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Acting in light of the facts: an ecological approach

Agindo à luz dos fatos: uma abordagem ecológica

Rafael Graebin Vogelmann [a]
Porto Alegre, RS, Brasil
Universidade Federal de Uberlândia (UFU), Instituto de Filosofia

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Abstract

We conceive of ourselves as capable of acting in response to normative reasons. Given that normative reasons are facts, this self-conception entails that we are capable of acting in response to facts. Arguments from error cases might seem to force us to deflate this self-conception, for they seem to show that to act in light of a fact must simply be a way of acting in light of a belief. The starting point of this paper is the rejection of this deflationary view. In order to reject the argument from error cases, we should adopt a disjunctive view of motivating reasons. According to this view there are two distinct ways of acting in light of a consideration: acting in light of a fact and acting in light of a belief. Disjunctivism about motivating reasons, however, is the target of a skeptical challenge grounded in a cognitivist account of the mind. According to this account, cognition is to explained in terms of the manipulation of representations and there is no meaningful difference between acting in light of a fact and acting in light of a belief: in both cases, one decides in light of a representation. The goal of this paper is to defend disjunctivism from this objection. In order to do so I appeal to Gibson's ecological psychology. I argue that the ecological account of perception allows us to hold that in the case of actions guided by perception we act in light of the facts themselves (not representations of those facts) and that the same approach can be extended to cover cases in which we act in light of sensorily unavailable facts.

***Keywords**: Motivating reasons. Disjunctivism. Facts. Perception. Ecological psychology.*

Resumo

Nós nos concebemos como capazes de agir em resposta a razões normativas. Dado que razões normativas são fatos, essa autoimagem implica que somos capazes de agir em resposta a fatos. Argumentos a partir de casos de erro parecem nos forçar a deflacionar essa autoimagem pois eles parecem mostrar que agir à luz de um fato é apenas um modo de agir à luz de uma crença. Este artigo parte da recusa dessa tese deflacionária. De maneira a desarmar o argumento dos casos de erro,

[a] Doutor em Filosofia, e-mail: rafael.vog@gmail.com

devemos adotar a tese do disjuntivismo de razões motivacionais. Segundo essa tese, há dois modos distintos de agir à luz de uma consideração: agir à luz de um fato ou agir à luz de uma crença. O disjuntivismo de razões, contudo, é alvo de um desafio cético calcado em uma concepção cognitivista da mente. Segundo essa concepção, a cognição deve ser explicada em termos da manipulação de representações e não há nenhuma diferença profunda entre decidir à luz de fatos e decidir à luz de crenças: em ambos os casos decidimos à luz de representações. O objetivo do artigo é defender o disjuntivismo dessa objeção. Para tal, apelo à psicologia ecológica de Gibson. Sustento que a concepção ecológica de percepção permite sustentar que, no caso de ações guiadas por percepção, agimos à luz dos fatos eles mesmos (e não de representações desses fatos) e que a mesma abordagem ecológica pode ser estendida para dar conta de casos nos quais agimos à luz de fatos sensorialmente indisponíveis.

Palavras-chave: Razões motivacionais. Disjuntivismo. Fatos. Percepção. Psicologia ecológica.

1. Introduction

Normative reasons are facts that count in favor of an action.[1] Usually, they are facts about the circumstances in which the agent finds herself, and not psychological facts about her. When a normative reason provides a sufficient or decisive reason to act in a particular way, it is a good reason to act in that manner. At least on occasion, we act for good reasons. In these cases, the reasons for which we act (our motivating reasons) are good reasons. So, motivating reasons can be identical to normative reasons. Since normative reasons are usually facts about the circumstances of action, motivating reasons can be identical to facts about the circumstances in which the agent acts.

This sums up the line of reasoning presented by Jonathan Dancy in his *Practical Reality* (2000, p. 103-108). While I agree with Dancy, I have argued elsewhere (VOGELMANN, 2021) that his own defense of this view is incomplete. It falls short of vindicating the view that our motivating reasons can be identical to normative reasons (which are themselves facts). In section 2, I explain why that is the case and argue that in order to properly defend that view we must accept a form of disjunctivism about motivating reasons. According to this view, acting in light of a fact and acting in light of a belief are two different, but potentially indistinguishable, ways of acting in light of a consideration. It entails that when we act in light of a fact, the consideration in light of which we decide to act not only corresponds to a fact, but is itself a fact.

This view is likely to be met with skepticism. Indeed, it does not fit well with a cognitivist conception of our mind. According to this approach, the mind is an entity that produces and manipulates representations. In particular, the basis for decision making is not the facts themselves, but representations of the facts. Given this conception of the mind and its relation to the world, one is led to deny the deep difference between acting in light of a fact and acting in light of a belief that is postulates by disjunctivism.

The goal of this paper is to defend disjunctivism about motivating reason from this objection and, in doing so, to vindicate Dancy's point that we sometimes decide to act in light of the facts themselves. In order to do that, we need a different theory of the relation between mind and world – one that allows for and explains the claim that facts themselves can figure in the decision process. In section 3, I argue that Gibson's ecological psychology fits the bill and explain how that approach accounts for the fact that when our action is guided by perception, we decide to act in light of facts themselves and not in light of beliefs. Finally, in section 4, I outline how that strategy can be extended to decisions in light of sensorily unavailable facts, that is, facts that are not perceptually accessible.

2. Disjunctivism about Motivational Reasons

The view that motivating reasons can be identical to normative reasons is threatened by a simple case:

> Edmund […] believes that the ice in the middle of the pond is dangerously thin, having been told so by a normally reliable friend, and […] accordingly keeps to the edge. But Edmund's friend didn't want Edmund to skate in the middle of the pond (never mind why), so that he had told Edmund that the ice there was thin despite having no view about whether or not it actually was thin. Edmund, then, did not keep to the edge because the ice in the middle was thin. Suppose now that, as it happened, the ice in the middle of the pond was thin. This makes no difference. Edmund still didn't keep to the edge because the ice was thin (HORNSBY, 2008, p. 251).

In this case, Edmund decided to stay in the edge in light of his true belief that the ice in the middle was thin. However, it is false to claim that he decided to stay in the edge in light of the fact that the ice in the middle was thin. He is not responding to this fact because he is not in contact with it. What this example shows is that deciding to act

[1] This view is widely accepted. So much so that Alvarez (2016) describes it as near consensus in philosophy of action.

in light of a true belief and deciding to act in light of a fact are not the same thing. In other words, having a true consideration as one's motivating reason is not a sufficient condition for one to count as acting in light of a fact.

This creates a problem for the view that motivating reasons can be identical to facts. An agent's motivating reasons are the considerations in light of which she decided to act (DANCY, 2000, p. 132 and p. 175). An agent, like Edmund, can act in light of the true consideration that the ice is thin without acting in light of the fact that the ice is thin. That means that the consideration in light of which he acts if not itself a fact – it merely corresponds to a fact. But now consider someone that acts in light of the fact that the ice was thin. It would seem that the consideration in light of which this person decides to act is the same consideration in light of which Edmund decided to act, namely, "the ice in the middle is thin". If this consideration was not a fact in Edmund's case, how could the same consideration be a fact in the latter case? It seems it cannot be a fact at all. However, if that is the case, then the mere possibility of acting in light of a true belief without acting in light of a fact shows that the considerations in light of which we act are not themselves facts. If that line of reasoning were correct, motivating reasons could never be identical to facts and, therefore, could never be identical to normative reasons.

That problem can be avoided if we reject the supposition that when one acts in light of the belief that R and when one acts in light of the fact that R, one acts in light of the same consideration. One way to do that is to hold that even though the two considerations may be subjectively indistinguishable, they are different: the latter is a fact, the former is not. To do that is to commit to a disjunctive account of considerations: they are either facts or mere objects of belief.

This view entails that acting in light of a fact and acting in light of a belief are mutually exclusive activities. Acting in light of a fact cannot be a way of acting in light of a belief, nor vice-versa, because the considerations on the basis of which one makes a decision in each case are of different kinds.

I believe we should embrace this conclusion, but it is challenged by an argument from error cases. The argument goes as follows: an agent can decide to act in light of a consideration R in which she falsely believes. In this case, we cannot say that she acted in light of the fact that R because R is not a fact. We should, instead, say that she acted in light of her belief that R. But, from the subjective standpoint of the agent, the practical reasoning she engages in an error case and in a case in which she is responding to a perceived fact can be indistinguishable (both can take the form "given that R, I will do A"). If both episodes are indistinguishable, they must be deployments of the same capacity for practical reasoning. We know that in the error case the agent is deploying her capacity to act in light of a belief. So, we should conclude that the same in true in the case in which she acts in response to a perceived fact. In both cases, the agent decides to act in light of a belief. Acting in light of a fact is simply a special case of acting in light of a belief.

The key to defusing this argument is to adopt a form of disjunctivism about motivating reasons. I have argued for this view elsewhere (VOGELMANN, 2021). Here I will briefly outline it.

The crucial step in the argument from error cases is the move from the claim that (i) in error cases the agents cannot be said to be acting in light of a fact and the claim that (ii) both in error cases and non-error cases, the agent is exercising the same capacity for practical reasoning, to the conclusion that (iii) practical reasoning always takes the form of deciding to act in light of a belief. The problem with this argument is that it ignores the distinction between a successful and an unsuccessful deployment of a capacity. Even if agents are exercising the same capacity in error and non-error cases alike, it does not follow that acting in light of a fact is a way of acting in light of a belief. The difference between acting in light of a fact and acting in light of a belief can be understood as the difference between a successful and an unsuccessful exercise of the capacity for practical reasoning (VOGELMANN, 2021, p. 240).

In order to defuse the argument from error cases, we must hold that cases in which an agent acts in light of a belief (be it true or false) are cases in which the agent's capacity for practical reasoning is not perfectly exercised. That view becomes plausible if we take practical reasoning as the effort to guide one's behavior in light of the facts.

When an agent acts in light of a fact, we can see her action as an intelligent response to features of the situation she finds herself in. In this case, the effort to guide one's behavior in light of the facts is successful. The same cannot be said when the agent acts in light of a mere belief, even if it is true. As Edmund's case shows, in these cases the action cannot be seen as an intelligent response to features of the situation. These are cases in which the effort to guide one's behavior in light of the facts is not entirely successful (VOGELMANN, 2021, p. 242).

If we accept this view, as I think we should, we must acknowledge that, at least on occasion, cases in which an agent perfectly exercises her capacity for practical reasoning and cases in which that same capacity is exercised in a flawed manner can be subjectively indistinguishable. In both cases it can seem to the agent that she is deciding in light of a fact. It follows that there are two different but potentially indistinguishable modes of acting in light of a consideration: acting in light of a fact and acting in light of a (true or false) belief. In the former case, the agent's behavior can be seen as an intelligent response to features of the situation. In the latter, it seems to the agent that she is adjusting her behavior in light of the facts, but that is not the case. Accepting this disjunctive conception of acting in light of a consideration is what it takes to defuse the argument from error cases (VOGELMANN, 2021, p. 242).

If the argument so far is correct, then, in order to uphold the claim that motivating reasons can be identical to normative reasons we must accept two disjunctivist claims. We must hold a disjunctive account of considerations, according to which a consideration in light of which one decides to act can be either a fact or a mere object of belief. And we must hold that there are two different ways of acting in light of a consideration: acting in light of a fact or acting in light of a belief. The resulting view is that that in light of which an agent decides to act is different when she successfully exercises her capacity for practical reasoning and when that capacity is exercised in a flawed manner. In a case in which the agent successfully deploys her capacity for practical reasoning, the consideration in light of which she decides to act is itself a fact and, accordingly, she acts in light of a fact. Practical thought, in this case, is entangled with the world. In the case of failure, the consideration in light of which the agent decides is not itself a fact and she merely acts in light of a belief. This view is what I call disjunctivism about motivating reasons (henceforth, disjunctivism). Accepting it is necessary to vindicate Dancy's central and most compelling intuition: that our motivating reasons can be identical (not only correspond) to normative reasons (which are themselves facts).

There is no denying that this is quite a strong thesis. It is certainly to be met with skepticism. The skeptic challenge can be thus expressed: disjunctivism postulates a deep difference between acting in light of a fact and acting in light of a belief, but the actual difference is not that deep. In both cases, the agent engages in the psychological process of deciding to act in light of a consideration and facts themselves cannot figure in that process. Rather, the starting point of that process must always be a mental representation of the facts. The relevant difference between acting in light of a fact and acting in light of a belief concerns the epistemic credentials of those representations (whether they are accurate and constitute knowledge or not).

To hold on to Dancy's core intuition and defend the disjunctivism it requires, we must answer this challenge. To do so, what we need is a theory of the relation between world and mind that explains the view that facts themselves can figure in the decision process. In the remaining of this paper, I argue that an ecological approach to cognition provides exactly that.

3. The Ecological Approach to Perception

The skeptical challenge to disjunctivism is grounded in a traditional, cognitivist conception of mind. According to this conception, cognition is a matter or producing, transforming and combining internal states that represent properties of the domain the agent is dealing with (WARD; SILVERMAN; VILLALOBOS, 2017, p. 365). In other words, the mind activity is characterized by the manipulation of representations. Given this conception of mind, it is plausible to hold that there is no significant difference between acting in light of a fact and acting in light of a belief. In both

cases, the agent produces an internal model of reality and decides to act in light of that model. The only difference concerns the model accuracy and its epistemological credentials.

Take the case of actions guided by perception. For instance, while running, I see an obstacle ahead and, in response, I dodge it. If there is a case in which we act in light of the facts, that's certainly it. However, according to the cognitivist account of perception, even when our action is guided by perception, what guides our behavior is a model of the facts, and not the facts themselves. According to what Gibson (2015, p. xiii) and Noë (2012, p. 91) call the snapshot conception of seeing, visual perception is a passive process of receiving information that is subsequently enriched and processed by the cognitive system to create a representation of the environment. The starting point of perception are stimuli that impinge on our sensory organs and are processed by the brain in order to produce an experience. The stimuli, however, are poor. In the case of vision, the stimuli that reach the retina at a given instant are scarce and discontinuous. For instance, each eye has a blind spot, outside the foveal region the retina has a very low discriminatory potential and our eyes are constantly moving (see NOË, 2012, p. 92). Despite all that, we do not perceive a patchy, discontinuous, low-resolution world, but a stable, continuous and detailed world. How do we go from the poor stimuli to the rich perception? The cognitivist answer is that the brain integrates and enriches the fragmentary stimuli into a representation, an internal model of the environment (NOË, 2012, p. 92; NEISSER, 2014, p. 130). This model, then, provides the basis for decision-making.

If that is the case, then there is no way around the skeptical challenge to disjunctivism. Fortunately, there are alternatives to the cognitivist approach. Gibson's ecological psychology, for one, provides an account of perception that rejects the claim that perception involves representations. In this section I argue that this conception of perception allows us to defend the claim that when an action is guided by perception, the agent decides to act in light of the facts themselves.

Gibson rejects the snapshot conception of perception. This view hold that the stimuli are poor because it conceives of perception as the passive reception of instantaneous stimuli. Refusing that supposition allow us to hold that the environment is rich in information. In the environment there are energetic patterns spread out across space and time that are nomologically correlated to objects or events. These patterns provide ecological information about the environment (GIBSON, 2015, p. 47). Given that these patterns are spread out across space and time, they may not be instantaneously accessible. In order to detect the pattern, an organism has to actively explore the environment (by moving around). For instance, the pattern correlated with a ripe tomato is not a pattern detected instantaneously (a certain light array that reaches the retina at a particular moment), but a pattern that unfolds as I move around the tomato, looking at it from different angles. The ground for perception is not the instantaneous stimulus, but the flux of stimulation (CARVALHO, 2021, p. 5288). According to Gibson, to perceive is to capture ecological information available in the environment. Given that the process of detecting an energetic pattern is a process that takes times as the organism explores the environment, the organism's exploratory activity is constitutive of perception.

There are three claims that are characteristic of Gibson's ecological account of perception (CHEMERO, 2009, p. 23). First, perception is direct and need not involve internal representations. Because the ecological information available in the environment is rich, perception does not require the creation of an internal model that supplements the available sensory information. By exploring the environment, the organism can capture rich information and use it, directly, to guide its behavior. Second, the detection of ecological information is not made for its own sake, but always serves the practical purpose of guiding the organism behavior in light of its goals. The function of perception is to guide action. As Scarantino puts it, for Gibson, "to perceive is to pick up information for purposes of behavioral discrimination (rather than for purposes of belief fixation)" (2003, p. 953). This is connected to the third point: that perception is always the perception of affordances. An affordance is a possibility for action the environment provides for the organism. As Gibson puts it, to perceive something is to perceive how to approach it and what to do with it (Gibson, 2015: 213). We perceive a feature of the environment by perceiving some of its affordances. To say the we

perceive affordances is not to say that our perceptual states represent affordances. Perception is not representational. The point is that by detecting ecological information the organism is able to identify the possibilities of action that are available to it and, thus, guide its behavior accordingly. Perception just is that process of picking up and using ecological information to determine the available courses of action – that is, to discriminate affordances. And, for that reason, perception is always perception of affordances.

Given this framework, how can we understand the activity of adjusting one's behavior in light of a perceived fact? Consider the example of seeing an obstacle while running and dodging it in response. In this case, one adjusts one's behavior in light of that fact that there is an obstacle ahead. Our cognitivist objector would have it that this is just another case of deciding to act in light of the mental representation of the fact that there is an obstacle ahead. According to the ecological account of perception, however, what is happening is different: adjusting one's behavior in light of the fact that there is an obstacle ahead is a matter of picking up the available ecological information and using it to determine what the obstacle affords (crashing into it, stopping, going around it) and, given the activity in which the organism is engaged and its goals, selecting one of these affordances to act on. In this case, one acts in light of the perception of certain affordances. But discriminating affordances on the basis of ecological information is what perceiving a fact consists in. So, in this case, one's behavior is guided by the perception of the fact that there is obstacle ahead. Crucially, the perception of that fact is direct. The process of perception does not involve the production or manipulation of mental representations. In perception, the organism is in direct contact with the environment itself, not a model of it. So, there is no difference between adjusting one's behavior in light of the perception of a fact and adjusting one's behavior in light of the perceived fact. The upshot is that when one acts in light of the perception of affordances, one is acting in light of the facts themselves.

Gibson's ecological account of perception, then, allows for a partial answer to the skeptical challenge to disjunctivism: actions guided by perception provide an example of acting in light of a fact that cannot be reduced to a special case of acting in light of a belief. When the ground for decision is perception, one decides to act in light of the facts themselves, and not in light of a mental entity, such as a belief.

4. Deciding in Light of Sensorily Unavailable Facts

However, that is indeed only a partial answer. Acting in light of a perceived fact is not the only way to act in response to a normative reason. Often our normative reasons are facts that are not perceptually accessible, because they are abstract or spatially and temporally distant. Yet, at least sometimes, we are able to act in light of these facts just as we can act in light of a perceptually accessible fact. Recall that disjunctivism was introduced in order to vindicate the claim that our motivating reasons can be identical to normative reasons. If it applies only to the case of perceptually guided action, then disjunctivism is severely limited.

One might even restate the skeptical challenge to disjunctivism in that manner: in the case of perceptually guided actions, we decide to act in light of facts in the strong sense required by disjunctivism; but when it comes to sensorily unavailable facts, the best we can do is to decide in light of representations of those facts.[2] That would restrict the set of cases in which our motivating reasons can be identified with normative reasons to cases of perceptually guided actions.

In order to answer this challenge, we must explain how can an agent guide its behavior in light of facts that are not sensorily present without adjusting its behavior in light of representations of those facts. In this section I will outline an ecological answer to that question.

[2] This is an instance of the general problem faced by anti-representationalist views of explaining representation-hungry cognitive processes – forms of higher cognition that seem to require the manipulation of representations. See Kiverstein and Rietveld (2018).

According to Gibson's ecological account of perception, to perceive is to pick up ecological information and use it to discriminate affordances. When one decides to act in light of the perception of an affordance, one decides to act in light of a fact. In general, picking up ecological information and using it to discriminate affordances in the environment allows the organism to coordinate its behavior with features of the environment and, to that extent, act in light of the facts.

The question is how far can we extend this theoretical framework. Without mobilizing representations, we can coordinate our behavior only with features of the environment that are sensorily available or is it possible to coordinate with features that are sensorily unavailable? The first option is too restrictive. Not only human beings, but other animals are capable of using sensorily available information to coordinate their behavior with distal features of the environment.

Consider this case: a wild dog picks up the scent of a prey and in response starts following the trail of the prey. The dog is using ecological information, in the form of odorific particles, to track its prey. What affordance is it discriminating and responding to? At the very least, the dog perceives the trail as affording following it. But, assuming it is indeed tracking a prey, it is also detecting and responding to an affordance that pertains not to the trail, but to the prey itself. The dog is following the trail only because it detected an opportunity to feed. And feeding or preying upon, is something the prey, not the trail, affords. So, the dog has picked up on an affordance of the prey and responded to it. It is adjusting its behavior in light of the fact that there is a prey at the end of the trail. But the dog does not perceive its prey: assuming it is far enough away, it is not sensorily available. Nor, crucially, is it producing and manipulating a representation of the prey: if there is no need to appeal to representations to explain the dog's perceptual engagement with the environment, there certainly is no need to appeal to representations to explain its capacity to track prey. Rather, the dog is mobilizing its perceptual abilities (namely, its sniffing capabilities) in such a way as to pick up locally available ecological information, using it to discriminate an affordance of a distal feature of the environment and responding to that affordance. It is, without the mediation of representations, directly responding to a perceptually unavailable fact. How is that possible?

The key here is the notion of ecological information. Ecological information is provided by energetic patterns that are correlated with features of the environment. There is a debate between supporters of the ecological psychology about how strong that correlation should be. Should it be a one-to-one correlation that admits of no exception, or is a probabilistic correlation enough? As Bruineberg, Chemero and Rietveld (2018) notice, many affordances are not nomologically specified by energetic patterns in the environment. A thermos at work that is usually filled with coffee will normally afford drinking coffee. However, there is not a nomological correlation between the coffee affordance and the energetic pattern associated with the thermos: occasionally the thermos may be empty. Although the correlation between the energetic pattern and the affordance in this case is only probabilistic, that information is sufficient to detect the affordance and act on it.

In order to account for that possibility, Bruineberg and colleagues distinguish between general ecological information and lawful ecological information. An energetic pattern provides lawful information when it specifies without exception a feature of the environment. When there is only a probabilistic correlation between the energetic pattern and a feature of the environment, the pattern provides only general ecological information (BRUINEBERG et al., 2018, p. 5236-5237). General ecological information allows organism to be informed about one feature of the environment via the perception of another feature of the environment with which correlates.

As Carvalho and Rolla (2020, p. 4) notice, if we conceive of perception as the picking up of general ecological information, we open up the possibility of perceptual error. For instance, if seeing fire was a matter of picking up general information that is correlated with fire, then seeing smoke would count as perceiving fire. But one could see smoke where there is no fire. The possibility of perceptual error, however, fits rather poorly with Gibson's commitment to direct perception. So, we have good reason to hold that perception is a matter of picking up lawful information.

The point remains, however, that there is lots of general ecological information available in the environment. And even it if does not allow for perception, it can reliably inform the organism about features of the environment – even features of the environment that are not sensorily available. Consider the case of seeing the shadow of a bird of prey (BRUINEBERG et al., 2018, p. 5237). The energetic pattern associated with the shadow does not provide lawful information about the bird, because it could be produced by something else. But it can reliably inform an animal about the presence of the bird. Furthermore, it can be used by the animal to discriminate an affordance and respond to it. For a small rodent, for instance, the bird affords looking for shelter. Seeing only the shadow may be enough to the rodent to discriminate that affordance and respond to it. In that case, the affordance is not perceived (nor is the bird), because perception requires lawful information. But the rodent, via its skilled engagement with the environment, manages to detect and respond to it.

The same happens in the example of the dog. When the dog picks up the prey's trail, it is not perceiving the prey. That is the case because the information provided by the trail of odorific particles is only general information. Nevertheless, given that it is capable of sniffing, the dog can use that information to detect an opportunity for feeding (an affordance). It does not perceive the affordance, because perceiving it would be to perceive the prey. But it is capable of skillfully detecting and responding to it. In that manner, it is capable of adjusting its behavior in response to a distal feature of the environment. That is, it is capable of acting in light of a sensorily unavailable fact.

What distinguishes this case from a case of acting in light of a perceived fact is simply the kind of information available. According to the view defended in the previous section, acting in light of a perceived fact is a matter of picking up lawful ecological information that specifies the presence of a feature in the environment, skillfully using that information to discriminate an affordance and acting in response to the perception of that affordance. One acts in light of a perceived fact in this case because perceiving an affordance is the same as perceiving a feature of the environment. Acting in light of a sensorily unavailable feature of the environment takes the same form. It is a matter of picking up general information that indicates the presence of a feature in the environment, skillfully using that information to discriminate an affordance and acting in response to the detection of that affordance. To detect an affordance is to detect a feature of the environment. So, if one acts in light of an affordance one detected, one is acting in light of a fact. The only difference is that because the information available is only general information, one does not perceive the relevant affordance or feature of the environment, but skillfully uses the available information to detect it.

General information opens up the possibility for error. So, it may seem to an agent that she is detecting and responding to an affordance of the environment when that is not actually the case. But that is not reason to hold that when one successfully detects and responds to an affordance one is not acting in light of a fact, but acting in light of a representation of that fact. When our capacity to detect and respond to facts is successfully deployed, it does just what it is supposed to do: it allows us to act in light of the facts themselves. That is the case even if that capacity is fallible.[3]

The ecological niche human beings occupy is full of non-strict regularities that provide general information about features of the environment. These regularities allow us to detect and respond to affordances of distal features of the environment. Some of these regularities are natural correlations: as when the smell of burned food allows me to coordinate with the fact that there is something burning in the stove, even if I am in another room. Other regularities are man-made. Gas companies add odorants to natural gas so that it smells like rotten eggs. In that case, a correlation between the presence of certain odorants and the presence of natural gas is intentionally produced.

[3] See McDowell (2013, p. 23-24) for a defense of an analogous point in the context of disjunctivism about appearances. See Carvalho (2021) for an ecological account of McDowell's disjunctivism.

Other regularities depend on recurrent patterns of behavior. The sound of the doorbell provides general information that indicates that there is someone waiting at the door because people usually ring the doorbell to let others know they are at the door. Perceptually picking up the information provided by the sound of the doorbell allow us to discern and respond to affordances associated with the sensorily unavailable fact that there is someone at the door. In a similar way, it is the regularities in human communication and interaction that allow us to act in light of facts that we access only via the testimony of others. Suppose someone tells me that the road ahead is blocked. Given the way humans communicate and interact, this kind of communicative act is usually correlated with the road being indeed blocked. It provides, then, general information that indicates the road in blocked. If everything goes well, that information can be used to coordinate my behavior with the fact that the road is blocked, even if I never actually perceive that fact.

As this last example suggests, the way in which the regularities in question are established can depend of very complex patterns of behavior, conventions and the imposition of constraints on our behavior. There is, for instance, a non-strict correlation between the fact that my watch indicates its noon and the fact that the train is about to leave the station. That correlation is established by the conventions that connect the train schedule to the train's comings and goings, the way in which the schedule constrains the actions of the conductor, and the conventions by which we set and synchronize our watches (BRUINEBERG et al., 2018, p. 5242). When all of that is in place, the perceptually accessible information provided by my watch can inform me about the distal facts regarding the train. Using that information to discern and respond to distal affordances will require a number of social and symbolic skills (as the capacity to read a watch and the capacity to coordinate with a schedule). But just as the dog's sniffing ability allows it to use the sensorily available information of the odorific trail to act in light of a distal fact, an agent equipped with those skills and that uses the sensorily available information provided by the watch to discern and respond to the affordances that pertain to the distal fact that the train is about to leave acts in light of that fact itself, not a mental representation of that fact.

In general, then, it is the existence of regularities in our environment (some of which are conventional or intentionally projected) that allow us to coordinate our behavior with features of the environment we cannot perceive. Someone that is sensitive to these regularities and that has the skill required to use them to discriminate distal affordances can use sensorily available information to respond to sensorily unavailable features of the environment. Perceptual contact with an object is not necessary to be open to its affordances (BRUINEBERG et al., 2018, p. 5241).

5. Conclusion

I set out to defend disjunctivism from a cognitivist objection. Gibson's ecological account of perception explains how we are able to act in light of the facts themselves, and not representations of the facts, when our action is guided by perception. And I argued that the notion of general ecological information allows us to extent the same explanatory strategy to cases of decision in light of sensorily unavailable facts. The proposal is that, given regularities in the environment, sensorily accessible features of the environment may provide general ecological information about sensorily unavailable facts. That information, just as the lawful information that is at the basis of perception, can be used to discriminate affordances of distal features of the environment without appeal to representations. Given the nature of the information at is basis, our capacity to detect distal affordances is essentially fallible. But when the successfully deployed, it does just what it is a capacity for: it allows us to detect and respond to affordances of sensorily unavailable features of the environment. That is, it allows us to act in light of distal facts themselves.

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