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From Sensorimotor Dependencies to Perceptual Practices: Making Enactivism Social

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Abstract

Proponents of enactivism should be interested in exploring what notion of *action* best captures the type of action-perception link that the view proposes, such that it covers all the aspects in which our doings constitute and are constituted by our perceiving. This article proposes and defends the thesis that the notion of *sensorimotor dependencies* is insufficient to account for the reality of human perception, and that the central enactive notion should be that of *perceptual practices*. Sensorimotor enactivism is insufficient because it has no traction on socially dependent perceptions, which are essential to the role and significance of perception in our lives. Since the social dimension is a central desideratum in a theory of human perception, enactivism needs a notion that accounts for such an aspect. This article sketches the main features of the Wittgenstein-inspired notion of *perceptual practices* as the central notion to understand perception. Perception, I claim, is properly understood as woven into a type of social practices that includes food, dance, dress, music, etc. More specifically, perceptual practices are the *enactment of culturally structured, normatively rich techniques of commerce of meaningful multi- and inter-modal perceptible material*. I argue that perceptual practices explain three central features of socially dependent perception: attentional focus, aspects' saliency, and modal-specific harmony-like relations.

People who have lived in different cultures or have different, significant cultural influences in their lives almost unanimously attest to this fact: not everybody perceives the world in the same way. Perceiving the world in different ways is surely not only a cultural phenomenon, since biological particularities and pragmatic interests, among others, also play a role. Some questions arise in this context: Are these differences errors, or are they compatible manifestations of the same world? Are these differences a matter of inferences, or are they perceptual (understanding perception in a direct, immediate way)? Is perception mostly a function of individual biological capacities, or does it involve elements from everyday and social life? In this article, I am concerned with the last of those questions. Long-standing assumptions in the philosophy of mind have treated interpersonal perceptual differences as errors, and have dismissed social aspects from perception.

Call perceptual situations that show differences between members of different social groups, and agreement between members of the same group, socially dependent perception, or SDP.¹ SDP has often been treated as caused by linguistic or otherwise conceptual components of cognition. For illustrative purposes, let's take the seemingly simple case of the Müller-Lyer lines' (so-called) illusion. This case is commonly brought up when the theorist wants to argue for the point that perception alone isn't reliable, that perception is a matter of seemings—an upshot of the idea of the modularity of perception and its alleged cognitive impenetrability (Adams & Kveraga, 2015; Brogaard, 2016, pp. 85–86).

Despite its allegedly being a case of universal perceptual deception, research in social cognition has shown that not everybody is susceptible, or susceptible to the same degree, to the illusion that one line is

¹ Examples of social groups can be generational groups, national cultures, and subcultures, among others. I operate with a broad, intuitive idea that there is an intersubjective formation wherever a group acts in a some relatively constant manner. My argument does not require a set of criteria for social formations.

larger than the other. In some societies —particularly the South African gold miners, the San people in the Kalahari desert— "most people were virtually immune to the illusion" (McCauley and Heinrich, 2006, 79).

Strange as it might sound, the Müller-Lyer lines help establish that SDP are the case. The Müller-Lyer lines don't uncover secrets about the ontological and epistemological nature of perception. They are no proof of a supposed fundamental unreliability of perception. They rather show, when taking into account how they appear to people from different backgrounds, that even in basic cases there are differences in the way we perceive, which are arguably due to culture. And this constitutes good reason to deny the claim that no perception is socially influenced. In other words, it is clear that there are cases of SDP.² Take this as an initial diagnosis, which I will further substantiate in section 2, making clear too why SDP is a fundamental desideratum of a theory of perception, and allow me, in the meantime, to lay out my argument.

Far from being uncommon, akin to the situation with the Müller-Lyer figure, SDP cases (featuring perceptual intra-group agreement and inter-group disagreement) are relatively easy to find and establish (see section 2). Examination of SDP has already been taking place in other disciplines like social cognition, cognitive anthropology, and cultural psychology, sometimes with a perceptual bent. In philosophy, externalist, contextualist, and pragmatist approaches to knowledge, meaning, and content already offer resources to tackle some of the problems involved. But specifically in perception, the examination of social aspects has received much less attention. This article aims at contributing to correct that vast overlook.

I hold that enactive views best deliver the anti-Cartesian, non-intellectualistic, contextualist promise of situated cognition approaches, particularly in perception. In my view, the notion that perceiving is partly constituted by something we do in interaction with the world involves and is epistemologically prior to embodied-centered, embedded-centered, and extended-centered views. But here I will not argue for either the primacy of enactivism or the particular understanding of the overall composition of enactivism and the other three 3 Es.

My attempt here is to argue that enactivism has the tools to account for SDP and to offer a central piece of the version of enactivism that can handle SDP. This is a social enactivism about perception (SEP). Within enactive views, social enactivism's ability to handle SDP makes it a better enactivism than the other ones available.

I propose to correct the enactivist conception of perception by putting the notion of perceptual practices at the center of a social enactive account. Perceptual practices are a Wittgenstein-inspired notion that situates the baseline of perception at the level of intersubjectively constituted, sensory-based practices of interaction with worldly objects. Perceptual practices show that perception does not fully resolve in lawlike sensorimotor dependencies and the skillful knowledge of them. In my concluding remarks, I will sketch one way in which sensorimotor dependencies have a place within perceptual practices and within a fuller enactive account of perception.

It has been argued by a number of enactive-inclined philosophers that Wittgenstein is a forerunner of enactive approaches to cognition (Hurley, 1998; Hutto, 2013, 2013; Hutto & Myin, 2013; Medina, 2003, 2004,

² It is not my task here to interpret this case in the light of social enactivism, but to reject the universality claim and establish SDP, even in simple cases. On the positive side, it is worth noting two elements that will play out in a social enactive interpretation. First, it is the fact that the experience of the lines is *so* plainly perceptual that it is hard to imagine what linguistic or conceptual frameworks could help understand. After all, it is safe to assume that the concepts "line," "length," "longer than," and "shorter than" are correctly applied in the different groups in regular cases. Second, the findings of the work of Segall, Campbell, and Herskovits (1966) suggest that the differences in visual perception with the Müller-Lyer lines are due to "culturally influenced differences in visual experience during the first two decades of life" (McCauley & Heinrich, 2006, p. 79). For Westerners, think in particular of the exposure to boxy environments, such as square rooms. Additional to this, the lab-like nature of these lines, which are assessed in conditions unlike the active conditions in which they are typically encountered, would be a factor into the way the lines are perceived. At any rate, I am not concerned now with an explanation of the concrete differences.

2012; Noë, 2013, 2015). In Hurley's view, Wittgenstein's philosophy is a precursor of enactivism because he debunks the idea that there are intermediaries between mind and world that are necessary (or even useful) for our understanding of cognitive and perceptual abilities (1998, pp. 221–244). On a similar point, even analytic pragmatists like Putnam (1999) see Wittgenstein's work as an antidote against mainstream views in philosophy of mind, a task enactivism shares. Hutto argues that Wittgenstein's philosophy not only contains the basics of enactivism, but that it also provides the resources to embrace a true enactivism, free of the risks of falling into representational modes of thinking. Medina argues that the enactivist idea is already sketched in Wittgenstein's later writings, in terms of an embodied interactive exploration of the world (2012, p. 3ff.).

Wittgenstein's rich notion of social practices, as Medina has remarked, has the elements to turn enactivism about perception into social enactivism about perception. A correct analysis of action shows that human perception cannot be understood outside social practices, akin to language-games and forms of life (Williams, 1999).

Building upon Wittgenstein's practices, I argue for perceptual practices: the enactment of intersubjectively constituted and regulated (finely attuned) techniques of commerce of—production of and response to—meaningful (multimodal) perceptible material. In their configuration, they exhibit contextual, performative, expressive, and normative dimensions. Sensorimotor dependencies, where applicable, are fully incorporated within the framework. Culturally-informed sensory-based everyday activities, such as cooking-eating, dress, decoration, music, the use of intonation and musicality in speech, are paradigmatic instances of perceptual practices.

Section 1 evaluates how the existing enactivisms, and specifically how sensorimotor enactivism, fare in relation to SDP. Section 2 offers three significant cases of socially dependent perception, SDP, showing that SDP is a type of phenomenon that can't be explained away non-perceptually. On this basis, I round up the case that sensorimotor enactivism is inadequate to deal with SDP. In section 3, I offer a Wittgensteinian analysis of action as social practices. In section 4, I zone in on perceptual practices as a special kind of social practices, and I sketch its main elements: the enactment of culturally structured, normatively rich techniques of commerce of meaningful multi- and inter-modal perceptible material. This section presents the enactivist credentials of perceptual. In section 5, I offer an analysis of three structural features of perception which appear in socially dependent perception and are accounted for satisfactorily by perceptual practices, namely: attentional focus, aspects' saliency, and modal-specific harmony-like relations. I revisit the cases of section 2 with the new tools in hand.

1. Noë's Sensorimotor Enactivism and Other Existing Enactivisms

A good place to start is to see how existing enactivisms fare concerning SDP.

Let's take first autopoietic enactivism (Thompson, 2007; Varela, Thompson, & Rosch, 1991). This variety of enactivism can't satisfactorily explain SDP because, first, it does not readily have a notion of intersubjectivity. By keeping the business of cognition entirely individual, its sociality is akin to an inter-monadology (Thompson, 2007, p. 382ff.). Second, autopoietic enactivism declares itself open to SDP-like situations but leaves it as a task to be realized, amounting then no more than handwaving (2007, pp. 402–411). Autopoietic enactivism does not satisfactorily explain SDP. This inability may be due to the tasks their authors set out to tackle. I believe that in the first stages of enactivism, a type of individual-only groundwork was necessary and that Thompson's more recent work has a different target in mind, namely, to situate itself more in relation to the domain of life than to the social domain. But when we come to analyze human cognition—human perception—we'd be remiss to shrug off the social as secondary.

Hutto and Myin's Radical Enactive Cognition (REC) does not fare well either. To begin, there is hardly a mention of society in the REC work. Despite its claims of radicality, REC's minimal minds outsource SDP

and cognitive phenomena of social origin to "contentful and representationally based modes of thinking," which "should be regarded as emerging late in the phylogeny and ontogeny, being dependent on immersion in special sorts of shared practices" (Hutto & Myin, 2013, p. 13). Even by Hutto and Myin's standards, this concession amounts to put SDP in the domain of cognition beyond perception. I am not convinced by their arguments that sociality-involving perception is rather cognitive, in an inferential sort of way.

Hutto and Myin double down on these claims In their most recent *Evolving Enactivism* (Hutto & Myin, 2017). There, REC gives up on the contentless framework when facing SDP (Hutto & Myin, 2017, pp. 171–176). For one, their division of contentless, basic perceiving on the one hand, and contentful perceiving on the other puts the bulk of perception back in the representationalism camp. That division replicates the disputable distinction between low-level properties (LLP) as the only strictly perceptual properties, and high-level properties (HLP) as perceptual cum inferential.

This contradiction is not only entailed by other REC's commitments. REC explicitly drops the ball in a crucial point: it argues that basic HLPs, consequently SDPs, are thought, not perceived. Speaking of perceiving a dog out of a picture of black dots, REC says that "for those who have also mastered the relevant sociocultural practices, they will not only effortlessly and irresistibly see a dog, they will be tempted, irresistibly, to judge 'It's a dog'—to have a thought with some such predicates and truth conditional content" (Hutto & Myin, 2017, pp. 172–174). *Evolving Enactivism* effectively renounces an account of SDP on perceptual grounds, which, fatal for its purposes, gives away most of perception to representationalism, since most perception involves high-level properties, which are accounted for by REC through contents and representations. In conclusion, REC does not satisfactorily explain SDP.

Let's then look at sensorimotor enactivism, possibly the best known of them all (Noë, O'Regan, and Hurley). This type will be the focus of this article, not only because it remains the most attractive and best known of them, but also because it is the enactive account that provides the most hands-on detail about our interaction with the world, particularly in perception. In this introductory section, I begin to build my case against sensorimotor enactivism.

Can sensorimotor enactivism satisfactorily explain SDP? I intend to show that it can't because SDP cannot be accounted for by lawlike sensorimotor dependencies, the centerpiece notion of that theory.

Here's a quick case to start off. Think of adding salt to food. There is nothing sensorimotor in the common phenomenon by which some dishes taste better, or in which some flavors are more noticeable after salt is added to food. Alternatively, think of the evident seeing-as nature of the duck-rabbit case and the aspect-changes for the one who can shift between a duck and a rabbit.

The key aspect of Noë's sensorimotor enactivism, and the one on which I built my criticism is the reductive nature of perception to the sensorimotor, and the spatial and objective understanding of sensorimotor.

Noë says: "In perception, your relation to the perceived features is sensorimotor" (2012, p. 57). And the perceptual sensorimotor account is exclusively spatial: "Perception is the encounter with the world from a point of view," where our knowledge of the way things change "as we move or would move in relation" to them, is what allows us to perceive (Noë, 2012, p. 58). The "way things change" depending on our movement are the sensorimotor dependencies.

For the sensorimotor enactivist, our perception of things is constituted by a type of action and dependent upon the things themselves and by lawlike sensorimotor dependencies. They are lawlike because they are objective, in the sense that they are constituted by positions in the world from where a certain perspective obtains—relations between objects and their environments (Noë, 2004, 2012; O'Regan & Noë, 2001). In Noë's view, perspectival properties (P-properties) "are real (or objective) in the sense that they do

not depend, for their nature, either on what goes on in us (e.g., sensations) or on what we do. P-properties are properties of the environment” (Noë, 2004, p. 84).

The importance of spatiality and the idea that perspectival properties obtain objectively for equally situated spectators are correct, *but not without qualifications and only as a partial account of perception*. Spatiality, for example, is critical for vision, but not for taste. It is wrong to think that perception is only a sensorimotor affair, partly because perception isn’t just spatial. Also, since there are more than objectively obtaining perspectival encounters with objects, the sensorimotor account is also mistaken because p-properties are not the only perceptual properties and not every perception involves p-properties—p-properties are neither sufficient nor necessary.

Some of the properties we encounter in perception are not only of the environment but depend on specific perceiver-environment interactions that are rich in various ways. Our ways of perceiving the world are largely socially constituted. They include not only the perspectival relationship with objects, but also attention-related phenomena, the usual enacting of intensities (in all senses except vision), and the sensory-specific properties that depend on specific grouping or sequences (complementary flavors, harmonious sounds, etc.). This last group I will refer to as harmony-like relations. They are a type of harmony in the quite broad sense of things that go well together.

Let me take a step back. Am I straw-manning Noë’s position? I am uncharitably making his account of perception reductive when it is not?

Noë’s position has changed over the years. His fuller *epistemological* account has embraced more openly something *additional* to the sensorimotor aspect. This other aspect he has referred to as “skill and understanding,” or as knowledge “sensorimotor and otherwise” ((Noë, 2013, pp. 184–186; emphasis added) or more recently as an account of “understanding concepts in the perceptual mode” (Noë, 2015, p. 3). What does this mean for this sensorimotor account of *perception* and my criticism of it?

Either perception is enactive in a sensorimotor way, or it is sensorimotor plus something else. If it is enactive in a sensorimotor way, then my criticism holds as sketched. But if it is sensorimotor plus something else, then we need to know what that something else and how it operates, concretely, in perception.

First, Noë still identifies the perceptual with the sensorimotor. I have already quoted Noë in this respect, but it is illustrative to quote him in length now:

Actionism [another name Noë uses for enactivism] is the thesis that perception is the activity of exploring the environment making use of knowledge of sensorimotor contingencies. Sensorimotor contingencies are understood to be patterns of dependence of sensory change on movement. The proposal, then, is that we make use of this knowledge of the way our own movement gives rise to sensory change to explore the world. This knowledge-based or skillful activity is perceiving. (Noë, 2015, p. 1; emphasis added)

The sensorimotor enactive account of perception is only sensorimotor, no doubt. My criticism holds. Is there anything to the alternative where something else is added to the sensorimotor?

Noë’s account of concepts, the intellect, and understanding partakes in an enactive spirit. He argues that two modes of the understanding (perceptual and practical understanding) are specifically action-based (2015). We see the enactive spirit too, for instance, in his privileging concepts of achievement or success, such as access, over traditional, representational ones (2012, 2013, 2015). As Noë puts it, “we achieve the world by enacting ourselves” (2012, pp. 12–13).

However, when it comes to *perception*, Noë’s broader proposal is vague. Noë says: “All perceptual experience is a matter of bringing the world into focus by achieving the right kind of skillful access to it, the right kind of understanding” (Noë, 2013, p. 188). And here’s the ambiguity: either the skills used in

perception, and the understanding achieved, are sensorimotor (as the quotation above explicitly state), or they allow for different kinds—where the *right kinds* can encompass more than the sensorimotor.

The problem is that if the perception is sensorimotor plus something else, it is not clear about what that something else is, and how that something else 1) is still perceptual; and, if perceptual, 2) how it is enactive. What are these non-sensorimotor, perceptual skills? Making perceptual experience broader than the sensorimotor, without providing details, is little more than handwaving because we don't need vague pointings, but explanations. We need to know how our perceiving the world is a matter of our doings, including (and this is fundamental, I argue) how our perceiving the world is influenced by society.

Does Noë's fuller enactivism overcome the obstacles of sensorimotor enactivism in becoming a richer account of perception and in accounting for SDP? It does not. Since the something else route lacks much-needed detail, my criticism of the insufficiency of the sensorimotor holds (either because it is reductive, or because it is vague), and my positive proposal for perceptual practices stands and appears as a much-needed addition to an enactive account of perception.

In sum, Noë's recent intellectual trajectory has privileged securing a broader epistemological foothold: the understanding *tout court*. That is a worthy theoretical commitment, but it is one that comes at the cost of not fleshing out specifics. Noë's enactivism and his fuller epistemological account are no doubt compatible with the social enactive perception I defend. There is much to commend about that overall epistemological picture, but it's a bird's eye view. It's been one of the virtues of situated cognition efforts, and of enactivism in particular, to flesh out how cognition, and perception, in particular, work. That commitment to detail must remain for enactivism to continue to be one of the players in the literature. For this reason, too, my account should be welcome.

The perceptual is more than sensorimotor, and our best epistemology needs a perception that is more than sensorimotor, and that is rich in details. We need to know in what specific ways our perceiving the world, including our socially influenced perception of the world, is constituted by our doings. A social enactive account of perception, based on the notion of perceptual practices, offers the type of action-based detailed responses that it is enactivism's task to deliver.

2. Socially Dependent Perception (SDP) is a desideratum of a theory of perception

In the previous section, I presented evidence that the Müller-Lyer lines do not always yield an illusion and that they rather show that some perceptual experiences are *bona fide* socially dependent perceptions, or SDPs. In this section, I offer a few more types of perceptual occurrences that show that SDPs are the case, and are all-too-common and all-too-significant in perception to go unaccounted for. On this basis, I go on to round up my case as to the insufficiency of sensorimotor enactivism.

The three SDP cases I offer here illustrate that the differences between different perceptions of the same object or state of affairs,

- (1) are social because they reflect intra-group agreement and inter-group disagreement,
- (2) can't be explained away by a supposed contrast between veridical and non-veridical perceptions, and
- (3) aren't merely a matter of conceptual, largely linguistic, differences between persons from different cultural backgrounds.

I conclude by showing that

- (4) sensorimotor enactivism is inadequate to deal with this type of perceptual occurrences.

This inability of sensorimotor enactivism to deal with SDP, as fundamental in human perception, calls for enactivism to articulate a better concept of action (sections 3 and 4).

Wholes, parts, and eye movements. Differences between the way some US Americans visually perceive and the way some East Asians do have been found. Measurements of eye movements when confronted with a

visual scene in which focal objects and background can be distinguished yield differential results. “Americans fixated more on focal objects than did the Chinese, and the Americans tended to look at the focal object more quickly. In addition, the Chinese made more saccades to the background than did the Americans” (Chua, Boland, & Nisbett, 2005, p. 12629). Another study by Masuda and Nisbett (2001) presented US American and Japanese subjects with a drawing of an aquarium, which included focal objects (mainly fish) and background objects (a section of ground and water bubbles). As reported by Winerman, “Americans were more likely to begin by recalling the focal fish, while Japanese were more likely to describe the whole scene, saying something like “it was a lake or pond.” Later, the Japanese participants also recalled more details about the background objects than the Americans did” (Masuda & Nisbett, 2001; Winerman, 2006). What these scientific studies show is that basic aspects of visual experience can be culturally constituted, and can’t hence be assumed to be universal: “eye movements can differ as a function of culture” (Chua et al., 2005, p. 12631).³ They also show that the content of perception is not simply a mirroring of external states of affairs but a take on them.⁴

This case features both intra-group agreement and inter-group disagreement due to an intersubjective factor, which in this case is cultural, national belonging. But it is important to notice that this is not due to a veridical-non-veridical difference, for the different groups are presented with the same situation, and the differences are not matter-of-factly. It is, in fact, undecidable whether it is the parts or it is the whole that is prior, both ontologically and epistemologically: there is no fact of the matter. The specificity of the experience can’t be pinned down then to the way the world is, since the way the world gives rise to different experiences, none of which is incorrect. It’s got to reside, then, at the level of aboutness—that which the experience is about—which is not only a matter of worldly reference. Further, it is important to notice that the difference in both groups of experiences is not only sub-personal (eye saccades), but is personal and available for introspective analysis, verbal reporting, inferentially (downstream), and in plain behavior.

Aboutness is likely to be partly determined here by attentional factors. I doubt that that covers it. Ontological decisions along Quinean lines —about what exists (or doesn’t) and can (or can’t) be object of attention— are at stake as well. While Quine makes the point that these determinations are to an extent a matter of syntax and semantics, the present case shows that context-dependence and context-independence work in non-linguistic perceptual ways, and showing intra-group agreement and inter-group disagreement. But my goal here is not to account for this experience, but to establish that it is a *bona fide* case of socially dependent perception (SDP). That much has been established.

Taste, rituals, and habits. In a recent study, *Rituals Enhance Consumption*, researchers found that participants that engaged in ‘ritualized behavior’ regarding consumption of chocolate, experienced chocolate much more positively than those that didn’t engage in such behavior (Vohs, Wang, Gino, & Norton, 2013, p. 1714). Researchers highlight that ritualized behavior increases engagement in the action, hence causing a heightened and more pleasant perceptual experience.⁵

Some may argue that the difference here is not perceptual but emotional. However, the experience in the chemical senses, smell and taste, as well as the multisensory experience of flavor include as intrinsic to them

³ For an extended analysis and link with Müller-Lyer lines see (McCauley & Henrich, 2006). See also Arango (2014).

⁴ Well-known change-blindness cases well illustrate that perception is not about the passive receiving of the way the world is, but is rather a *take* on the way the world is—in this case about relevance and importance. For a succinct review of studies in this topic see (Norenzayan, Choi, & Peng, 2007, pp. 578–579).

⁵ While there are reasons to link the pragmatic dependence of perception on research with the broader *cognitive penetrability* of perception, nothing in my argument hinges on it. For some, cognitive penetrability of perception refers to the possibility of things at the level of thought to affect what we perceive. It is also possible to take a broader view of cognitive penetrability, allowing not only thoughts but also other cognitive, extra-perceptual, non-epistemic aspects of the actions. For a related discussion see (Deroy, 2012).

the phenomenon known as hedonics. So since the perceptual includes the emotional in these cases, the differences are still perceptual. Smells or flavors are perceptually experienced not only as sensory qualities (bitter, sweet) but in terms of an affect that accompanies them, a liking or disliking (Bartoshuk, 1991; Stevenson, 2009, pp. 159–161). Previous theories of hedonics tried to place the ‘liking’ factor in the object itself—in the case of food, in its orosensory properties. Further studies show that a full explanation of the phenomenon needs to invoke a “dynamic interaction” between properties of the food (its sensible properties and its nutritional ones) and attributes (historical and contextual) of the perceiver (Sclafani, 1991, p. 60).

Ritualized behaviors often have a social origin: ways and times of enjoying, for example, hot chocolate or tea. But often too, ritualization gives rise to habituation, which prevails even if the immediate ritual is not present. The case of cilantro is a good example. A recent study by Mauer and El-Sohemy shows differential disliking of cilantro among different groups: "The proportion of subjects classified as disliking cilantro was 21% for East Asians, 17% for Caucasians, 14% for those of African descent, 7% for South Asians, 4% for Hispanics, and 3% for Middle Eastern subjects" (Mauer & El-Sohemy, 2012). It is well established that socio-cultural and environmental factors play a role in food liking and disliking. One reason is that familiarity with some flavors is a consequence of cultural habits (Axelson, 1986; Mauer & El-Sohemy, 2012; Sclafani, 1991). While a genetic component that influences some people's detection of a soapy taste in cilantro has been identified, there seems to be agreement that this genetic variation can be overcome. One possible reason is that this genetic variants, specifically bitter receptors and "a signaling component for taste, common to both sweet and bitter perception" (Knaapila et al., 2012), do not correlate quite univocally with personal preferences. It seems likely too that the group variation is reinforced in fact by the sheer exposition to the herb in emotionally positive contexts like family, or by the creation of new patterns (Eriksson et al., 2012; McGee, n.d.). This is consistent with other studies that agree on low heritability for the perceptual responses associated with cilantro (Eriksson et al., 2012; Knaapila et al., 2012). Interestingly, different ways of cooking with cilantro —arguably more diverse where the presence of the herb is more common— allow for a different final release of specific odor- and smell-units, influencing the prevalence of the soapy ones, hence of the dislike. One such case is crushing cilantro leaves, which releases enzymes "gradually convert the aldehydes into other substances with no aroma" (McGee, n.d.).

These cases present us again with subjects with socially originated habits, having different experiences of the same state of affairs in virtue of an extra-sensory, but not extra-perceptual, element. If these experiences were to be judged by an external state of affairs, the experiences would, or at least should, be the same across different people. In the case of ritualized consumption, there is no reason to judge one level of satisfaction more correct than the other. The case of habit-based preferences is somewhat different. If the perception were entirely triggered by a biological determination, I would need to call into question the sameness of the perceiver, rendering idle the claim that it's not an issue of (non)veridicality. But a case like cilantro's, where genetic factors can be overcome by sociocultural/environmental factors and the hedonics then associated with consumption, leaves the relevant perceptual element at the level of a possible take on a perceptible occurrence: some people perceive cilantro as a likable herb, and some perceive it as an unlikable herb, and it's not because some get a soapy taste, since some who like it also may also feel the soapy aspect.

Perception linked to neither ritualized nor merely habitual consumption, as described, seems to be a matter of having certain concepts or having certain words, such that heightened enjoyment of foods or the positive or negative hedonics depends on having them. The person who comes to like cilantro after not liking it, probably explores new flavor combinations or learns ways of eating it, but this is hardly the acquisition of a concept. What concept would that be? In fact, very much along the lines of skillful knowledge, what the subject may learn is ways of combining things or of exploring food perceptually (i.e., in more detail, like in the case of ritualized consumption). It might be argued that, in some cases, the person learns a new

experience and words associated with them, as in the case of a sommelier learning that some wines have “more body,” are “earthier,” or what-have-you. I understand that a conceptual interpretation is available for such cases. I don’t have the space to dispute it here, but I propose that the case is interpreted non-conceptually. In such an interpretation, the phenomenal aspect is experienced first than words and concepts are learned and words, and concepts hook onto the phenomenal aspect. Further, the type of operations that learning a new flavor allows are flavor-like, in a broad enactive way: to know a flavor is to know, for instance, what it goes well with. Ritualized and habitual flavor experiences are often SDPs, and they can’t be resolved in concepts or words—one more phenomenon that needs enactive explanation.

Flavor sequences and combinations. It is a common and intuitively clear phenomenon that flavors are sensitive to the flavor of what is consumed right before, or with. Flavor combinations, sequential and non-sequential, underlie the complex practice of cooking and eating.

Think of drinking a sweetened coffee after having eaten something very sweet —say a spoonful of arequipe. We have one state of affairs, namely, sweetened coffee, tasting differently to different subjects, or to the same subject at different times, depending on whether they ate something very sweet right before. As to not strictly sequential combinations, Colombian cuisine has also a good number of examples: ajiaco would not be ajiaco without guascas, empanadas taste good with some lime or ají, the flavor and texture of bananas seems to go well with many a soup, and the suero costeño, some Colombians say, can be added to a number of things enhancing their flavor.

These cases rely on habitual sequences or combinations, which are sometimes varied purposefully—some pass on the cappers in their ajiaco. More often than not, habitual sequences are firmly established and we are unaware of the way our regular combinations affect the flavor of things—because this is the way we do things. They are established by means of their social nature, which is the participation in practices for those immersed in a culture. The next section will explore perceptual practices in length.

What these cases show is the contextual (and non-sensorimotor) dependence of flavor. Sequences of flavors matter for flavor experiences, making it impossible to pick one external state of affairs, say, the chemical composition of something edible, that individuates, in isolation, the experience of its flavor. It’s not just about the relevant aspects of coffee’s chemical composition.

I now want to take these three cases SDP cases and show that sensorimotor enactivism is inadequate to account for them.

In Noë’s sensorimotor enactivism, we have seen, perception depends exclusively on lawlike, objective sensorimotor relations. P-properties exist independently of us but are enacted when we, in virtue of our movements, occupy a certain position. To put it visually, this means that any pair of eyes, having a certain line of sight over a given object, would have the same perspective in virtue of the geometric configuration of the scene, which determines the perceptual differences between different actors.

As I discussed in the previous section, there is more than p-properties in perception and not all perceptions feature p-properties. P-properties are neither sufficient nor necessary conditions for perception. The three cases just presented show precisely that this is the case. Noë’s sensorimotor enactivism can’t help us account for these cases because the motor aspect, if present, is not what defines the actions that lead to specific perceptions.

In the wholes and parts case, to be the type of perceiver that perceives a more holistic or a more atomistic scene is not a matter of moving in certain ways because the entire scene is available for both types of observers: no set of perspectives, geometrically defined, is different between one group and the other, so the differences in experiences can’t be pinned down on p-properties. In other words, both types of observers have a sensory interaction with the entire scene, and the motor element in the saccades do not constitute in this case the occupying of a position one group occupies and the other doesn’t. They rather show increased

attention over some areas of the scene. Section 4 will explain in what way attention is a feature of perceptual practices.

The second case (taste, rituals, and habits), featuring how rituals alter the way people experience food they consume does not seem to attain any clarity by appealing to sensorimotor enactivism. The differences that manifest in the greater liking of a given food, such that it's experienced differently from someone who does not like it, have nothing to do with performing some movement such that the sensory aspect changes. Being a participant in the ritual makes one used to an experience, opening the door to the more nuanced enjoyment that the one in-the-know is able to find and explore. The person participating in the ritual is able to employ attentional resources more pointedly, focusing on salient aspects that may simply go unnoticed for the non-participant. The salience of aspects and increased attention will be further explored in section 4.

In opposition to the commitment to the objective nature of key perceptual properties, this case features an evident subjective component. But what we have there is that for the senses that include a hedonic component, there can be no true individuation of things perceived on the object side alone. This does not mean that the issue is only subjective. It is also intersubjective, for we often find in these cases social agreement, which brings a normative measure to the table.

In the flavor sequences and combinations case, these are obtained in virtue of material mixes. Evidently, the motor aspect is irrelevant, for it is not the movement of the hand shaking a salt shaker that causes the change in flavor, because salt could be added in other ways. The relevant action is the adding or mixing itself of ingredients, which is the picking of some edible materials and their use in particular food-based circumstances. Harmony-like relations are brought about by doings—the active choosing and putting together of elements that are not necessarily to be linked together.

Despite its attractiveness, then, Noë's account of perception does not go far enough. It is insufficient for the rich content of our experiences to be individuated merely by appeal to spatial only laws and only sensorimotor laws.

In order to attain a better notion of action that equips enactivism with the tools to handle with SDPs, two initial elements need to be at work: non-spatial dependencies, an interactional element, and a notion sensitive to our social nature expressed in pragmatics, that is, in the things we do. Were we not the socially shaped beings that we are—having acquired the forms of perceptual exploration we have and being familiar with specific sense-scapes in different sensory modalities, in virtue of having been part of the communities we have partaken in—, we would not experience the world as we do. I now turn to Wittgenstein's notion of practices to look for resources.

3. Finding Bedrock in Practices

The philosophical justification for the thematic and methodological primacy of action can be grasped in comparison with the Kantian orientation. For Kant, concepts only take place when they are used in judgments, but never in isolation. Kant arguably endorses a holistic perspective: judgments (not concepts) are in the first order of business (that's why intuitions always need concepts and vice versa) but the philosophical work is to be done in the transcendental field of concepts. Although our concepts play an important role in our use of language, I follow Wittgenstein when he argues that concepts are subservient to the structure of our practices as actual interrelated wholes. This investigation on our practices (linguistic and perceptual) aims at showing not “the rules that govern our use of words” (or our perception) but the “distinctive patterns” of language (or of perception) in our practices: what we use, the way we use it, the ‘norms’ we follow, etc. (Williams, 1999, p. 189). This way of doing philosophy aims at showing the practice itself. In contrast with the idea that the philosophical work is not about our practices, but about the conditions or

causes for them, Wittgenstein thinks that the philosophical work can be done, and must be done at the practice level.

To think of a domain of philosophical reflection from a pragmatic point of view means to see that its “ultimate global justification” is found “in terms of its usefulness to people” (Lance & O’Leary-Hawthorne, 1997, p. 135). ‘What is useful to people’ does not refer to a set standard of usefulness (utility or expediency) but should be understood as that which accords to the explicit or implicit goals internal to what people do, even when the goal is the inertial continuation of the way we do things. ‘What people do’ is what Wittgenstein calls a “consensus of action” (Medina, 2002, p. 150), and such consensus is the basis for intelligibility and normativity, although not merely on account of being a consensus. For Lance and O’Leary-Hawthorne, a social practice—what people do—is “the basic vehicle of understanding” (1997, p. 133) and is the structure of “social appropriatenesses” (1997, p. 184), that is, the space where actions and reactions are subject to normative assessment. Normative assessment is also present in cases of mere conformity to the allowed ways of doing things. Further, they argue that “we must interpret the community in terms of its practices” and the point to take from here is that there is no interpreting device for a specific community more basic than what the community does (Lance & O’Leary-Hawthorne, 1997, p. 184).

The consensus of action on which practices consists is not only the de facto agreement in behaviors and attitudes, that is, in actions, reactions, and dispositions, but a style of doing things that is the product of processes of acculturation and training. The normative force of social practices lies not in the number of practitioners but in its continued existence through time in a community, where skilled practitioners train others into practices, by getting them to act according to patterns of behaviors and within domains of moves allowed. Training does not occur in an abstract space, however. It takes place against a background that includes a constant environment, i.e. a stable, physically defined environment, and a certain natural set of dispositions and reactions—which Wittgenstein called “natural reactions”—that can nevertheless be shaped and developed (Medina 2002, 162; see also 136, 171).

In relation to training, Lance and O’Leary-Hawthorne have said that “talk about meaning is concerned with language-learning moves, but tacitly presupposes that appropriate recognitional capacities and dispositions to non-linguistic behavior are already in place” (1997, 137; Medina 2002, 162). The extension of a practice-based view to the perceptual domain will partly deal with those capacities and dispositions to non-linguistic behavior. These capacities and dispositions will be addressed not only in the sense that they are prior to linguistic learning, but also insofar as they are constantly present in a person’s life, not simply subordinate to, but coexistent with, language and other cognitive activities.

The normative dimension of practices, issuing from the processes of acculturation by which novices are brought into such practices, configures a “space of attribution of commitments to practitioners of the practice,” that is, a space where expectations about actions, reactions, dispositions, attitudes, and other moves are in place, and are the basis for judgments about behavior and attitudes of self and others (judgments that may not even arise when things are done according to the established social practice) (Lance and O’Leary-Hawthorne 1997, 174–175).

Social practices are characterized by contextuality, performativity, expressivity, and normativity.⁶ Practices are contextual in that determination of meanings, truth, and other normative aspects is only decidable by the whole concrete practices that happen over against specific social circumstances, including a physical environment. Practices are performative because they consist of actions, reactions and dispositions. Practices are expressive because they express the form of life of a community. Communities, in this perspective, are not aggregations of individuals but active groups structured by patterns of behavior

⁶ Medina has argued for the triplet *contextuality*, *performativity*, and *normativity* (2003, 62ff.). To that group, I add *expressivity*.

(Medina 2002, 170). Lastly, practices are normative because they feature a dimension of correctness and intelligibility—of successfulness and pragmatic meaningfulness—that is exhibited in the practices themselves and is grounded in the processes of training by which new practitioners are brought into the community and by which the community continuously develops and transforms itself. Wittgenstein's view on practices is holistic: these four features are highly interwoven, and each of them will appear in one way or another in the account of the other three. For example, there is no talking of contextuality that is not at the same time performative, since the context is first and foremost found in a normatively structured consensus of ways of doing things that expresses the forms of life of the communities that practice them.

4. Perceptual Practices

In this section, I flesh out in greater detail what perceptual practices—a special kind of social practices—are. Perceptual practices are the enactment of culturally structured, normatively rich techniques of interaction with multi- and inter-modal perceptible material. Perception is woven in a type of social practices that includes, for instance, food, dance, dress, music, etc.

We learn about our perceptual practices by reflection on the changes that can take place while looking at something, by considering the conditions in which perception actually happens, by comparing our way of talking about perception with other ways of referring to it (in opposition with the paradigm based on 'sensory information' and the inner/outer separation), or by a looking at structural characteristics of perceptual experience, such as its immediacy. Importantly, our practices can be investigated by seeing our attitudes or responses to perceptual occurrences.

This richness evinces, among other things, a central characteristic of perceptual practices: they are twofold, both experience and behavior (a dual-aspect character that permeates the whole of my dissertation because of its dual phenomenological-pragmatic influences). I have argued that practices have contextual, performative, expressive and normative components. In light of my goal in this article, I'd pay special attention to performativity as a central aspect of perceptual practices.

One of the central insights of Wittgenstein about perception is that perception is always perceiving-aspects—yields a substantive set of claims: that in perception we always perceive things aspectually, that sensory input alone is insufficient to account for this aspectual nature, that this aspectual nature is oftentimes experientially hidden, and that this aspect-grasping has an element of "familiarity" or "recognition" that is not a thinking or a judging, but rather a certain bodily engagement. Seeing is always seeing-as. This point is supplemented by a second one about the relationship between aspects and doings.

Wittgenstein realizes that the difficulties in analyzing perception are associated with the many phenomena and variations at play in perceptual experience (1982, §§579–583). His remarks on perception in the 30s and 40s are full of fine distinctions involving the things we perceive and the aspects we perceive, as well as the ways in which we perceive and the relation of the things we perceive with the things we say or do. Thus, next to the focus on the aspectual nature of perception, Wittgenstein pays particular attention to the things we do in perception.

To start with, we can ascertain that there is a difference between two very similar visual experiences of the same impression (like looking at a face that may be expressing either anger or disgust) in our mimicking them differently (Wittgenstein, 1982, §575), as we try to copy them (§598), in the ways we react to them (§§601–603), or in the descriptions we offer of them, among others (§611). Notice that the perception and the accompanying action appear very close to each other, even entangled. Consider the two following remarks:

"What kind of man is said to be enjoying this picture's telling expression? Well, someone who looks at it this way, talks about it in such-and-such a way, and reacts to it this way" (Wittgenstein 1982, §471).

“I have always seen it as a rabbit could even mean: for me it always was a rabbit, I have always spoken to it is a rabbit. A child does this.

It means that I have always treated it as a rabbit.” (Wittgenstein 1982, §§472).

In both cases, Wittgenstein is calling into question the distance and the seeming difference between perception and action, specifically about action ensuing from the perception. In the first case, enjoying the “picture’s telling expression” requires a recognition of such type of expression. Since recognition entails something other than the mere visual impression—for we can think of someone who does not enjoy the picture’s telling expression, perhaps because she does not see such telling expression—, so does the enjoyment. We then find that enjoying the picture amounts to a certain way of looking and talking vis-a-vis the picture. In the second case, the implication is clearer: to see something as something means (under certain conditions) to treat it as something. Similarly, in experiencing a change of aspect in an image (Aspektwechsel), Wittgenstein remarks how the change is expressed in what “I occupy myself with,” which makes the experience of change “similar to an action” (1982, §556).

In similar remarks, like the following ones about hearing a melody and a spotted wall, Wittgenstein calls into question the distance between impression and action. First, the remarks involving hearing a melody:

“Hearing a melody and the movements that go along with the particular way someone interprets (auffasst) or hears (hört) it.” (1982, §584).

“It’s as if doing and the impression didn’t happen side by side, but as if doing shaped the impression” (1982, §586).

“I hear it differently, and now I can play it differently. Thus I can render (wiedergeben) it differently.” (1982, §587).

To begin with, notice how, even though the language of impressions is gestured at, impressions appear already in experiential tones and not as a raw uptake of information. A decision on whether impressions are the same in aspect changes is downplayed by Wittgenstein, since in order to decide this matter it is difficult to find criteria other than a description of what is experienced (1982, §§609, 611).

The case of the melody shows the entanglement of doing and perceiving so clearly that Wittgenstein asks: “Why does it seem so hard here to separate doing and experiencing?” (1982, §585). Sure it is the case that the doing could have shaped the impression, but there is more than an instrumental link between them. When dancing, a dancer’s listening to the music is modified by the dancing movements that put different emphases on sections or moments that carry more significance for the dancing. At the same time, the dancing is modified by the music as it is heard. How is a melody heard in different ways? It is heard differently by the emphasis one puts in the melodic or rhythmic aspects, in the sounds of certain instruments, in the feeling conveyed by certain sections, etc. A dancer can only dance to nuances in the music he is able to listen to—yet not necessarily in a way that can be described or talked about. Since these nuances are more than isolated sounds, but rather melodic and rhythmic aspects of it, a dancer can only relate to sequences that can be brought to have corporeal significance, including, naturally, stillness. The example has a counterpart in the case of a player that plays a melody she recognizes, whom can be addressed in this way: “But surely when you play it you don’t play it anyhow, you play it in this particular way, making a crescendo here, a diminuendo there, a caesura in this place, etc.” (Wittgenstein 1965, 166; emphasis is the author’s).

Hearing a melody is not a plain being impacted by sounds. While it can be shaped by dancing or moving, the taking of sounds one way or another—always a “taking something for something” (Dafürhaltens)—is a certain doing.⁷ This is a doing even if one is not conscious of such doing, and even if it seems to be a passive taking it all up. This relation is even clearer in the following remark:

⁷ Consider of reports made in “aesthetic observations”: “‘You have to hear these bars as an introduction,’ ‘You must hear it in this key,’ ‘You must phrase the theme like this’ (which can refer to hearing as well as to playing)” (Wittgenstein

“A wall covered with spots: and I occupy myself by seeing faces on it: but not so that I can study the nature of an aspect, but because I find those shapes interesting and because of the destiny that leads me from one to the next.

More and more, aspects dawn, others fade away, and sometime I ‘stare blindly’ at the wall” (1982 §480)

In this case, the doing is the perceiving itself, and it is specified as the perception is specified. Her occupying herself with faces is her seeing faces. When she lets herself be led by connections that arise on the go, there is also a doing, like when one plays to find forms in clouds. When the perceiver “stares blindly at the wall” it is because no specific aspect lights up—or rather, because the aspect consisting of “lacking aspects” lights up. It is not because at that moment she is merely having an impression, as opposed to moments where impressions were accompanied by something else. In fact, an impression never exists apart from the being taken as one thing or another (Wittgenstein 1965, 169).

Notice, however, that I have been treating all seeing the same, and all hearing the same, as if what we do when we hear is always the same. That is a wrong assumption. The variations in different modes of hearing, smelling, tasting, as well as other modal-specific and intermodal interactions, account for different types of interactions with objects. Different ways of interacting perceptually with the world in the same modality would lose something fundamental if they were reduced to a common type. There is, for instance, an enormous difference between hearing the sounds in the streets as a person walks on her way to take public transportation on her daily routine, without paying attention, and a seasoned dancer listening to a song while he dances to it in performative spirit. These two situations are different as well from the novice classical music spectator, listening to a long, obscure symphony, attempting to catch every detail. Or take the case of looking at a flower without looking at the color of the flower—without being attentive of it—and suddenly turn one’s attention to its color. Those are clearly two different ways of seeing the flower (Wittgenstein 1982, §721). These cases also reveal that perception, since it is a perception of aspects, can be partly a voluntary act (Wittgenstein 1982, §§451, 453).

These cases show differences as to the activity of the perceiver in each instance, including what to focus on, how attentive the perceiver is in each case, and to what concrete end she perceives at the moment. But that is only one side of the story about the differences in ways of hearing, smelling, touching, tasting, or seeing. The analysis of contextuality, performativity, expressivity, and normativity will explore the roles that different ways of perceiving things play in our lives.

Perception is a bodily engagement with the world happening at the level of lived-experience, in which the phenomenal and the behavioral are indiscernible. This bodily engagement is a matter of degrees of engagement “behind our utterances of perception, engagement that reaches its highest intensity in the original immediacy of the exclamation and its lowest in the silence of habit or indifference” (Krebs, 2010, p. 129). As Hurley argues, the conflict felt by many philosophers in putting actions and perceptions together comes from the programmatic assumption that perception and action are about inputs and outputs. However, the fine shades of behavior that Wittgenstein explores deliver a different picture and question the input assumption. Behind this assumption, or rather beyond it, what is at stake is a way of looking at ourselves—at what we are and at what we do. I follow Wittgenstein in looking for a theory of perception that explains the connection between the sensory and the significance of things for human existence: a theory of perception in which we could recognize ourselves. It is essential to the social enactive account of perception I put

1982, §632). A few remarks below, Wittgenstein says: “In aesthetics isn’t it essential that a picture or a piece of music, etc., can change its aspect for me?” (1982, §634). Part of the point here is that artistic experience very clearly expresses the fact that aspects are essential to perception. In a lab setting, where the subject is exposed to beeps or flashes of light, there may be not be much of an aspect, however significant the results of those experiments are for the purposes of understanding some physiological constraints or tendencies in perception, such as the quickness of associations or how fast can a human perceiver see or hear consecutive impulses.

forward, that we find this domain in meaningfulness specifically in perception, not only in our more general epistemology, as Noë would have it.

The things we perceive matter in our lives, and this significance is exhibited in the ways in which we perceive. This is the basic insight I have been trying to motivate up to now and that I now will flesh out and develop as perceptual practices. Since ways of doing things, in the sense here explored, are not individual but constitute social systems of possibilities and appropriatenesses by which people live their lives, ways of doing things are forms of life. Perceptual practices, my argument runs, are forms of life.

The performative element in the structure of practices reflects part of the behavior aspect. The performativity of perceptual practices covers a wide range of perceptual-based manifestations: encountering/exploring something and responding to it, and then also being able to produce similar perceptible material. Not all of us may be able to compose music but we know how to inflect our voices in proper ways, and what to do in order to look good to others. Perception takes place in contexts, and is supported by the mastery of a technique: a technique of inspecting-perceiving, of experiencing, of perceiving-responding and doing-producing. In this sense perception is the site of commerce of perceptible material that is ‘produced’ so as to be seen in a given way, and that is perceived as something, or, that elicits certain responses.⁸ It is in this wide-encompassing sense that practices are said to be forms of life (Wittgenstein, 2009, pp. §§19, 23, 241).

The notion of perceptual practices has an answer to this issue for it encompasses a theory of learning: learning practices are part of social practices in general (in a specific social context) (Lave & Wenger, 1991). Social practices include ‘mechanisms’ by which newcomers are involved in the practices, by means of the practices themselves. Thus, one learns to eat certain foods and eat them in a certain way, only by being given those foods and being suggested, or corrected, or forced to eat them in this or that way—that is, participating in eating practices. If learning is then a sort of getting used to rule-governed social practices, the outcome of learning must a fortiori be the capacity to skillfully act appropriately in a given circumstance. The context, the capacities or abilities involved, the appropriateness of actions are all specifically factors of the type of learning in question. In this framework, no “content” to be learned (this is not an issue for skills proper) exists independently of a social practice in which it is grounded: one does not learn to eat in a certain way but in eating-related context (the dining table, or etiquette instruction). Even paradigmatic apparently standing-alone contents such as mathematical operations and language grammar are properly at home in real practices from which they are derived and which are able to change them. This being the case, it follows that having come to learn something amounts to being able to use it or articulate—even if this means recitation or test-taking. And the practice itself, again, is what it is in its actual being practiced by a community. That is, the normative (rule-governed) character of a practice does not come from the rules that we find in it, but in the fact that it is established as a practice—as opposed to an occurrence (of which clearly normativity cannot be predicated). Rather, the rules that are isolated or abstracted find their validity in their standing on the ground of the practice itself. This being so, learning something can arguably be a certain “agreement in” practice, which could be possible be broken down into judgments and actions (and perhaps some sort of inner positioning).

Perceptual practices are characterized by contextuality, performativity, expressivity, and normativity. Practices are contextual in that determination of meanings, truth, and other normative aspects is only

⁸ With a different target in mind, this is very similar to the way in which Putnam refers to perceptions as *transactions*. On his view, partly inspired by Wittgenstein, the picture to get rid of is best exemplified in its extreme Berkeleyan case: we are never in direct contact with things. More subtle formulations will have it that the perception stands as an *interface* between external world and internal representations. Following Wittgenstein, Putnam insists in the fatality of this view for the comprehension of what we do and who we are. Back to the term *transaction*, it does not carry what my *commerce* does. Putnam’s analysis is still far from sociality in a direct way (Putnam, 1999).

decidable by the whole concrete practices that happen over against specific social circumstances, including a physical environment. Practices are performative because they consist of actions, reactions, and dispositions. Practices are expressive because they convey the form of life of communities. Practices are normative because they feature a dimension of correctness and intelligibility—of successfulness and pragmatic meaningfulness—that is grounded in the processes of training by which new practitioners are brought into the community and by which the community continuously develops and transforms itself. I do not have space to explore each one of these elements in detail, even though each one would merit exclusive examination. For the time being, I have limited myself to the performativity aspect, the one that most directly speaks about the enactive contrast between sensorimotor dependencies and perceptual practices.

5. Socially Dependent Perception and Perceptual Practices

I concluded section 3 saying that SDP's centrality in human perception and sensorimotor enactivism's inability to account for SDP, call for enactivism to articulate a better enactive notion. In section 4 I motivated a type of social practices, perceptual practices, as the notion that should take the lead. In this section I explore in greater detail why perceptual practices satisfies the conclusion of section 3.

Perceivers are engaged with the world not in the mode of judging, but in the manner that pertains specifically to perception: an immersed engagement with the world, that takes implicitly its structure for granted—just as a walker typically takes the ground for granted—and actively relates to it in very immediate and involved ways. The perceivable world is formed of perceptual continua—it is not about isolated snapshots but about a continuously perceiving of objects over time, as they vary in themselves or in relation to a perceiver and in changing contexts.

The things we perceive in the way we perceive them are relational and interactional, and to a great extent pragmatically dependent. We don't experience the world in a pragmatic-less vacuum, but rather in the midst of practices that give perceptual sense and purpose to our perceptual interactions and on which our experiences depend. What we perceive is to be understood in terms of the multiplicity of appearances in which objects, events, and states of affairs present themselves to perceivers differently constituted and located spatially, temporally, and pragmatically.

The point is that in our being engaged with the world certain appearances take place, in virtue of the interaction—but they are not made up by us. These experiences are the type of thing that either only exist in an interaction—such as an object in a scene on which one 'focuses'—or are afforded by an interaction—as a flavor that changes for a subject depending on the combinations of things eaten, or as colors are perceivable properties for seeing beings, not for non-seeing ones.

In this section I want to revisit the three cases of section 2, this time focusing on three structural features of perception, which appear in socially dependent perceptions and are accounted for satisfactorily by perceptual practices, namely: attentional focus, what's perceptually salient in the world, and modal-specific harmony-like relations. One can think of these features as property-based: attention-related properties, salience properties, and harmony-like-properties.⁹

These three features and their related properties are enacted by the things we do and the way we do them, and are excluded from the sensorimotor framework. Perceptual practices, instead, encompass ways of doing that are not only about moving our bodies and attaining points of view that would yield the same perspectival view to anybody else.

Attentional focus refers to a way of engaging with perceptual objects, such that we make present or are more attentive to some parts of the sensory field. The wholes and parts in vision case, presented social

⁹ While I believe that nothing in argument hinges on adopting or not talk of properties at this point, going one way or another could be done without trouble.

cognition showing precisely how perceptual differences can be due to differences in attention, as a result of cultural “styles” of seeing. These styles of seeing, characterized in this case by context dependence versus context independence, are perceptual practices. Well-known change-blindness cases --those that reveal that may be blind to what we are not expecting, regardless of whether our sensory endings are excited by the physical impulses-- also illustrate that perception is not about the passive receiving of ‘the way the world is,’ but is rather a take on the way the world is.

By perceptual salience, I refer to the fact that there are aspects of the world that we are more familiar with, which often implies that we engage with them more often and develop a greater mastery of them. This salience occurs in flavors, smells, colors, textures, and sounds. The case of ritualized and habitual food consumption can be at least partly explained by the fact that, to different populations, different aspects of the world are salient and carry positive associations.

Salient aspects of the sensory field, for instance, in the chemical senses, can be explained through social ways of doing things with beverages, foods, perfumes, style of urban/house cleanliness, where certain flavors and smells are more usual in a context and are therefore more salient in everyday life. These ways of doing things are, for instance, the very practices by which, say, cilantro, is more or less used, or by which, given the wide prevalence of cilantro in a population's diet, new ways of cooking appear that may downplay the soapy notes of cilantro, even for those who are inclined to taste it based on genetic pre-dispositions, which, as I explored in section 1, can be overcome.

As I explained in section 1, sensorimotor enactivism is toothless when it comes to understanding cases like cilantro hedonics, or other cases that follow from the salience of aspects of the sensory field for different perceivers. This is of course the case anywhere salience is not defined merely spatially, which is in most cases.

Perceptual practices as the central concept in an enactivism turned social enactivism, allows us to understand why some people relate to some parts of the sensory field in the ways they do: more often, in more varied ways, and why those ways are linked to a heightened enjoyment of things. To be clear, the point is not that the sheer capacity for enjoying cilantro depends on the food we cook with it, since that, as I have shown, is partly determined by biological facts.

Third, harmony-like sensory modal-specific relations depend upon habituation to combinations: the colors people from different culture use (and don't use) as matching (e.g. in clothing), or flavors paired in practice as complementary. The practice of combining sensory properties in certain ways and not in others, whereas with colors in clothing, with smells in perfumes or soaps, or with flavors in food and drinks, are examples of perceptual practices. Going back to the case of cilantro, the mastery of what goes well with cilantro and what doesn't, the experience of specific combinations of that flavor with other flavors, or the experience of flavors that taste home-like for some people cannot be explained by sensorimotor dependencies whereas perceptual practices can.

And yet, in a full account of perception, sensorimotor dependencies do have a place, since they matter in visual perception. There is no denying that spatiality and perspective are constitutive of visual experience, in many respects just in the way Noë has explained. But their role is much smaller than suggested by sensorimotor enactivism both by 1) the senses that go untouched by sensorimotor dependencies, and by 2) the pervasive features just described (attention, salience, and harmony-like relations). Perceptual practices can encompass sensorimotor dependencies since even ways of moving are at times specified socially. At the very least, perceptual practices supplement sensorimotor dependencies, and, if my analysis is right, these practices take precedence in epistemological and ontological ways in perception.¹⁰

¹⁰ I submit that it is not unreasonable to suggest that even some sensorimotor dependencies are subordinate to perceptual practices. Briefly put, while the relations are objective in the sense that they would obtain for any perceiver entering into

Perceptual practices have the power to explain socially dependent perceptions (SDPs), which are central to our rich perception of the world, great and essentially contributing to our socially and emotionally rich lives.

such and such relations, there are ways of exploring things that are more common, in a way distinctive, of social groups. We just need to imagine architects and car designers in their particular way of achieving certain perspectives to be included in richer, more detailed spatial-design outlook on things. Another example may be that of the levels of tolerable proximity (personal space and interpersonal distance) and intensity of visual explorations in interpersonal interactions. It is my personal experience, for instance, that many Colombians come closer to interlocutors than, say, US-Americans do, and are more *inquisitive* with their eyes in exploring the features of another person even in public spaces, which contrasts with the way people from other countries, cultures, or groups do. This means that some perspectival relations with the facial features of other people depend on the distance that is typical for people of a culture to maintain from others, both strangers and non-strangers.

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