to go with it, and that we do have such mathematics in quantum physics is itself remarkable and mysterious, but without mysticism. Neither do we have mathematics to relate the thinkable and the unthinkable, randomness or chance and order, and so forth in Derrida. But what is the corresponding architecture of "effects" of the unthinkable in Derrida?

There is no single answer to this question. Derrida's project, his project of many projects, may be seen as defined by diverse explorations of multiple configurations in different areas or domains—philosophy, psychoanalysis, literature, and so forth—configurations that invite and indeed require nonclassical think-

ing, thinking with the unthinkable. These configurations thus also involved different configurations of the interplay of chance and necessity, and hence require us to take chances in assessing and predicting, betting on them, by using different strategies, as Derrida noted on many occasions, most expressly, in connection with psychoanalysis in “My Chances/*Mes Chances*: A Rendezvous with Some Epicurean Stereophonies” (Derrida 1984). I might note, although my limits here do not permit me to enter the subject, that Derrida’s concept of undecidability is connected to these situations as well, and is accordingly quite different from Gödel’s concept of undecidability, which has no connection to chance and probability, because mathematical undecidability is strictly determined. If considered along Derridean lines, the undecidable unconscious is always about chance and taking chances, gauging probabilities.⁶

Derrida’s work is among those endeavors, which shows how the unthinkable in thought leads to new thought and knowledge, thought and knowledge not possible otherwise, across the spectrum of different fields. Derrida, it is true, is not dealing with mathematics and science (apart from his engagements, in part via Freud, with certain philosophical questions in modern biology), where, however, we have quantum theory to make the same point. The spaces of the thinkable and the unthinkable, and the relationships between them, continue to expand from psychoanalysis and philosophy to modern physics, from quantum theory to modern cosmology, which is a quantum cosmology, even to the very origin of the universe. This origin appears to be quantum as well, according to the so-called inflationary model, which appears to have been experimentally confirmed only a few months ago by extraordinary subtle cosmological observations, although the data obtained in this experiment are still under examination and have been challenged (Cowen 2014). As such, this origin may and indeed must be seen as “originary” in Derrida’s sense, which prevents us from speaking or, again, thinking of *the* origin, the original origin, of the universe, either from something or from nothing (as some physicists argue). This cosmology

would make the unthinkable part of our cosmological thinking and knowledge. Thus, nonclassical thinking, as thinking with the unthinkable, may help us understand, *as far as possible*, the universe itself, dead matter, just as it may help us understand life (living matter) and thought, even though and because nonclassical thinking in principle precludes us from reaching the ultimate character of each and their relationships. It follows, however, that neither of them nor their relationships could be fully determined, as they have so often claimed to be, by either sequence—from matter to life to thought or from thought to life to matter, any permutation of what is designated by these terms. Nothing available to our thought can fully determine them, for this indeterminable determination comes from that which is beyond the reach of thought—the beyond of thought, the beyond of the beyond of thought, that which makes thought possible.

NOTES

1. Although the question is under debate, Bell's theorem, sometimes claimed to be one of the greatest discoveries in twentieth-century physics, appears to imply nonclassical ontology of quantum phenomena. Roughly, the theorem says that if we assume that the underlying quantum ontology is classical, our predictions concerning the outcomes of certain quantum experiments become incorrect unless we allow for the instant physical influence between spatially separate events (which could be arbitrarily far away). This is in conflict with relativity theory, which imposes the strict limit, the speed of light in the vacuum, c , which is finite, on any physical influence. For a very good non-technical account of Bell's theorem, see Mermin (1990, 110–76).

2. See de Finetti (2008) for a philosophical introduction to the Bayesian philosophy of probability, so named after the so-called Bayes' theorem, the mathematical content of which is not essential here. Briefly summarized, the Bayesian approach to probability has to do with estimates concerning individual and especially unique events, say, a betting on the outcome of a basketball game or, as in Pascal's wager, on the existence of God, rather than on frequently repeated events, such repeated coin tosses. In the latter case, our estimations are defined by previous experience of the same or closely similar events, primarily considered in the so-called frequentist approach of probability, customarily used to ground more classical or objectivist views of probability, because the probabilities of such sequences are more easily

established and verifiable. The beauty of the Bayesian approach is that it can also be used in the absence of the causal ontology; that is, while causality, if present and if we can access it, may help our probabilistic estimates (Bayes' theorem applies in both causal and noncausal situations), events may also be open to probabilistic estimates even if there are no causal connections between them. Indeed, in this case there could only be probabilistic estimates concerning possible events, which makes all nonclassical theories irreducibly probabilistic. These estimates are enabled by relating known patterns of events and previous estimates to new ones, because while each event is singular, unique, and not causally connected to any preceding event, certain regularities or patterns in the appearance of events and in certain relationships among them enable probabilistic estimates concerning events.

3. I can only indicate the essential epistemological points arising from the connections among Kant, Freud, and Derrida. For a thorough treatment of these connections, see Alan Bass's contribution to this issue.

4. Gödel's discovery of the existence of undecidable mathematical propositions in 1931 shook the foundations of mathematics and philosophical thinking. An undecidable proposition is a proposition the truth or falsity of which cannot be established by means of the system (defined by consistent axioms and rules of procedure) in which it is formulated. Gödel's discovery undermined the thinking of the whole preceding history of mathematics, defined by the assumption that every mathematical proposition can, in principle, be shown to be either true or false. Gödel proved—rigorously, *mathematically*—that any system sufficiently rich to contain arithmetic (otherwise the theorem is not true) would unavoidably contain at least one undecidable proposition. This is Gödel's "first incompleteness theorem." Gödel made foundational thinking in mathematics even more difficult with his "second incompleteness theorem" by proving that the proposition that such a system, say, classical arithmetic, is consistent is itself an undecidable proposition. It follows that the consistency of most of the mathematics we use cannot be proven, although the possibility that this mathematics may be shown to be inconsistent remains open. The theorem, thus, also opens the possibility for a nonclassical ontology of most mathematical systems.

5. I have considered the subject in Plotnitsky (2009, 253–68).

6. The relationships between (Derrida's) undecidability and chance or probability is apparent beginning with *Dissemination* (1983), where he introduces undecidability in his sense, and is found throughout his discussion of undecidability.

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