[3]

METAPHORISM

Speculating about the Unknowable Inner Lives of Units

Meanwhile in mind, consider for a moment some of the things that are happening somewhere, right now:

> Smoke vacuums through the valve, grommet, and hose of a hookah and enters a pursed mouth.
>
> The dog teeth of a collar engage a gear against the layshaft coupling of a transmission assembly.
>
> The soluble cartilage of a chicken neck decocts from the bone into the stock of a consommé.

These and other interactions between objects constitute different moves in the material world. From our human perspective, they correspond with actions we know well: smoking, shifting, or cooking. Traditionally, a human's first-person experience of such interactions would offer clear subjects for phenomenological inquiry; not only perception and thought but also memory and emotion: the taste of the honey-sweet ma'sal heated under the charcoal in the hookah's bowl, or the sensation of foot on clutch as the collar of the synchro obtains a friction catch on the gear, or the smooth, thin appearance of broth as it separates from fat and bone in the soup pot. But for the hookah, the gear, or the chicken, what's going on? Or likewise for Shore's cantaloupe or ice milk or water glass? And how might we understand those relations?

A tempting answer might be *science*. We could evaluate the surface tension of the melon rind, determine the indentation hard-

ness of porcelain, measure the condensation point of vapor against ice-water glass, or describe the rotational force of gear in relation to transmission lever. But unlike the jobs of horticulturists, physicists, or forest rangers, alien phenomenology is not a practice of scientific naturalism, seeking to define the physical or causal relations between objects. To do so would take things for constituents. As Bruno Latour puts it, science "is forced to explain one marvel with another, and that one with a third. It goes on until it looks just like a fairy tale."[1]

In his famous 1974 essay, the philosopher of mind Thomas Nagel attempts to answer the question "What is it like to be a bat?"[2] In Nagel's account, consciousness has a subjective character that cannot be reduced to its physical components. Physical reductionist positions hope to erase the subjectivity of experience by explaining it away via underlying physical evidences. For example, a reductionist explanation of the sweet taste of a Hostess Twinkie might involve a chemosensory account of how the compounds that make up the treat bind with a biomolecular substrate on the taste buds, which a human eater interprets via a set of neurological receptors.[3] Nagel points out a problem with reductionist explanations like this one: even if the experience of the Twinkie can be understood as a neurochemical unit operation, such an explanation does not describe the *experience* of sweetness.

When separated from the various forms that might produce it, Nagel calls this encounter "the subjective character of experience."[4] That character, he suggests, entails "what it is like to *be* that organism." For Nagel, the very idea of experience requires this "being-likeness," a feature that eludes observation even if its edges can be traced by examining physical properties. Because of this elusiveness (which OOO calls *withdrawal*), physical reductionism can never explain the experience of a being.

The bat serves as an effective example, because we know that bats experience the world thoroughly unlike humans (despite being mammals) or birds (despite being flying creatures). Bats use echolocation to form an understanding of spaces around them, their own modulated cries acting as a kind of sonar. Even though we sometimes call them "blind," bats have a very lucid and detailed sense of space—it's just a sense that's totally alien from a human perspective.

As Nagel puts it, "Bat sonar, though clearly a form of perception, is not similar in its operation to any sense that we possess, and there is no reason to suppose that it is subjectively like anything we can experience or imagine."[5] The best we can do is to try to conjure what it might be like to be a bat, and in that task we will always fail, given that imagining what it's like to be a bat is not the same as *being* a bat.

Even though Nagel's article is really about the mind–body problem, it offers a great deal of instruction in alien phenomenology. On the one hand, phenomena are objective, often easily measured, recorded, or otherwise identified by some external observer. On the other hand, such an observer cannot have the experience that corresponds with those phenomena, no matter how much evidence he or she might collect from its event horizon.[6] As tiny ontology demands, the character of the experience of something is not identical to the *characterization* of that experience by something else. Or as Nagel puts it, "I want to know what it is like for a *bat* to be a bat. Yet if I try to imagine this, I am restricted to the resources of my own mind, and those resources are inadequate to the task."[7] Counterintuitive though it may seem, the characterization of an experience through supposedly objective evidence and external mechanisms leads us *farther from*, not closer to, an understanding of the experience of an entity.

The result is simple but profound: even if evidence from outside a thing (be it bat, hookah, or cantaloupe) offers clues to how it perceives, the experience of that perception remains withdrawn. This state of affairs poses a problem for modern science. Scientific discoveries have a magical flavor, offering lurid descriptions of how things "really" work.[8] And those magical discoveries may even describe some of the effects of object interactions. But to understand how something operates on its surroundings, or they on it, is not the same as understanding how that other thing *understands* those operations. The unit operation that comprises the bat's sonar perception exists separately from the bat's grasping of that apparatus, and of the human's grasping of that apparatus, and of the cave wall's grasping of that apparatus, and so forth. To comprehend the effects of the high-frequency vibrations voiced and heard by bats simply has nothing to do with understanding what it's like to be a bat.

THE CLARITY OF DISTORTION

Nagel's goal is an "objective phenomenology," one "not dependent on empathy or the imagination."[9]

> Though presumably it would not capture everything, [objective phenomenology's] goal would be to describe, at least in part, the subjective character of experiences in a form comprehensible to beings incapable of having those experiences.
>
> We would have to develop such a phenomenology to describe the sonar experiences of bats; but it would also be possible to begin with humans. One might try, for example, to develop concepts that could be used to explain to a person blind from birth what it was like to see. . . . The loose intermodal analogies—for example, "Red is like the sound of a trumpet"—which crop up in discussion of this subject are of little use. That should be clear to anyone who has both heard a trumpet and seen red. But structural features of perception might be more accessible to objective description, even though something would be left out.[10]

Here Nagel and I disagree. The perceptions of the sighted and the blind man differ *precisely because* the former has heard a trumpet and seen red, and the latter has only heard a trumpet. The trumpet-to-redness analogy sounds unviable because it's *bad*, not because it's philosophically troublesome. Unlike objective phenomenology, alien phenomenology accepts that the subjective character of experiences cannot be fully recuperated objectively, even if it remains wholly real. In a literal sense, *the only way to perform alien phenomenology is by analogy*: the bat, for example, operates like a submarine. The redness hues like fire.

The subjectivity of these accounts might raise concern: to talk about a bat in terms of a seafaring vessel, a color in terms of a tactile sensation—moves like these feel dangerously selfish. The risk of falling into anthropocentrism is strong. Indeed, I'll take things farther: anthropocentrism is unavoidable, at least for us humans. The same is true of any unit (for the bats, chiropteracentrism is the problem). The

subjective nature of experience makes the unit operation of one of its perceptions amount always to a caricature in which the one is drawn in the distorted impression of the other. This is true not only of the encounter itself but also of any account of the encounter, which only further distances the one from the other by virtue of the introduction of additional layers of mediation.

There is a considerable difference between accepting the truth of human accounts of object perceptions and recognizing that, as humans, we are destined to offer anthropomorphic metaphors for the unit operations of object perception, particularly when our intention frequently involves communicating those accounts to other humans. As Jane Bennett notes, anthropomorphizing helps us underscore the differences between ourselves and the objects around us—it helps remind us that object encounters are caricatures:

> Maybe it's worth running the risks associated with anthropomorphizing (superstition, the divinization of nature, romanticism) because it, oddly enough, works against anthropocentrism: a chord is struck between person and thing, and I am no longer above or outside a nonhuman "environment."[11]

This is not just true for bats, which Nagel rightly calls "fundamentally alien."[12] Bats are both ordinary and weird, but so is everything else: toilet seats, absinthe louches, seagulls, trampolines. By revealing objects in relation apart from us, we rediscover and refine the method of M. R. James's haunted Professor Parkins: to release objects like ghosts from the prison of human experience. Ontography might offer a low groan to startle us from the sleep of correlationism, but it doesn't take things far enough. Once we become "mesmerized by the objects in the world," how might we proceed to understand something about interobject perception?[13]

Graham Harman borrows a page from Alphonso Lingis, who takes Maurice Merleau-Ponty's idea that "things see us" even farther. Harman contends that things enter into negotiations with other things as much as we do with them. But there's a problem: if objects recede from one another, forever enclosed in the vacuum of their individual existences, how do they ever interact? Smoke and

mouth, collar and gear, cartilage and water, bat and branch, roaster and green chile, button and input bus: all seem to do things to one another. Moreover, all of these factors come together as one thing, rather than remaining forever segregated as so many dissipations, couplings, pings, bits, and charges.

In Harman's view, there is something that does not recede in objects, qualities that "sever" and allow us to "bathe in them at every moment."[14] Objects float in a sensual ether. When they interact through vicarious causation, they do so only by the means they know internally but in relation to the qualities in which they "bathe." In a move he is completely serious about, Harman equates such interaction with metaphor.[15] It's a move that solves Nagel's puzzle: we never understand the alien experience, we only ever reach for it metaphorically.

Objects try to make sense of each other through the qualities and logics they possess. When one object caricatures another, the first grasps the second in abstract, enough for the one to make some sense of the other given its own internal properties. A caricature is a rendering that captures some aspects of something else at the cost of other aspects.[16] The mechanism that facilitates this sort of alien phenomenology is not Nagel's objective instrument—one that clarifies foreign perception by removing distortion—but instead a mechanism that *welcomes* such distortion.

In 1983, for the first time since the banishment of all styles save socialist realism, new approaches to literature were presented in the USSR. The reading of "Theses on Metarealism and Conceptualism" took place at the Moscow Central House for Arts Workers, presenting several new methods that had been agitating under the surface of the Soviet literary community since the mid-1970s.[17] Among them was an extension of the approaches of Andrei Voznesensky. In contrast to such socialist realist poets as Alexander Tvardovsky, Voznesensky represented a style called *metaphorism* characterized by the exuberant metaphor ("they sell the blood of God here on tap," he wrote in homage to Michelangelo).[18] The new theses extended metaphorism from the playfulness of metaphor into "metarealism," which Mikhail Epstein describes as an "earnest attempt to capture . . . the realism of metaphor."[19] Such work strives to apprehend reality *in metaphorphosis*, rather than merely use metaphor representationally. Some lines

from Ivan Zhdanov's "Region of Unexchangeable Possession" offer an example:

> Either the letters cannot be understood, or
> their grand scale is unbearable to the eye—
> what remains is the red wind in the field,
> with the name of rose on its lips.[20]

If we take seriously Harman's suggestion that relation takes place not just *like* metaphor but *as* metaphor, then an opportunity suggests itself: what if we deployed *metaphor itself* as a way to grasp alien objects' perceptions of one another. The result would bear some similarity to the Russian postmodernist adoption of metaphorism and metarealism, although I suggest those precedents as inspirations rather than models. Metaphorism offers a method for alien phenomenology that grasps at the ways objects bask metaphorically in each others' "notes" (Harman's name, following Xavier Zubíri, for the attributes of a real object) by *means of metaphor itself*, rather than by describing the effects of such interactions on the objects.[21] It offers a critical process for characterizing object perceptions.

Epstein suggests that Zhdanov's poetry "consistently disembodies the substance of objects," manifesting "pure prototypes of things."[22] Likewise, to begin a process of phenomenal metaphorism, we often must break with some of our own modes of knowing. This is a mind-bender: the Husserlian epoché brackets *human* empirical intuition, but in metaphorism we recognize that our relationship to objects is not first person; we are always once removed. It is not the *objects*' perceptions that we characterize metaphoristically but the *perception itself*, which recedes just as any other object does. In doing so, we release the relation from a reduction between other objects, flattening it down onto the same ontological plane as human, gearshift, perception, or red-rosed wind. As Edmund Husserl says, "A painting is only a likeness for a likeness-constituting consciousness."[23]

HOW THE SENSOR SEES

Let's consider photography once more as an example. From early forms of writing like parchment and clay, and from fine arts like painting, we inherit misconceptions about the inscription of sur-

faces. The page or the canvas extends in space, allowing the scribe or painter to attack any point of the surface directly and immediately, in the way that we seem to perceive such surfaces.

Despite great differences in the tools it deploys for inscription, photography maintains the illusion of painting's surface, but it shares little with that form at a material level. A film emulsion contains silver-halide crystal grains. When struck with light, the crystal molecules release an extra electron from the bromide ion, which the positively charged silver ion attracts. The silver ion is in turn transformed into metallic silver, creating a small covering of silver on the film. When a photographic emulsion is exposed, the photons focused by an optical device hit its surface all at once, and silver regions are created all over the emulsion at different intensities, producing a faint image. A digital charge-coupled device (CCD) works in much the same way as a film emulsion, although in the place of silver crystals a CCD is covered with many light-sensitive cells that record the individual pixels of an image.

Normally, we don't concern ourselves with the process of photographic exposure, except as might be necessary to fashion a picture or to assess how one was created. The way a film emulsion or a CCD perceives an object is not merely an accident of the photographer's agency. It is a material process that deserves attention for its own sake before questions of agency, reference, meaning, or criticism enter into the picture. Like Nagel's bat, the experience of the camera cannot be reduced to the operation of its constituent parts. To understand a particular apparatus's experience, we can construct a metaphorism for it, based on evidence yielded from an analysis of its notes. Let's explore one such example.

One benefit of Henri Cartier-Bresson's rangefinder over Brassaï's view camera is portability. Oskar Barnack's 1913 design for the 35 mm camera allowed it to adopt the small size of cinema's film rather than the large format plates of still photography, like the ones Adams and Shore used. Barnack persuaded Ernst Leitz to make a commercial prototype of the camera, which was introduced in 1925 as the Leica 1. The camera became the standard device for photography until the single-lens reflex gained popularity in the 1960s and 1970s, inheriting the handheld photographic design that remains with us today.

Yet "small" is relative. There are lots of compact digital cameras on the market, but most of them produce images of less-than-desirable quality or make advanced photographic control difficult (or both). Manufacturers have kept larger sensors in larger cameras, partly for reasons of feasibility and partly to concentrate higher-end features in their SLR models. Because of their small sensor size, these cameras often have trouble recording fine detail, especially in low light. As a result, they frequently produce noisy images with color speckling instead of smooth tones.

In recent years, manufacturers have attempted to combat this challenge by building larger sensors into smaller camera bodies. Sigma offers such a device, a compact camera that uses a larger sensor, one roughly the same size as those used in many digital SLRs (DSLRs). As of mid-2011, Sigma has released three versions of this design, the DP1, DP2, and DP2s, billing each as "a full spec compact camera with all the power of a DSLR."

As it turns out, the sensor in the DP cameras is not just larger than the average compact camera; it is also of a different type than the kind normally found in digital cameras of any size. Most digital cameras use an imaging technology known as a Bayer sensor. Bayer sensors have a grid of photocells that see only shades of gray. An array sits in front of the sensors with a grid of red, green, and blue filters, one for each photocell. To turn input into a normal color photograph, the device runs an algorithm that interpolates a pixel's color based on the signal in a corresponding cell and in its neighboring cells.

When using the DP series, photographers notice high detail and lack of color or luminance noise at higher light sensitivity (ISO) ratings, unlike with a Bayer sensor. Yet the colors in images seem to change as ISO increases (see Plate 5 for an example). After ruling out incorrect white balance and exposure settings, the result reveals itself to be a function of light sensitivity, not of exposure. In particular, images captured at higher film speed equivalents appear less saturated in the green hues than the same image captured at lower sensitivities.[24]

Based on this evidence, the human photographer might conclude that the device is flawed or perhaps simply a victim of an unfortunate engineering trade-off. But such a conclusion would mischarac-

terize the way the Sigma DP *itself* perceives the world, the subject of interest for the alien phenomenologist. Rather than ask how the equipment fails to see as its operator does, let's instead ask what characterizes its experience. To do so, we can first trace the edges of the device's qualities, nipping at the event horizon that conceals its notes from public view.

In a Bayer sensor, each photocell is sensitive to only one wavelength of light—red, green, or blue. The camera's software interpolates color based on the luminance values of a photocell and its neighbors. Sigma's camera uses a different sensor design, called the Foveon. The Foveon sensor measures all wavelengths of light at each photocell. A photosensitive material is embedded onto the silicon of the chip itself, making it possible for the sensor to record all wavelengths at once. Thus no interpolation is required. In theory, then, Foveon sensors offer both better color rendition and sharper images than Bayer sensors. (A comparison of the two sensors' different methods of operation appears in Plate 6.)

The color shifts noticeable in the resulting images arise as a consequence of the way the Foveon experiences light sensitivity. In a Bayer sensor, the increased sensitivity of an ISO increase is implemented by amplifying the sensor's signal before processing. Amplification increases both signal and noise, making both the measured luminance of each pixel and its interpolated color subject to increased error. This is why images created on Bayer sensor digital cameras exhibit increased noise at higher ISO ratings. In a Foveon sensor, the silicon *itself* is photosensitive to different wavelengths of light at different layers of the sensor. When the sensor signal is amplified for greater light sensitivity, it still uses the same method for detecting luminance. Color, however, is measured only when the light passes through the silicon to stimulate the photosensitive array below.

We might say that color shift is the Foveon's high ISO equivalent of Bayer's image noise. But the resulting sensation is unfamiliar: color shift as a consequence of higher light sensitivity feels alien to the human photographer. Why? Because the Bayer sensor's method of amplifying light sensitivity is *analogous* to that of the film emulsion, while the Foveon sensor's method of amplifying light sensitivity is not. Higher-speed films are more light sensitive because the grains

of silver halide on the emulsion are larger than in slower-speed film. When photons strike the crystals, they cause a chemical reaction that creates a small covering of silver on the film. The size and distribution of these coverings vary in proportion to the size of the grain.

There is thus an analogous relationship between film grain and image noise, especially luminance noise. The stippling of Bayer image noise is aesthetically and materially coupled to the stippling of film grain, and both are produced when higher light sensitivity is introduced into the photographic process. There are no simple, photographically analogous relationships between light sensitivity and selective color shifts of the kind the Foveon exhibits.

These observations help the human photographer or optical engineer understand and respond to the camera's operation. They offer evidence for how it behaves, but they do not yet metaphorize that behavior as an alien account of the camera's own perception. Charles Maurer, a perceptual psychologist at McMaster University, offers a helpful optical parallel to explain what happens in the Foveon sensor, one that offers a concrete example of metaphorism in practice.

The human eye uses different photoreceptor cells for different light levels. In low light, the eye uses rod cells, which are sensitive to green-blue wavelengths but less sensitive to red wavelengths. In well-lit conditions, the eye uses cone cells, three types of which provide high sensitivity to red, green, and blue light. Maurer describes the Foveon's perception as analogous to *mesopic vision*, the effect that human eyes experience in dim light when our eyes are confused about which types of cells to use, resulting in a rapid switching between cones and rods. Mesopic vision is the phenomenon that makes it difficult to drive at dusk. Here's Maurer:

> In sunlight we see in colour; in moonlight we see in monochrome; in transitional "mesopic" levels of dim light we see partially in monochrome and partially in colour. When painters want to represent dim light, they portray it mesopically. . . . Film does not portray dim light in this way, nor do most digital sensors, but the Foveon sensor does. Film and digital sensors generate low levels of granular noise. When a normal amount of light strikes the film or sensor, the noise is

> usually hidden within the image, but when little light strikes it, the noise becomes more evident. . . . However the Foveon image sensor works differently so its granularity looks different. The Foveon shows fewer specks but replaces them with intrusions of incorrect colour. At first this reduces saturation then, at the lowest levels of sensitivity, it causes random streaks and blotches.[25]

The celebrated street photographer Garry Winogrand called a photograph "the illusion of a literal description of what the camera saw,"[26] but just as different mammals see things differently, so too do different cameras. The combination of sensor, optics, and other factors makes a particular camera "see" in a particular way. Maurer's metaphor reminds us that the camera doesn't see like a human eye. Just as the bat's experience of perception differs from our understanding of the bat's experience of perception, so the camera's experience of seeing differs from our understanding of its experience. But unlike the bat, the Foveon-equipped Sigma DP provides us with exhaust from which we can derive a phenomenal metaphor to chronicle that experience.

As with any good metaphor, it feels alien: the photographer must wrap his brain around the idea that the dimness of the Sigma DP is relative to the sensor, not the human eye. Irrespective of the underlying electro-optical mechanisms that make it behave, the sensor's perception as a whole is metaphorized as mesopicism. As light sensitivity is adjusted up on the sensor, it is as if the sensor had been shrouded in increasing levels of dusk. Such is what it's *like* to be a Foveon digital image sensor, even if this isn't what it *is* to be one.

METAPHOR AND OBLIGATION

Once object relations become metaphorized, we must take care to avoid taking the constructed metaphor for the reality of the unit operation it traces. A metaphor is just a trope, not a copy. Consider how quickly a metaphorism can be taken for what it caricatures, particularly when matters of human controversy are at work.

Large, white letters on black, a bumper sticker reads, "Soy Is Murder." It's a riff off the "Meat Is Murder" adage popular among some

animal rights proponents, a slogan itself borrowed from the pro-vegetarian title track of the second album by the Smiths. It's tempting to read the bumper sticker as a send-up, a caustic imputation of moral vegetarianism through backhanded reductio ad absurdum. But further reflection might dampen an initial scoff. Is wrestling a tuber from the ground or ripping a pea from its pod a sort of violence?

The criticism of selective effrontery has long plagued veganism, whose proponents have developed several responses to the accusation. One downplays the suffering of plants by arguing that they have no central nervous system and thus cannot experience pain like animals can. Another points out that some plants must be eaten to spread their seed and reproduce—fruits, for example. There's even a name for the practice of eating only fallen seeds, frutarianism. Such a diet is sometimes correlated with *ahimsa*, a tenet to "do no harm" central to Buddhism, Hinduism, and particularly Jainism.

To the first response, opponents respond that such an argument assumes that feeling-by-nervous-system is the only kind of sensation. Others clearly exist, even if they remain unfamiliar. Plants sense the world, too, whether to seek out light or water, or to react chemically to external threats. To the second response, they make enjoinders to logic: even the strictest Jainist *ahimsa* risks its own violation, since to eat the seed is also to disrupt its final cause, the new tree. Does the wanton destruction of a new plant qualify as harm?

No matter how we may feel about eating or abstaining from meat, appeals to feeling and suffering exemplify the correlationist conceit: the assumption that the rights any thing should have are the same ones we believe we should have; that living things more like us are more important than those less like us; and that life itself is an existence of greater worth than inanimacy. These are understandable biases for us humans. We are mortal and fragile in specific ways, and we worry about them.

Things become more difficult when we move beyond the animate and into the great outdoors. Metaphorism issues a strange challenge to problems of ethics. When we theorize ethical codes, they are always ethics *for us*. Whether deontological or consequentialist, moral standards sit on the inside of the unit *human being*; they're part of our inner formula, situated in our molten cores. Even in the

most liberal interpretations of external responsibility, such as Emmanuel Levinas's notion of the wholly unknowable other that cannot be converted into selfhood, the object of ethics relates back to the self that maintains such responsibility. While such a principle might modulate our attitudes and intentions toward objects—be they migrant workers, cocker spaniels, or plastic sporks—it can never help explain the ethics of such objects themselves.

Metaphorism is necessarily anthropomorphic, and thus it challenges the metaphysician both to embrace and to yield the limits of humanity. When perception is at issue ("How does the digital sensor perceive the puppy?"), this is a relatively uncontroversial affair. But when it comes to action, particularly action in which the human actor is implicated, the ethics of objects quickly becomes unthinkable. Thanks to feminist studies, postcolonial studies, animal studies, environmental studies, and other accounts of human relationships with nonhuman entities, we tend to doubt that some things ought to thrive at others' expense. Today, most would accept that British men are no more intrinsically worthy of preservation and prosperity than women, Congalese, horses, and redwoods. But few would accept that fried chicken buckets, Pontiac Firebirds, and plastic picnicware deserve similar consideration (unless their existence or use might disturb people, animals, or nature). When we form these theories, we mount accounts of why and how humans ought to behave in and toward the universe, but not about how other objects ought to behave in relation to it.

It's possible to generalize, of course. For example, one could argue that no matter what sort of thing a unit is, it ought to have the right to be preserved and not destroyed. This is an impractical sentiment, however, because beings often need to eat or molt or burn or dissolve. When I turn the ignition of my car, the engine intake valve draws a mixture of air and gasoline into the cylinder. The piston rises, compressing the mix. Once it reaches the top of its stroke, the spark plug ignites the fuel, detonating the flammable aliphatic compounds within it. The explosion drives down the piston, which in turn rotates the driveshaft. The cylinder's exhaust port opens, and the fume of exploded fuel exits toward the tailpipe. Are these gestures repugnant or reprehensible? Or are they merely thermodynamic, devoid of greater consequence?

Answers that appeal to Aristotelian final causation forget that a purpose usually implies a purpose ascribed to it *by humans*, whether directly (as in the case of the petroleum deposit that becomes a fuel) or indirectly (as in the case of the natural forest whose destruction increases biosequestration). When we talk about the ethics of internal combustion engines, we usually discuss only the first and last steps, the social and cultural practices that encourage driving in the first place, or the plume of combustion gases that exit the vehicle and enter the environment. In the first case, matters of ritual, exercise, or safety might be mustered: driving is a kind of sloth that loosens the physical and the social body alike. In the second, matters of environment take the stage: exhaust contains carbon monoxide, hydrocarbons, and particulate matter that can be harmful to living creatures.

But we don't worry much about the ethics of the spark plug, the piston, the fuel injector, or the gasoline. Does the engine have a moral imperative to explode distilled hydrocarbons? Does it do violence on them? Does it instead express ardor, the loving heat of friendship or passion? Such questions must be asked quite separately from any ethical inquiry into the processes sourcing and extracting crude oil to produce fuels and other products. They are questions not about the human imperatives for or against conservation, consumption, militarism, and related matters but about the moral relation between nonhuman, nonliving objects. "Preservation" turns out to be an object-relative concept. If a unit is a system, then objects appear, generate, collapse, and hide both within and without it with great regularity. The wind blows and then wanes, the sea ebbs and flows, the compressed fuel fills and explodes, the mineral deposit sinks and bubbles.

Take another, weirder case: theories, concepts, and memes. Is there an ethics of ideas? Not an ethics for their application, as by human hands advancing a political cause, but an ethics for the interactions of ideas as such? When I utter a phrase, does it owe more than its utterance? When it enters into relations with other utterances—whether as inscription on surface, as charge on magnetic storage devices, as disruption in the fluid dynamics of a cold morning—what responsibility do I have to it through my having uttered it? Likewise, what rights do they have relative to one another? When I encounter

a catchy chorus on the radio or a clever edition of a web comic, does its desire to propagate create duty?

The microblogging service Twitter allows me to publish 140-character comments on the Internet. My "followers" receive notice of these quips, which might include links, complaints, aphorisms, or self-promotion. Like everything these days, it's a challenge to keep up with the pace of Twitter. Filled with mild malaise at this nuisance, I might lament, as I once did on the service, "Why must there be something clever to say one or more times per day?"[27] It was a sardonic outburst meant to lament the tenacity of public life today. When I don't tweet, I might lose face; my social or professional credibility could suffer. But what does such an attitude reveal if not my disregard for the ideas themselves? One of my followers responded incisively: "because your actions' continued existence might depend on it." What a thought! Why is it that one's disregard for laundry, blogs, or elliptical trainers entails only metaphorical negligence, while one's neglect of cats, vagrants, or herb gardens is allowed the full burden of genuine disregard?

Latour would describe the relations among engine parts or memes as forces between actors in a network—quasi-objects, he sometimes calls them, which are neither human nor nonhuman.[28] The forces between these objects exert transformations, Latour's replacement for relations of power. Latour helps us see the many conflicting stakeholders in a situation, all grasping for differently shaped handles to pull a network in one or another direction: "None of the actants mobilized to secure an alliance stops acting on its own behalf. They each carry on fermenting their own plots, forming their own groups, and serving other masters, wills, and functions."[29]

There is no rightful owner to whom relations return: "one form of know-how is no more 'true' than another."[30] One could respond by casting ethics as contextual, relative. This helps, to a point; I can imagine positioning myself in the context of the chickadee or the window washer. But things get murky quickly, as we move from human and animal actors to object actors: the snowblower, the persimmon, the asphalt. Is it even possible to put oneself in their shoes?

When we speak of things, are we prepared to equate their forces with their ethics? Is what a thing tends to do the same as what it con-

siders noble or right? We might observe in an object what Aristotle calls *hexis* (ἕξις), or what Pierre Bourdieu dubs *habitus*—a way of being, a custom or routine. But a disposition is quite different from a code. Here a further problem arises, as the fact of relations shouldn't be sufficient to affirm that the actors involved in those relations act according to an ethics or in violation of one. A unit operation does not an ethics make.

When faced with pistons and soybeans, where would we look for morality? In Harman's OOO, things recede into inaccessible, private depths. When objects interact, they do so not from these depths but across their surfaces, in their sensual qualities. When fire burns cotton, it takes part only in the cotton's flammability, not in its other properties, or in its real essence, which withdraws interminably.

When we ask after the ethics of objects, we are really asking if moral qualities exist as sensual qualities. I'll float a categorical response: *no*. When the vegan eats the tofu, she bathes in its moisture, its blandness, its suppleness, its vegetality. Yet the soy does not bathe in her veganism. Through its sensual properties, she constructs a caricature of the soy, which does more than render it nutritive or gratifying; it also renders it moral. It is what Levinas calls *enjoyment*, an egoistic process for which he favors the metaphor of eating: we eat the other to make it the same.

But what of the things themselves? Does the tofu muster moral practice when slithering gently in the water of its plastic container? Does the piston when compressing air and petrol against the walls of its cylinder? Does the snowblower when its auger pulls powder from the ground and discharges it out a chute? Perhaps, although if any do, they do so through a code irrevocably decoupled from the material acts they commit. The ethics of the spark plug are no more clear to us than would be those of the vegan to the soybean plant, even as the former strips and devours the latter's salted, boiled babies in a tasty appetizer of edamame. Worse yet, there might be multiple, conflicting theories of soybean ethics—lest one assume that the noble legume is any less capable of philosophical intricacy than are bearded men.

An object enters an ethical relation when it attempts to reconcile the sensual qualities of another object vis-à-vis the former's with-

drawn reality. Perhaps counterintuitively, ethics is a self-centered practice, a means of sense making necessitated by the inherent withdrawal of objects. It is a filing system for the sensual qualities of objects that maps those qualities to internal methods of caricature, a process often full of struggle. Here we find the limits of metaphorism and a good reason to respect anthropomorphism's frontier.

Can we even imagine a speculative ethics? Could an object characterize the internal struggles and codes of another, simply by tracing and reconstructing evidence for such a code by the interactions of its neighbors? It's much harder than imagining a speculative alien phenomenology, and it's easy to understand why: we can find *evidence* for our speculations on perception, like radiation tracing the black hole's event horizon, even if we are only ever able to characterize the resulting experiences as metaphors bound to human correlates. The same goes for the Foveon sensor, the piston, the tweet, and the soybean, which can only ever grasp the outside as an analogous struggle. The answer to correlationism is not the rejection of *any* correlate but the acknowledgment of *endless* ones, all self-absorbed, obsessed by givenness rather than by turpitude. The violence or ardor of piston and fuel is the human metaphorization of a phenomenon, not the ethics of an object. It is not the relationship between piston and fuel that we frame by ethics but *our* relationship to the relationship between piston and fuel. Of course, this can be productive: ethical principles can serve as a speculative characterization of object relations. But they are only metaphorisms, not true ethics of objects.

Unless we wish to adopt a strictly Aristotelian account of causality and ethics, in which patterns of behavior for a certain type can be tested externally for compliance, access to the ethics of objects will always remain out of reach. It is not the problem of objectification that must worry us, the opinion both Martin Heidegger and Levinas hold (albeit in different ways). Despite the fact that Levinas claims ethics as first philosophy, what he gives us is not really ethics but a *metaphysics of intersubjectivity* that he gives the name "ethics." And even then, Levinas's other is always another person, not another thing, like a soybean or an engine cylinder (never mind the engine cylinder's other!). Before it could be singled out amid the gaze of the other, the object-I would have to have some idea

what it meant to be gazed on in the first place. Levinas approaches this position himself when he observes, "If one could possess, grasp, and know the other, it would not be other."[31] That is, so long as we don't mind only eating one flavor of otherness.

Timothy Morton observes that matters of ethics defer to an "ethereal beyond."[32] We always outsource the essence of a problem, the oil spill forgotten into the ocean, the human waste abandoned to the U-bend. Ethics seems to be a logic that lives inside of objects, inaccessible from without; it's the code that endorses expectation of plumbing or the rejoinder toward vegetarianism.

We can imagine scores of bizarro Levinases, little philosopher machines sent into the sensual interactions of objects like planetary rovers. Their mission: to characterize the internal, withdrawn subjectivities of various objects, by speculating on how object–object caricatures reflect possible codes of value and response. Object ethics, it would seem, can only ever be theorized once-removed, phenomenally, the parallel universes of private objects cradled silently in their cocoons, even while their surfaces seem to explode, devour, caress, or murder one another.

Morton offers an alternative: a *hyperobject*, one massively distributed in space-time.[33] The moment we try to arrest a thing, we turn it into a *world* with edges and boundaries. To the hammer everything looks like a nail. To the human animal, the soybean and the gasoline look inert, safe, innocuous. But to the soil, to the piston? Ethical judgment itself proves a metaphorism, an attempt to reconcile the being of one unit in terms of another. We mistake it for the object's withdrawn essence.

This confusion of the withdrawn and the sensual realms allows us to make assumptions about the bean curd and combustion engine just as we do with oceans and sewers, drawing them closer and farther from us based on how well they match our own understanding of the world. But when there is no "away," no unit outside to which we can outsource virtue or wrongdoing, ethics itself is revealed to be a hyperobject: a massive, tangled chain of objects lampooning one another through weird relation, mistaking their own essences for that of the alien objects they encounter, exploding the very idea of ethics to infinity.

DAISY CHAINS

To get at the metaphorism the sensor itself performs on a puppy the photographer frames and captures, it is necessary to speculate not only on the sensor–puppy relation from the metaphorical vantage point of the human photographer but also from the vantage point of the sensor itself. This is *metametaphorism*.

It's a scenario that extends the lesson about object ethics: metaphorisms are always self-centered. The photographer's metaphorism of the sensor can't help but draw its notes into the event horizon of human experience. Anthropocentrism is thus both a torment and a foregone conclusion for us humans, but we need not feel alone in suffering under it. If anticorrelationism amounts to a rejection of only one correlation and an embrace of multiple correlations, then centrism is inevitable—whether it be anthropocentrism, petrocentrism, photocentrism, skylocentrism, or any other. One can never entirely escape the recession into one's own centrism. A confessional is not enough. For example, when Michael Pollan mentions offhandedly that John Chapman (a.k.a. Johnny Appleseed) "had a knack for looking at the world . . . 'pomocentrically,'" he still makes an assumption of human likeness and benefit: one becomes-apple only as a means to the end of cultivation.[34]

Husserl can help. His concept of intuition exceeds sense perception to account for instincts like beneathness and justice. These *categorical intuitions* can function in what Husserl calls an "ideative" manner.[35] While Husserl intends ideative categorical intuition to allow the abstraction of the universal from the individual, we can also apply it to speculative metaphorisms of object relations disconnected from our perception of those relations, like the Foveon sensor's mesopicism or the bat's blindness. Indeed, we can even foresee such an invitation in Husserl's writing itself, as he regularly suggests that phenomenology seeks to *expand* experience.

When conceived as units—as systems of members entering and leaving configurations—aspects of the world do not disappear into an anonymous organism akin to a Latourian network or a Deleuzean assemblage. Even if these machines operate as one, they still facilitate their own breakdown into individual unit operations—the

dog's sensation of the grass on its paw as it bounds across the yard, or the camera firmware's relationship to the SD card, onto which it writes data that a computer software program embedded in the camera interprets as patterns, which the device's liquid crystal display uses to produce three-color subpixel-rendered hues, which a human observer can intuit as a digital photograph. Any one of these interactions is subject to potential metaphorism—my rendition of the way the dog's paw caricatures the grass as it exerts an impression on it, or the way the Foveon sensor caricatures its view of the animal bounding across it, or of the way the LCD display caricatures the electrical signals sent to it from the device's microprocessor.

But what of the sensor's impression of the dog's impression of the grass? Or the graphics processing unit's understanding of the computer display's grasp of the signal it sends to it? Or, for that matter, the entire phenomenal chain that describes this tiny slice of existence, the one we shorthand as "taking a photograph?"

Another more extreme application of metaphorism might suture these various encounters together into a single structure. Metaphorism of this sort involves phenomenal daisy chains, built of speculations on speculations as we seep farther and farther into the weird relations between objects. The philosophical effort to bind such metaphors is nontrivial, amounting to a complex lattice of sensual object relations, each carrying an inherited yet weaker form of metaphor with which it renders its neighbor. The metaphysician who performs this task is *not* metaphorizing on *behalf* of an object down the chain—as both Nagel's account of experience and Harman's notion of withdrawal remind us, to do so would involve impossible access to a unit's own understanding of its surroundings. Instead, metaphoristic daisy chains set up nested metaphorical renderings. The relationship between the first object and the second offers the clearest rendition, insofar as a metaphor is ever really clear. The next is rendered not in terms of the second object's *own* impression of the third but as the second's *distorted* understanding of its neighbor seen through the lens of the first. It's like a tuille pastry, delicate and fragile yet discriminating and exquisite.

The metaphoristic daisy chain is a challenging structure to imagine in the abstract, yet examples of it are elusive. One candidate

can be found in Ben Marcus's curious novel *The Age of Wire and String*—if indeed "novel" is an apt word for the book, whose cover describes it in different places as novel, handbook, fiction, and stories. Its contents include accounts of a world recognizable yet utterly alien, where some objects are familiar and others familiarly named, yet out of place in relation. To accommodate this curiosity, each of the book's sections is punctuated by a glossary of terms that appear within it, definitions that almost explain what has just been described while also failing utterly to do so. In the strictest sense, the book is incomprehensible.

But within that incomprehensibility, Marcus offers a webbing of object relationships that approach a metametaphoristic structure. In the chapters of the section titled "Food," one finds various explanations of apparent comestibles that nevertheless resist understanding as foodstuff. First Marcus writes that "the brother is built from food, in the manner of minute particles slowly settling or suspended by slight currents, that exist in varying amounts in all air."[36] Shortly thereafter, it becomes clear that "food-printing" is least common over the ocean compared with over cities, and that food caused by airplanes explains the heavy food-fall in Detroit. Already clues present themselves: is food meant to be precipitation, snow perhaps? For whom or what might precipitate be perceived culinarily? And what is a brother, in that case?

The next section explains "hidden food," which might be found in houses, churches, or other structures. In such situations, "artificial food (Carl) is often used to disguise the presence of real food."[37] Carl, as it happens, can be found in the chapter of terms that follows: "Name applied to food built from textiles, sticks, and rags. Implements used to aid ingestion are termed, respectively, the *lens*, the *dial*, the *knob*."[38] Soon after, other details emerge: a "food spring" can give rise to loaves of "sugar-soaked grain" or of "spore wands," which are used to pay for the right to food.[39]

Marcus's chained metaphorisms slowly slink toward a murky lucidity: Carl is a kind of food, which logic would have us conclude relates to precipitation of some sort, yet this type of food is "artificial," contained within buildings, and meant to camouflage the presence of "hidden" food. Is a phase change responsible for hiding, perhaps? What of the sticks and rags that make up Carl, which we simultane-

ously know to be food? What transformation has been performed on food such that textiles would now compose it? And what does it mean that this artificial food, composed of rags, would be ingested by an apparatus that bears more resemblance to a camera than a mouth (lens, dial, and knob)?

Marcus's book cannot be solved cryptographically; there is no simple chain of signifiers that the reader must simply replace in succession to produce sense. Indeed, when reading *The Age of Wire and String*, one gets the impression that sense will never emerge—not in the ordinary sense of the word, at least.

The metaphysician might read the book as a prototype for the practice of metaphoristic daisy chaining instead of as a novel. In the subjective universe of one object's perception, food is like atmospheric particles that collect and fall; in another, food hides, to be exchanged rightfully for grain loaves; in another, the artificial food that occludes the hiding fashions itself from textile and serves the interests of images.

Despite its clarity and simplicity of form and syntax, Marcus's book pushes at the very limits of human comprehension. But in doing so, it offers one possible model for daisy-chained metaphorical accounts of object perception. One metaphor clarifies a single relation, but when it becomes overloaded with the metaphor used to describe another relation its clarity clouds, resulting in distortion and confusion. Put more thematically, a metaphorism germane to its host becomes alien to the subsequent object it sequences, unable to pierce its veil and see the face of its experience.

On the first page of A *Brief History of Time*, Stephen Hawking tells the old joke of the woman who rejoins a scientist explaining the nature of the universe.

> At the end of the lecture, a little old lady at the back of the room got up and said: "What you have told us is rubbish. The world is really a flat plate supported on the back of a giant tortoise." The scientist gave a superior smile before replying, "What is the tortoise standing on?" "You're very clever, young man, very clever," said the old lady. "But it's turtles all the way down!"[40]

The story is usually meant to provoke a chuckle, an essay on both the profundity of the unmoved mover paradox and a reminder of how myth and folklore fill the gaps that science explains poorly. But Marcus's multitudinous, logically consistent yet nevertheless inscrutable accounts of food suggest we should reconsider the old lady's plea. The universe need not *literally* sit atop an infinite stack of tortoises for her statement to ring true. Rather, things render one another in infinite chains of weaker and weaker correlation, each altering and distorting the last such that its sense is rendered nonsense. It's not turtles all the way down, but metaphors.