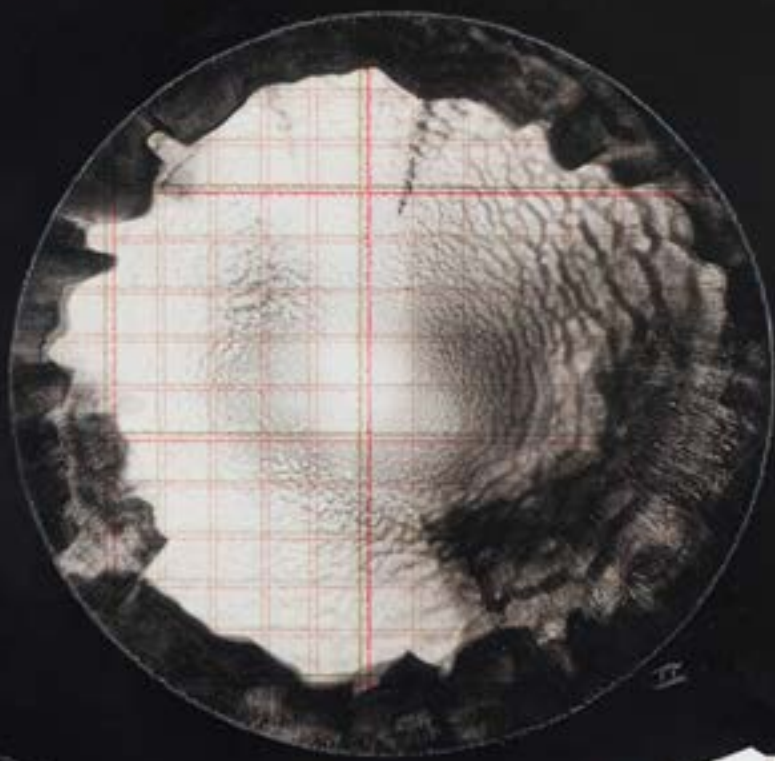
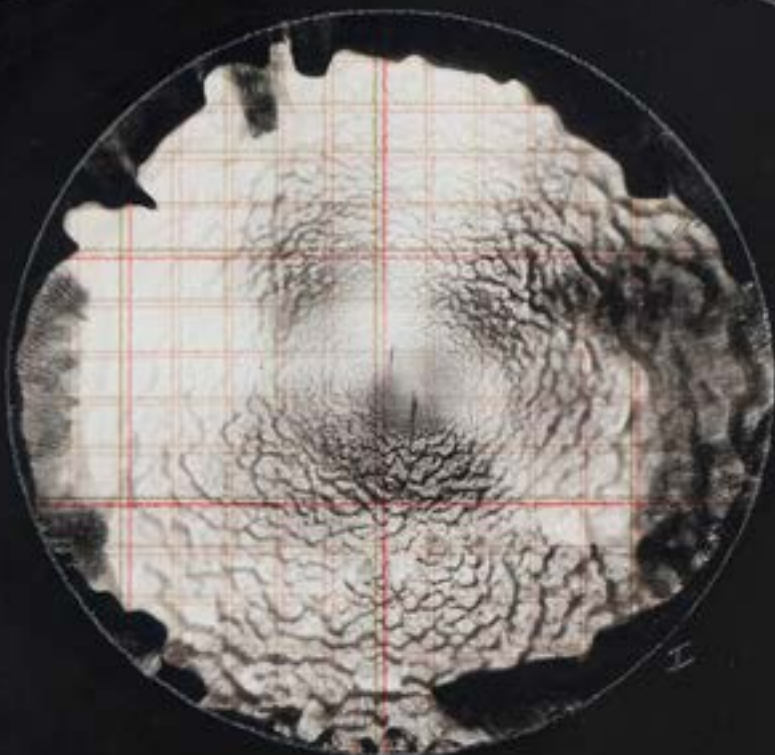


ISABELLE
STENGERS

VIRGIN MARY AND THE NEUTRINO

REALITY IN
TROUBLE

Translated by
ANDREW GOFFEY



VIRGIN MARY AND THE NEUTRINO

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TECHNOLOGICAL LIVES, SCIENTIFIC ARTS,
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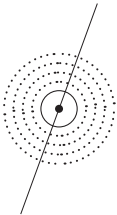
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ISABELLE STENGERS

Translated by Andrew Goffey

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TRANSLATOR'S PREFACE

ANDREW GOFFEY

Virgin Mary and the Neutrino: Reality in Trouble was originally published in French in 2006. As the reader will quickly discover, its starting point is the “science wars” that were raging, especially in the United States, in the 1990s and early 2000s. Such a starting point and the questions that it enables Isabelle Stengers to address were evoked both by the book’s original subtitle, “Les scientifiques dans le tourmente” (“Scientists in Trouble”), and by an image on the book’s front cover, one of Goya’s Black Paintings, *Duel with Cudgels*. But in the years that have intervened since the original text was written, a great deal has happened. The financial crash of 2008; the Arab Spring; the “great acceleration” of climate change; mass-extinction events; the repeated failures, on the part of those Stengers calls “our guardians,” to hear the warnings of the Intergovernmental Panel on Climate Change; Black Lives Matter; the COVID-19 pandemic—to name but a few: all point to a situation that is rather different from the one that obtained in the early years of the twenty-first century. The rising tide of mud in which Goya’s duelists slug it out seems now to have all but immobilized the scientists, while a sizeable number of the people who might once have been persuaded that this was indeed a spectacle worth watching seem to have turned their backs on science altogether. The squabbles of those who took themselves for heroic agents of Western progress have faded into the background, while denialist purveyors of fake news and alternative truths are mobilizing around a different kind of conflict altogether: it’s not just the scientists who are in trouble now.

Changing the title of a book in the passage from one language to another is hardly unusual. The main title of Stengers’s

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first book, written with Léon Chertok, *Le coeur et la raison* became *A Critique of Psychoanalytic Reason*, for example. *Faiseuses d'histoires: Que font les femmes à la pensée*, written with Vinciane Despret, became *Women Who Make a Fuss: The Unfaithful Daughters of Virginia Woolf*; and her book, written with Philippe Pignarre, *La sorcellerie capitaliste: Pratiques de désenvoûtement*, became *Capitalist Sorcery: Breaking the Spell*. While such changes are typically prompted by linguistic difficulties in the translation process, the constraint that this process creates also offers the chance to generate interesting new proximities or effects as a result. In the migration into English, *la Vierge*—with the definite article—has become *Virgin Mary*—still the Blessed Virgin but, more decidedly, she to whom an intimate address is made.¹ For Stengers, the translation process also offers an opportunity for rewriting that operates in a similar way—modest changes to a passage, an extra footnote here or there, sometimes modifications that are a bit more substantial.² Shifts and changes of this kind are entirely of a piece with her practice, which is articulated around the careful, experimental posing of problems, an attentiveness to what they demand, and an open acknowledgment of the risks that creative solutions to them could involve. As with Alfred North Whitehead recomposing his *Process and Reality*, it is as if the process of translation gives Stengers, as author-reader, an opportunity to sense the work and the way it functions a little bit differently.³ A translation might, in any case, be imagined as one of a number of *versions* of a text, in the sense that Stengers's coauthor Vinciane Despret has established for the word *version*,⁴ inseparable from the *becoming* of a text registered through the muted qualifications, nuances, and hesitant objections that author-readers might be prompted to make to it in the transition into another language.

Virgin Mary and the Neutrino: Reality in Trouble is not a substantially different book from the French original (notwithstanding the obvious shift from French to English). It's not what Stengers herself calls a *re-articulation*, which she has done with her most recent book, on Whitehead.⁵ Some small changes have been made to the text here and there, occasionally picked out in footnotes. But mostly it is the quite considerable interval of time separating the original writing of *La Vierge* from its translation that has imposed the need for this brief preface. The "questioning situation"⁶ and Stengers's thinking with regard to it have changed since 2006, and in much of her work since then, it is the challenge that she addresses here—"making the questions that mark an epoch matter, using philosophical means"—that has started to resonate a little differently. Would the book have been

written differently, had its author been writing in 2020 or 2021, after the welter of events evoked earlier? Almost certainly. But to say that is not to suggest, implicitly or explicitly, that historical context explains text, as if that might then stand as a reason not to read any further or to suggest that, fifteen to twenty years later, we can now see more clearly what the author, back then, couldn't. And it would also risk missing the specificity of the process that a book such as *Virgin Mary and the Neutrino* engages in. Neither *La Vierge* nor this translation should be read as forming a definitive set of statements concerning the ecology of practices. It is not a "theory" offering an all-terrain account of—and means for judging—a state of affairs, and Stengers is not a theorist (whom she sometimes refers to humorously as "prophets"—authorized by something higher than themselves). But nor is the ecology of practices a static intellectual production. *Virgin Mary* doesn't simply restate in a more condensed form the discussions of Stengers's *Cosmopolitics* (published in French in 1997), which centered on scientific practices. Here the practices in question stretch well beyond science, and the effects aimed at are correspondingly more challenging: how and at what price can we assert that the Virgin Mary, as well as neutrinos, belong to what we call "reality"?

Stengers is a pragmatist, an experimental thinker, for whom thinking *with* and learning *from* is a stance that is unavoidably both speculative *and* practical. Encounters with others matter, and it is perhaps the case that she would not have dared to ask some of the questions that she asks were it not for these ongoing, symbiotic processes. What matters for Stengers, what she does in her work, what her philosophical writing practice embodies, is to engage with certain scientific, technical, and social practices that are *underway*, proposing adventurous, risky explorations, whether those be in Ilya Prigogine's laboratory, in Léon Chertok's persistent but perplexed engagement with hypnosis, in Tobie Nathan's ethnopsychiatric clinic, in neopagan witchcraft, or indeed in other activist practices of "de-enchanting."⁷ In some of these cases, one might say the explorations are bound up in controversies internal to a practice, which have not achieved what science studies scholars call closure or become settled matters. This would be the case with Prigogine's work on irreversible processes, perhaps. In other instances, they have generated broader, and sometimes quite fierce, polemics (as with the reception of ethnopsychiatry), in still others, sneering, unconditional dismissal (neopagan witchcraft). Stengers's interest in these practices does not stem especially from a taste for provocation (of the kind that reductionist science seems compelled to engage in, in

order to verify that it really is wounding a “humanity” thought subject to credulous illusions).⁸ Rather, the practices that Stengers thinks with and the controversies that surround them enable her to raise questions, to formulate problems, and to engage in conceptual experimentation that opens up possibilities. The mode of existence of the physicist she outlines in her *Cosmopolitics*, a “psycho-social type” whose passion for truth does not consign him/her to claim a transcendence for that truth over all others, who might perhaps ask questions that “true” scientists are not supposed to ask, is the product, in part, of this kind of engaged encounter. Stengers refuses the tribunal of judgment and the redundancy and destructiveness of the “we now know” with which that tribunal is associated, and she does so in full and consequential acknowledgment of the pragmatic importance both of events and of others. “Unknowns,” in this sense, are constitutive of her philosophical practice.

Underlining the simultaneously speculative and practical dimensions of Stengers’s philosophical practice helps when addressing the effectively performative quality of her work—she has referred to the ecology of practices as a “performative ethology of manners of affecting and being affected,” for example. The “types” that she fabulates as part of that practice serve a diagnostic function but not without simultaneously generating a possibility for thinking, feeling, and acting differently. Practitioners are offered the possibility of presenting themselves as “idiots”—a type for whom there is something that is “more important,” which situates them as minoritarian, following their own line of divergence. To the extent that this happens, they betray the language of consensual evidence that is part of the sleepwalking professional’s habitual presentation and may become able to participate in ecological relationships, relationships between diverging ways of making the world matter. The problem of *coherence* with which the ecology of practices communicates, in a modernity riven by the bifurcation of nature (a central theme in her readings of Whitehead), is always a coherence that is *to be created*, one that bets on the possibility that scientists—and others—are capable of doing things a bit differently. In this respect, an ecology of practices is nothing without the catalyzing effects that it aims at (without knowing what such effects would look like) and which, in turn, give it its truth. Stengers refers frequently to Gilles Deleuze’s formulation of politics as “needing people to think,” not in the sense of confirming the veracity of an analysis but rather in the sense of exploring the possibilities for thinking, feeling, and acting that are implied in the creation of coherence.

Toward the end of *Virgin Mary*, Stengers engages in a discussion of a specific issue that the ecology of practices, she says, must protect itself from. That issue is the seeking of a guarantee with regard to the difference between “what must be taken into account and what one has the right to neglect.” One of the reasons for adding the prefix “cosmo-” to politics, she points out, is to remind us that we are not alone in the world, that when we assume the position of being the brains of humanity, the forgetting and humiliation of victims tends to follow. This, I think, offers us a cautionary reminder about not seeing in her conceptualization of the ecology of practices something like a philosophical “system” that might, in fact, be susceptible of a definitive formulation: here at last is the key to the challenges we face, so we now know what we can neglect. The “pharmacological” functioning of the guarantee is something that many decades of the equating of science with progress have perhaps anesthetized us to.⁹ But the humiliation that follows when it is assumed one knows what has to be taken into account and what can be neglected points toward an issue that the lapse in time since the original publication of *La Vierge* has rendered especially acute. For humiliation is indeed one of the consequences of what Stengers has, more recently, characterized as the political and cultural disaster of the “defeat” or “undoing” of common sense and its striking capacity for doubting, ruminating, hesitating.

The defeat of common sense, explored in *Réactiver le sens commun: Lecture de Whitehead en temps de débacle* (2020), seems to be most strikingly evident in the contemporary proliferation of fake news, climate-change denial, and conspiracy theories. The refusal to think that we are confronted with in such a proliferation, in turn, provides some with “evidence” that allows them to justify the positions they took in the science wars several decades ago: evidence of the fundamental irrationality of the public (“You see?! People cannot be trusted to think for themselves!”). But there is more to it than this. The defeat of common sense was not something that happened just recently: the sciences’ wars—wherein the combatants shared in their exclusion of nonscientist others, with their capacities to object, to hesitate, to laugh, even—unfolded in a landscape that has in some respects been several centuries in the making. The curious invention of bodies that get better for “the wrong reasons” and the history of hypnosis associated with it can be traced back to 1784, for example.¹⁰ And while there are numerous practices that have learned to make sense in common, in the face of the arrogance and ignorance of “our guardians” (who nowadays cannot permit doubts, objections, or concerns, for fear of losing the race to the

bottom¹¹), those practices nevertheless testify, albeit in a different way, to the same disaster as conspiracy theorists and fake news peddlers, to the same failure on the part of the moderns to exercise due vigilance over their abstractions, to pay attention to what these abstractions allowed them to ignore. Both QAnon and, say, Resilient Indigenous Sisters Engaging (RISE) Coalition, in very different ways, testify to the same catastrophe. But if both are a part of the contemporary situation, Stengers's concern is nevertheless to address what the current epoch might still be capable of, and in this regard, it is because of activists that she feels able to bet that "the somber will not to think, not to be shaken up by anything that might, rightly, scare us, [will] not confront us with what we would have to acknowledge as the sad truth: a common sense that needs to believe in the authority of those who know, because it would be desperately incapable of differentiating between knowledge and opinion."¹²

In this more recent work, Stengers extends the concern with ecological disasters already addressed in *Virgin Mary* and prolonged in different ways in numerous other publications since 2006. But there is, it seems to me, both a difference in tone and a more direct engagement with "epochal" questions that registers the shift in her thinking. The "tentacular" version of Whitehead's metaphysics that she constructs to facilitate the reactivation of common sense, a version that draws on contemporary biology, Harawayian sympoiesis, decolonial anthropology, and feminist and ethnic-minority activism, responds specifically to a "collapse" that raises serious questions about the epoch we find ourselves in. "We do not know" she says, if this epoch "marks the end of modernity or is exploring the possibility of its becoming civilized." The situation that we find ourselves in now is one that creates a "genuine option" in William James's sense¹³, the option, as she puts it, of "learning to think without the security of our demonstrations, of consenting to a world that has become intrinsically problematic,"¹⁴ that poses "intrusive" questions and in turn generates doubts, hesitations, and other difficult-to-express concerns. What the place of the old tradition of philosophy and the adventure of ideas will be in this situation is not clear. Indeed, Stengers asks whether "we" still even need philosophy, as we learn to live in the ruins. It not a question that she can answer; it will pertain to the epoch to decide.

This translation was undertaken in difficult circumstances. I'd like to thank Isabelle Stengers and Ken Wissoker for their extraordinary patience, Paul Bains for his helpful comments on an early draft of this translation, and Lynne Pettinger for her unstinting support.

NOTES

Translator's Preface

1. "Vierge" without the article in French usually means "Virgo," as in the star sign, and the linguistic construing of intimate address is a bit trickier.
2. For a good example of this, see the final section of the chapter "Justifying Life?" in Stengers's *Thinking with Whitehead*, which offers a discussion of William James in lieu of a discussion of Gilles Deleuze and Félix Guattari's theory of desiring production.
3. As well as being a demanding author, she is a translator herself and has commented on her experience of this process in relationship to translating the works of Donna Haraway.
4. In her discussion of the etymology of the word *version*, Despret points out that in the sixteenth century, the word started to signify translation, or the necessity of "bringing something from another world, which is going to become part of our own." *Version*, in Despret's construal, concerns the becoming both of a text and a world. See Despret, *Our Emotional Makeup*, 22–23.
5. *Réactiver le sens commun: Lecture de Whitehead en temps de débâcle*, published in 2020, is a differently articulated version of a 2017 book *Civiliser la modernité? Whitehead et les ruminations du sens commun*.
6. I've borrowed this expression from Stengers's discussion (with Bruno Latour) of the work of Etienne Souriau. See Stengers and Latour, "The Sphinx of the Work."
7. One of the reasons *Capitalist Sorcery* is subtitled "Breaking the Spell" is to avoid an uncomfortable translation of *désenvoûtement* as "disenchantment." "De-enchantment" is the ugly, cumbersome, but more accurate, alternative.
8. This is not to say there is never provocation: see the discussion of the choice of expression *capitalist sorcery* in Pignarre and Stengers,

Capitalist Sorcery, 39–40. The target is very different from the indifferent “humanity and its illusions” that iconoclasts have often taken aim at. See also the discussions of “narcissistic wounds” in, for example, Stengers, *Hypnosis between Science and Magic*.

9. In the entry “Progress” of *100 mots pour commencer à penser les sciences*, written with Bernadette Bensauade-Vincent, Stengers writes of the “well-anchored habits that make the order-word ‘progress’ rhyme with the permission not to think.”

10. Stengers, *Hypnosis between Science and Magic*.

11. “Our guardians” (“nos responsables”) is a figure discussed in some detail in chapter 2 of Stengers, *In Catastrophic Times*.

12. Stengers, *Réactiver le sens commun*, 25.

13. An option is genuine, in James’s sense, when it is “of the forced, living, momentous kind.” James, “The Will to Believe,” in *Writings of William James*, 718.

14. Stengers, *Réactiver le sens commun*, 191.

Chapter 1. Scientists in Trouble

1. Writing “men and women” is [not only] heavy-handed [but problematic today]. Faced with the question of “gender” now imposed on writers in the French language, I choose to follow the path invented by Anglo-Saxon women, that is to say, the arbitrary use of the feminine from time to time. The surprise effect seems more adequate to the sought-after goal than the heavy-handedness of the duplication “men and women.”

2. Sokal, “Transgressing the Boundaries,” 217–18.

3. The opening lines of *The Invention of Modern Science* (originally published in 1993 with *La Découverte* as *L’invention des sciences modernes*) predicted this conflict. I affirmed that “the thinkers of science sharpen their weapons [and rise to the defense of a threatened cause]” without knowing how right I was (Gross and Levitt were already at work), simply because it was inevitable. Stengers, *Invention of Modern Science*, 3.

4. I won’t talk here about the relations between the Bush Administration and scientists concerning those questions to which the “fundamentalist” Christian electorate is sensitive, as well as those that annoy industrialists. It is a situation that is too simple, too much of a caricature to provoke anything other than the raised shields of a deceptive unanimity.