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Be Careful What You Wish for: Acceptance of Laplacean Determinism Commits One to Belief in Precognition

Stan B. Klein
Department of Psychological and Brain Sciences, University of California, Santa Barbara

Laplacean Determinism is the thesis that every event that transpires in a closed universe is a physical event caused (i.e., determined) in full by some earlier event in accordance with laws that govern their behavior. On this view, it is possible, in principle, to make perfect predictions of the state of the universe at any time T_n on the basis of complete knowledge of the state of the universe at time T_1 (his so-called demon argument). Thus, if identity theory, epiphenomenalism or any other instantiation of Laplacean Determinism is correct, mental events such as free will, intention, and other forms of mental agency are tricks of the mind, misleading us into believing our volitional concerns have traction in a world ruled entirely by physical circumstance. Not surprisingly, advocates of free will and related acts of human volition have engaged in spirited debate with adherents to Laplacean orthodoxy, the results of which have been far from conclusive. Rather than join these deliberations, I wholly embrace the demon argument and then ask "What are the consequences of this allegiance?" As I hope to show, acceptance of this argument commits one to a belief in the existence of human precognition. This, I suggest, is a consequence that does not fit comfortably within a contemporary scientific worldview.

Keywords: Laplacean Determinism, free will, epiphenomena, precognition, mental events

Materialism, whose roots trace to the atomists of Greek antiquity (e.g., Eagleton, 2016; Novack, 1979), is the metaphysical stance that all of nature consists of solid, inert substances (i.e., material) that interact energetically via physical contact. On this view, everything that exists—whether molecule, mineral, machine, or mind—exists exclusively as matter (e.g., Brown & Ladyman, 2019; Crane & Mellor, 1990; Koons & Bealer, 2010; Levine & Trogdon, 2009; Melnyk, 2012; Trusted, 1999).

Developments, primarily during the last century, have posed difficulties for some of the properties attributed to "matter" by materialist doctrine. For example, evidence from physics (e.g., Beiser, 2003; Crane, 1995; Crane & Mellor, 1990; Duarte, 2019; Einstein et al., 1935; Stoljar, 2021) has revealed that matter need be neither inert nor solid (think "fields of force") and that objects can interact instantaneously despite separation by space-like intervals (an interval is "space-like" if an object can be present at two events only if it travels faster than the speed of light).

Therefore, in what follows I adopt the term "physicalism" when discussing the metaphysical doctrine that nature is limited to facts about matter and its interactions. Physicalism holds that all substances are identical to the type of things studied by physicists (e.g., Bikaraan-Behesht, 2022; Brown, 2010; Crane, 1995, 2001;

Stan B. Klein https://orcid.org/0000-0002-7754-014X
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Correspondence concerning this article should be addressed to Stan B. Klein, Department of Psychological and Brain Sciences, University of California, Santa Barbara, 551 Ucen Road, Santa Barbara, CA 93106, United States. Email: klein@psych.ucsb.edu

Papineau, 2001; Poland, 1994; Smart, 1978; Spurrett & Papineau, 1999; Stoljar, 2021). This includes physical particulars (e.g., subatomic particles), physical properties (e.g., mass), and the laws that govern them (e.g., f = ma). A simpler way of putting the physicalist doctrine is that everything that exists either is an entity or is composed of entities studied by physical science (in particular, physics).[1]

Physical Determinism

If one subscribes to the doctrine of physicalism, physical determinism[2,3] holds that every event that transpires in a closed universe is a physical event caused (i.e., determined) fully by some earlier event in accordance with laws that regulate their behavior. Since physical determinism requires there be an unbroken sequence of antecedent events extending back to the origin of the universe (Leibniz's Law of Continuity; e.g., Jorgensen, 2009), for any arbitrarily chosen time T_1, there exists a function that uniquely maps the state of the universe at time T_1 onto the state of the universe at any arbitrarily chosen earlier or later time T_n (e.g., Earman, 1986; Rummens & Cuypers, 2010; van Strien, 2014).

In short, combining the doctrine of physicalism with the tenants of determinism implies that everything that exists in the present, will exist in the future, or existed in the past, is a either physical entity or event, caused by antecedent conditions in conjunction with natural law. No entity or event is either indetermined (e.g., Balaguer, 2010) or self-determined (e.g., O'Connor & Franklin, 2022).

Physical Determinism and Mental Events

Since physics deals in the objective and quantifiable properties of the physical world (e.g., size, shape, mass, motion), physicalism has no way to accommodate the subjective (i.e., qualitative) aspects of nature, such as those reflected in mental construct terms like belief, desire, pain, intention, happiness, anger (e.g., Crane, 2001; Koons & Bealer, 2010; Robinson, 2008; Swinburne, 2013; Wegner, 2018; J. Wilson, 2006). To close this ontological gap, physicalism stipulates that mental phenomena are fully reducible to (i.e., identical with) physical phenomena. Specifically, if physicalism is correct, mental events are entities that have an

[1] Physics, of course, is a continually evolving discipline (compare present-day physical principles with those characterizing Newtonian mechanics). When physicalists assert that physicalism is the belief that everything that exists is the type of entity (or a composite thereof) studied by physics, he or she is referring to an idealized, completed version of the discipline, not physics as it currently exists (e.g., Brown, 2010; Robinson, 2008; Yates, 2009). To acknowledge this important qualification, let us stipulate that physicalism consists in our current understanding of the physical world as well as all future discoveries and emendations. Unfortunately, it far from clear what this "promissory note" version of physics (and hence physicalism) entails.

[2] Physical determinism is a member of the set of causal determinist theories positing that all events are completely determined by antecedent causes. The physical articulation of causal determinism consists in the idea that all future events are necessitated by previously existing physical events acting in conjunction with the laws of nature. These events form an uninterrupted chain of physical happenings stretching back to the origin of the universe. Put differently, the tenets of physical determinism mandate that every event is a physical event whose realization is the consequence of the action of previous physical events. Among theories of causal determinism, the physical variant is generally considered the most common (e.g., Kožnjak, 2015; Solomon & Higgins, 2009). Accordingly, it will be the focus of discussion.

However, it is worth noting—if only in broad brush strokes—some of the main differences between physical determinism and other causal determinist theories (Herein, I describe a few well-known variants. For fuller discussion, see Allen, 1984; Berofsky, 1971; Day, 2008; Dray, 1975; Earman, 1986; Gompert et al., 2022; Grünbaum, 1956; Kronfeldner, 2009; Sappington, 1990; Solomon & Higgins, 2009; Vicens & Furlong, 2022; Weintraub, 1995; White, 2019; Wilson, 1975). Biological determinism is the belief that human behavior is fully governed by an individual's genetic endowment (or other components of his or her physiology). This control begins during embryonic development and continues postembryogenesis. Historical determinism holds that every event in history is fully determined by antecedent historical forces. In this view, all historical events have an inevitable, predetermined outcome. Theological determinism (of which there are strong and weak versions) is the view that (a) every event that happens is preordained (or destined) to occur in virtue of an omniscient, omnipotent divinity (the strong version), or, (b) because divine omniscience is perfect, whatever the divinity knows about the future necessarily will happen (the weak version). Finally, psychological determinism (of which there are several types) consists in the idea human behavior is governed by factors outside of a person's control. Rational psychological determinism is the idea that humans must act according to reason. Psychological egoism is the thesis that humans are constrained to act according to their perceived best interests.

[3] Unlike thinkers of Eastern antiquity—who held a complex attitude toward determinism (e.g., embracing both materialism and spirituality in equal respect)—most Western cultures paired determinism with a physicalist view of nature (e.g., Jingsham, 1985). Accordingly, in what follows, I will focus exclusively on determinism as portrayed in the writings of Western philosophical and scientific traditions.

entirely physical nature. Accordingly, all mental happenings (i.e., first-person subjectivity) are, in reality, nothing other than the physical workings of the physical brain.

The most popular physicalist approach to mental phenomena is called psychoneural identity theory (a name suggested by Place, 1956)—the idea that the mind is reducible to the physical–chemical states of the brain (for discussions, see Crane, 2001; Eccles, 1994; Gabriel, 2015; Popper & Eccles, 1981; Smart, 2022; Vidal & Ortega, 2017). As Crane (1995) observes "there is no well-motivated physicalist position which is not an identity theory" (p. 22).

Perhaps, but reducing mental events to the workings of the brain is an explanation accompanied by an unwelcome remainder, that is, unreduced mental events. Even stripped of causal potency (see The Causal Impotence of Mental Events section), mental events still are happenings. And happenings, by definition, happen at some time and at some place. Accordingly, while mental events may be reducible to their physical enablers, this reduction does not license the conclusion that unreduced mental phenomena lack ontological warrant (for further discussion, see Laplacean Determinism and Precognition section as well as Klein, 2019, pp. 293–294).

Indeed, a widely held view among philosophers of mind is that first-person subjective experience (i.e., a mental event; e.g., Klein, 2015a) is the part of reality about which a person can be most certain (e.g., Gallagher & Zahavi, 2008; Midgley, 2014; Pryor, 1999; Shoemaker, 1968; Strawson, 2009; Wittgenstein, 1958). While interpretation of the content of a given experience may be inaccurate (e.g., I experience the sun traveling around the earth), a person cannot be mistaken about having that experience (e.g., Shoemaker, 1968; Wittgenstein, 1958).

Thus, a strict interpretation of physicalist doctrine requires one dismiss mental events as lacking correspondence to reality (e.g., Churchland, 1981; Klein, 2016; Levine & Trogdon, 2009; Melnyk, 2012; Papineau, 2001; Spurrett & Papineau, 1999). But, to consign the most salient feature of human existence—our experience of life—to an ontological dustbin seems to many a heavy price to pay for a physicalist worldview (e.g., Antoietti, 2008; Batthyany & Elitzur, 2006; Jackson, 1986; Klein, 2015b, 2016; Koons & Bealer, 2010; Meixner, 2005; Robinson, 2008).

The Causal Impotence of Mental Events

A popular solution to the problem of finding a place for mental events in a physicalist landscape is to argue that such phenomena are inefficacious with respect to physical reality. That is, they exist as epiphenomena[4] (e.g., Bacrac, 2010; Ismael, 2016; Jackson, 1982; Klein, 2016; Koons & Bealer, 2010; Lyons, 2006; Moore, 2012; Robinson, 2008; Swinburne, 2011; Walter, 2014). X is an epiphenomenon if it occurs (i.e., is real) alongside, or in parallel to, some primary phenomenon, Y, but has no causal relevance for the enactment of Y. An example would be the smoke issuing from a steam engine. Smoke (the epiphenomenon) is (a) real, (b) occurs in conjunction with the operation of the engine (the primary phenomenon), but (c) has no effect on the engine's performance.

In combining physicalism with the epiphenomenal interpretation of mental events, determinism dictates that causality cannot be explained by appeal to mental state constructs (e.g., beliefs, intents, volition). This is because nonphysical aspects of reality have no causal powers in a physical universe (e.g., the principle of causal closure under the physical; e.g., Bikaraan-Behesht, 2022; Collins, 2008; Crane, 2001; Swinburne, 2019; Vicente, 2006). In this way, physical determinism designates the mental parts of reality as the unreduced, causally inert, gossamer-like residue of physical events.

In sum, physical determinism rules out any causal relations between nonphysical and physical aspects of reality. Because unreduced, volitional states (e.g., free will, intentions, judgments) are, by definition, incapable of interacting with physical reality, they suggest a way to reconcile the seemingly disjunctive commitments of mental and physical reality without compromising the determinist agenda.

Physical Determinism and Prognostication

Physical determinism stipulates that all entities inhabiting the universe consist exclusively in physical particles. Accordingly, it is logically conceivable (though, in practice, impossible)

[4] Or as socially sanctioned linguistic conventions which a fully matured neuroscience will dispense with (e.g., Churchland, 1981).

for an external[5] observer with knowledge of the positions, motions, and the laws governing the movement of all physical particulars in the universe at any time T_1, to predict (or retrodict) the exact state of universe (i.e., every consequent or subsequent movement of those particles) at any time following (or before) T_1. Such an observer would require (a) perfect knowledge of the initial conditions of the universe, (b) the ability to store and access all relevant information about those entities, and (c) the capacity to subject that information to precise computations in accordance with the relevant physical laws (i.e., be in possession of functions capable of mapping the state of the universe at time T_1 to the state of the universe at any time T_n).

Unfortunately, these abilities clearly extend well-beyond any human or machine competencies available currently or in the imaginable in the future. Aware of this pragmatic constraint, early versions of physical determinism often opted to fulfill the role of computational Ubermensch by appeal to the omniscience of a divine being. Cicero (106–143), for example, positioned an all-knowing God as his computational mastermind:

> Moreover, since … all things happen by Fate, if there were a man whose soul could discern the links that join each cause with every other cause, then surely he would never be mistaken in any prediction he might make. For he who knows the causes of future events necessarily knows what every future event will be. But since such knowledge is possible only to a god, it is left to man to presage the future by means of certain signs which indicate what will follow them. Things which are to be do not suddenly spring into existence, but the evolution of time is like the unwinding of a cable: it creates nothing new and only unfolds each event in its order. (Cicero, 1923, Section 1.127)

Appeal to an omniscient deity persisted well into the 18th century (e.g., Leibniz, 1646–1716). One of the earliest attempts to secularize the Ubermensch appears in the form of Father Boscovitch's demon (e.g., Kožnjak, 2015, 2022). Recognizing that the task of determinist computation would "surpass all powers of the human mind" (Boscovitch, 1758/1822, Section 385), Boscovitch imagined "a mind which had the powers requisite to deal with such a problem in a proper manner & was brilliant enough to perceive the solutions of it" (i.e., his demon). He continued:

> Now, if the law of forces were known, & the position, velocity & direction of all points at any given instant, it would be possible for a mind of this type to foresee all the necessary subsequent motions & states, & to predict all the phenomena that necessarily followed from them. It would be possible from a single arc described by any point in an interval of continuous time, no matter how small, which was sufficient for a mind to grasp, to determine the whole of the remainder of such a continuous curve, continued to infinity on either side. (Boscovich, 1785/1922, Section 385)

Boscovitch's demon can thus be seen as his substitute for an omniscient God with perfect computational skills.[6]

Laplace's Demon

In what often is taken as the first systematic articulation of the physicalist conception of causal prognostication (e.g., Green, 1995; Hoefer, 2023; Schubring, 2005; van Strien, 2014; but see Kožnjak, 2015, 2022), Laplace (1825/2011) posed a thought experiment (often referred to as his "demon argument"). In his influential work, "A Philosophical Essay on Probabilities" (Laplace, 1814/1951) Laplace writes:

> We ought then to regard the present state of the universe as the effect of its anterior state and as the cause of the one which is to follow. Given for one instance an intelligence which could comprehend all the forces by which nature is animated and the respective situation of the beings who compose it—an intelligence sufficiently vast to submit these data to analysis—it would embrace in the same formula the movements of the greatest bodies of the universe and those of the lightest atom; for it, nothing would be uncertain and the future, as the past, would be present to its eyes. (p. 4)

Laplace's demon underpins most contemporary versions of physical determinism (e.g., Earman, 2015; van Strien, 2014). In modern terms, the argument holds that if there existed a superpowerful being (his demon) who could know (a) all the initial conditions (e.g., the participating particles of matter, their location, state of motion and so forth), (b) all the physically relevant laws governing their behavior and interaction, (c) possessed an intellect sufficiently sophisticated to perform the proper computations, and then the

[5] The requirement that the observer take a detached, objective view of the universe does not play a major role in the arguments advanced herein and will not be discussed.

[6] It should be noted that several variations on the idea of a secular intelligence (e.g., a great geometer) in possession of the knowledge and computational skills required to predict with certainty all future states of the universe appeared in the literature around the time Boscovich proposed his demon argument. For discussion, see van Strien (2014).

demon (d) could know with absolute certainty the past, present or future state of any system.

In short, if Conditions (a)–(c) can be met, and physicalism is true, nature is amenable to an exhaustively deterministic rendering. No additional considerations need be taken into account. On this view, a person's capacity to choose and control his or her actions is caused not by mental states, but by physical processes in their brain, body, and the world at large—processes over which he or she has no control. Free will, intention, and other forms of mental agency are seen as tricks of the mind, misleading us into believing that our volitional concerns have traction in a world ruled entirely by physical contingency (e.g., Wegner, 2003, 2018).

Dealing With the Demon by Taking Laplacean Determinism at Face Value

The categorization of human agency as an outdated, unscientific worldview is found by many to be philosophically, experientially, and morally objectionable (e.g., Campbell, 1967; Green, 1995; Nahmias, 2002; Robinson, 2008; Seifert, 2011; Swinburne, 2013). Not surprisingly, advocates of free will and other acts of human volition have engaged in spirited debate with adherents to Laplacean orthodoxy. These scholarly excursions are trained almost exclusively on whether the demon argument contains inconsistencies, paradoxes, tautologies, and lacunae that would compromise its theoretical warrant (e.g., Balaguer, 2010; Frigg et al., 2014; Green, 1995; Ismael, 2019: Kane, 2002; Nahmias, 2002; Nichols, 2008; Rummens & Cuypers, 2010; Swinburne, 2013; van Strien, 2014). While both sides have shown considerable ingenuity in defending their respective positions, the results have been far from conclusive (for reviews, see Green, 1995; Hoefer, 2023).

In what follows, I take a different approach to evaluating the conceptual warrant of Laplacean Determinism. Rather than join the argumentative fray, I embrace fully the demon argument. I then ask "What are the consequences of this allegiance?" As I hope to show, acceptance of the argument commits one to a belief in the existence of human precognition. And this, I suggest, is a consequence that will not (or, at least, should not) fit comfortably within a contemporary scientific worldview.

Laplacean Determinism and Precognition

Imagine that you intend to go to location X (e.g., your office) tomorrow at time T_1 (let us say noon). At 12:00, the following day you arrive at your office. Allowing that your intention (a mental event) is epiphenomenal, and that your chosen location was set in place approximately 14.5 billion years ago (as required by determinism), the fact that you intended to arrive at X at time T_1 and the intended outcome was achieved (barring unforeseen complications) means that (as per the tenets of Laplacean Determinism) your intent is either (a) fully reducible to the predetermined movements of physical particulars acting according to natural law, (b) explicable in terms of the operation of some other physicalist posit (such as psychophysical parallelism; see below), or (c) evidence that a causally ineffectual mental event provided you with knowledge of your physical location at some time in the future.

According to Laplacean Determinism and its accompanying theoretical commitments (physicalism, the Law of Continuity, etc.), arrival at your office a day after becoming aware of your intention to do so was made possible by forces set in place at the moment of the Big Bang. Your intention, being purely epiphenomenal, played no part in your bodily activity prior or subsequent to its repositioning at location X. This seems a clear win for Laplacean Determinism.

But, a nagging question arises: Allowing that your intention to arrive at your office at n[illegible] the next day was epiphenomenal, How did you *know* you would relocate to X at that specific future time and place? Your intention, according to Laplacean Determinism, played no role in *any* movements you made following its formulation. Yet you knew, with tolerable accuracy,[7] where your body would relocate and when that repositioning would transpire. And this knowledge was made available to you despite the Laplacean "fact" that it could be known only

[7] By "tolerable accuracy," I mean that the time and place identified by your intention would be easily understood by any person in possession of his or her perceptual and cognitive faculties. Except in certain circumstances (e.g., a scientific report of empirical data, a point situated on a Minkowski space–time diagram), exact specification of the temporal and spatial coordinates associated with an intended behavior is not required for conducting normal social interaction.

by (and thus conveyed only by) an omniscient demonic calculator. More, you could have chosen to inform others of your intent, affording them a glimpse into—and the opportunity to behave toward (i.e., act agentically)—a deterministic future.

One might argue that perhaps your "prognostication" was in consequence of psychophysical parallelism, that is, the thesis that mental and bodily events are perfectly correlated, but denies a direct cause and effect relation between them (e.g., Broad, 1925; Eccles, 1994; Kim, 1966; Mehlberg, 1995; Popper & Eccles, 1981). On this view, your intention is a causally impotent mental happening whose occurrence is precisely coordinated with a causally potent, physical event.

The problem with explanations of this type is that even allowing for a supervenient[8] relation between the mental and physical domains, the information available to the physical domain is limited to the positions, momenta, and forces acting on physical entities *at the moment* the intention is realized. Only the demon is capable of predicting subsequent positions and motions of physical particulars. And the demon—being an external observer—cannot supervene on a space occupied by mental phenomena. In short, psychophysical parallelism *may* offer an explanation for the informational content contained in an intention, but the scope of that content is limited to information about the location and movement of physical reality at the moment the mental and physical supervene.

In my treatment of the Laplacean Determinism, I have yet to consider the issue of "ontological warrant" (see Physical Determinism and Mental Events section), that is, the claim that experiential reality (i.e., mental events) is fully reducible to the activity of physical entities and events. While the nature and existence of a mental reality independent of its neural (i.e., physical) instantiation has been passionately debated (without apparent resolution) for centuries (e.g., Berkeley, 1710/2003; Hammers, 2019; Furlong, 1941; Kant, 1929/1965; Klein, 2015b, 2016; Locke, 1690/1731; Nath, 2016; Russell, 1912/1999), I accept—in accordance with strict Laplacean Determinism—that all mental states *must* have an *exclusively* physical mode of existence.

If this is the case, then the epiphenomenal reconciliation proposed in The Causal Impotence of Mental Events section has no traction. This is because epiphenomena, though causally inert, still are phenomena, and phenomena have ontological standing (see Physical Determinism and Mental Events section). A strict reading of the physicalist tenets of Laplacean Determinism requires that mental phenomena have *no* claim to being *any* part of reality. Intentions are not merely ghost-like epiphenomena; rather, they are purely illusory (e.g., Carruthers, 2017; Frankish, 2016; Wegner, 2003, 2018).

The problem with the illusion argument is (at least) twofold. First, the question of whether some X is an illusion already presupposes that X is ontologically substantive. An illusion has the same mode of being as any experience and thus is real in the same sense. As Earle noted, "the image or pure datum which the productive imagination forms is not anything imaginary itself. It is actual and a present determination of any sensorium" (Earle, 1955, p. 146). Thus, the illusion argument inherits the same problems that undercut the claim that unreduced mental events lack ontological warrant (see Physical Determinism and Mental Events section): They are actual events taking place in actual objects (the brains of sentient beings). As such, they are inextricably woven into the fabric of reality (e.g., Broad, 1925; Crane, 2013; Klein, 2019).

Second, even allowing that an illusion can, in some undetermined manner, be reduced *without remainder* to its "true" physical being, one still is confronted with the issue of "prognostic-ative myopia." That is, a physically actualized intention—in virtue of being a physical event, rather than a demonic prognostication (or causally efficacious mental event)—can only know (at most) the state of the universe at the moment it is birthed. It takes a demon to carry out the computations necessary to know and thus predict the future.

In sum, to say that an intender at time T_1 knows what will happen at some subsequent time T_n is to say that he or she has knowledge about a future state of the world (which can be communicated to—and this acted on—by others) despite that knowledge (embodied in his or her intention) hypothesized to have no causal impact on the

[8] Supervenience is the assumed ontological dependence between two sets of properties, X and Y (e.g., mental and physical properties). A set of properties X supervenes upon another set of properties Y if and only if any change in the properties of X (i.e., the supervening properties) requires a change in the properties of Y (e.g., Kim, 1993).

actualization of the intended outcome (i.e., epiphenomenalism). Put differently, strict adherence to the principles of Laplacean Determinism sanctions acceptance of the following two theses—(a) the mental state of the intender plays no part in determining the physical state of the world and (b) the intender has knowledge that makes a difference to the world (i.e., the intender correctly predicts at time T_1 where he or she will be at time T_n). The falsehood (of at least one) of these claims is guaranteed as the consequence of holding both to be true.

The only way I can see to avoid this conceptual quagmire (while subscribing to Laplacean Determinism *and* honoring the indisputable experience of everyday life) is to allow that the intender has the capacity to correctly predict the future (i.e., precognition) despite taking no active role in bringing about its realization. Specifically—by the rules laid down by Laplacean Determinism—an intender can only know what his or her intention entails if he or she is able to foresee the future. And, as discussed in the following section, such precognition does not fit easily into the physicalist/determinist worldview.[9]

A Note About Determinism, Prediction, and Mental Causation

A point worth mentioning concerns the relation between future-directed intentions and their physical realization. My argument has been that a commitment to Laplacean Determinism obligates one to accept that the human mind is capable of predicting the future with tolerable accuracy. The phrase "tolerable accuracy" accounts for the fact that any relation between an intention and what actually happens will be imprecise as judged by some prespecified criterion (e.g., see Footnote 4). For example, if I intend to go to my office at noon on Monday, even if this intention is fulfilled, what actually happens (or, more precisely, my physical movements) will not be prescribed at the level of precision of physical events envisioned by Laplacean Determinism.

Put another way, the constraints applied to my movements (and other physical events contributing to "arrival at my office") by the criteria for fulfillment of my intention are nothing like the constraints applied to the future in a Laplacean deterministic physical universe. And the class of what is permitted under "Stan Klein arrives at his office Monday at noon" does not correspond to a natural/physical kind. Any precognition signaled by the fulfillment of an intention would therefore necessarily be only approximately accurate.

This prognosticative misalignment between forecasting based on intention and that based on physical determinism does not compromise my conclusion about the relation between determinism and precognition. I claim only that precognitive knowing is necessitated by Laplacean Determinism, not that precognitive knowing must attain the computational exactitude demanded of demonic knowing.

But it does serve as a reminder of the nature of causally efficacious mental acts, that is, of what distinguishes doings from happenings. A doing is a happening that would not have occurred had it not been intended in advance. If mental events are allowed causal efficacy (i.e., there exist sentient agents), such agents are not prophets of the future (which, in essence, is my point against the Laplacians) but individuals who rig the odds in favor of their preferred future. A sentient agent has at least marginal capacity to shape (part of) his or her the future as opposed to being shaped by (part of) his or her past (e.g., Klein et al., 2023). The future they shape is defined not by particular physical events, but by envisaged classes of happenings that add up to a certain meaning—meanings that can be realized in many different clusters of actual physical events (e.g., there are many ways of "going to the office").

Agentic intentions extend only to such classes. They do not reach all the way down to the movements and forces of the physical world (since many different clusters of the latter can realize the former—as expressed in, i.e., the principle of multiple realizability; e.g., Kim, 1998). It is for this reason that a propositional attitude such as an intention cannot be considered analogous to the causes that operate in a Laplacean world.

In short, agency is distant from the world premised by the demon insofar as classes of

[9] The fact that I can communicate my intention to others, and that they and I can act with regard to that information, means that my mental state clearly makes a difference to the world. The implicit conclusion is that it would therefore make sense to see my intentions as having an independent causal role enabling me to, as it were, "rig" the future.

events, types of events, or clusters of events are distanced from actual physical events. In fact, agency turns on its head the usual order of things where types or classes are derived from particulars: In this case, the particulars of any given Monday office arrival are derived from the class or type to which it belongs.

Final Thoughts

Rather than joining the perennial debate regarding the merits of Laplacean Determinism, in this article, I elected to fully accept the doctrine with an eye to discovering what such a commitment entails. If the arguments I presented are valid, I hope to have shown that embracement of Laplacean Determinism obligates one to accept that the human mind is capable of predicting the future with tolerable accuracy.[10] That is, the intender exhibits a capacity for precognition.

Although there is no guarantee that a particular intention will eventuate in its intended outcome, the degree of consistency between intention and outcome on daily display makes clear that intention-outcome prognostication is something more than a statistically freakish correlation between purely epiphenomenal intentions pointing to (i.e., not knowing about) what happens when the future becomes the present.[11] While the conclusion—that belief in Laplacean Determinism commits one to a belief in human precognition—certainly is not a defeater for the doctrine (although it does create problems for the thesis that all mental events are either epiphenomenal or illusory), it is clear that many (particularly scientists—who are among the strongest adherents to determinism) are unlikely to welcome this juxtaposition of beliefs.

[10] Based on the statistical criteria typically used to investigate PSI phenomena (e.g., Bem et al., 2016; McVaugh & Mauskopf, 1976; Ritchie et al., 2012; Utts, 1991), intentional prognostications need only achieve above chance significance to qualify as acts of precognition.

[11] If intentions were largely uncorrelated with behavior, they likely would have succumbed to genomic purging.

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