Emotional Environments:

Selective Permeability, Political Affordances and Normative Settings

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Matthew Crippen

I begin this article with an increasingly accepted claim: that emotions lend differential weight to states of affairs, helping us conceptually carve the world and make rational decisions. I then develop a more controversial assertion: that environments have non-subjective emotional qualities, which organize behavior and help us make sense of the world. I defend this from ecological and related embodied standpoints that take properties to be interrelational outcomes. I also build on conceptions of experience as a cultural phenomenon, one that coheres around shared environmental contours and public emotional concerns, introducing normative constraints (or what might be called "world grammars"). Endorsing this outlook suggests an argument for the view that cultural spaces have affectively charged, non-subjective, normative openings and closures. These openings and closures engender selectively permeable barriers which cordon space without physically preventing entry, as seen with decorative half walls and elevation changes. An area with such barriers may look emotionally hostile to, say, the dispirited homeless who are in fact less welcome there. Outcomes like these might be thought of as "political affordances." These affordances can be regarded as normative openings and closures that implicitly filter, and hence segregate, according to various social divisions. Although registering political affordances requires more than the detection of ambient arrays, the notion retains core Gibsonian ideas: that affordances are values, that these values are linked with how a space can be used, and that the existence and nature of such affordances is not a subjective matter.

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Introduction

The last five decades have seen leading cognitive scientists, neurobiologists and philosophers arguing that emotions help us rationally adjudicate matters (e.g., Simon 1967; De Sousa 1987; Damasio 1994; Schulkin 2004; Pessoa 2013), echoing earlier pioneering work (e.g., James 1879a). The idea is typically expressed as something occurring inside agents that allows them to better grasp the outside environment. Without denying this captures some processes, I target a stronger position: that environments have non-subjective emotional tones, which organize our behavior and help us make sense of our surroundings. If true, then there are potentially problematic political implications to consider in cases of built environments.

My account builds on Gibson's (1966, 1979) affordance theory. Affordances are non-subjective avenues for action that correspond to what a given organism can do in an environment, but Gibson adds something interesting: that a setting has meanings or values that are identical to the actions it affords. After all, if a village river is navigable, dangerously flooded, or drinkable, then it has values for one's life that are equivalent to the actions it avails. Gibson regards affordance detection as the discernment of ambient information, for example, light that reveals a path as traversable. For Gibson, emotional interests affect the salience of affordances but not their existence, as when a passion for walking makes a trail in a city park stand out without affecting whether or not it is there. Nonetheless,

there is a sense in which emotions alter affordances by modulating energy levels and thus the range of possible behaviors—a sense, moreover, that our objective inability or ability to act is a core aspect of why settings may appear as depressing or cheerful (see Riener et al. 2011; Ratcliffe 2015, Ch. 6). Such a scenario renders space selectively permeable, for instance, more closed to a dispirited homeless person than to someone with a higher degree of wellbeing.

Despite certain differences, Gibson's views line up with other embodied approaches like pragmatism, phenomenology, and enactivism insofar as all describe experience as arising from situated interactions, thereby shifting the locus away from the purely internal realm (Dewey 1896, 1934; Merleau-Ponty 1945; O'Regan & Noë 2001). For example, the qualities of lacquered wood—its smoothness or sinewy toughness—manifest differently depending on whether it is caressed by a human hand or dug into by a cat's claws. Dewey's (1929) pragmatic work expands the point by noting that properties like color and length vary with relative velocity. This means isolated entities lack specifiable length or color, which only shows up within a reference frame, typically one assuming a stationary point relative to the object. Expressive qualities, too, are relational, so that context makes the same facial behavior victorious or defeated (e.g., Heaven 2020), just as a cheerful city becomes threatening at night. Building on these lines, I argue that emotional characters of settings ought to be located in environmental relations and not our heads. Taking a cue from affordance theory and the aforesaid embodied views, my position grants that an agent affects how a scene emotionally shows up, but without implying subjectivism. A woman, for instance, may find a nighttime city space emotionally threatening in virtue of it posing a danger to her, whereas a man may not, precisely because he faces a comparatively lower risk of harm.

Gibson (1979, Ch. 8) recognizes social aspects of affordance exploitation, such as cultural habits of sitting. Others amplify the idea by observing that extended hands or glum stares open or curtail avenues for social engagement (Still and Good 1998; Krueger 2011). That socially orchestrated affordances scaffold action, and hence how we see the world, highlights the jointly created cultural

underpinnings of experience. This fact is brought into sharp relief when one considers that virtually all human life organizes around artifacts. Just as tactile perception coheres around things like lacquered desktops, and morning parenting culture around a breakfast table, city dwellers' experiential worlds accrete around urban structures and values embedded in them. Social activity, in turn, defines environmental entities, as when pebbles become make-shift checkers pieces.

It follows, then, that meaning is especially pronounced in built settings such as architectural spaces. Marble, polished wood, and clerks in tailored suits, when encountered in a bank, might indicate the values of power and prestige to the affluent at the same time as telling poorer people the space is not for them. Other city grammars include latent territory markers, such as ornamental curbs and decorative tiling, which often convey the meaning that an area belongs to a particular group, making outsiders apprehensive and pushing them away (e.g., Newman 1972; Whyte 1980). It is easy to imagine authoritarian rulers using such features to repulse citizens from protest settings. A tourist not enculturated and subject to the threats faced by citizens may be insensitive and hence less bound to the meanings inscribed on the urban space, whereas locals will register the tacitly marked area as more emotionally ominous in virtue of the fact that it is more dangerous to them. Outcomes like these might be thought of as political affordances. Such affordances are normative openings and closures that filter, and hence segregate, according to an agent's social position. To register a political affordance is to do something more than detect ambient arrays. Nevertheless, the notion retains a few core Gibsonian ideas: that affordances are values; that these values are identical to how a space can be used; and that the existence of such affordances is, in a sense to be elaborated, a non-subjective matter.

My defense of the above-stated points will proceed, first, with a section reviewing the proposition that emotions help us rationally understand the world. The second section will detail reasons why emotional environmental qualities are not mere subjective projections, also arguing that expressive aspects of settings scaffold perceptual and cognitive functioning, in turn oriented towards achieving satisfactory ends, implying normative dimensions. While this is the case even for an

observer engaging a vista devoid of humans, people are almost invariably situated in sociocultural configurations that emotionally inflect space further, thereby introducing additional normative layers, an idea pursued in the third section. These layers regulate behavior and can be thought of as significance-engendering world grammars to the extent, for example, that a particular space conveys the message and hence the meaning that it is forbidden. In the fourth section, therefore, I attend to how the emotional significance of space partly depends on individual variables such as gender, social status and health, making locales selectively permeable, which has political ramifications.

Negotiating Values

The majority consensus among Western thinkers, with some exceptions (see Loewenstein 1994), has been that emotions are irrational. In the 1990s, however, researchers such as Damasio (1994) began popularizing the idea that emotions are critical to reasoning, repeating what historical figures like James said (1879a). In this section, I lay out how emotions undergird rational thinking, arguing that this erodes sharp fact-value distinctions and supports Gibson's conception of affordances as values. These assertions will lead into my central claim that environments have non-subjective emotional tones, which organize behavior and help us make sense of the world.

The basic idea, as expressed by Damasio (1994, Chs. 3-4), is that human cognition bereft of emotion deprives possible choices of weighted value, making our decision-selecting landscape flat, perhaps also too shifty for sustained thought. Tellingly, he reports one patient with damage to emotional brain areas who appeared to have locked-in syndrome. Only upon recovering, the sufferer reported having felt so little as to be unbothered by anything, accordingly having nothing to express. In this condition, differentiated thought seems to have vanished. One can compare the situation to being unable to select restaurant menu items because of lack of preference and hence emotional pull.

Emotions have in fact been cited as supporting a wide range of executive functions, particularly ones associated with selective attention and conceptual parsing. James (1879a) describes a carpenter

and mechanic conceiving of oil differently (the former as a wood darkener and the latter as a lubricant), in virtue of their emotions accentuating qualities as pertinent to their respective interests. Similarly, emotions allow us to filter perceptual information and thereby abstract the essence of faces, which otherwise might be unrecognizable because of changes in lighting, expression, makeup, and so on (Luria 1968; Gigerenzer 2007, pp. 21-24). Emotions likewise modulate linguistic meaning and how we organize explanations: consider the fact that "And" and "But" have different feelings and import, despite formally representing the same logical connective, that of conjunction (James 1884, 1879b; Johnson 2007, Ch. 5). Intrigue motivates epistemic exploration, boredom might halt unsuccessful repetitive activity, and sadness may provoke cautious rumination after losses or disappointments so as to avoid them in the future (Peirce 1877; Cañamero and Gaussier 2005; Andrews and Thomson 2009). Anxiety, too, alters attentional capacity, improving performance at moderate levels (Barlow 2001, Ch. 1; Hudlicka 2007). This does not deny that emotions can distort knowledge, as when hatred fuels xenophobia. Yet such follows for any out-of-control faculty, including logic, which can promote "absurd rationality" when fanatically employed (Nietzsche 1888, p. 478), impeding everything from romantic life to financial investments (Gigerenzer 2007). The fact that emotions sometimes misfire does not undermine the central claim that they are critical to functions enabling veridical cognition.

Neurobiological findings reinforce these predominantly first-personal explanations. Perhaps the most-discussed example concerns the amygdala bulbs, a bilateral emotion center mediating selective attention, in turn core to both cognition and perception (Pessoa 2013, Ch. 2). These structures are important in ascribing emotional value to options, also coordinating with the hippocampus and cortical regions to construct memories and contribute to language use (Jacobs et al. 2012; Grupe, et al. 2012; Grupe and Nitschke 2013; Pessoa 2013, Ch. 2; Tyng et. 2017; Babaev et al. 2018; Citron et al. 2020). Relatedly, prefrontal damage causing emotional impairment (and degradation in associated skin conductance responses) correlates with a decreased ability to conceptualize and avoid costly choices (Bechara et al. 1997). Emotions such as envy and shame are highly conceptual and culturally

dependent. Such emotions are partially the result of subcortical and cortical areas that deal with

semantics, underscoring the integration between emotion and cognition (see Binder et al. 2009;

Jankowski and Takahashi 2014; Bastin et al. 2016). The insular lobes have a role in social cognition

and epistemically rich emotions like empathy, not to mention disgust responses that help us wisely

avoid pathogen-laden food (Uddin et al. 2017). These parts of the cortex communicate with the basal

ganglia, known for undergirding habit formation and reward appraisal, which is emotionally attentive

(Hikosaka et al. 2014). The basal ganglia additionally contribute to perception and cognitive judgment,

for example, activating to handle temporal and syntactic aspects of language and music (Grahn and

Rowe 2009; Kotz, et al. 2009; Kotz and Schmidt-Kassow 2015). In short, cognition is lurking in

emotional brain regions, especially ones helping us to identify and deal with parts of the world that are

objectively important to us.

This last phrase— "objectively important to us"—reinforces a number of central claims. To

begin with, it reiterates it is often mistaken to say that realities just "are" in themselves given that they

typically consist of relations. A pond, for instance, manifests differently depending on whether a

creature is a water strider, a wading deer, or human falling at 195 km/h (Crippen 2020), and we have

already seen that spatial dimensions vary with relative velocity. The nutritional property of sugar

similarly is not intrinsic to its molecular structure, but has "value as food … only in the milieu that the

organism itself brings into existence" (Thompson 2004, p. 386). This leads to a second idea, namely,

that our emotions tend to highlight facts that have objective value specifically for us. Thus, even

something like rain is really not a plain fact since it may be a solvent to a curious atmospheric chemist,

irrigation to a grateful farmer, or relief to a thirsty desert fox sipping from a puddle (Crippen and

Schulkin 2020, Ch. 4).

The upshot is that various agents—like James's carpenter and mechanic—may attend to

different aspects of the same thing, depending on their individual emotional interests. Gibson (1979,

Ch. 8) arrives at roughly the same conclusion when stating that a rock can equally be taken to be a

paperweight or a pendulum bob, depending on peoples' goals and thus what is important to them. This reiterates that Gibson (1966, p. 285) grasps affordances not just as action possibilities, but as "what things furnish, for good or ill." Gibson's (1979) last book elaborates: "all these benefits and injuries, these safeties and dangers, these positive and negative affordances are properties of things *taken with reference to an observer*." He stresses, however, that affordances are "not properties of *the experiences of the observer*. They are not subjective values" (p. 137; original italics). Gibson reasons this "implies that the 'values' and 'meanings' of things in the environment can be directly perceived" (p. 127). He concludes, therefore, that values are "external to the perceiver" (p. 127), albeit engendered in organism-environment relations, with Dewey (e.g., 1925, Ch. 7; 1934, Ch. 11) similarly rejecting the idea of private perceptual representations, which he instead sees as qualities of agent-setting interactions. My aim in the remainder of this article is to demonstrate that the same holds for the emotional qualities that we encounter in things, events, and situations, including cities. Out of this idea, I will develop a concept of selectively permeable environments, which designates settings that are emotionally opened or closed to people depending on their individual situations.

Emotional Situations

Dewey (1934, p. 209) observes that "space is room, *Raum,* and room is roominess, a chance to be, live and move" and that the "word 'breathing-space' suggests the choking, the oppression that results when things are constricted." He assesses time similarly: "We need a 'space of time'," so that "undue haste … is hateful." Dewey's characterization will be familiar from our experience of the viscosity of space and time when crushed by traffic. Such experiences may elicit agreement with his further claims: 1) that "nature is kind and hateful, bland and morose, irritating and comforting, long before she is mathematically qualified or even congeries of 'secondary' qualities" (p. 16); and 2) that emotions are "*to* or *from* or *about* something objective" (p. 67; original italics), except in relatively unusual instances, as when people get pathologically angry independently of events around them.

Where Dewey is likely to face greater resistance—and where I wish to defend him—is in his insistence that we do not "project emotions into […] objects experienced" (p. 16). In what follows, I will argue that emotions are, indeed, generated and hence found in external interactions with things.

Several things are at stake, here. If Dewey's strong claim is true, then it is unfortunate (epistemically and practically) that many diminish the reality and knowledge-yielding weight of what is often closest to us: the world as we emotionally registered it. While we should be careful not to slip into essentialist claims about gender and emotion, part of the dismissive attitude arguably traces to male-dominated epistemologies that seek value- and emotion-free knowledge (see Jaggar 1989). This is despite compelling evidence, presented in the previous section, that cognition and hence intellectual enterprises do not function without values and emotions (see Lauwereyns 2010).

How might we argue for Dewey's strong claim about the external existence of emotional values? A starting point is to appreciate that Dewey takes situations, which include agents, to be ontologically and epistemically primary. Situations, in other words, give rise to determinable, and hence knowable, properties. Cairo—with its physical and cultural affordances—is a situation in Dewey's (e.g., 1938) sense. Situations can also be more local. Take as an example a couple in one of Cairo's many street eateries with plastic tables and chairs, plus a cat skulking for food. The constituents in this venue determine the possibilities of action and organization. Subtracting the table means the woman can traverse the space it occupied, but by the same token removes a place to rest her elbows. Notice further that the possible actions and consequently the situation depend on whether the active center is the woman or the cat. In virtue of having different capacities, the two perceive, as the expression goes, different situations. Yet, what differentiates the woman's and cat's experience, say, of sipping yogurt through a straw vs. lapping it from all fours is something other than a mere mental variation and is instead grounded in actions in the world. It follows, therefore, that their divergent perceptions largely result from them being in objectively different situations—"objectively different"

because the situations concretely bestow varying constraints and opportunities (and therewith

affordances) on the woman and cat, so that the two are not able to do the same sets of things.

Compared to the cat, the woman and man are embodied, and consequently situated, more

similarly. This makes their worlds largely alike and their experiences translatable. But the two will

nevertheless find themselves in very different situations when travelling on the Cairo metro, which is

notorious for uninvited groping. This is to articulate a variation of Gibson's framework, which holds

that bodily capacities, values and environmental affordances are codefined. Thus, for example, a cliff-

edge affords falling and looks threatening and is dangerous to most humans (Gibson 1979, p. 142),

albeit less so to skilled climbers with requisite equipment, who therefore value it differently. The same

pattern occurs in Cairo's cultural-political metro environs: the woman may see an it as more

emotionally threatening than the man because it puts her at greater bodily risk. That agents face

objectively different obstacles in the same environment is precisely what allows for selectively

permeable settings. It also allows for the imposition of political affordances that manage bodily

movement, sometimes oppressively, a point taken up later.

Closely related to Dewey's situational metaphysics and epistemology is the aforementioned

assertion that many properties are effects of interrelations. Dewey (1929, Chs. 5-8) takes Einstein's

relativity and aspects of quantum theory to affirm the claim. In the latter case, Dewey highlights that

observed facts about particles follow from their interactions with other particles, rather than facts about

them taken in isolation. Decades earlier, Pierce (1878) observed that we understand hard objects to be

those that are not scratched easily, with Nietzsche (1967 [c. 1885–1886], §557) similarly claiming that

the qualities of things are their effects on other things, both implying properties to be fundamentally

relational. In the case of perception, Merleau-Ponty (1947) illustrates a similar idea with regards to

color constancy. Here, bleached linen illuminated by a sodium-vapor lamp appears white rather than

orange-yellow, even though the light hitting our retina is amber. We generally take our perception of

the fabric as white to be accurate, with the cloth being misperceived as orange-yellow when the

context is subtracted (such as when perceiving an isolated patch through a narrow aperture in a

laboratory study).

It is my claim here that perception of worldly emotional qualities is importantly similar to the

just given examples. It has in fact been found that context changes facial expressions from friendly to

predatory, neutral to sarcastic and so on (Crippen 2021a), paralleling the color constancy case in the

following ways. First, the perceptual content of the experience, as just stated, depends on features of

the context. Second, in both cases, the experience has perceptual content that is, strictly speaking,

absent from isolated bits of decontextualized stimuli. Third, most would claim that in real-life

scenarios it is legitimate to register a man's longing smile as concerning or benign depending on

whether it is directed towards a bikini-clad 13-year-old or a lovely park outside a window. This is even

if no differences can be detected in facial expressions when isolated from context. Analogously, not

too many will say it is inaccurate to see bleached linen as white, even when it is reflecting orange-

yellow light. Additional information, such as learning that the 13-year-old is the man's granddaughter

whom he has not seen in years, might further influence how we see his smile. This, however, is more

evidence that context increases accuracy. Further examples of this phenomenon include studies

demonstrating that we cannot differentiate sexual ecstasy from agony when looking at

decontextualized faces or that we mistakenly attribute pain or grief (for example, to a basketball player

celebrating a slam dunk or Adele receiving an award) when looking at faces in isolation (Aviezer et al.

2012; Heaven 2020).

Gestalt psychology can be used to tease out, and extend, the implications of contextually

inflected expressiveness. One helpful Gestalt idea concerns physiognomic perception, introduced by

Werner (1927) and developed extensively by Koffka (1935, esp. Chs. 8, 9, 14). Werner takes a

physiognomic quality to be an expressive character that is not composed of separate elements (like a

crooked nose and furrowed brow), but rather arises from a gestalt that is irreducible to its parts. The

longing smile in the context of a lovely park vs. an inappropriately young girl involves a similar kind

of irreducibility. From Werner's and Koffka's standpoints, environments are likewise expressive: not, however, because cloud or rock formations resemble faces but because overall configurations give rise to certain moods. Studies (e.g., Kaplan and Kaplan 1989) have found that trails disappearing around bends are seen as mysterious, with this emotional character arising from the total arrangement of environmental features rather than from a path, forest, or hill alone. The property of mysteriousness is additionally noteworthy in virtue of designating an emotional quality we observe in settings, or other people, and not in ourselves (Rosar 1994). The same holds for other physiognomic qualities: we can happily stroll in a gloomy landscape or perceive a cheerful atmosphere despite ourselves being depressed (Dewey 1934, Ch. 4; Koffka 1935, Ch. 8; Dreyfus 1991, Ch. 10).

What I have said so far is consistent with the claim that physiognomic qualities are not mere psychological projections, but I want to offer more in a way of a positive argument for the thesis that environmental emotional characters are extremely close to affordances and thus non-subjective. When a landscape is made gloomy by storm clouds, the dreariness connects to what we might do, for instance, seeking shelter from rain. Though the just mentioned setting may not make us sad, depression can bring exhausting dullness to a normally sanguine scene, again because the psychological condition objectively reduces action capacities and therewith the affordances available (see Riener et al. 2011; Ratcliffe 2015). A more involved example is the finding that trails disappearing around forested bends have an attractive mysteriousness. A reason is that they promise discoveries just out of view while offering assurance that explorers will not get lost since there is a path to follow (Kaplan and Kaplan 1989; Crippen and Schulkin, Ch. 3). Something similar follows if we see mysteriousness in the face of an elegantly clad individual with braided blue locks swaying in sync to avant-garde rock in an upscale bar: the wild hair and music are balanced with the elegance of the clothing and venue, and hence the reassurance that an encounter will not get completely out of hand. So, in addition to being inflected effects of the overall scenes, the trail and face are mysterious because of actions that might be performed in settings in which opportunities for approach and exploration are pronounced.

Mysteriousness is clearly a value, and in these two cases it also seems to be a configuration of affordances.

To frame mysteriousness, exhausting dullness or gloominess in terms of affordances is to suggest, in Gibson's phraseology (1979, p. 129), that these emotional atmospheres are determined jointly by the environment and behavior. Dewey (1934, p. 177) makes the same point when he asserts that subject and object are constructed by the same operation. This means, as Dewey (1925, p. 259) puts it elsewhere, that experienced qualities are not mere representations in agents, but "qualities of interactions in which both extra-organic things and organisms partake," as when caressing hands realize the smoothness of lacquered wood. Understanding engagement with art similarly, he argues an agent must have certain capacities to register patterns of pigment and light as a picture. He adds, however, that it is not a painting or photograph "as a *picture* that causes certain aesthetic effects *'in us'*." (p. 250; original italics). Instead, the picture is itself "a total effect brought about by the interaction of external and organic causes" (p. 250). If the picture has a mysterious beauty, it would follow that this is an aspect of the outcome taken as a whole, and therefore is as externally present as any perceptible attributes and indeed the picture itself. Consequently, if encountering a video of the mysterious vista or blue-haired individual, it seems legitimate to conclude that the aesthetic-emotional attribute, as a part of the total effect, is no less an objective outcome than the video itself. If encountering the mysterious vista or face in person, the same follows, again suggesting the emotional qualities of environments to be something other than purely subjective, even though—like affordances—they cannot arise without an agent.

Body Coordination and Building Expressive Worlds

Most human life unfolds in a community, in some sense even when individuals are alone since there is almost constant reliance on human-made artifacts. It therefore follows that social dimensions pervade most everything we do. This section expands on this claim, stressing the interlocking of bodies

and hence external components as bases of psychic life. I do this to elaborate on human contributions to emotional environments with the aim of setting up discussions in the next section, which will focus on selective permeability, political affordances and normative space.

Let us start with a parable from *The Grapes of Wrath* (1939), where Steinbeck describes Great Depression migrants as building worlds, establishing cultural and experiential structures in ways mirroring the accounts given by several early twentieth-century thinkers (e.g., Dewey 1922, 1951; Vygotsky and Luria 1930/1994; Heidegger 1949). Steinbeck notes: "A certain physical pattern is needed for the building of a world," for example, "a spring" and "enough flat land to pitch the tents, a little brush or wood to build the fires" (p 195). Thus, it might be that one family identifies an appropriate camping place in virtue of it offering these things—these affordances—which physically and emotionally organize the group's activity and hence its world and experiences. A second group might stop for the same amenities, but also for the company offered by the first family. This dynamic repeats itself until a community has been established. For these temporary communities to persist, Steinbeck adds that unspoken normative customs must arise. These could range from forbidding adultery, fouling near water or the invasion of privacy, to the children of one family becoming the children of all, to giving the pregnant special consideration, or to simple pleasures like gathering for the communal performance of music.

Steinbeck's characterization of the migrants' group activity raises a number of considerations. The first thing to note is that Steinbeck approximates Dewey's notion (1951, p. 363) that experience is "reciprocal interconnections, that immense diversity of human affairs, interests, concerns, values." For this reason, Dewey identifies experience with culture, something reflected in the fact that we speak interchangeably of "parenting culture" and the "experience" or "world of parenthood," talking likewise of "Cairo culture" or "the Cairo experience." Psychologists such as Vygotsky and Luria (1930/1994, 1998 [c. 1932-1934]) and Leontiev (1978) similarly observe that virtually all human activity, and hence experience, involves a synchrony with others. This is amplified by the fact that artifact use is a

variety of extended social coordination, in which emotions play a critical role. This suggests a second consideration we can take from Steinbeck's characterization: that humans create and readily register emotionally inflected space. Emotionally imbued social space can be understood in terms of normative grammars, or what I will also describe as political affordances. A corollary is, third and finally, that agents enact space: that is, agents define space through their actions, shaping its central features and its significance for those populating it.

That agents enact space through bodily coordination is a fact that pervades the biological realm, and it is worth brief attention to establish that some basic pre-conditions for psychic life are met even before brains show up on the scene. Certain plant species, for instance, release airborne messengers when attacked by herbivores, causing their neighbors to produce noxious compounds which ward off animals (Yam 1990; Engelberth et al. 2004; Kessler et al. 2006). These messengers are not, however, released needlessly given that doing so has costs (Coley 1986), but occur as an anticipatory pre-emptive measure in that chemicals deploy before threats are fully realized. This benefits the wider community, as the death of individuals degrades the collective ability to build local environments suitable to the plants' needs (Wohlleben 2016). *Physarum polycephalum* is another communal creature—this time unicellular—that literally builds its world. Groups establish affordances in slime trails that they then avoid in explorations until other options are exhausted, also constructing tubules to efficiently connect food sources. These enacted or self-created affordances can be understood as Gibsonian value networks, inasmuch as they pertain to what is good or bad for the organism. The slime and tubule affordances additionally have commonalities with the kind of external "memory" that Clark and Chalmers (1998) explore in their extended mind thesis that things in the environment scaffold cognition (Crippen 2020, 2021a; Crippen and Schulkin 2020, Ch. 5). Remarkably, these creatures can learn to successfully anticipate hostile conditions after as few as three trials, doing so partly via allosteric or "smart" molecules that adjust protein function. Avoidant behavior recurs at

appropriate intervals for a time after the threatening stimuli are removed (Saigusa, Nakagaki and Kuramoto 2008; Mayne et al. 2016).

Without suggesting that these organisms have anything like emotional sensitivity, the world-building anticipatory patterns in plants and *P. polycephalum* can nevertheless be thought of as analogous to arousal systems in animals. In the human world, emotionally regulated group behavior is the norm from early childhood onwards. Infants and caregivers unite in rhythmic back-and-forth, purposeful, emotional, and indeed aesthetically and narratively imbued exchanges (e.g., Trevarthen 2009, 2011, 2015), even synchronizing heartrates (Field et al.1989). Thus, as Merleau-Ponty (1964, Ch. 1) argues, the primary puzzle is not how the child transitions from atomistic consciousness to awareness of others. The question, rather, is how the infant develops an individuated sense of self from the starting point of joint experience. Group synchronizations continue even though adults are less dependent, taking such forms as the communal beat of a concert, the coordinating moods of dull classrooms, or people excitedly matching gestures.

One critical aspect of working collectively is the building of, and acting in, living spaces. Just as *P. polycephalum* coordinates in self-created slimy affordance networks, human group activity is scaffolded by the layouts of rooms, restaurants, city streets, and other parts of our environment. The coordinating force of these arrangements is grounded not just by the fact that they physically constrain movement; the organizing power of built environments also operates on an emotional level. For example, many urban spaces are cordoned with curbs, decorative half fences, limited numbers of entry points, lawns, gardens, and walkways that change direction or have altered brickwork as one approaches entrances. These measures do not physically prevent access the way a barb-wired stretch would, but instead introduce layers that act to render space private, making outsiders feel conspicuous (Newman 1996, Chs. 1-2). As a result of standing out, outsiders may be greeted with questioning glances or queries (Newman 1972, p. 60), further contributing to their emotional unease. These consequences often follow from what might be called gestural topography, such as heavily arched

entrances set in a stern façade. Emotionally hostile architectural features are far removed from a smile or outreached hand, being more akin to a pair of folded arms and other standoffish gestures that curtail opportunities for engagement.

Of course, it is not just that humans build scaffolds for experience; their activities also play a role in defining space. A case in point is Tahrir Square during the 2011 Egyptian uprising, known as the January Revolution. As with Steinbeck's example, an initial physical arrangement was required to define the space. This included the congested roads surrounding the square, which was in turn hemmed in by buildings, many housing state institutions. At the functional heart of the city, Tahrir Square also abuts Sadat Station, a nexus of the city's metro system. The square likewise connects to major streets as well as Qasr El Nil Bridge, a prominent landmark linking downtown Cairo to Zamalek Island, a fashionable part of the city. While the physical pattern of the city was a prerequisite of what would happen there, the January revolt was a cultural event defined by bodies in the streets and organized not just according to physical urban form but by shared emotions. These ranged from anger or grief over the murder of fellow citizens, to a mix of fear and festive frivolity in the square itself (Crippen 2019). Pre-existing cultural factors also contributed to Tahrir's status as a central place of emotional concern. Among these was the fact that the 1952 Egyptian Revolution that finally ended British rule and toppled King Farouk was celebrated in the square and resulted in its current name, which means "liberation." This led to the erection of state buildings around the emotional heart of modern Egypt, in turn amplifying the affective resonance of expressing dissent in the square. During the January revolution, protesters built a world in Steinbeck's sense, "a tent city" known as "Tahrir Republic" that was "a miniature Egyptian society where social and commercial activities took place among different socio-economic groups" (Abdelazim 2021, p. 4). Crucially, this constructed world—that extended beyond the borders of Tahrir into the surrounding area—had its own system of normative rules, which meant twisting usual conventions. Briefly, for example, females reported feeling safe from sexual assault, in stark contrast to women's experience of Tahrir during many other protests (Banyard 2011). The critical

point here is that what people thought of as Tahrir was not the roughly 100-meter roundabout that carries that name. Rather, the patterns of activity, emotions and normative conventions, in addition to the raw physical form, are what, for that time, determined its nature.

Aestheticians have proposed that we take things like basset hounds and Mazda Miatas to look sad or happy because they mirror faces expressing these emotions, so that our interpretations are biproducts of social cognition (see Davies 2006, Ch. 11). Without disputing that this holds for basset hounds and Miatas, it does not apply to the fearful or festive moods of Tahrir. Nor does it capture the mysteriousness of the winding trails discussed in the last section, nor still the earlier-mentioned stern façades. Take the building façades as an example: they will typically look hostile only when inflected by unwelcoming settings, and even here they will not have the literal appearance of standoffish expressions or postures; instead, they will be foreboding because outsiders sense the tension of entering privately controlled spaces. My argument has been not only that we see emotions in settings and people, but that both cases are part of a general capacity to perceive action-organizing emotional values in situations. Gibson (1979, p. 138) hints at this when he writes that "the gestalt psychologists recognized that the meaning or the value of a thing seems to be perceived just as immediately as its color. The value is clear on the face of it, as we say." Gibson went on to cite Koffka's observation that things express their nature through emotional invitations, so that water says "Drink me," a storm says "Fear me" and certain people say "Love me." Summing up our encounters with suchlike, Gibson adds: "These values are vivid and essential features of the experience itself."

Although this remark appears in passages in which Gibson attempts to differentiate himself from his Gestalt influencers, it nevertheless espouses something important: that we read the emotional contours of environments with the same unobtrusive ease that we perceive the expressiveness of faces, an observation repeated by other psychologists (Kaplan and Kaplan 1989, p. 5). Arguments advanced earlier add that to read a face is to read a situation. This partially explains why, as discussed above, the same smile is understood differently depending on features of the context. A situated interpretation is

further supported by an evolutionary picture according to which only comparatively new species

unequivocally have knowledge of other minds, making the development relatively recent (see

Sherwood et al. 2008). It is part of this picture that it is more important to see rabid dogs, predatory

people, explosive protests, or cliff edges as potentially dangerous situations than it is to ascribe mental

intentions to them. In Gibson's terms, this means perceiving risks and safeties in environments rife

with values and that these values should be identified with affordances. In the next section, I will turn

to the notion of political affordances. These affordances selectively regulate people according to

various criteria, doing so by sending emotionally charged signals.

Political Affordances and Selective Permeability

Ideas developed in the last section suggest that culture encompasses everything from styles of

bodily comportment, to shared emotional concerns, to heritages of beliefs and language, all of which

entail habits of interaction that are in a sense grammatical. In language, grammar normatively governs

the ways in which combinations of words give rise to meaning. In cultural worlds, grammar governs

what sorts of actions are customary and is a precondition of things and events having meaning, as well

as determining the meanings they in fact have. That we *normally* use doors as entrances gives them

that meaning. Similarly, that certain interactions constitute adultery for Steinbeck's migrants is a

consequence of them inhabiting a world that makes some sexual unions illicit. Indeed, adultery can

only take place in a world where sexual behavior is codified, which is to say *constrained*, by social

boundaries. These boundaries are partly instantiated and regulated by morally valanced emotions such

as shame and trust (see Trevarthen 2009). In this last section, I will argue that emotionally inflected

space is codified in a similar way.

As a preliminary step, it is important to reiterate that even emotional feelings are not purely

internal. As Merleau-Ponty (1947) elaborates, introspection alone does little to differentiate or identify

boredom or grief, instead reducing either feeling to nondescript pangs or heaviness. He asserts that

when we find something meaningful to say about a feeling, it is by "studying it as a way of behaving, as a modification of … relations with others and with the world" (p. 52). Dewey (1922), too, reasons that emotional feelings are not "mental *in their first intention*" (p. 62). They are instead "working adaptations of personal capacities with environmental forces" (p. 16), so that boredom or grief encompass "*ways of behavior*" (p. 62; original italics). Extending these observations just a little, one can add that behaviors such as fidgeting and downcast eyes are ways in which space is publicly inflected as dull or mournful. This reinforces earlier assertions about the contextual nature of environmental emotional tones, along with claims about behaviours enacting or bringing forth worlds in different ways, as demonstrated in the cat vs. woman example and especially stressed by enactive cognitive scientists (e.g., Varela et al. 1991; Di Paolo et al. 2017). Thus, a changed bodily disposition, such as the weariness that comes with sadness, can close certain affordances for action, making spaces less approachable and explorable, giving it emotionally exhausting tones (Mealey and Theis 1995; Riener et al. 2011).

A second point to note, therefore, is that emotionally inflected space has a normative dimension and arises from reciprocally generated agent- and environment-driven activity. For example, the dullness of an empty classroom produces particular outward comportment styles in one who enters it while the mournful atmosphere of a funeral elicits other conventions. These spaces are defined by, and recognized for what they are, in virtue of the behavior they motivate. Given that the emotional aspects of human environments are in both cases behavior-guiding, they can be likened in significant ways to affordances. The aesthetics of a gospel choir creates possibilities for lively engagement with one's surroundings by upending the normally solemn atmosphere of churches. Here, the space's emotionally infused aesthetics is meaning- and experience-making largely in virtue of it having normative grammar, acting to both constrain and create social possibilities.

A third point is that architects and urban planners design spaces to regulate behavior through emotional-aesthetic means. Latent territory markers, discussed above, are but one example. Consider,

again, the sense of having entered private space that is created by features like aesthetically pleasing

decorative walls, elevation changes, alterations in brickwork near to entrances, and a limited number of

paths in and out (Newman 1972; Whyte 1980; Berleant 1988). While the use of these features is

widely recognized and sometimes criticized for implementing tacit social control (e.g., Low 1997), too

little attention is paid to the fact that tacit boundaries may have more severe consequences for

disadvantaged people. We have already seen that studies show that sadness make hills look steeper and

more distant (Riener et al. 2011), with a similar phenomenon observed for individuals who are tired,

sick, suffering low blood sugar, or laden with heavy backpacks (Proffitt et al. 1995; Bhalla and Proffitt

1999; Schnall et al. 2010; Zadra et al. 2010). We should therefore expect implicit territory markers

which—like affordances—limit bodily movement to have a stronger forbidding effect on those who

are unwell. This will frequently include the homeless, who experience ill-health, poorer nutrition, and

negative mood to a greater degree than those with stable housing (Belcher and Diblasio 1990; Seale et

al. 2016; Stafford and Wood 2017). This means areas with such features will be more closed to them

than to others, rendering space selectively permeable, a proposition in fact supported by a multiyear

observational investigation of a university campus abutting an area in which homeless people gather

(forthcoming, citation suppressed).

    Authoritarian actors, such as those who took control of Egypt following the 2013 coup, appear

to have employed such spatial tactics to physically isolate public spaces and thereby limit

demonstrations (Abdelazim 2021, Ch. 3). Tahrir was redesigned to include curbs, decorative walls and

fences, shrubs, limited entrances, and pathways with changes in brickwork and elevation (Crippen

2021b). None of these changes physically restricted access. Instead, they created the sense that one is

entering a semi-forbidden area (Abdelazim 2021, Ch. 5). This, at least, seems fair to infer from the fact

that Egyptians—who customarily occupy any green space—avoided Tahrir (see Schwedler 2017;

Crippen and Klement 2020; Crippen 2021b). The fact that many Egyptians were suffering severe

economic hardship and were politically defeated gave rise to a collective mood of general exhaustion.

According to arguments given, this would have enhanced the power of the square's tacit boundaries, much as fatigue and sadness impede the ability to approach or crest hills. While the wider Egyptian political situation would make Tahrir look especially severe to drained Egyptians, in less despondent social contexts a square with identical features might invite entry. The effects of the redesign, then, have as much to do with culture as the raw form. Yet definitions given at the beginning of this section state that culture is predominantly an external and embodied phenomenon, a host of habitual ways of interacting with surroundings that modulate affordances, as opposed to simply altering mental ways of seeing. Thus, a Swedish tourist unburdened by the wider Egyptian culture of malaise is likely to find the square more welcoming than would Egyptians. Critically, moreover, the Swede faces objectively less risk than an Egyptian since police avoid harassing identifiable tourists (Crippen 2021b), so the alternative ways of emotionally registering the space track to the different realities the two agents face. If these assertions hold, then Tahrir is rendered selectively permeable.

Changes in the cultural situation and to Tahrir's layout—which has since been redesigned yet again—accordingly altered the emotional color and normative grammar of the area, with the square full of lively activity shortly after the 2011 Revolution (Attia 2011) and typically empty and totally bereft of major protests following the 2015 reconstruction (Abdelazim 2021, Ch. 5; Crippen 2021b). The absence of people amplifies the forbidden aura the design already has for Egyptians, with the obvious effect of shutting down the square as a protest space, making it emotionally hostile to locals, thereby shrinking a political affordance for expressing dissent (see Crippen 2021b). The word "affordance" is apt here, given that alterations to the design of the square and changes in the broader cultural context extinguished openings for political action, thereby altering the value of the space, which in fact became objectively dangerous for Egyptians. Though Gibson does not explicitly discuss ethical and political connotations of his conceptual scheme, his theory nevertheless has normative applications. This follows insofar as affordances are not neutral, but rather are value laden. Another relatively novel claim that Gibson makes is that values ought to be located in ecologies and not just in

our heads. The same can be said of political affordances: they are not subjective, but are real safeties and dangers, motivating the use of the terminology of affordances to discuss them.

One last illustration unifies this section's key points. This is the now familiar fact that women perceive certain areas to be more dangerous than men do, in virtue of these spaces placing women at greater risk. An example of such a space is public transportation, where sexual harassment can be rampant (Loukaitou-Sideris and Ceccato 2021). One female interviewed for this article, living in a country where microbuses are common, reported that harassment correlates negatively with the number of women present. Without wanting to cast doubt on the very genuine dangers faced by women, one might speculate that TV programs depicting women being assaulted contribute to a culture of fear (see Knoblauch 2014; Lukianoff and Haidt Chs. 8-9). In so doing, they further constrain the possible patterns of female movement through transit systems. After all, if a lack of women increases the risk of harm, and if popular entertainment discourages women from taking public transport, then these depictions in fact act to increase risk and the extent to which microbuses are threatening. The likely outcome of this dynamic is even lower numbers of female riders, increasing the perceived and genuine threat posed of public transport, in turn further decreasing the number of women willing to use microbuses. The culture embedded in certain spaces emotionally inflects them, but does not render them subjective in the sense relevant here. These emotional inflections are, rather, genuine threats that impose selectively permeable boundaries, those that filter people according to gender.

Conclusion

This article began with a relatively uncontroversial claim: that emotions lend differential weight to different states of affairs, helping us conceptually carve the world and make rational decisions. I then argued that emotional environmental tones are not mere projections, instead drawing on ecological standpoints that regard properties as interrelational outcomes. It is part of this view that

experience is a cultural phenomenon that has concerns at its core, introducing normative constraints or world grammars. I argued that cultural spaces have affectively charged, non-subjective, normative openings and closures—what I referred to as political affordances—that give rise to selectively permeable barriers. I further provided reasons for thinking that normative values—like affordances— are produced by both environments and their human inhabitants.

I also discussed aesthetics as a meaning-making force. This is an idea already contained within artistic work itself. Pieces such as Michelangelo's *Pietà* exhibit overlap between aesthetics, emotion, and morality: while few gain pleasure from witnessing others suffer, Mary's grief over her dead son strikes most observers as a morally appropriate and aesthetically striking expression of love (and almost nobody would find it beautiful or laudable to see a mother laughing over a deceased child). The aesthetic-emotional tones of settings likewise impose moral grammars. We may, of course, wish to question the legitimacy of some normative codes, such as those excluding women. The codes are nevertheless embedded in a space's ecological form. Put another way, values are culturally relative in roughly the same way that affordances are relative to an agent's capacity to act in the environment in which they feature. This is because cultures impose genuine dangers, safeties, openings, constraints and corresponding emotional tones, often differentially in *relation* to the subgroup to which one belongs. We can accordingly speak of "cultural relativism" without implying subjectivism. The upshot is that certain subgroups may rationally, accurately and emotionally take a setting to pose greater danger to them than it does to other members of their community. Others, in virtue of facing less risk, may be blind to the problem and thus dismiss affected individuals as irrationally emotional. Emotional experience is in fact often the epistemic resource that is closest to us, yet is frequently rejected as unreliable. This paper is a call to take it seriously.

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