AN EPISTEMOLOGY OF NOISE

By Cecile Malaspina. London: Bloomsbury Academic, 2018

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This is not a book about sound; it *is* a brilliant work that makes a lot of noise. It is both about noise as a concept but, more importantly, explores the noisy nature of conceptualization itself. It delves into, with precision and clarity across the multiple areas of expertise covered, noise as an object of study, but also uses noise to think through the conditions of possibility for knowledge itself.

As noise abounds in many areas of study, from aesthetics to statistics, biology and physics, it is a concept that has value across disciplinary lines, but the interaction between these different fields and their use of the concept is often obscure, and sometimes these connections are explicitly rejected. Malaspina's book asks what connects these disparate implementations of the concept, without, however, reducing the idea or philosophizing away the differences that pertain in its uses. Philosophy can often see its own ideas and words as master keys of conceptualization across disciplines, where it is a philosophical definition of noise that is posited to explain the connection between the use of noise in diverse disciplines. Against this, Malaspina attempts a truly transdisciplinary exploration of noise. It is indeed the noisiness of conceptual transfer between disciplines that becomes an object of study for Malaspina. Noise is a metaphor that is taken deadly seriously here, as the line between noise as an aesthetic phenomenon and its theorization in the sciences is probed. Noise has the danger of both proffering a pseudo-

scientific bolster to an underdetermined aestheticized concept in the humanities, but also—when implemented in the sciences—of retaining insidiously normative evaluations that haunt the concept in its aesthetic and intuitive use. The injunction Malaspina thus makes is that "what we need is to learn how to use metaphors critically, purposefully and artfully."[1]

In philosophy and aesthetics, noise offers up many of the same problematics found in the area of affect theory. It becomes an empty concept, a lazy synonym for all transgression, a meagre call for some forgotten, but strangely unnameable, outside to whatever is being discussed.[2] Indeed, despite cashing in on the scientific allure of the concept, the philosophical inclination to ontologize noise can lead to the epistemological impasse where *noise is everything*. Hastily incorporating scientific theories—we might perhaps think of an orchestral universe via string theory—for ontological gain in heralding the importance of a 'vibrant matter' animating the world ignores epistemic and normative questions, and can also lead to dubious political stances. Attempting to remain formally 'faithful' to noise through modes of fuzzy evaluation can both ignore actual instantiations of the word across fields and make noise an unwieldly concept. It is telling in this regard that Malaspina omits serious discussion of Michel Serres' work on noise as parasitical.

Malaspina's book is grounded in close-readings of texts dealing with some variation of noise, from information theory to a treatise on noise pollution to explorations of mental health diagnosis. Noise is thus encountered as an object, indeed both as an aural phenomenon but also as a concept within areas of scientific research, but it is noise as a methodological problem, or, rather, noise as an aspect of the production of thinking and knowledge, that is primary in Malaspina's book. The concept of noise does

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1   Cecile Malaspina, *An Epistemology of Noise* (London: Bloomsbury Academic, 2018), 8.

2   For a blistering critique of the turn to affect in the humanities, see: Eugenie Brinkema, *The Forms of the Affects* (London: Duke University Press Books, 2014).

not translate directly across disciplines but resonates through its different instantiations and uses—this is Malaspina's definition of epistemological noise. Utilising Gilbert Simondon's concept of transduction, Malaspina probes the dissonances that arise between disciplines in order to uncover contradictions and hidden normative claims throughout the usage of the word noise.

Having noise as both object and methodological problematic leads to important meta-theoretical questions, and indeed uncovers the difficulties in making any argument at all. The line between noise and information is not taken for granted but made with these wagers of normative intent present in Malaspina's structuring of the book. There are three main parts, with the chapters therein offering very short bursts of precise inquiry into a specific concept or object. The lines between these ideas are thus being continuously drawn, cuts in the noise of the concept that enable constant reorientations around a mess of metaphorical distortions and palimpsestic ghosting.

The first part of the book is titled "Concepts: Information Entropy, Negentropy, Noise" and uses the origin of noise as a scientific concept in information theory and cybernetics in order to probe the contradictions at the core of the concept. Malaspina looks to Claude Shannon's and Warren Weaver's mathematical theory of information, and the attempt by Shannon to eliminate noise from the channel of communication, in order to excavate a philosophy of noise. Shannon's insight was to divorce information from meaning and signification and to correlate it with greater uncertainty. The more freedom of choice one has when confronted with a message, the more information is present. The measure of information is thus the measure of the entropy of the message. This leads to some philosophically pertinent problems when the place of noise as a concept is explored. Correlating information with increased uncertainty seems to contradict intuitive definitions of information and of its presumed opposition with noise. Weaver explains it thus:

If noise is introduced, then the received message contains cer-

tain distortions, certain errors, certain extraneous material, that would certainly lead one to say that the received message exhibits, because of the effects of the noise, an increased uncertainty. But if the uncertainty is increased, the information is increased, and this sounds as though the noise were beneficial![3]

Of course, as Malaspina points out, intention does not fully answer this ambiguity of definition between information and noise, as many scientific disciplines that take up an idea of noise lack an intentional agency behind the writing of a message. If it is only with a pre-given message that noise and information can be simply demarcated as that added through mediation in the channel of communication, the situation wherein this agential determination is inaccessible leads to an emphasis on the process of dividing the informative and the noisy as itself an act of reason *post-hoc*. Information and noise lose their coordinates in a Manichean opposition and become a line cut through entropy itself, a division with a fundamentally normative construction.

The ambiguity of a definition of information is made all the more incongruous when compared with Norbert Wiener's theorization of information in cybernetics, where, although the same mathematical formalization is utilised as Shannon, the opposite definition of information is garnered. Information, for Wiener, is the negative of uncertainty, it is what swims against entropy: a negentropic process. The problem thus becomes one of the translation of mathematics into discursive space, the opposing definitions becoming examples of epistemological noise themselves. The chapters in this section circle around the constellation of concepts and divisions that are put into disarray when the opposing definitions of information are explored.

Malaspina's task is not that of deciding which of the definitions of information works best—either defining information as increased freedom of choice or as a move away from uncertainty—but in delving into the philosophical ramifications of noise

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3   Claude E. Shannon and Warren Weaver, *The Mathematical Theory of Communication* (Urbana: University of Illinois Press, 1963), 19.

and disorder lying at the heart of knowledge production. The lack of any pre-made or *a priori* distinctions between information and noise makes the drawing of the line a normative question; it is reason which both is necessarily driven by norms and is the contingent source of these norms.

The second part of Malaspina's book looks to the empirical instantiations of noise, exploring the metaphorical warping that occurs from noise across its different uses. What Malaspina emphasises in this section is the normative weighting that resides within the terminology of noise in empirical settings, even when its intuitive dimension is intended to be hollowed out.

The logic of the chapters in this section is much looser, jumping between fragments of inquiry and seemingly unrelated disciplines. Such leaps get to the heart of the problem of noise: practitioners within these different fields are not talking about the same thing when they say noise, but it does not mean there is no connection. The form of Malaspina's argument mirrors this concern. It is precisely because noise is not set as a concept with fixed coordinates that it cannot provide a 'Rosetta Stone' for engaging with the disparate domains Malaspina sets her sights on. Instead, these often very short chapters throw up issues of noise, leaving an overarching logic absent in favour of a system of resonances and implicit connections. The driving force is one of uncovering the baggage that noise entails, from the misplaced moralism against 'noise traders' in finance to the implicit class asymmetricities of the initial bourgeois outrage at noise pollutions in crowded cities. Theorizing noise is never innocent of these biases, and Malaspina importantly troubles the place of noise in statistical models through a history of statistics as explicitly a State science, an arm of power wherein noise takes on cultural and political connotations over and above its technoscientific instantiation.

As this second section draws to a close, the ethico-political stakes are raised with a discussion of the use of noise in warfare, drawing on the work of Steve Goodman and others. Taking this as an extreme case, it is sound in everyday life that can distort and impair our critical faculties, which translates onto the socio-political

milieu writ large: "the social fabric can tear at the slightest lowering of the threshold of sensitivity to sound."[4]

These concerns carry over, but away, from the explicitly acoustic with the third section, titled "The 'Mental State of Noise'." From sound as the object of study, the move is continued towards noise as a factor of perception itself. This third section returns to the methodology of the first part, engaging in a lengthy close-reading of a 1986 text out of the Massachusetts Mental Health Center entitled "The Concept of Noise." The article, written by Steven Sands and John Ratey, preempts interest from the World Health Organisation on the damaging effects of sound in society, and makes a case for noise as an epistemological criterion for researching mental health. Similar to Malaspina's discussion of information across Shannon's and Wiener's work, the contradictions inherent in Sands and Ratey's conceptualization of noise are mined for their philosophical and ethical implications. The role of noise as a psychological factor, a transversal ingredient of mental health diagnosis, is explored through a fundamental idea of openness to outside stimuli and the effect this has on the acquisition of knowledge.

Malaspina pinpoints a possible contradiction in the concept of openness through Sands and Ratey's comparison of the mental state of noise in adults dealing with conditions such as anxiety and PTSD with the state of an infant in the early stages of learning. This latter moment defines an initial lack of cognitive differentiation that requires a high amount of openness to stimuli in order to eventually learn distinctions and develop a stable sense of self. In the former, however, a form of openness is the root of psychic disorder, and can lead to, what neuropsychiatrist Kurt Goldstein called, the 'catastrophic reaction': a withdrawing to a state of rigid closedness and obsessive orderliness. Malaspina explores the many ambivalences and difficulties of such a comparison, including the dubious Freudian claim made by Sands and Ratey that mental

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4   Malaspina, *An Epistemology of Noise*, 156.

states of noise amount to a form of regression to an infantile openness.

With a truly insightful reading of this through John Keats' notion of 'negative capability'—not a bromide on open mindedness, but the willing destruction of the self required for true insight—Malaspina pinpoints a fundamental paradox at the core of what it means to think and to learn: "in order to maintain one's health one has to risk one's health."[5] This is mirrored with the book's opening discussion of information as entropy or negentropy; aligning information with uncertainty finds important resonances with the valorisation of openness to the mess of experience, but one that must tarry with the enabling constraints of selfhood and stability while pushing at the boundaries of such limitations. Learning is defined by an encounter with contingency, not its negation in the supposed certainty of facts or data. Indeed, it is the negation of the negation of contingency that Malaspina defines as the opening up of a groundlessness on which reason grounds itself. This is Malaspina's profound insight on the stakes of thought itself. Thinking is a wager, a grappling with the possibly dangerous effects on health and stability that come from being overly open to the world, but a risk one takes in the act of knowledge acquisition. Thinking must thus engage with a knowledge of its own contingency, and Malaspina espouses the importance of understanding the ignorance at the heart of thought that is vital for ideas of governance on the political stage and self-governance as an ethical problematic.

Directly political problems seem to drive Malaspina's arguments but are not dealt with at length. Passing mentions to a 'post-truth' era of politics, and a short but powerful analysis of the pseudo-scientific language of the 'Vote Leave' campaign in Britain, present Malaspina's emphasis on uncertainty against the ungrounded faith in facts and data that goes for much political discourse today. The question of what the concept of noise means in the so-called 'information age' is also left underdeveloped. The mental state of noise is connected to a contemporary form of

5   Ibid., 185.

anxiety, but also posited as "more multifaceted than today's atten-
tion to 'information overload'."[6] However, Malaspina's emphasis
on a form of willed openness suggests its relevance in opposition
to the passive form of constant and forced exposure to informa-
tion required by the modern workplace of 24/7 email engage-
ment and social media bombardment. The ethical and political
stakes of drawing the line between information and noise becomes
thus even more urgent when an insidious form of openness is the
sine qua non of maintaining one's self in a networked society. Fore-
grounding the possibility of reason as a radical gesture in *all this
noise* is vital, and I believe that Malaspina's astounding book can
serve as a valuable platform for thinking through political and ethi-
cal encounters with the noise of the information age.

  As the book finishes, Malaspina sums up this exploration of
the normative stakes of reason as a "cybernetics of the just act."[7]
The place of cybernetics in philosophy is explored by Malaspina,
who uses cybernetics, not as a form of reductionism, but in order
to facilitate properly ethical questions. Cybernetics carries with it
baggage, from its association with aspects of control societies to
the seemingly religious fervour of a blind obsession with cybernet-
ics that grows out of the work of the CCRU and finds it apotheo-
sis in the work of neo-reactionary philosopher Nick Land, where
society is defined by runaway positive feedback loops and nothing
more. Malaspina, in the last few pages of the book, points to a new
paradigm of cybernetics that can elide this problematic lineage,
valorising a knowledge of ignorance in the face of complexity pre-
cisely as the *reason to think*.

  This conception of reason's acts of self-grounding is pow-
erful but tantalizingly brief. It also seems to philosophically align
Malaspina in ways that are left implicit. This is signalled in in-
teresting ways by the powerfully short but characteristically heavy
introduction to the book by Ray Brassier, himself a theorist and
practitioner of noise music, but also more recently a proponent

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6   Ibid., 175.
7   Ibid., 218.

of so-called neo-rationalism.[8] This umbrella term, as the editors of the recent issue of *Angelaki* on the figure of the 'Alien' define, "aims to give an account of the nature and significance of rational agency that neither indexes rationality to some common sensibility nor imputes agency to some metaphysical supplement inexplicable from the perspective of natural science."[9] Encompassing diverse work from thinkers such as Brassier, Pete Wolfendale, Reza Negarestani, and the feminist collective Laboria Cuboniks, there is a rejection of both outdated forms of humanism and Enlightenment chauvinism, but also strains of new materialism and critical posthumanism, emphasising epistemological concerns against swarming ontologies of a non-human vitality. These thinkers posit a rationalist *inhumanism*, a return to the rational and normative grounds of thinking, which finds important resonances with Malaspina's project, where thinking is always the drawing of lines between the noisy and the informative that must be reassessed and reappraised incessantly. Rationalist inhumanism pushes humanist principles beyond the human to define reason in its artificiality within thought, seeking to "extract the *functional core* of humanism from its imbrication with the biological and historical contingencies of the human animal."[10] This is a probing of the properly *transcendental* dimension of thinking, entailing fascinating philosophical realignments with the work of Kant and Hegel and important engagement with those in the analytic tradition that followed similar preoccupations, such as Wilfrid Sellars and Robert Brandom. This return to forms of Kantian philosophy can be found in Malaspina's own connection between mental states of noise and Kant's notion of apperception, which is brief and philosophically suggestive.

Although the theorization of reason is left underdeveloped in Malaspina's book, it provides a fascinating platform to connect her work on noise with current rationalist projects, and indeed to

8   Ray Brassier, "Genre Is Obsolete," in *Noise & Capitalism*, ed. Mattin and Anthony Iles (San Sebastián, Spain: Arteleku, 2009), 60–71.

9   James Trafford and Pete Wolfendale, "Editorial Introduction," *Angelaki* 24.1 (2019): 7.

10   Ibid., 5.

posit noise as a transdisciplinary tool for thinking through what it means to be a rational being. Malaspina's work can give much to these recent projects, where interest in aspects of artificial intelligence have led to Wolfendale's recent work on the "informatics of rationality" and Negarestani's exploration of agents as information processing systems in his towering *Intelligence and Spirit*.[11] Malaspina designates Inigo Wilkins' forthcoming book *Irreversible Noise* as an interesting companion piece to hers, similarly concerned with a conceptualization of noise in the humanities read through scientific approaches to the concept.[12] Wilkins' interest in Sellars' inferentialist account of reason might help further connect aspects of noise and information with current neo-rationalist philosophies.

Malaspina's book, with its provocative gestures across a wide variety of disciplines and domains, does something truly extraordinary. Its transdisciplinary scope lays out the possibility of a fundamental new concept, inaugurating the potential of multiple avenues which a new field of noise studies could take. Its brief and suggestive manoeuvring across the conceptual map is not a defect but instead makes this a concise catalyst and provocative platform for further research and innovation around the extremely fertile concept of noise. This impressive book deserves to be heard.

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11   Pete Wolfendale, "The Reformatting of Homo Sapiens," *Angelaki* 24.1 (2019): 55–66. Reza Negarestani, *Intelligence and Spirit* (Falmouth, UK: Urbanomic, 2018).
12   Inigo Wilkins, *Irreversible Noise* (Falmouth, UK: Urbanomic, Forthcoming).