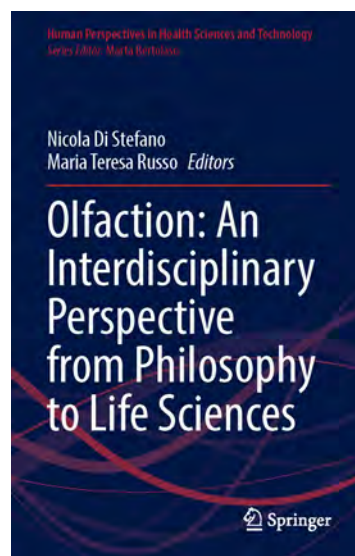


Review of Olfaction: *An Interdisciplinary Perspective from Philosophy to Life Sciences*

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Olfaction: An Interdisciplinary Perspective from Philosophy to Life Sciences (2022), edited by Nicola Di Stefano and Maria Teresa Russo, features essays by prominent scholars who collectively assert that all perception is crossmodal, or to use Shivani Kapoor’s expression (chapter 2) “intersensory”. This notion of the olfactory and the other senses truly operating as one threads together the four sections of the book. The contextual complexities of interpreting the meaning of smell also play out across many of the essays.

The first chapter is aptly titled *Smell as a Way of Thinking About the World: An Anthropology* by David Le Breton and sets the stage for the rest of the book. It provides a global overview of olfaction through time. It declares that, even though in the Western tradition the senses are often researched separately, they, in fact, never operate in isolation of each other. Le Breton acknowledges what is generally agreed upon by almost everyone who has written on olfaction: Historically the Western tradition relegated smell to a very low rank in the hierarchy of the senses, especially during antiquity and in the Enlightenment (Le Breton, 2021, p. 5). He then contrasts this historical Western prejudice with world views drawn from the anthropology of other cultures, particularly the Ongee of the Andaman Islands, studied by David Howes and Constance Classen, or the Umedas of New Guinea, where smell is much more central to their cosmology, their conception of the body, etc. (7). Le Breton then leans on more recent scholarship about the smells of “hate” (15). He makes the judicious observation that smells in themselves do not inherently convey meaning, rather the social group collectively invest smells with meanings, and these meanings differ from one group to another (12), and therefore become conducive to “othering”.

Shivani Kapoor’s chapter *The Smells of Caste – Body, Self and Politics*, stands out in this collection as the only contribution rooted in the Indian experience, but also by problematising how olfaction has been theorised in the West. In India, according to Kapoor, castes structure the value of odours. In her argument, it is as if caste dictates how members of one caste olfactorily perceive members of another caste (Kapoor, 2022, p. 22). In post-colonial theory, the other is often somebody belonging to another race, i.e., Indians perceived as other by the British. A number of stereotypes and value judgments are then attached to this ‘other’ (as already explained in Le Breton’s chapter). In the case of India, one caste is the other to another caste, i.e., the Scheduled Castes to the Brahmins.¹

According to Kapoor, the structures of power are reflected in the ordering of the senses. In India, the politics of caste are inherently intersensorial (Kapoor, 2022, p. 25). Furthermore, in South East Asia, smells are never dissociated from other sensory modalities (Kapoor, 2022, p. 27). Because of the ordering of the senses mentioned earlier, to the Brahmins, the Scheduled Castes must smell foul and look dirty (even if they do not). Hence the ordering of the senses is reflected in the social body: Kapoor writes, this order maintains “the denial of bodily and moral integrity to those who are considered lower than oneself through restrictions on access to material and moral resources” (Kapoor, 2022, p. 27).

When the British colonised India, to ascertain their power, they sought to control the social body, and therefore the complex castes’ interactions. The British administration used their visual apparatus to classify and control the Indian social body, which mapped onto the caste system based on distance

¹ Kapoor chooses to use the noun “untouchables,” however, this expression is problematic within the Indian context, just like Dalit (another word for untouchables), therefore this review sticks to the official expression: “Scheduled Castes”.

and repulsion. Hence, seeing became “a form of evidence in a knowledge-based system where ‘meeting the other’ was a ‘discovery’ instead of ‘a contact or an encounter’” (Kapoor, 2022, p. 30).

To conclude, Kapoor evokes the literary example with which she began her essay, of reversing olfaction as an act of resistance: where the Brahmin finds that the Scheduled Castes smell foul, Kumud Pawde finds that the Brahmins’ smell is unbearable, as their odour of buttermilk and *shikakai* revulses her. To the oppressed, the oppressor also smells bad, demonstrating the potential of odours as a form of resistance.

Chapter 3, *Not Only Olfaction: The Nose, Protagonist of the Diversity and Individuality of the Human Face* by Elisabetta Cilli and Giorgio Gruppioni, stands out in this collection because it is the only essay that does not deal with olfaction *per se*, but rather with the morphology of the nose. This chapter draws extensively on biology, genetics, morphometry, and a mix of other exact sciences to explain how there are no two human noses (nor two faces) alike in the world. It would be possible to argue that this chapter is an outlier in this collection, as it studies an organ that has been perceived primarily as part of the breathing apparatus, and secondarily as the organ of olfaction, especially since it is the olfactory bulb located at the bridge inside the nose that is really the organ of olfaction. However, given the interdisciplinary premises of this book, it makes perfect sense to describe the nose as part of an olfactory system whose bulb is only one component. Indeed, the humidity of the nasal cavity is both essential to our breathing and to our olfactory capabilities. It turns out that the morphology of the nose conditions the humid state of our nose. One could also argue that olfaction is fundamental to breathing as it will warn us of foul smells that could hurt our lungs, and therefore our life.

A good portion of this chapter is dedicated to how climatic conditions influenced the evolution of the human nose. For instance, a wider nose is more suitable for hot and humid climates, while a narrower nose protects one better from cold air. During the last ten thousand years of human evolution, the nose changed in response to glaciation or warmer periods (Cilli, 2022, p. 38). Another hypothesis states that during the migration outside of Africa by the genus *Homo*, the nose operated as an organ of spatial orientation, another explanation for the dual respiratory and olfactory functions (Cilli, 2022, p. 39). Furthermore, the relationship between nose morphology, olfaction and climate supports the fact that olfaction operates better under hot, humid conditions, and lower barometric pressure.

The authors review the genetic evolution of the nose and end by applying all this research to facial reconstruction, and particularly that of the nose, based on cranial features. They discuss the different techniques that have been in use, dating back to the late nineteenth century. One of the areas of application of these techniques is to provide humanity with a plastic representation of past hominid appearance for both scientific and popular purposes. One such successful example is the re-creation of Dante Alighieri’s face, the author of the *Divine Comedy*, who, incidentally, had a very prominent nose.

As its title indicates, Madalina Diaconu's chapter, *Being and Making the Olfactory Self. Lessons from Contemporary Artistic Practices*, engages with olfactory art practices. First Diaconu examines the role of olfaction in identity formation (Diaconu, 2022, p. 56). The self is often thought of in contrast to the collective: there is a boundary around the self that makes it distinguishable from the collective. However, olfaction, with its atmospheric nature disturbs this definition. Diaconu then selects some artistic examples to illuminate, from various perspectives, some concepts of identity (Diaconu, 2022, p. 59) organised along the following categories: emplacement, trust and anxiety, individual recognition, self-acceptance and recognition, becoming animal, and gender. She concludes by observing that olfactory artists raise awareness about how olfaction constitutes different levels of individual and collective identity. Olfactory artists also challenge the traditional anthropological categories that distinguish humans from animals and rehabilitate an "animalic" sensitivity (Diaconu, 2022, p. 71).

Tonino Griffero, one of the main proponents of atmosphere theory, along with Madalina Diaconu, investigates the atmospheric qualities of olfaction in his chapter *Sniffing Atmospheres: Observations on Olfactory Being-In-The-World*. Atmospheres are intangible, have no clear boundaries, and fluctuate. Olfaction is a sense of proximity that is not representable but is "diffuse" (Griffero, 2022, p. 80). Philosophers of the past denigrated olfaction because they deemed it an animalic sense, but in contemporary philosophy, this animality elevates olfaction (Griffero, 2022, p. 78) because we are embracing again the intuitive, the emotional, and the irrational. Like Jacques Vignaud before (Vignaud, 1982, pp. 14–15), Griffero notes that out of all our senses, the verb "to smell" is the only one that is both transitive and intransitive. In other words, one uses the same vocable to indicate the emission of smells as well as their reception. The author ends by noting that all our attempts at philosophising about olfaction work against its atmospheric nature. Nevertheless, he wants to continue laying the groundwork for a rehabilitation of an olfactocentric discourse, balancing its atmosphere with a revaluation of this sense (Griffero, 2022, pp. 87–88).

Chantal Jaquet's *Smell as a Carrier of Value* investigates whether olfaction can be a carrier of ethical or aesthetical norms, and how these norms change with time. First, Jaquet methodically deconstructs the mechanism of olfactory othering, a process described in both Le Breton's and Kapoor's chapters. After reviewing some philosophical attempts in the 18th century to classify and judge smells, Jaquet tallies the many forms that olfactory othering takes on: ethnicity, sexual orientation, and gender. She then gives some examples of how a social group remedies this "othering," be it through repulsion, as in the example from Kapoor's chapter, or through ritual purification to sanitise the other: Jaquet gives the example of rose water being sprinkled onto guests in Morocco to, at once, welcome them and purify them of their "otherness" (Jaquet, 2022, p. 97).

Jaquet relies on Constance Classen's research in the centrality of smell to the Ongee people, from the Andaman Islands, to demonstrate that olfaction has ethical value. She then cites Edmond Roudnitska's *L'Esthetique En Question*,

published in 1977, well before “the olfactory turn” noted by Jim Drobnick (Drobnick, 2016), where the perfumer called philosophers to task: set aside the prejudices from the Enlightenment, olfaction can be beautiful and challenging (Jaquet, 2022,100). Jaquet then proceeds to describe recent olfactory artworks, and remarks that their ephemeral quality makes olfaction particularly suitable for installations. Thus, an olfactory aesthetic is nascent. Madalina Diaconu and Tonino Griffero would perhaps venture to say that this is one of the consequences of a philosophy of atmosphere.

In the second half of this collection of well-researched essays, the editors shift our attention to matters of aesthetic, scientific, and technological concern in the olfactory experience. The final chapter, for example, presents detailed, technical diagrams for an Electronic Nose, which arguably is the next step in developing a machine that can surmount the difficult challenges of capturing scent and analysing it. The authors, Marco Santonico, Giorgio Pennazza, Paul Brinkman, and Arnold D’Amico, propose an apparatus that might replace the currently used headspace technology, although their article does not mention this tool most often found in chemistry laboratories or in the field like those in operation by Roman Kaiser at Givauden, for example. The prospect of storing olfactory data in the cloud as a means of experimenting with and expressing “the detected world experience to others,” seems exciting in its novelty and at the same time builds on a historical interest in human breath (Santonico, 2022, p. 219). The authors note that thousands of years ago Hippocrates urged “his students to smell the breath of their patients” (Santonico, 2022, p. 220). There is still much to be learned in terms of interpreting humans’ breath with its “hundreds of volatile organic compounds” (Santonico, 2022, p. 220).

One could imagine that the medical applications of olfactory gizmos like the Electronic Nose, might aid in the smell tests mentioned in Rachel Herz’s essay, *The Psychology of Aromatherapy and Health Benefits*. Beginning with a discussion of the vagaries of olfactory experiences, dependent as they are on deep personal and cultural differences, Herz’s essay ends with a catalogue of conditions in which the loss of smell is an early indicator of declining health: Alzheimer’s disease, Parkinson’s, and COVID-19. The potentially healing capacities of materials, terpenes found in essential oils like lavender for example, or the invigorating effect associated with peppermint, are highly contingent, as Herz argues, on context and specific emotional experience. Nonetheless, such fragrances might in certain instances bring about some therapeutic results. Herz outlines the use of smells in medical experiments on people subjected to pain—administered through electro-shock or exposure to intense heat or cold—reminding us that the behind-the-scenes operations of testing whether certain smells might be efficacious in pain management, rely on subjecting test subjects to real pain. Herz speculates, however, about what she refers to as “smell training,” suggesting that the efficacy of odours in the treatment of pain may be simply a matter of discipline. She writes, “through daily olfactory training individuals become more disciplined and better able to control their thoughts and feelings, which in turn helps them in other situations, such as dealing with pain” (Herz, 2022, p. 199).

The possible connections between olfactory sensations and feelings and emotions, not under control, but unleashed, summon up other questions about the efficacy of smell to shape experience. To get at some of these questions, authors Nicola Di Stefano, Maddalena Murari, and Charles Spence analyse and document the intersections of the olfactory and literature and music in their chapter, *Crossmodal Correspondences in Art and Science: Odours, Poetry, and Music*. They begin by underscoring the distinctions between synesthesia and metaphor, that is the important differences between experiencing colour or sound as smell, for example, and the linguistic or musical act of evoking smell through colour or sound. Again, associations are contingent. They note that “Romantic aesthetics rated perfumes, especially floral scents, as a particularly evocative source of poetic inspiration” (Di Stefano, 2022, p. 164). In many of the texts cited, from William Shakespeare’s *Twelfth Night* to John Keats’ *Ode to a Nightingale*, the smell of violets operates as a conventional signifier that readers would recognise as a call to the emotions. References to a bed of violets or even a singular flower might reliably, across centuries, accompany a whirl of sentiments in which lovesick ecstasies intertwine with fading memories. Indeed, violet is one of the most volatile of fragrances and can leave one wondering if one really smelled it at all. That writers often link the experience of such fleeting smells with sound leads to the second section of the essay in which music, too, connects to feelings conjured by scent. Indeed, the authors argue that, although difficult to explain in words, there is an important “role of emotion in mediating both olfactory perception and smell-sound associations” (Di Stefano, 2022, p. 181). This mediation is evidenced in a fascinating review of multisensory artistic performances such as Paul-Napoleon Roinard’s *Cantiques des Cantiques* (1891), Sadakichi Hartmann’s *A Trip to Japan in Sixteen Minutes* (1902), the Australian Art Quartets *Scent of Memory* project (2016), and Chang Hee Lee’s *Essence in Space* project. These artistic investigations point to significant interest in the exploration of combining sound and scent together to be experienced in the same space. The authors pair these quite disparate performances with scientific explorations by G.W. Piesse in his book *The Art of Perfumery* (1855), which lays out clearly a historical precedence of thinking about scent in musical terms.

Rhett Diessner considers whether scent, on its own, can—like poetry or music—claim the status of art. His essay, *The Psychology of the Appreciation of Olfactory Beauty*, guides readers through a series of thoughts about beauty, and again, the argument here leads toward a discussion of emotions and the possibility of a sensory experience being perceived as beautiful. A classic concern of aesthetic theory, defining the category of the beautiful opens the consideration of scent having a structure—a form—that can be predicted, controlled, and repeated. Diessner finds philosopher Edmund Burke’s assertion that “smoothness is beautiful,” (Diessner, 2022, p. 143) “weird”, but the idea, along with the fact that scent is structured, gives credence to the possibility of scent being beautiful, and therefore possible to consider as art. A footnote on the famous perfume Joy (1929) points out that the fragrance, according to Luca Turin and Tania Sanchez “was purposefully designed as a Platonic archetype”

and as they also note, Joy “does not smell of rose, jasmine, ylang, or tuberose. It just smells huge, luscious, and utterly wonderful” (Diessner, 2022, p. 147). The chapter ends with a round-up of observations on spicy, fruity, woody, floral scents, and with the acknowledgement that while “beauty is still a mystery” (Diessner, 2022, p. 151), one’s appreciation of anything beautiful is contingent on cultural context.

The importance of context, including inculcated values and positions as determinants in olfactory experience threads the second half of the collection together. Danièle Dubois’ wide-ranging essay, *Towards a Situated Cognitive Approach of Olfactory Experiences and Languages*, begins with the assertion that the study of olfactory experience must be considered as “a cultural experience within a situated approach of human cognition” (Dubois, 2022, p. 118). That is, smell is entangled in the complexities and “infinite variations” of chemical composition of odours like roses, “caraway and spearmint” as well as in the “diversity of human practices” including the intricate workings of language. (Dubois, 2022, p. 119) The French and Li Wanzi languages provide case studies, and while Dubois does not mention the situation of the colonial relation between France and Gabon, nor the extractive nature of the relation, with Gabon’s rich uranium mines essential to the development of France’s nuclear program, she does note the problematic of being “biased by ‘our’ visuo-centric view of the senses” (Dubois, 2022, p. 133). The analysis of the connection between odour cognition and the Li Wanzi language runs up against cultural taboos and dwells mostly on smells related to the body, cooking, and hunting, while the section on French linguistic connections to odour discusses perfume and the smell of the Paris subway.

Rosalia Cavalieri continues this thematic of the contextual in her essay *What a Good Nose Knows: The Role of Smell in the Appreciation of Food*. She writes,

Smell has a special connection with knowledge. It is a sign of common sense, of intellectual acumen. After all, the Italian word ‘sagace’ (shrewd) derives from the Latin *sagire* – to smell, understood as to perceive acutely with the intellect—and today it still evokes quick-wittedness. It implies that sixth sense or sense of intuitional knowledge celebrated by the greatest olfactory philosopher, Nietzsche, who affirmed, ‘my genius lies in my nostrils’. (Cavalieri, 2022, p. 110)

What we can know through our sense of smell is critical in detecting food that has gone bad, but it is also more than a supporting actor in the pleasures associated with eating. For Cavalieri, the delicate interplay of *orthonasal* and *retronasal* olfaction may actually make people smarter—or at least it might “compensate for the large loss of genes of the olfactory receptors that human beings have lost over their evolution” along with the “development of a bigger brain” (Cavalieri, 2022, p. 113). Cavalieri argues the knowledge that comes from understanding how olfaction works in all the activities of the kitchen and the table expands one’s capacity to enjoy aromas and perhaps helps us recognise what the nose knows.

In conclusion, *Olfaction: An Interdisciplinary Perspective from Philosophy to Life Sciences* presents its readers with an array of essays arguing that the complexity of olfaction is not possible to understand without understanding the histories of the senses and the contextual entanglements of the meanings and values humans attach to smells. The volume explicates Western notions of hierarchy and their impact on the ordering of the senses, languages, and cultures in relation to one another. The book prompts many questions about the residual and extant powers of the West, and whether the desires to investigate olfaction are complicated, and perhaps compromised, by the hegemony at play in such inquiries. Laudably, the editors evince a commitment to an interdisciplinary approach to thinking about olfaction, bringing together scholars in the fields of philosophy, anthropology, medicine, linguistics, poetics, aesthetics, and music among others. This crossmodal approach seems propaedeutic to future, truly global and more inclusive, understandings of olfaction.

References

- Cavaliere, R. (2022) 'What a Good Nose Knows: The Role of Smell in the Appreciation of Food', in Di Stefano, N., Russo, M.T. (eds) *Olfaction: An Interdisciplinary Perspective from Philosophy to Life Sciences*. Berlin-New York: Springer, pp. 109–116.
- Cilli, E., Gruppioni, G. (2022) 'Not Only Olfaction: The Nose, Protagonist of the Diversity and Individuality of the Human Face', in Di Stefano, N., Russo, M.T. (eds) *Olfaction: An Interdisciplinary Perspective from Philosophy to Life Sciences*. Berlin-New York: Springer, pp. 35–54.
- Diaconu, M. (2022) 'Being and Making the Olfactory Self: Lessons from Contemporary Artistic Practices', in Di Stefano, N., Russo, M.T. (eds) *Olfaction: An Interdisciplinary Perspective from Philosophy to Life Sciences*. Berlin-New York: Springer, pp. 55–74.
- Diessner, R. (2022) 'The Psychology of the Appreciation of Olfactory Beauty', in Di Stefano, N., Russo, M.T. (eds) *Olfaction: An Interdisciplinary Perspective from Philosophy to Life Sciences*. Berlin-New York: Springer, pp. 141–154.
- Di Stefano, N. et al. (2022) 'Crossmodal Correspondences in Art and Science: Odours, Poetry, and Music', in Di Stefano, N., Russo, M.T. (eds) *Olfaction: An Interdisciplinary Perspective from Philosophy to Life Sciences*. Berlin-New York: Springer, pp. 155–192.
- Di Stefano, N., Russo, M.T. (eds) (2022) *Olfaction: An Interdisciplinary Perspective from Philosophy to Life Sciences*. Berlin-New York: Springer Verlag.
- Drobnick, J. (2016) *The Olfactory Turn in Visual Art*. Available at: <https://www.roots-routes.org/the-olfactory-turn-in-visual-art-by-jim-drobnick/>
- Dubois, D. (2022) 'Towards a Situated Cognitive Approach of Olfactory Experiences and Languages', in Di Stefano, N., Russo, M.T. (eds) *Olfaction: An Interdisciplinary Perspective from Philosophy to Life Sciences*. Berlin-New York: Springer, pp. 117–140.

Griffero, T. (2022) 'Sniffing Atmospheres: Observations on Olfactory Being-In-The-World', in Di Stefano, N., Russo, M.T. (eds) *Olfaction: An Interdisciplinary Perspective from Philosophy to Life Sciences*. Berlin-New York: Springer, pp. 75–90.

Herz, R. (2022) 'Olfaction and Health', in Di Stefano, N., Russo, M.T. (eds) *Olfaction: An Interdisciplinary Perspective from Philosophy to Life Sciences*. Berlin-New York: Springer, pp. 193–212.

Jaquet, C. (2022) 'Smell as a Carrier of Values', in Di Stefano, N., Russo, M.T. (eds) *Olfaction: An Interdisciplinary Perspective from Philosophy to Life Sciences*. Berlin-New York: Springer, pp. 91–108.

Kaiser, R. (2011) *Scent of the Vanishing Flora*. Zurich: Wiley VCH.

Kapoor, S. (2022) 'The Smells of Caste—Body, Self and Politics', in Di Stefano, N., Russo, M.T. (eds) *Olfaction: An Interdisciplinary Perspective from Philosophy to Life Sciences*. Berlin-New York: Springer, pp. 21–34.

Le Breton, G. (2022) 'Smell as a Way of Thinking About the World: An Anthropology', in Di Stefano, N., Russo, M.T. (eds) *Olfaction: An Interdisciplinary Perspective from Philosophy to Life Sciences*. Berlin-New York: Springer, pp. 3–20.

Santonico, M. et al. (2022) 'Advances in Artificial Olfaction Systems: Obviously Artificial, Somewhat Olfactive'. in Di Stefano, N., Russo, M.T. (eds) *Olfaction: An Interdisciplinary Perspective from Philosophy to Life Sciences*. Berlin-New York: Springer, pp. 212–226.

Vignaud, J. (1982). *Sentir*. Paris: Editions Universitaires.

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