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William Lycan on Mind, Meaning, and Method

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A Whiff of Morality?

Paul Bloomfield

Introduction

I write in the spirit of a shared basic metaethical outlook with William Lycan, which is realist and naturalistic.[1] While we may disagree at the level of normative theory, with Lycan being a utilitarian and me with my eudaimonism, we nevertheless agree that there are natural, empirical facts about morality which are, in an ontologically important way, not *up to us*

[1] I am grateful to Mitch Green and Jan Michel for inviting me to honor William Lycan and his philosophy. Indeed, I am not only grateful to Bill in general for his wonderful collegiality and unflagging philosophical spirit, I thank him here in particular for many discussions, written comments, and a great deal of insightful help with the philosophy of olfaction. I am also grateful to the participants in the discussion of these topics at the LycanFest held at the University of Connecticut in March 2023, and especially here to Lionel Shapiro, Michael Lynch, and Ram Neta for their comments on that occasion. Mitch Green, Marcus Rossberg, Julian Schloeder, and, finally, again Lionel Shapiro gave me helpful comments on earlier drafts of the paper for which I am also grateful.

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subjectively or inter-subjectively, nor are they constructed by personal or collective attitudes or judgments, social conventions, or practices.[2] We are realists about the properties of being *good* and *bad*, *right* and *wrong*, and *obliged* and *permitted*, etc., and we think these are found in our empirical nature as human beings considered as biological organisms. The moral facts, or at least some subset of moral facts, are the facts about what is good for and bad for creatures like us, as human beings, or members of Homo sapiens. As a convinced moral realist, it is unclear to me whether the thesis about the relation of smell to value which comes out below is best seen as evidence for this kind of moral realism or whether the thesis only gains its plausibility from a presumption of moral realism. Either way, the thesis is primarily epistemological since it involves the way we can gain perceptual knowledge about value through olfaction.

Up till now, based on Socratic and Stoic arguments, I have defended the idea that all moral knowledge was the result of skill and expertise.[3] But thinking about smell has led me to now think that human beings can, at times, *perceive* value (including moral value) or at least, at times, use the input of some of our perceptual modalities as defeasible evidence of that value. Here, importantly, the word "perceive" will be used below, unless otherwise noted, in a strict sense employed by those who study the perception of color and sound, so that what we perceive are "low level" properties, like redness or saltiness—avoiding the wider, commonsense use of "perceive" in which we can be said to perceive "higher order" properties such as a checkmate on a chess board or a person's liver problems based on their jaundiced eyes.[4] (We return again to this issue below.) So,

[2] Indeed, Lycan was at the leading edge of the return of moral realism in the late twentieth century. See his "Moral Facts and Moral Knowledge", *Southern Journal of Philosophy*, Special Issue: Spindel Supplement: Moral Realism vol. 24, no. 1: 79–94 (1986). And see my *Moral Reality* (New York: Oxford University Press) 2001.

[3] See *Moral Reality* (2001) as well as my "Virtue Epistemology and the Epistemology of Virtue", *Philosophy and Phenomenological Research* vol. LX, no. 1: 23–43 (2000); "Some Intellectual Aspects of the Moral Virtues", in *Oxford Studies in Normative Ethics* vol. 3, M. Timmons (ed) (Oxford: Oxford University Press) 2014; "Skills of Justice", in *The Routledge Handbook of Skills and Expertise*, Ellen Fridland and Carlotta Pavase (eds.) (London: Routledge) 2021.

[4] The precise meaning of the technical term "perception" is not settled. With regard to smell, Lycan refers to the "sub-personal activity" which happens at the level of sense organ, or olfactory bulb. In

the thesis that we can at times perceive value is meant to imply the technical sense of "perceive". And yes, the idea of "moral perception" or having "value-laden" perceptual experiences is not part of the mainstream of moral epistemology.[5] Notwithstanding this, we ought to emulate Socrates and "follow the argument" wherever it goes. Beyond that, perhaps we should not be surprised to learn that moral epistemology has been over-intellectualized and over-rationalized. While we are indeed rational moral agents, we are also animals with bodies, and bodies for which our most instinctive needs and responses about what is good and bad for us are phylogenetically ancient.

The idea that we may perceive moral properties is not completely new. However, the argument to come is new because it uses the technical sense of "perceive" mentioned in the previous paragraph. Among past attempts to explicate the idea of "perceiving value", we may distinguish those claiming that value is non-natural from those claiming it is natural. Assuming perception is an empirical knowledge-gathering modality and non-natural properties are not empirical properties, it seems counter-intuitive, to say the least, that we can perceive non-natural properties, though this has been defended.[6] As far as extant naturalistic views of moral perception, to my knowledge, they all attempt to understand the perception of moral properties in ways involving the non-technical

general, Ned Block has recently defended a set of "signatures" which are distinctive of perception, for example, the way staring at a blue surface for a while makes one see the next object observed to be more yellow than normal, as yellow is the "opposing" color of blue. According to Block, these sorts of adaptive effects are unique to perception. Lycan, "The Layering of Smell", in *Theoretical Perspectives on Smell*, A. Keller and B. Young (eds.) (New York: Routledge) 2023; Block, *The Border Between Seeing and Thinking* (New York: Oxford University Press) 2023.

[5] I do not see those, such as John McDowell, who advocate either a "perceptual model for virtue" or a standard "secondary quality analysis" of moral properties as holding that moral properties are perceived using sense modalities as, say, colors are perceived; rather, sensory secondary properties are here only supposed to be a model for moral properties. See, for example, McDowell, "Virtue and Reason", *The Monist* vol. 62, no. 3: 331–350 (1979); "Values and Secondary Qualities", in *Morality and Objectivity*, Ted Honderich (ed.) (London: Routledge & Kegan Paul) 1988.

[6] See, for example, Robert Audi, *Moral Perception* (Princeton: Princeton University Press) 2013; Preston Werner, "Toward a Perceptual Solution to Epistemological Objections to Nonnaturalism", *Journal of Ethics and Social Philosophy* vol. 24, no. 3: 1–22, https://doi.org/10.26556/jesp.v24i3.1624 (2023). For a version of this kind of view that pushes the bounds non-natural perception, see William Alston, *Perceiving God* (Ithaca: Cornell University Press) 1991.

commonsense use of "perceive" also indicated above.[7] (More will come below on the distinction between "thin" and "thick" moral properties.)

A Distinction Between Secondary Properties

The argument begins at page 2 of Gilbert Harman's book *The Nature of Morality*.[8] In this argument, Harman is developing an error theory of moral properties, based on what he claims is our inability to perceive them, and the conclusion he draws that "moral observations" do not license inferences to moral properties in the way that observations in physics license inferences to physical properties. To motivate the argument, he blithely describes a gruesome and disgusting scene, and I apologize for repeating this unpleasantness and also for trying to deploy disgust as a part of my own argument. Harman's primary example of a moral observation asks us to imagine that "You round a corner and see a group of young hoodlums pour gasoline on a cat and ignite it". Harman's point was that when we morally judge this as wrong, we do not do so based on the perception of moral properties. He writes that, in seeing the hoodlums ignite the cat, "what you 'see' is a pattern of light on your retina, a shifting array of splotches" which we perceive, and he contrasts this with observations and judgments which are theory-laden: "What you perceive depends to some extent on the theory you hold, consciously or unconsciously" (p. 4). But he argues that while we cannot explain a vapor trail in a bubble chamber without inferring a subatomic particular, we can explain our moral observations by appealing to our presupposed moral beliefs without the need appeal to moral properties. His conclusion is that moral properties are not out there in the world to be perceived as we perceive splotches of color.

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[7] See, for instance, Sarah McGrath, "Moral Knowledge by Perception", *Philosophical Perspectives* vol.18, no. 1: 209–28 (2004); Preston Werner, "Moral Perception and the Contents of Experience", *Journal of Moral Philosophy* vol. 13, no 3: 294–317. https://doi.org/10.1163/17455243-4681063 (2014). An exception here is Terence Cuneo's work on Reid, in which he argues that Reid was modeling moral perception on visual perception. Below, I distinguish this from modeling it on olfaction. See his, "Reidian Moral Perception", Canadian Journal of Philosophy vol. 33, no. 2: 229–258 (2003).

[8] *The Nature of Morality* (New York: Oxford University Press) 1977.

Now, again I apologize for asking the reader to do something unpleasant, but please imagine smelling the burning cat before seeing it—smelling the gasoline on fire, the burning hair, flesh, and blood. If we smelled such a ghastly thing, it would mean that there are literally proper parts of the burnt gasoline and burnt cat that have suffused the air as an "odor", literally entering our bodies through our noses. We'd inhale this miasma into our lungs and, on the way, those burnt-cat parts pass through our nasal passages to be detected by the olfactory organ, called the epithelium, which is on the roof of our sinuses. This results in olfactory sensation, and given the stimulus, we would naturally, instinctually respond with disgust at a visceral level.

In a similar way, there are good evolutionary reasons for why the odor of vomit or an open cesspool elicits disgust. We could easily switch the example to the odor of rotting food or corpses. But to switch to more a pleasant example, the odor of fresh baked bread can stimulate our salivary glands and our hunger. Isn't it a relief to imagine the smell of fresh baked bread after Harman's story? Or imagine the smell of oranges. Now, of course, smell is not an infallible judge of which substances are good and bad for us: stinky cheese can be delicious. Olfactory fallibility only makes sense, however, in relation to some degree of reliability, and this opens up the possibility of detecting the value (or disvalue) to human life of certain substances through our noses. If we see vision and sound as sensory abilities which provide general representations of the environment at hand, the present empirical hypothesis is that olfaction evolved to guide animals toward what is good for them and away from what is bad for them: while we now expect wisdom to have the final word on axiology, from an evolutionary point of view, olfaction and taste are the original value-detecting mechanisms. (More will be said about this phylogeny below.)

Smell affects us differently from vision and one of the reasons Harman's example has been so persuasive is because he casts it in a purely visual way. When he talks about those "splotches" in our visual field, it is hard to imagine how a splotch could have any inherent relation to value much less morality. So, it is natural to infer that morality must be theory-laden: splotches are evaluatively neutral. But when we have visceral reactions to smells, are those reactions really so "theory laden"? Of course, they can be in certain circumstances. But the point is that they need not be: Doesn't

the disgust of the smell of excrement seem more primitive, more instinctual than anything theory laden? It seems reasonable to think that we cannot adequately describe the smell of the burning cat or the freshly baked bread in an evaluatively neutral manner, and this is true for good evolutionary reasons. What makes olfaction different from vision?

Well, we all learned at our undergraduate professor's knee that there are primary and secondary properties in the world. The traditional list of primary properties contains size, shape, motion, etc., while list of secondary properties contains colors, sounds, tastes, smells, etc. Of course, explaining what distinguishes primary from secondary properties is a vexed issue. But at some level, primary properties are supposed to be those which explain the non-sensual behavior of objects, while secondary properties are, in some way, supposed to be an interaction effect between the primary properties of objects and our perceptual and sensory modalities. So, whereas a red ball is spherical in itself, it is only red because it has a property which we perceive as redness.

Now, as I have just done, philosophers typically take color as their paradigm of a secondary property. Even sounds have gotten short shrift: Casey O'Callaghan's 2007 book, called simply *Sounds*, was the first philosophical monograph published on the topic. And if thinking about sound has been eccentric, then taste and smell have been even further out in the philosophical hinterlands. At least, that is, until Bill Lycan started thinking and writing about smell, initiating—singlehandedly—a new philosophical subdiscipline.[9] Lycan (1996) lays out the basic mechanics of olfaction in terms of a miasma or "vaporous emanation" of molecules of an object constituting an "odor".[10] When we smell something, this is the

[9] See Lycan, *Consciousness and Experience* (Cambridge: MIT Press) 1996, chapter 7; "The Slighting of Smell (with a brief note on the slighting of chemistry)", in *Of Minds and Molecules*, N. Bhushan and S. Rosenfeld (eds.) (Oxford: Oxford University Press) 2000; "The Intentionality of Smell", *Frontiers in Psychology* 5: 436 (2014b) doi: 10.3389/fpsyg.2014.00436; "The Layering of Smell" (2023).

[10] Among philosophers who work on smell, there is some debate about the exact ontological status of the object of olfactory perception. As noted, Lycan (2023) takes it to be an odor. Clare Batty takes the object of perception to be existentially quantified properties, such as *there is F-ness here*, while a third option is defended by Ben Young who proposes to identify it with "three-dimensional chemical structures of molecules". See Batty, "A Representational Account of Olfactory Experience", *Canadian Journal of Philosophy* 40: 511–538 (2010). Young, "Smelling Matter", *Philosophical Psychology* 29: 1–18 (2016). https://doi.org/10.1080/09515089.2015.1126814.

result of some portion of the molecules of the odor coming into direct physical contact with our epithelia, which sends a signal which is the smell we perceive. So, smells are representations of odors (Lycan, 1996), and Lycan (2023) further argues that smells may take on "layers" of representation, illustrating these layers with an auditory example:

> by hearing sounds of such-and-such pitches, timber and volume contour, you hear that of a human voice, and in hearing that vocal product you hear phonemes, by which you hear words (which are taken up and processed by your speech center). But on the layering view, the "by" is not causal. You do not represent the sound and then as a result the voice and then ditto the utterance and then the words; rather, a single auditory representation has each of those contents. (p. 204)

In smell, layers occur in at the "sub-personal level" (cf. note 4). We can imagine further layers as the signal we smell moves through various stages of cognition as smells can take on emotional layers (e.g., disgust) as well as "personal level" layers involving memory. We will return to layers below, but for now, we should note that in making distinctions among secondary properties, Lycan (2000) also distinguishes vision from olfaction across ten different dimensions of perception, showing how biased our theories of perception will be if they take vision as their paradigm.

There is another, straightforward, metaphysical distinction between two kinds of "secondary properties": colors and sounds, on the one hand, are importantly different from smells and tastes, on the other, though I have not encountered this difference mentioned in the literature.[11] While we may assume that all properties are known to us through representations, there are in fact many layers of representation involved in perception and cognition (Lycan, 2023). One layer of representation within

[11] Though, see Cuneo (2003), wherein he distinguishes within Reid a "standard" case of perception, e.g., the tactile detection of hardness, from a "non-standard" case, such as visual perception of shape. Cuneo models moral perception on the non-standard case while I am attempting to do so based on the "standard" case. His distinction, however, is similar to the distinction I make here, though not identical. The difference is that in the Reidian standard case, the sensation of hardness is a "sign" of hardness, which is not intended here. Compare hardness with heat: touching something hot does not result in a sensation that is a "sign" of heat but is rather a direct experience of heat: perceiving *heat* is a better model for perceiving *odor* than *hardness*.

perceptual modalities concerns us here in particular. Consider that when we see or hear something, it is always distal: we see an object through the medium of light or hear a sound through the medium of air. We never see or hear anything without these media: in the strict sense of "perceive", we perceive the light which reflects off objects as being, e.g., red, and hear vibrations in the air as we do because those vibrations are caused by whatever caused the noise. We see no colors in the dark and hear no sounds in a vacuum. This implies that a level of representation is involved in the perception of color and sound: the light that strikes our eye already represents the object cast in light and sounds are similarly represented within the movement of air. The difference between these properties and smells and tastes is that this layer of representation is missing in olfaction and taste: for example, when we smell an object in the room, that happens because there are molecules of that object, literally proper parts of it, which we literally inhale such that they make physical contact with our epithelia; there is no medium between the object which emanates molecules we inhale and our olfactory mechanisms as there is between the red ball and what happens in the retina; the molecules we smell are (or were) literally part of the object of olfactory perception (a rose) in a way that light is not a part of the object of visual perception (the same rose). The same is true when we taste something, there is nothing between what we taste and our tongue. Smell and taste, whatever else they amount to, lack one layer of representation present in colors and sounds.

Exactly what difference does the contact between molecule and epithelium make? Well, no one knows. For, believe it or not, scientists today are still ignorant about the basic mechanisms of olfaction. Fifty years ago, children in school were taught the old "lock and key" theory of smells, but this was proven false; in the 1990s, Luca Turin proposed that smell works by the olfactory bulb "pinging" a molecule for its density at the subatomic level, but this turned out to be false too.[12] In fact, the olfactory receptors in the epithelium were not even discovered until the 1990s, and we still do not know how they work. One thing is for sure, however: we see and hear objects only through the media of light and air, whereas smells and tastes are known through direct physical contact (cf. note 10).

[12] A.S. Barwich, *Smellosophy* (Cambridge: Harvard University Press) 2022.

Now, this is just a hypothesis, but it seems likely that the unmediated contact involved in smell and taste can lead to an ability to grasp the object of perception in a more complete way than is possible for distal colors and sounds. It seems reasonable to claim that olfaction's unmediated perception allows us to gain more substantive information about what we perceive: when we smell something, we are not merely perceiving its superficial characteristics as these are represented in an independent medium (like light or air) but rather it seems likely that olfaction evolved to capture something about a perceived substance's chemical composition. We can tell by looking that a looming object is approaching but whether it is hard or soft is indeterminate, but if something smells or tastes good to us, that is because we evolved to detect that stuff in the world as it relates to us as living organisms: if something tastes good, this normally tells us that we can eat it, we can ingest it, we can literally assimilate at least part of it into ourselves because "we are what we eat". It seems likely that smell evolved in part for similar reasons, though the range and functions of olfaction far outstrip the detection of what is edible (as we will see more clearly below).

Perceiving Value

If this empirical hypothesis is fairly flatfooted, from the standpoint of epistemology, it still might seem pretty outlandish to think that smells and taste can, at times, reveal *the values* which objects have for us as biological organisms. And further, from the standpoint of moral epistemology, the idea that smell and taste can allow us to detect moral value, such that there is a sense in which humans can be said to *perceive moral value*, sounds even more outré. Notwithstanding tradition, it is one thing to *see* Harman's hoodlums burning the cat, but the present hypothesis is that *smelling* the burning cat is more closely linked, phylogenetically, to our moral evaluations than seeing it is.

One way of approaching these issues is through the colloquial expression of "nutritional value". The word "value" is not coincidental. Anecdotally, many ago, I went to the University of Connecticut's Department of Nutritional Sciences to inquire about the meaning of

"nutritional value" in hopes that it would shed empirical light on "moral value". Unfortunately, when I asked the head of the department how nutritionists understood the term "value" in the phrase "nutritional value", all I got was an incredulous stare.[13] Nutritionists do not know about the metaphysics of *nutritional value* any more than mathematicians know what *numbers* are. Perhaps we should not be surprised by this sort of apathy toward the metaphysical foundations of a discipline from its practitioners. Nevertheless, presumably, nutritionists must mean by "value" something at least analogous to what moral philosophers mean by the term: the smell and flavor of a substance involve an evaluation of it at many levels, but the most basic is as either "food" or "not food", as edible or inedible. Some substances have nutritional value, and some do not, and our noses and mouths evolved to help us figure out which is which. This seems indubitable, given the theory of evolution by natural selection. As noted, fallibility is important to keep in mind, but in spite of it, the perceptual systems of animals are obviously reliable enough detectors of nutritional value for creatures to have survived for eons before nutritionists discovered vitamins and protein.

We can articulate nutritional value with something more familiar to moral philosophy, and this is prudential value: nutritional value is a form of prudential value. The very first sentence of Roger Crisp's entry on "Well-Being" in the *Stanford Encyclopedia of Philosophy* is "Popular use of the term 'well-being' usually relates to health", and he proceeds from there to widen the philosophical meaning of the term.[14] Of course, good health is impossible for biological organisms without good nutrition, where "good nutrition" is the result of eating substances with "nutritional

[13] In *An Enquiry Concerning Human Understanding* (1748), Hume writes:

> It is confessed that the colour, consistence, and other sensible qualities of bread appear not, of them- selves, to have any connexion with the secret powers of nourishment and support. For otherwise we could infer these secret powers from the first appearance of these sensible qualities, without the aid of experience; contrary to the sentiment of all philosophers, and contrary to plain matter of fact. Here, then, is our natural state of ignorance with regard to the powers and influence of all objects. (§IV, Part II, 32)

Obviously, science has come a long way in understanding these "secret powers" of bread.

[14] "Well-Being", *The Stanford Encyclopedia of Philosophy* (Winter 2021 Edition), Edward N. Zalta (ed.), https://plato.stanford.edu/archives/win2021/entries/well-being/.

value" while avoiding the ingestion of poisonous or toxic substances. If so, and if we evolved faculties of taste and smell in order to guide us in our choices of what to ingest and what to reject, then these perceptual mechanisms can be said to be designed to detect nutritional value, or more generally, prudential value.

(Of course, the claim is not that all forms of prudential value can be detected by taste or smell but that some of them can be; that, by itself, is a substantial epistemological conclusion to reach on its own.)

Notice please, how, if our smell and taste fail us, and we eat something toxic or indigestible, our bodies can react to this by reflexive vomiting. Sometimes, our bodies can detect what is bad for them and can expel it. Vomiting tells us that something is wrong and using the word "wrong" here is deliberate. It is no accident that vomit is disgusting and that disgust, fear, anger, resentment are all prima facie cues that something has gone *wrong*.[15] The point is that natural selection has taught (as it were) our bodies to detect, in a deep and important way, what is good for them and bad for them.

So, we have already seen how one form of value, prudential value, can be perceived. Now, one might worry that there is a big stretch from the prudential value of what is good or bad for an individual to moral value, but one should not overlook the fact that merely entertaining that worry implies that one has already found the perception of prudential value plausible. Consider too that both morality and prudence are normative which weakens any disanalogy between them: epistemically they seem on par. So, much to Harman's chagrin and that of all those who are not realists about value, this is the clearest way to overcome the supposed fact/value distinction and justify the claim that there are at least some facts about some values.

Nevertheless, the distinction between moral and prudential value is itself significant, and it is unfortunately complicated as the distinction

[15] I take the concept of *a cue* from the work of Mitch Green. "Some manifestations of an organism's state might cue others to its presence" (p. 297), as higher than usual amounts of CO_2 can cue mosquitos that a food source is nearby. I take it that our own states might be cues to ourselves as well: for example, becoming upset upon hearing one's colleague be criticized might cue one to the fact that one cares more about one's colleague than one knew. See Green, "From Signaling and Expression to Conversation and Fiction", *Grazer Philosophische* Studien vol. 95: 295–315 (2019).

will be understood differently by different normative theories of morality.[16] As a paradigm of consequentialism, Sidgwick famously claimed that there is a "fundamental dualism of practical reason", with morality, on the one side, and prudence, on the other. But despite this dualism within practical reason, we should note the central role that prudential value plays in the calculus of determining which action is morally correct. And in cases in which only one person's happiness is involved and no one else is affected then, for consequentialists, the morally right action and the prudentially right action are identical: morality and prudence only come apart when the happiness of many people is involved. For Kantian deontology, there is no direct way to transcend the distinction between prudence and morality, as moral value is the product of pure practical rationality and prudential value is ultimately hedonic. But notice again that, even for Kant, we have (imperfect) moral duties to promote our own and other people's happiness when no other duty takes precedent. So, even deontologists must acknowledge the evidentiary role that prudential value plays, at least sometimes, in pure practical reason. For virtue-centric eudaimonists, the situation is simpler, as the best way to understand eudaimonism is through the way it collapses the distinction between prudential and moral value (without collapsing into egoism).[17]

Moreover, please consider that the stretch from prudential to moral value is not that big when one considers the social aspects of human nature. On any theory of morality, how we treat others and value their well-being does not swing free of how we value ourselves; egotists and communitarians will treat the relations of self to other differently, but all moral theories will have to say something here. Often what makes an action immoral is the way it harms someone's well-being (understood in terms of prudence), even if it is one's own: offhand and contra claims by John Stuart Mill, it makes little sense to think that consciously harming others by X is immoral but consciously harming oneself by X is merely

[16] Notice that any normative theory which is realist will have to include an explication of the transition from prudential or moral value in the world to actual thinking and theorizing about these values.

[17] For more on this collapse, see my *The Virtues of Happiness* (New York: Oxford University Press) 2014 and "Morality is Necessary for Happiness", *Philosophical Studies* vol. 174, no. 10: 2613–2628 (2017). On why virtue theory is not egoistic, see Julia Annas, "Virtue Ethics and the Charge of Egoism" in *Morality and Self-Interest*, P. Bloomfield (ed.) (New York: Oxford University Press) 2008.

imprudent but not immoral.[18] So prudentially, it is plausible to think that poisonous mushrooms are harmful to human well-being and, ceteris paribus, it is wrong, it is a mistake of moral import, to knowingly eat them oneself or feed them to others. Similarly, we say from the moral point of view that treating members of one group (or even members of one's own group) as inferior or "less than" others is wrong and unjust, just as accepting one's own inferiority is wrong and involves treating oneself unjustly—without equivocating on the meaning of "wrong" or "unjust". Some substances and behaviors are bad for us qua human beings, both morally and prudentially, while others are good (and probably most are neither or neutral).

Now, here would be the place to insert a discussion of pleasure and pain since we can pleasurably benefit or painfully harm others as well as ourselves. Pleasure and pain, as types of mental state, are likely among the oldest phylogenetic feedback mechanisms to motivate animals to do what is good for them and to avoid what is not.[19] Hedonism, or valuing pleasure per se and disvaluing pain per se, is relevant here. For even if hedonism is false as a moral theory (as it almost surely is), pleasure and pain play an important role in moral theory no matter the truth, if only because of the (fallible) instrumental, evolutionary role pleasure and pain play in guiding creatures toward what is good for them and away from what is bad. Indubitably, some of our most pressing moral concerns today are still our most phylogenetically old and carnal needs and desires, for food and drink and shelter and sex. And given that human beings are mostly social creatures, there are also the natural pleasures for us of good fellowship and community. These are the reasons why we should not be surprised to learn that our most basic perceptual modalities evolved to be sensitive to what is valuable and disvaluable for us as human beings. It therefore stands to reason that complex creatures like mammals would have a perceptual sensitivity to evidence gathered about their conspecifics to assess affiliations, aggression, fear, and sexual availability. There is no a

[18] See his *Utilitarianism* (1861), chapter 4.

[19] E. Walters and A. Williams claim that nociception, the perceptual modality involved in pain, is 500 million years old. See their "Evolution of Mechanisms and Behavior Important for Pain", *Philosophical Transactions of the Royal Society B* 374: 20190275, https://doi.org/10.1098/rstb.2019.0275 (2019). For general discussion of the Axiology of pain and pleasure, as they related to issues engaged here, see Alycia LaGuardia-LoBianco and Paul Bloomfield, "The Axiology of Pain and Pleasure", *Journal of Value Inquiry* (forthcoming) https://doi.org/10.1007/s10790-023-09941-w.

priori reason to think that smell could not play a similar role for human beings as it does for other mammals.

Again, the fallibility of these perceptual abilities is crucial to conceptualizing them veridically, as well as the fallibility of pleasure and pain, for detecting value. For example, Paul Rozin tells us that disgust was first linked to fears of toxic contamination, but disgust lowers its standards to guard us against all sorts of non-toxic contagions: in fact, we are clearly capable of being disgusted by what is merely unfamiliar but is not actually dangerous at all (recall the stinky but delicious cheese).[20] False positives and negatives abound. Indeed, the fact that we can, at least sometimes, detect false positives as false positives is evidence for realism about nutritional, prudential, and moral value, insofar as it shows an appearance/reality distinction which is not up to us. Notice how some pleasant experiences are pleasurable at first but grow quickly annoying (e.g., being tickled), while some unpleasant experiences can become pleasant upon repetition (e.g., drinking coffee). So, while keeping fallibility in mind, we can now return to the role of smell in gaining evidentiary moral knowledge of what is good for us and bad for us in the world.

So, again: Why would smell be involved in moral epistemology in a way that vision and sound are not? Part of the explanation is certainly natural selection: smell is phylogenetically extremely old, as we know because a small, fish-like invertebrate, called a lancelet, has olfactory receptors like ours while their evolutionary path split off from ours 700 million years ago (so smell is 200 million years older than pain, cf. note 17 above).[21] Smell is also deeply wired directly into the very oldest parts of our mammalian

[20] P. Rozin & A. Fallon, "Perspective on Disgust", *Psychological Review* vol. 94: 23–41 (1987). https://doi.org/10.1037//0033-295X.94.1.23.

A more important aspect of the way disgust can go berserk is the way in which homosexuality and transsexuality have been seen, at various times and in various cultures, as disgusting despite their inherent harmlessness.

[21] Y. Niimura, "Olfactory receptor multigene family in vertebrates: from the viewpoint of evolutionary genomics", *Current Genomics* vol. 13, no. 2: 103–114 (2012).

brains, including the amygdala, which is crucial for processing emotion, and the hippocampus, which is central to memory.[22]

Interpreting Relevant Empirical Data

Now, so far, with regard to this idea of *moral perception*, all that has been said so far has involved a "just-so story" which developed from an armchair. But in fact, the scientific literature on links between olfaction and our affective capacities yields a posteriori evidence for these speculative conjectures. In fact, in the last 25 years, but really only more recently, the question of "human olfactory communication" has been studied by scientists, and it turns out that humans have abilities to use smell to learn about each other in a variety of ways that are shot through with moral concern. In 1995, the first important paper on the topic was published, and in 2020, the Royal Society of London published what appears to be the first dedicated issue of a journal on the topic.[23] Three results seem both relevant and indicative of the research.

That first article from 1995, by Claude Wedekind et al., is still a stunning result.[24] The parts of the human immune system which fight parasites work most efficiently if would-be mothers mate with men who have a certain complementary combination of alleles differing from their own. When men wear t-shirts to sleep for a few nights and the t-shirts are then smelled by women, women tend to prefer the smell of the men who have the alleles that are complementary to their own which would benefit their progeny. They also report that these smells often remind them of past and present lovers. Crucial for our concerns is that if good parenting involves protecting the progeny's health, then olfaction can help mothers be good parents, and this is always

[22] "Contemporary theories of emotion converge around the key role of the amygdala as the central subcortical emotional brain structure that constantly *evaluates* and integrates a variety of sensory information from the surroundings and assigns them appropriate *values* of emotional dimensions, such as valence, intensity, and approachability" (italics added for emphasis). G. Šimić et al., "Understanding Emotions: Origins and Roles of the Amygdala" *Biomolecules* vol. 11, no. 823. https://doi.org/10.3390/biom11060823 (2021).

[23] See the issue entitled "Olfactory Communication in Humans" of *Philosophical Transactions of the Royal Society B*, S. C. Robers, J. Havliček, B. Schaal (eds.), vol. 375, no. 1800 (2020).

[24] C. Wedekind et al., "MHC-Dependent Mate Preferences in Humans", *Proceedings: Biological Sciences*, vol. 260, no. 1359: 245–249 (1995).

highly important from the moral point of view. And on the other side of this intergenerational coin, the smell of babies activates reward-related areas of the brain, which obviously protects them in their vulnerable state.[25]

The second result comes from an article entitled, "Losing Stinks! The Effect of Competition Outcome on Body Odour Quality".[26] Jitka Fialová et al. studied the role of smell in dominance hierarchies as formed by competition. They collected odor samples from Mixed Martial Arts fighters one hour before and one hour after their matches and raters assessed the samples for "pleasantness, attractiveness, masculinity and intensity". Raters, approximately 75% of whom were women uniformly rated the odor samples from the before the matches as more "pleasant" and "attractive" than those from after the matches. The surprising result is that the samples from losers were rated by women as less pleasant than winners to a degree "bordering the formal level of statistical significance".[27] Of course, the assessment of threat has obvious moral relevance as does the role of hierarchy in the selection of men by women as mates.[28]

And finally, D. Chen and J. Haviland-Jones studied the effects of emotion on a person's odor by collecting samples from subjects who were first induced to feel happy by watching scenes from a comedy movie while, on a separate day, further samples were taken after the same subjects were induced to feel fear by watching scenes from a horror movie.[29] Then different subjects were asked to identify these samples from among other odors. Women were able to choose the "happy" odor of women and men "significantly

[25] J. N. Lundstrom et al., "Maternal status regulates cortical responses to the body odor of newborns", *Frontiers in Psychology* vol. 4: 1–6, https://doi.org/10.3389/fpsyg.2013.00597 (2013).

[26] J. Fialová et al., "Losing stinks! The effect of competition outcome on body odour quality". *Phil. Trans. R. Soc. B* 375: 20190267, https://doi.org/10.1098/rstb.2019.0267 (2020).

[27] Another oft-cited and relevant study on this theme is J. Havilcek, et al., in which women in the fertile phase of their menstrual cycle were shown to prefer men who scored high on a questionnaire-based dominance scale. The preference varies with relationship status, as the effect is "much stronger" in fertile women in stable relationships than in single women. See their, "Women's preference for dominant male odour: effects of menstrual cycle and relationship status", *Biology Letters* vol. 1, no. 3: 256–259, https://doi.org/10.1098/rsbl.2005.0332 (2005).

[28] For a study on the relation of physical attractiveness and smell, see A. Rikowski, Grammer K., "Human body odour, symmetry and attractiveness". *Proceedings of the Royal Society B: Biological Sciences* vol. 266: 869–874 (1999). See also a study indicating that odor is more important in sexual attraction than physical appearance: Mark Sergeant et al., "The self-reported importance of olfaction during human mate choice", *Sexualities, Evolution & Gender* vol. 7, no. 3: 199–213 (2005).

[29] D. Chen, Haviland-Jones J., "Human olfactory communication of emotion". *Perceptual and Motor Skills* vol. 91, no. 3 (Pt 1): 771–781, https://doi.org/10.2466/pms.2000.91.3.771 (2000).

more often than chance". Men were able to identify the "happy" odor of women more often than chance, but they were not able to do so for men.[30] When asked to choose the fearful smells, both women and men were able to do so better than chance when the samples came from men but not from women.[31] Once again, the moral relevance of such emotional discernment is obvious. (And to speak to the objectivity of these perceptions, it is worth noting that not only humans can smell human fear, but dogs can too.)[32]

So, these studies show the impact of smell on central issues in moral decision-making among humans: mate-selection and the detection of threat, fear, and happiness. A 2015 article by James K. Moran et al., entitled "The Scent of Blood: a Driver of Human Behavior?", begins with the sentence, "Human biological scents, including sweat, breath, breast milk and sexual effluvia appear to have a major influence upon human chemical communication, bonding and partner selection."[33] Other research shows humans can discriminate kin from non-kin through olfaction and can detect odors of age, anxiousness, and sadness, as well as being able to use odor to detect traits of people such as sex and individuality, as well as some states such as sickness.[34] There is even one study suggesting that we

[30] See also J. H. B. de Groot, et al., "A sniff of happiness", *Psychological Science* vol. 26: 684–700 (2015).

[31] See also K. Ackerl, Atzmueller M., Grammer K., "The scent of fear", *Neuroendocrinology Letters* vol. 23: 79–84 (2002).

[32] B. D'Aniello, et al., "Interspecies Transmission of Emotional Information via Chemosignals: From Humans to Dogs (*Canis lupus familiaris*)", *Animal* Cognition vol. 21: 67–78, https://doi.org/10.1007/s10071-017-1139-x (2018).

[33] J.K. Moran et al., "The Scent of Blood: A Driver of Human Behavior?", *PLoS One* vol. 10, no. 9, https://doi.org/10.1371/journal.pone.0137777 (2015).

[34] For an overview of some data, see J. H. B. de Groot, Semin, G. R., & Smeets, M. A. M., "On the Communicative Function of Body Odors: A Theoretical Integration and Review", *Perspectives on Psychological Science*, vol. 12, no. 2: 306–324, https://doi.org/10.1177/1745691616676599 (2017). On discriminating kin from non-kin, see R. H. Porter, "Olfaction and human kin recognition", *Genetica*, vol. 104: 259–263 (1998). On smelling age, see S. Mitro, Gordon A. R., Olsson M. J., Lundström J. N., "The smell of age: Perception and discrimination of body odors of different ages", *PLoS ONE*, 7, e38110 (2012); S. Yamazaki, Hoshino K., Kusuhara M., "Odor associated with aging", *Anti-Aging Medicine* vol. 7: 60–65 (2010). On smelling sex differences, R. L. Doty, Cameron E. L., Sex differences and reproductive hormone influences on human odor perception. *Physiol Behav* vol. 97: 213–228, https://doi.org/10.1016/j.physbeh.2009.02.032 (2009). On smelling anxiousness, see J. Albrecht et al., "Smelling chemosensory signals of males in anxious versus nonanxious condition increases state anxiety of female subjects", *Chemical Senses* vol. 36: 19–27 (2011). On smelling sickness, see M. J. Olsson, et al., "The scent of disease human body odor contains an early chemosensory cue of sickness". *Psychological Science* vol. 25: 817–823 (2014).

can smell political affiliation.[35] So, there is reason to conclude that human odors can represent morally significant properties of people who are emanating them and the perception of these smells involves the detection of these moral properties. (Some objections to this conclusion are discussed below.)

How are these representations supposed to work at a more fundamental level? How can smell play this sort of role in human life and moral thought? There are, of course, many theories of representation. Choosing one similar to Lycan's other work seems reasonable and this points us to Ruth Millikan's teleosemantics, if we want to understand how the representation of odors can play a role in moral thought.[36] But before that discussion, the reader might be surprised by the very idea that odors can represent, for if they do, they certainly do not represent as vision does. But, if you are surprised, then this implies you are unfamiliar with one of the mainstays of Lycan's philosophy of smell (2023): namely, his arguments for how smells can be representations, and not just simple ones, but how smells can have layers of representation, even isolated within the olfactory module of perception.

So, while it is one thing for us to be wired to react to certain odors in certain ways (as the research above indicates), olfactory representations take on cognitively more sophisticated functions when they are funneled through our memories and our affective capacities. Recall from the Introduction above, the (admittedly complicated) distinction between the technical sense of "perceive" and the more commonplace use of it in which we can "perceive" higher order properties like that of a checkmate on a chess board. This can be understood in terms of how far into the brain, from the epithelium, the processing occurs: while finding joy in the smell of Grandma's house requires specific memories, finding the smell of rotten food or decomposing corpses disgusting does not.

[35] This result is so surprising that the methodology bears note. A group of people took a political questionnaire that ranked them from conservative to liberal, and their sweat samples were taken on gauze. A second group took the same questionnaire and turned out to be more attracted to those in the first group who had the same political leanings. R. McDermott, D. Tingley, P. K. Hatemi, "Assortative mating on ideology could operate through olfactory cues", *American Journal of Political Science* vol. 58, no. 4: 997–1005 (2014).

[36] See, for example, Millikan, "Biosemantics", *The Journal of Philosophy* vol. 86, no. 6:281—297 (1989).

If there is a marriage to be found between teleosemantics and morality, it will be through the phrase "good for" which has threaded its way through this chapter. If a theory of biological function tells us that traits replicate when they promote the survival and reproduction of the organism with them, teleosemantics is the application of this to the function of representations. All theories of morality will require some interpretation of the relationship between what is "good in itself" (good will, pleasure, virtue) and what these good things are "good for" (executing duty, maximizing happiness, eudaimonia). Obviously, a survey of these possibilities would take us far from olfaction, especially since naturalizing deontology is such a challenge. As noted above, my own view is that both natural selection and morality draw distinctions between actions and behaviors which aid or hinder human flourishing, and though virtue-centric eudaimonism is not consequentialist, there is no obvious reason to think a consequentialist would balk at this suggestion.[37] Of course, these waters are currently murky, but they contain great potential. One recent and elucidating paper which bears directly on these topics is by Drew Johnson.[38] Here, Johnson applies Millikan's teleosemantics to moral discourse in a helpful way.

So, Lycan (2014, 2023) teaches us that smells represent both the miasma of particles he refers to as "odors" and in certain circumstances odors represent the object which emanate them. Cases of mistake or error aside, when there are roses in the room which have an odor we smell, that smell represents the roses. If this is so, then Millikan teaches us that under normal conditions, the function of the smell is to represent objects emanating odors. The smell may be inherently pleasant, unpleasant, or neutral, but regardless of this, the olfactory representation of it takes a direct route through the amygdala and hippocampus, whereupon the representation of the smell can take on more functions. One thing that seems

[37] My most recent views on these topics are expressed in "Function, Fitness, Flourishing", in *The Oxford Handbook of Moral Realism*, P. Bloomfield and D. Copp (eds.), New York: Oxford University Press (2023), and in "Naturalistic Moral Realism and Evolutionary Biology", *Philosophies* Special Volume on Moral Realism and Moral Epistemology, Philip Stratton-Lake (ed.), vol. 7, no. 2: 1–11 (2022).

[38] Johnson, "Proper Function and Ethical Judgment: Towards a Biosemantic Theory of Ethical Thought and Discourse", *Erkenntnis*, https://doi.org/10.1007/s10670-021-00481-y (2021).

clear from this picture and the research glossed above: smells are designed by Mother Nature to motivate organisms. And, of course, this leads us back into a discussion of Millikan's pushme-pullyou representations and how these may be related to moral motivation.[39]

Some Objections

But pursuing the details of this discussion would presumably not be as helpful as a discussion of objections to the conclusions we have reached. The first involves the testability of this supposedly empirical thesis: At the very least, is the thesis empirically falsifiable? Can there be empirical evidence for the perception of value? The answer here is in the affirmative. There are at least two ways this might be done. The first would be to recreate a scene that originally comes with a "value-laden odor" with the only difference being that the odor is not present, to see if the experience for observers is changed.[40] So, for instance, imagine scientists recreating the scene of Harman's hoodlums in all its observable details, except for the removal of smell: imagine the "cat" being burned is not really a cat but a robot-cat which, when set afire, gives off no smell, or a very different smell (like the smell of oranges?). Would this make a difference to observers of the scene? Or imagine that scientists could give one of two people a drug that neutralized the odor of fear which people normally emanate upon becoming frightened and then test to see if others react to this person socially in the same way that they act toward the other person who is equally afraid and also smells afraid: If normally scared people elicit sympathy from others, would someone not receive the same sympathy if they did not smell like fear? If observers would react differently to these artificially engineered situations than they would otherwise, if they have different evaluative experiences and engage in morally differentiated behavior given what they witness, when the relevant smell is missing,

[39] Millikan, "Pushmi-pullyu Representations", *Philosophical Perspectives* vol. 9: 185–200 (1995). For a discussion of how this is related to moral motivation, see Johnson (2021).

[40] Thanks to Ram Neta for this suggestion. This turns out to be in the spirit of Nicholas Sturgeon's response to Harman; see his "Harman on Moral Explanations of Natural Facts". *Southern Journal of Philosophy* vol. 24 (S1): 69–78 (1986).

then this would be evidence that the odor plays the role hypothesized by the foregoing argument.

A converse set of experiments might also be able to demonstrate the truth of the claims. Take the odor of human fear and isolate the molecule involved or do this with other smells which normally elicit visceral reactions. Then imagine scientists manufacturing exactly these molecules in a laboratory. If subjects who smell these odors have the same visceral, value-laden experiences as they do when they encounter them naturally—whether it would be fear or disgust or sexual arousal—this would be evidence that subjects are "wired" to react as they do to these smells. For example, imagine scientists could isolate and duplicate the odor of human breast milk, and then let babies smell it to see how they react. Or, conversely, imagine manufacturing the molecule emanated by babies to see if it activates the reward-related areas in the brains in those who smell it (cf. Lundstrom et al., 2013, note 23 above).

Of course, the effect of smell on behavior need not be consciously accessible, and there is even some evidence to think that subliminal smells can, in certain circumstances, play a stronger role in affecting behavior than consciously accessible smells. Subjects in a study by Wen Li et al. were asked to rate the likeability of neutral faces in the presence of odors of varying intensity.[41] The results indicated that when stronger smells were present, they had less impact on the subjects' ratings, while subtler smells had more impact. But importantly, beyond this, the subjects' heart rates tracked the valence of the odor independently of their conscious awareness of it.

So, the idea that there are smells which change our value-laden experiences is empirically testable, and in fact there is already some evidence to suggest that they can have this effect. This may not satisfy skeptics, however. One might suggest that while observers' experiences and morally relevant behaviors might be affected by the presence or absence of odors, this does not yield the evidence that these odors are identical to value-laden properties of the objects which emanate them. One might say that, even if we assume the truth of moral realism, *being afraid* or *being aroused*,

[41] Wen Li, et al., "Subliminal Smells Can Guide Social Preferences", *Psychological Science* vol. 18, no. 12: 1044–1049 (2007).

are not themselves value-laden properties, either prudentially or morally; a skeptic might say that we project value onto these properties, such that even if they do figure in the value-laden experiences of people, this does not imply that they are, themselves, value-laden.

But imagine the differing ways odors might work in a social situation. Imagine an introverted person with social anxiety, someone who does not like "the spotlight" and who emanates the smell of fear when forced to be at the center of attention: this person prefers to remain a "wallflower" and just observe others. If some gregarious person tries to press the introvert to join the group, the introvert's demurral seems functionally, equivalently to the odor this person emanates. In other words, if the gregarious person simply ignores the demurral and continues to press the introvert, this can start to border on cruelty or bullying, if pushed far enough. But the difference between the gregarious person ignoring a verbal demurral and ignoring the smell of fear seems irrelevant to the moral status of their behavior: however different in degree the verbal demurral is from the smell of fear, both seem to play the same moral role in the situation. (Of course, this is only true ceteris paribus: the gregarious person might have horrible sense of smell, etc.; the example only works if we assume that smelling functions properly, etc.)

One might still insist that none of the foregoing supports the idea that we can ever smell the moral properties of *goodness* and *badness* or *rightness* and *wrongness* per se. This is likely so. These "thin" moral properties, even if somehow naturalized through a supervenience or grounding relation, seem unlikely candidates for perceptual detection of any kind. So, for instance, consequentialists will claim that *moral goodness* and *badness* are properties of states of affairs, and clearly states of affairs, in themselves, do not emanate an odor, reflect light, create vibrations in the air, etc. For deontologists, well, it is not easy to both naturalize deontology and remain a realist, but if it is possible, *moral goodness* per se would still only be found in the naturalized good will, and once again, this seems like an unlikely object of perceptual experience of any kind. Virtue-centric eudaimonists have an easier time here, as *moral goodness* for them is nothing other or above being virtuous, however, still, *virtue* per se is again not to be perceived (in the strict sense) as one can never perceive whether someone is acting on the right reasons. (Note that a courageous act can

be indistinguishable from an act which is both reckless and lucky. This is consistent with vice being perceptible: the smell of fear on cowards who run from danger may be perceptible.)

The obvious counter to these objections about thin moral properties is to claim that there are also thick moral properties, which have thin moral properties as "constituents" or "aspects".[42] For example, one might think that *impermissibility* is itself a thin moral property, but still think that the introvert who consciously, reflectively demurs from social participation is sufficient for conveying the impermissibility of forcing them to participate. If so, then at least some thin moral properties might be perceivable. And it is reasonable to think that properties like *being afraid* or *aroused* or *disgusted* can be seen as thick moral properties, at least insofar as evolution has outfitted them to play a role in behavior which is meant, first off, as aids to survival and reproduction, but which gain a moral aspect whenever humans began to see the ways in which prudence and morality are entwined. (Recall we are assuming naturalistic moral realism.) For example, utilitarians typically will say that pleasure (as a natural phenomenon) is intrinsically good: *goodness* is necessarily an aspect of pleasure; so, for them pleasure is necessarily, "thickly" good. Deontologists, like Kant, need to appeal to anthropology and human virtue to understand how to apply the categorical imperative to actual cases and to see how the good will manifests itself in human action; thus, the virtues are also "thickly" good as they necessarily will have the good will behind them as an aspect. Eudaimonists will appeal to the thick virtues for different reasons.

Realism and naturalism about moral properties are compatible with the (fallible) perception of them if there are times when what is morally *right* or *wrong* or *good* or *bad* are metaphysically determined by, or are aspects of, the psycho-physiological states of the relevant agents. And when these states result in the emanation of an odor, then that odor is, again according to Lycan (2023), literally a representation of that state, as a facial blush is also a representation. All this supports the conclusion that sometimes we can literally catch a whiff of morality. And at other less happy times, to use a phrase of Lycan's communicated to me personally,

[42] For more on the metaphysics here, the account I favor is Don Baxter's see his "Instantiation as Partial Identity" *Australasian Journal of Philosophy* vol. 79, no. 4: 449–464 (2001).

we can perceive "the fetid stink of wrongness". And at other less happy times, to use a phrase of Lycan's he communicated to me personally, we can perceive "the fetid stink of wrongness".

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