

# 5 On the Phenomenology and Normativity of Multisensory Perception

## Husserlian and Merleau-Pontian Analyses

*Maxime Doyon*

Sense interaction is ubiquitous. All sensory experiences involve at least *some* interaction between the senses. From the first-personal point of view, various types of manifestations of sensory interaction can be distinguished. In the contemporary scientific literature on multisensory perception, two kinds of conscious unities are typically distinguished: *phenomenal unity* and *object unity*.

Right now, I hear music and other background noises coming from the street, I see the text I am writing on my computer screen, and I feel the weight of my body on the chair I am sitting on. This first-personal description captures an aspect of what is commonly called “phenomenal unity,” which corresponds to the experience of various sensory happenings as being harmoniously lived through in consciousness despite the fact that they are triggered by different objects and events.

Often, however, our senses are not only simultaneously exercised and unified in consciousness, but they are, in addition, directed at the same worldly object or event. Neuroscientists then talk of *object unity*, and the label is meant to highlight the fact that there is something it’s like to experience various sensory cues as belonging to the same object. Throughout the chapter, I will be concerned solely with the latter unity.

In this context, one of the most intriguing topics in recent scholarship on perception concerns the proper way of characterizing the phenomenology of multisensory experiences. According to contemporary psychologist Charles Spence and philosopher Tim Bayne, the phenomenal character of multisensory integration is *reducible to the co-conscious sum of modality-specific features*. Tim Bayne (2014) has dubbed this the “decomposition thesis.” While we are often concurrently conscious of various thingly properties (like, say, the taste, the smell, the look, and the texture of the fruit we are eating), Bayne and Spence (2015) contend that each perceived property is instantiated by a specific sense modality. Since the senses run in parallel and yield their own representational content, our perception of the fruit cannot, on their view, amount to more

than the sum of modality-specific contents.<sup>1</sup> Casey O’Callaghan calls it “the thesis of Minimal Multimodality”: “The phenomenal character of each perceptual episode is exhausted by that which is associated with each individual modality, along with whatever accrues thanks to mere co-consciousness” (O’Callaghan 2015, 555).

The first objective of this chapter is to make a case for the opposing view and argue that the effect of multisensory integration *is* reflected in experience in a way that is *not* exhausted by (the sum of) modality-specific phenomenal features. One of the upshots of this claim is that it allows to appreciate from a novel angle how the conscious experience of sense integration impacts the normativity of perception. Since perception is understood here as a form of practice or as action-oriented, the second and main objective of the paper is to explain how operations of sense integration and coordination affect what I will call “perceptual agency,” viz., our embodied capacity to respond in appropriate ways to the affordances of the perceived environment.

Without broaching the topic in plain normative terms as I do, O’Callaghan defends a view that is close to mine in many ways. In a series of recent papers, he argues that perception is enhanced through sense coordination (O’Callaghan 2017). Much like my own argument in what follows, his argument rests on a refutation of the thesis held by Bayne and Spence about the phenomenology of multisensory perception: “*certain forms* of multimodal perceptual experience are incompatible with the claim that each aspect of a perceptual experience is associated with some specific modality or another” (2015, 552, italics added). This sounds right. There seems to be little doubt that at least *some* perceptual experiences *constitutively depend* on multisensory interaction. O’Callaghan pleads his case by considering flavor perception. The experience of flavors *constitutively depends* on multisensory interactions of touch, smell, and taste in the sense that flavors are irreducible to what these senses can provide individually. Mint provides an excellent example: “There is a distinctive, recognizable, and novel quality of mint (...) that is consciously perceptible only thanks to the joint work of several sensory systems” (O’Callaghan 2017, 174). This is how perception comes to be enriched or enhanced thanks to sense integration: “Flavor experiences may have entirely novel phenomenal features of a type – even a qualitative type – that no unimodal experience could instantiate and that do not accrue thanks to simple co-consciousness” (O’Callaghan 2015, 567f.). On the basis of this and like evidence,<sup>2</sup> O’Callaghan argues that the thesis put forward by Bayne and Spence cannot be generalized: “not all ways of perceiving are modality specific” (O’Callaghan 2014, 73). The phenomenal character of multisensory interaction does not *always* amount to the mere accumulation of unimodal experiences. Some experiences are, as he puts it, “constitutively multisensory”

(O’Callaghan 2015, 569); whence the normative conclusions he draws concerning perceptions enhanced epistemic power. I think O’Callaghan is largely right about this, and the distinction he draws between the minimal and the constitutive theses of multimodality is a welcomed one. I will refer to it throughout the chapter.

At the same time, O’Callaghan adopts the conception of phenomenality that Bayne, Spence, and most actors of this debate work with. It is a definition that is aligned with what Anglo-American philosophers of mind typically call, following Thomas Nagel (1974), the qualitative features or the “what it’s likeness” of experience. In essence, the expression is meant to capture something like the “raw feel” of sense experience – what it is like to have sensations of hearing, seeing, smelling, tasting, touching, or a combination of any of those sensory feels. In spite of its widespread use and apparent extensiveness, the paper provides a number of reasons to think that the phenomenal character of multisensory experience cannot be adequately captured by what this locution is standardly taken to mean. By drawing conceptual resources in the classical phenomenological repertoire of Edmund Husserl (Section 1) and Maurice Merleau-Ponty (Section 2), the chapter looks at the blind spot of this discussion and argues that a vast array of bodily cues and sensations makes a fundamental, but still largely underestimated contribution to the experiential makeup of our conscious lives. More specifically, it will be argued that the phenomenology of multisensory experience does not only include various forms of *bodily self-experiences* but often also contains *felt possibilities of actions and behaviors*. Building on these and like insights, the paper outlines an alternative account of multimodal perception and sensory interaction and draws three conclusions from it. The first one suggests that both Husserl and Merleau-Ponty would reject the thesis of Minimal Multimodality and endorse the Constitutive Thesis that O’Callaghan (2014) and now also Briscoe (2019) rightly defend. Second, and perhaps more controversially, it will be shown that the widening of the concept of phenomenal consciousness that Husserl and Merleau-Ponty advocate allows for the generalization of the Constitutive Thesis, thereby showing that not only certain forms, but *all* forms of perceptual experiences constitutively depend on the interplay of two or more senses. Spelling out the details of these claims will bring me, third, to address more directly the main topic of this volume and specify the intrinsic relation between normativity and perceptual experience (Section 3). In short, I will argue that the mechanisms responsible for multimodality make a phenomenological difference evaluable in normative, but non-epistemic terms. While the impact of sense cooperation on *perceptual judgements* is already well documented in psychology, the argument I am defending here is more general and concerns the impact of the inseparability of inner and outer perception on *agency*.

## 1 Husserl on Multisensory Awareness

Although multisensory perception was never, for Husserl, a central topic of phenomenological research, he did write on the topic on a few occasions. In *Ideas II*, we find some of Husserl's most sustained reflections on the senses and their central contribution to the constitution of the self and intentional life as a whole. With regard to perception, Husserl makes the seemingly trivial claim that perceptual objects (or some of their properties) are accessible through diverse sense modalities. The "thing of perception has but one spatial corporeality" (Husserl 1991, 39/42), but it can be apprehended in a manifold of ways, "as a corporeality that is both seen and touched," for instance (Husserl 1991, 38/41). Perceptual objects have but one materiality or corporeality; they occupy one space because they are ontologically one. Nevertheless, this unity conceals a phenomenological complexity: not only can these objects be experienced from a variety of perspectives and by various egos, but they are also structurally open for a variety of sense-experiences.

Phenomenologically, these experiences can be classified in a number of ways. With regard to the five traditional senses, it is possible to distinguish between their capacity to *individually* apprehend identical objective properties and their capacity to *jointly* perceive these properties.

Upon perceiving a blanket in bright daylight, I could, say, haptically recognize that its texture, which I now experience as being smooth, is also responsible for its brightness. In this situation, Husserl contends that "[i]t is the same objective property which announces itself in the brightness and in the smoothness" (Husserl 1991, 38/41). That a single objective property can be perceived as identical through different sensory channels has important implications for our purpose, for it suggests that it is in principle possible that it be multimodally perceived, that is, simultaneously perceived by the ego in the two or more modalities. If I can identify the smoothness and the brightness of the blanket in a succession of unimodal experiences, then I can, presumably, haptically and visually experience the texture of the blanket *at the same time* as well.

The possibility of simultaneously exercising our sense modalities upon an object still does not exhaust the ways of cashing out the phenomenology of multisensory perception, however, for some perceptual events *depend* on the interplay of two or more senses. (O'Callaghan 2015, 2017) sees this as evidence that the decomposition thesis held by Bayne and Spence cannot be generalized: the experience of flavors, he suggests, shows that at least *some* perceptual events are *constitutively multimodal* in the sense that the joint exercise of taste, smell, and touch yields an experience that transcends their specific individual contribution.

Even though Husserl never seemed to be particularly interested in this specific theoretical question, I think that he would also be clearly committed to the Constitutive Thesis too.

Take vision. As Husserl describes it, visual perception is not perspectively limited to any given profile but integrates further possible perspectives. When seeing a football, for instance, we do not just see its visible side, but we also co-perceive its currently non-visible backside, which we anticipate to see by rotating the ball or effecting certain bodily movements. Husserl explains the integration of the ball's implicitly given content in perceptual consciousness by appealing to the so-called "law of motivation," according to which visual appearances are dependent upon kinaestheses.<sup>3</sup> Simply put, Husserl's idea is that perceptual content is expected or anticipated in intentional consciousness thanks to the sensations that accompany bodily movements. In virtue of its motivational power, the flow of kinaesthetic sensations is deemed necessary for constituting temporally extended objects, and therefore for having perceptions at all. While this view surely has its limitations,<sup>4</sup> we can still appreciate the truth it conveys, namely that Husserl's conception of visual consciousness is indissociable from the consciousness of our embodied being.<sup>5</sup> Clearly, Husserl never conceived of visual perception in exclusively visual terms. The synthetic unification of intentional contents in visual consciousness is rather the outcome of the integration of visual inputs (or sensory content) and kinesthetic sensations. It is true that the inclusion of bodily forms of self-experience does not make visual experience any less visual, but it shows that Husserl never regarded vision as a unisensory experience. Since Husserl believes that the perception of visual objects and their properties transcends what vision and kinaesthesia can individually provide, it follows that he is committed to the Constitutive Thesis.

But there is more. It is not only that kinaesthetic sensations generate expectations about how the phenomenology of *things* would change with respect to movement, but Husserl also thought that perceptual features such as *distance*, *orientation*, and *direction*, too, are always experienced in relation to one's bodily consciousness, which serves as the reference point (cf. Husserl 1991, 165f./158f.). Even if these spatial properties, too, are experienced as belonging to visual consciousness, their apprehension still relies on bodily self-awareness as well, for their perceptual meaning can only become manifest within an egocentric frame of reference. The point holds for every phenomenally experienced spatial property: they all depend on an embodied frame of reference, which is the indexical "here" relative to which they become manifest. Since the lived body can only assume this indexical role insofar as it is also self-aware, it follows that with respect to properties like distance, direction, and orientation, Husserl unambiguously endorses the Constitutive Thesis: their perception *constitutively depends* on both proprioceptive and exteroceptive signals.<sup>6</sup>

At this point, one may wonder whether the point about vision can be generalized. Are *all* perceived things and events multimodally constituted, or does this apply only to a specific number of items of visual experiences?

No doubt, Husserl's thesis *can* be generalized. But this move requires that we enlarge our conception of phenomenal consciousness beyond its typical "what-it's-like" character to include bodily forms of self-experiences such as proprioception.<sup>7</sup> And the reason why we should do this is that we ought to recognize that perception cannot be reduced to outer perception. As we perceive outer objects, we also sense (or co-perceive) our position and posture, and we feel the movements and the velocity of our body and body parts. *Perception is never unilaterally directed at the world*: it always also involves a concomitant perceptual knowledge of the location of our body or body parts in space, the relation of our body parts to one another, and the extent to which they change their position (Gallagher and Zahavi 2020). This is something that Husserl clearly saw. At least since *Ideas II*, he thinks that tactile, cutaneous, and kinaesthetic sensations are pervasive in *all* forms of intentional experiences. Every intentional experience includes an unthematic, pre-reflective form of bodily self-reference: "Here it must also be noted that in all experience of things, the lived-body is co-experienced as an operatively functioning lived body" (Husserl 1991, 14/57). In short, Husserl thinks that bodily self-awareness and intentionality are interdependent features of consciousness.<sup>8</sup> As a result, it is impossible, on Husserlian grounds, to explain any type of perceptual experience without a reference to the background functioning of the body.<sup>9</sup> I take this to imply that *all* perceptual experiences are multimodal,<sup>10</sup> for even understanding the role of touch – which Husserl considered as *the* fundamental sense – hardly seems possible without a reference to the whole somatosensory system, and therefore to proprioception as well.<sup>11</sup> Given that proprioception *is* a sense modality and its contribution not isolable from that of the other senses, it follows that Husserl is committed to the constitutive view: perception is multimodal, and not only in the minimal sense of co-consciousness, but in the constitutive sense.<sup>12</sup> In the third section, we will see how important this insight is for Husserl's conception of perceptual agency, which acquires its normative character precisely therein.

## 2 Merleau-Ponty on the Ontological Structure of Perception

In *Phenomenology of Perception*, Merleau-Ponty espouses a number of theses that are very close to those put forward by Husserl in *Ideas II*, like these two, which play a pivotal role in his conception of multisensory perception. First, Merleau-Ponty agrees with Husserl that visual experience depends on some forms of bodily self-experience, or, as he puts it, that vision and touch "communicate directly" (Merleau-Ponty [1945] 2012, 269/232) with one another in the normal adult. Second, and again very much in the spirit of Husserl, Merleau-Ponty draws attention to the *permanence* of bodily self-awareness in *all* perceptual experience. "My body is constantly perceived" (Merleau-Ponty [1945] 2012, 119/92) and

“remains on the margins of all my perceptions” (Merleau-Ponty [1945] 2012, 119/93). Merleau-Ponty specifies what this means by explaining the essential role of bodily awareness in the constitution of perceptual gestalts: “one’s own body is the always implied third term of the figure-background structure, and each figure appears perspectively against the double horizon of external space and bodily space” (Merleau-Ponty [1945] 2012, 130/103). Given this, it is fair to say that Merleau-Ponty sides with Husserl as he, too, takes every perception to be constitutively multisensory. Again, the point is not that we are merely co-conscious of our bodily selves as we perceive, but rather that the body is something like the central organizing principle of the sensory field.

Beyond this point of convergence, there are, however, a few notable differences between Husserl and Merleau-Ponty’s views on multisensory perception. Two seem particularly noteworthy. First, Merleau-Ponty has, for one, formulated clear arguments against the classical view about the distinctness of the senses, which is for him part and parcel of the empiricist picture of the world. This criticism opens up onto a positive, but also very radical view according to which the senses are ultimately indiscernible. In Section 2.1, I will briefly explain what the Indiscernibility Thesis amounts to and what it entails in the context of this chapter. In Section 2.2, I will lay emphasis on what separates Husserl from Merleau-Ponty’s view of agency. In short and to anticipate: while Husserl thinks that bodily forms of self-relations have the singular capacity to generate expectations with regard to the ongoing flow of *appearances*, for Merleau-Ponty, these expectations more explicitly take the enactive or practical form of *readiness to act* on the part of the subject. While there is no real opposition between the two views, I will show how the shift of emphasis effected by Merleau-Ponty led him to explicitly endorse a second argument in favor of the Constitutive Thesis, one that is at best implicit in Husserl’s work.

## 2.1 The Indiscernibility Thesis

In the chapter “Sensing” of the *Phenomenology*, Merleau-Ponty unequivocally rejects the traditional view on the separation of the senses, pointing out in passing its internal contradictions. Merleau-Ponty’s phenomenological analysis aims to show that the pure sensible qualities that the empiricist attempts to find simply do not exist; they are rather “merged into a total experience in which they are ultimately indiscernible” (Merleau-Ponty [1945] 2012, 263/226).

Merleau-Ponty justifies this claim in three interrelated ways, stressing what he calls the *unity of the world*, the *unity of the lived body* (or the body schema), and the *unity of the things* themselves.

First, Merleau-Ponty repeatedly stresses, throughout the *Phenomenology*, the “primordial unity” of the world, which he regards as “the horizon

of all horizons” ([1945] 2012, 386/345) and “the unique term of all of our projects” ([1945] 2012, 454/493). The claim, which takes inspiration from Kant and Husserl, means that the world ensures that my experiences have a meaningful unity. Merleau-Ponty’s account of multisensory perception is the immediate consequence of this insight, for he considers the “sensory spaces” or domains to be the “concrete moments” of this “overall configuration” ([1945] 2012, 267/230). The critique of the empiricist position is thus clear: Merleau-Ponty thinks that investigating perception like the scientist or the empiricist does by claiming or simply assuming the separation of the senses and their corresponding regions of experience amounts to “cutting oneself off” ([1945] 2012, 267/230) from this primordial unity of the world. From a first-personal or phenomenological point of view, however, it is precisely this *meaningful unity* of experience that needs to be retrieved and described. For this reason – and *pace* Bayne and Spence – the phenomenology of experience is not reducible to a mere assemblage of qualitative qualities (or qualia) produced by the senses. We perceptually encounter things in situations, and the significance and value of perceived objects depends not on an ensemble of sensory qualities, but on the total context in which they are inscribed. The term “unity of the world” refers to this unsurpassable horizon of meaning that constitutes perceptual consciousness.

Second, Merleau-Ponty’s insistence on the crucial importance of the meaningful unity of the world has another consequence, for it goes hand in hand with what he calls “the unity of the lived body.” Essentially, the point is that the body, too, forms a unity and functions holistically. Contrary to the empiricist’s belief, the “body is not a sum of juxtaposed organs, but a synergetic system of which all of the functions are taken up and tied together in the general movement of being in the world” (Merleau-Ponty [1945] 2012, 280/243). Correspondingly, in action, “the various parts of my body – its visual, tactile, and motor aspects – are not simply coordinated” (Merleau-Ponty [1945] 2012, 280/243); the body rather “gathers itself together, and carries itself through all of its resources” (Merleau-Ponty [1945] 2012, 279/241) in order to “perform a single gesture” (Merleau-Ponty [1945] 2012, 188/153), namely the action itself. If one may very well grant that our senses *appear* to be distinct from the perspective of the objective world, the phenomenological attitude does not admit this kind of separation: “the experience of isolated ‘senses’ takes place only within an abnormal attitude” (Merleau-Ponty [1945] 2012, 271/234), namely the naturalistic or empiricist attitude. But as such, it “cannot be useful for the analysis of direct consciousness” (Merleau-Ponty [1945] 2012, 271/234). From the first-personal or phenomenological point of view, the body functions as a unified whole, and the senses are, in that loose sense, indistinct.

Specifying the latter claim necessitates, third, that we turn our attention to Merleau-Ponty’s analysis of what he calls “the inter-sensory

unity of the thing” (Merleau-Ponty [1945] 2012, 286/248). His basic idea is nicely encapsulated in this beautiful, even if somewhat lengthy, passage:

If a phenomenon – such as a reflection or a light breeze – only presents itself to one of my senses, then it is a phantom, and it will only approach real existence if, by luck, it becomes capable of speaking to my other senses, as when the wind, for example, is violent and makes itself visible in the disturbances of the landscape. Cézanne said that a painting contained, in itself, even the odor of the landscape. He meant that the arrangement of the color upon the thing (and in the work of art if it fully captures the thing) by itself signifies all of the responses that it would give to the interrogation of my other senses, that a thing would not have that color if it did not have this form, these tactile properties, that sonority, or that odor; and that the thing is the absolute plenitude that projects my undivided existence in front of itself. The unity of the thing, beyond all of its congealed properties, is not a substratum, an empty X, or a subject of inherence, but rather that unique accent that is found in each one, that unique manner of existing of which its properties are a secondary expression. For example, the fragility, rigidity, transparency, and crystalline sound of a glass expresses a single manner of being.

(Merleau-Ponty [1945] 2012, 374/332)

Merleau-Ponty elaborates on this description by explaining how perceived things call for our engagement and interaction with them while speaking indifferently to *all* our senses. Therein lies their inter-sensory unity. In return, the senses are indistinct in their response to the perceptual scene, that is, in the way they jointly respond to the thing’s solicitation. This is how Merleau-Ponty famously came to endorse the neighboring claim about the synesthetic character of *all* perceptions:

Synesthetic perception is the rule and, if we do not notice it, this is because scientific knowledge displaces experience and we have unlearned seeing, hearing, and sensing in general in order to deduce what we ought to see, hear, or sense from our bodily organization and from the world as it is conceived by the physicist.

(Merleau-Ponty [1945] 2012, 275/238)

The claim is strong: Merleau-Ponty holds that synesthetic perception is not an exceptional state, but rather the normal perceptual condition. Taken literally, this is a shocking, if not downright false assertion, for synaesthesia is standardly taken to be a rare and abnormal condition. It is abnormal since it results from an atypical and contingent sensory wiring, and it is rare since it occurs in only roughly 1 in 2000 persons

(O’Callaghan 2012; Bayne and Spence 2015). Merleau-Ponty thus seems to commit a category mistake when he extends the synesthetic condition to everybody.

As Abath (2017) rightly points out, Merleau-Ponty’s analyses are at times difficult to follow, since he quickly and seamlessly moves from proper cases of synaesthesia to related, but still qualitatively different kinds of multisensory experiences (cf. Merleau-Ponty [1945] 2012, 275f./238f.). Still, his descriptions are crucial with regard to his overall project, for they tell us something true of perception in general. The described experiences – which, to avoid any confusion, I prefer to qualify as *multisensory*<sup>13</sup> – show, namely, that perceptual experience involves what he calls “an opening on to the ontological structure of the thing” (Merleau-Ponty [1945] 2012, 276/239). Thanks to its ontological depth or complexity, the perceptual thing solicits me across multiple sensory registers. The “indistinctness thesis” refers to this basic experiential feature, which Merleau-Ponty thinks is constitutive of *all* perceptions.

In the next section, I will pursue my reflection on this and analyze in more detail how the perceiving agent *responds* to the thing’s solicitation by analyzing Merleau-Ponty’s description of the dialectics between perceptual expectations and readiness to act. While sketching out his view on perceptual agency, a second argument in favor of the Constitutive Thesis will be put forward, thereby justifying in a new way why the analysis of multisensory experience requires a widening of the phenomenology beyond the standard “what it’s like” definition still commonly assumed in the literature. This will have important implications, for the normative motif at the heart of Merleau-Ponty’s phenomenology of perception will also begin to shine through.

## 2.2 *Readiness to Act*

The key to understanding how Merleau-Ponty’s claim about the universality of the synesthetic condition impacts his view on agency lies in the normative dialectics of solicitations and responses at the heart of his theory of perception. The perceived world solicits me, and it calls forth certain movements or actions, understood here as answers to worldly solicitations. However, the world does not speak to *one* sensory modality; it rather “speaks directly to all of the senses” (Merleau-Ponty [1945] 2012, 275/238), like when one sees something one could also touch, smell, or taste (say, a fruit). One could even experience a thingly feature with a modality normally experienced by another, like when one sees the fluidity of water or the viscosity of syrup (cf. Merleau-Ponty [1945] 2012, 275f./238f.). These are, to be sure, properties normally revealed by touch, not by vision; but “the senses communicate among themselves” (Merleau-Ponty [1945] 2012, 275f./238f.), Merleau-Ponty contends, such that “it becomes difficult to restrict my experience to a single sensory register: it

spontaneously overflows toward all the others” ([1945] 2012, 273/236). It is true that objects often catch our attention by affecting us through *one* specific modality. And yet, objects are “poles of actions,” and as such, they open up a field of possible interactions that is not limited to the potentialities of that specific modality. Since we are not mere spectators, but rather existentially engaged in the perceptual field, the spectrum of possible actions and perceptions is open, as it were, and *these possibilities are felt or experienced as such*. This is why Merleau-Ponty holds that more senses than one are typically involved in experience, and that multisensory perception (not synaesthesia) is the rule rather than the exception.

This argument rests on the idea that the phenomenology of multisensory interaction is not limited to *actual* manipulation and interaction but is also reflected in our *readiness to act* or explore things through various senses. In responding to the objects’ demands, viz., in interacting with them in suitable or meaningful ways, our senses are intertwined and mutually dependent. They are, in this specific sense, *jointly responsible for the overall phenomenal character of experience*. This is what he explains when he stresses the fundamental role of movement, or rather, virtual movement: “Movement, not understood as objective movement and shifting of locations in space, but rather as a movement project or as ‘virtual movement,’ is the foundation of the unity of the senses” (Merleau-Ponty [1945] 2012, 272/243). In perceiving things as offering certain opportunities for action, the body prepares itself to take up these opportunities, and this, in turn, triggers a virtual experience of the thing, one in which the thing’s various objective properties are virtually experienced, or quasi-experienced (Abath 2017). In Merleau-Ponty’s eyes, this is by no means rare or exceptional; on the contrary, it is true of perception *in general*.

On this score, Merleau-Ponty undoubtedly went further than Husserl, and thus came to endorse very explicitly a second argument in favor of the Constitutive Thesis. To be sure, Husserl clearly saw that we do not only perceive actual content and properties (like colors, forms, and textures), but that perception is also always linked to a horizon of possibilities of action, conceived in terms of expectations, anticipations, fulfillment, and disappointment. In *Experience and Judgment* and *Analyses Concerning Passive Synthesis*, Husserl explains that these perceived possibilities derive from earlier experiences. What is sedimented and reactivated in perception is the result of our previous encounters with the same and/or similar objects. This intentional reference to past experiences is not limited to a single modality, however; it cuts across the sense-fields. Perceptual consciousness passively draws intentional resources in a reservoir of past experiences with a multimodal history, thereby accounting for the fact that our expectations are usually rich and not limited to any single modality (cf. Husserl 1991, 39f./42f.). In Husserl’s view, however, this passive reference to past experiences does *not* in and of itself suffice

to make perception multisensorial in the relevant sense. (I am leaving aside the question of bodily sensations discussed in the previous section.) While he demonstrated that perception generates *expectations*, which are experienced as possibilities of fulfillment, he never thought that these possibilities are standardly experienced *as multisensory possibilities*. It is true that passive consciousness opens up a field of potential actions and interactions that may be realized by multiple sense modalities, but this openness is not lived through (*erlebt*) as a multisensory openness in the sense discussed here. This, however, is a formulation that exactly corresponds to Merleau-Ponty's view, who thus gave himself the means to endorse much more explicitly than Husserl a second argument in favor of the Constitutive Thesis: perception is multisensory not only because it relies on bodily self-awareness, but also because it includes felt possibilities of action and behaviors that are not restricted to any single modality, but rather engage my whole sensory-motor being.

### 3 The Normative Impact of Sense-Coordination on Perceptual Agency

In the first two sections, I have argued for two conclusions, namely that both Husserl and Merleau-Ponty endorses the Constitutive Thesis on multisensory perception, and that the thesis can be generalized viz. applied to perception in general. To support these two conclusions, I have insisted on the necessity to widen our conception of phenomenal consciousness beyond its typical definition in order to include bodily self-awareness and felt possibilities of actions. In this third and last section, my goal is to exhibit the normative impact of this enlarged conception of phenomenal consciousness on perceptual agency viz. our embodied capacity to respond to and act in accordance with what we perceptually take in. To put it bluntly, I want to argue that, for the healthy perceiving agent, perception and perceptual actions are norm- and situation-sensitive only to the extent that she is bodily self-aware.

Since I want to make the point in Husserlian terms first, I will start by sketching out in very rough strokes Husserl's normative conception of intentionality. Very generally, to affirm that intentionality is normative means that it has accuracy conditions or conditions of satisfaction. From the phenomenological point of view, perceptual experience is normative in the sense that every perceiving act triggers a series of motivated expectations, which may or may not be fulfilled by the further course of experience. An experience that unfolds harmoniously, that is, in accordance with our implicit expectations, is normal or coherent, whereas one that takes an abrupt and unforeseen turn is experienced as abnormal or incoherent. In that specific phenomenological sense, the former experience can be said to be "successful," while the latter is lived as a disappointment (*Enttäuschung*).<sup>14</sup>

In Husserl's eyes, the normative status of perception is not an all or nothing affair, however. In most circumstances, perception can be optimized or improved. By moving around or modifying elements of my perceptual situation (say, the lighting), I can get a *better* look at things. While what exactly needs to be done in order to improve or even optimize my experience depends on contextual factors, including chiefly my interest or the overall orientation of my intentional project (cf. Husserl 1973, §36–39), Husserl still thought that perception has a teleological structure such that the possibility of being adjusted in light of certain norms is constitutive of *all* perceptual episodes. This possibility, which is built in perceptual expectations, is teleologically oriented toward what he calls “the ideal of perceptual givenness,” which for Husserl *corresponds to a multisensory experience of the thing*, that is, one in which every sensory channel is systematically connected to the others such as to yield a *continuity of optima* (*eine Kontinuität von Optima*) (Ms. D 13 II 26a). For Husserl, only such a multisensory experience of interconnected optimal points of view would bring the thing to this limit of ideal givenness, that is, to its maximum of clarity. This led Husserl to draw the ontological conclusion that “all senses must accord” for there to be an experience of “what is Objective” (Husserl 1991, 68/73).<sup>15</sup>

While he conceives the optimum as a conscious experience of the thing unified across sensory modalities, Husserl was well aware that this is just an *ideal* possibility. In normal, everyday contexts, the senses do not all need to accord to experience objects optimally, since optimality is a matter of practical interest and contextual factors.<sup>16</sup> But since we stand in a motivational context in which things exercise a normative pull on us,<sup>17</sup> perception is always accompanied by an awareness of (more or less specific) movements I *could* do in order to gain a better perspective on things and optimize my experience.<sup>18</sup>

We thus arrive at the crux of the matter, for if bodily awareness plays such a crucial role in Husserl's normative conceptions of perception, it is because *bodily forms of self-referential intentionality provide crucial information about how my experience unfolds and fits in the larger intentional context*. The point is that bodily self-awareness builds a fundamental aspect of intentionality and is thus a constitutive part of every perception. The idea is simple: since perception, from the phenomenological perspective, is action-oriented, it is not decoupled from the movement and the proprioceptive/kinesthetic feedback it generates. On the contrary, perception unfolds by steadily updating incoming kinetic, postural, articular, vestibular, and equilibrial information (Gallagher 2005, ch. 2). While being strictly speaking non-conscious, these “processes nonetheless contribute to a conscious sense of agency by generating a pre-reflective embodied awareness of our action” (Gallagher 2020, 59). As such, they assume an important normative function in our perceptual

lives for they allow the agent to keep her actions (Pacherie 2007) and perceptions (Doyon 2015) on track.

We find similar ideas in the work of Merleau-Ponty, who describes our capacity to skillfully move our bodies and alter our points of view depending on what our perceptual situation affords. In Merleau-Ponty's eyes, we perceive our surrounding world as something that has practical significance and in terms of our capacity to skillfully navigate through it. This capacity in turn rests on the set of control mechanisms, sensory-motor abilities, skills, and habits that constitute our body schema. Importantly, the normal functioning of our body schema relies on the constant update of the cues about bodily position and posture provided by kinaesthetic and proprioceptive forms of self-experiences. This means that our sense of perceptual agency – that is to say, our bodily disposition to respond in suitable ways to what we perceptually register – is pre-reflectively experienced and rooted in a series of body schematic and intentional processes. The phenomenology of perceptual agency is phenomenally manifest in the ways these bodily forms of self-relating automatically trigger motor control adjustments in light of the perceptual situation; this is how perceptual agents can keep track of the relative success of their own practices without ever having recourse to reflective consciousness. The hockey player literally *feels* that he did not slap the puck quite right and immediately knows (approximately) where it is going to land. He can, on this basis, put himself into motion to pick up the return even before he visually confirms the mishit. Similarly, it is late and I have just spilled my glass of IPA, but still I know, because I am proprioceptively self-aware, exactly what to do to avoid further damage (say, quickly stepping back and rapidly picking up my book along the way). Thanks to this pervasive self-referential sensitivity that structures my perceptual space, I can adjust to the unfolding of the situation. In short, the input of bodily self-awareness plays a fundamental role in perceptual consciousness in that it allows perception to be goal- or norm-sensitive and, if needed, to initiate a process of optimization or self-correction, depending on whether the experience progresses in accordance with her intentional goal or not.

It seems, then, that if O'Callaghan was absolutely right to notice an “enhancement” (2017, 109) of perception thanks to sense integration and coordination, the thesis is even stronger than suspected. It is not only the case that each of the five traditional senses does better and yield richer, more accurate and more reliable *perceptual judgements* when they cooperate (de Vignemont 2014; O'Callaghan 2017; Matthen 2017; Navajas et al. 2017), say, like when seeing objects improves our hearing of the sounds they make (Man et al. 2020). For the normally functioning body, the integration of bodily forms of self-referential intentionality also contribute to sharpen our sense of *perceptual agency*. The key here is to recognize how bodily forms of self-relating inform the phenomenological conception of the “I can.” As the bearer of all intentional relations,

the “I can” is itself a product of multisensory integration: the loop of bodily sensations, perception, and movement that co-constitute the subjective space of the body is an intermodal achievement of intentional consciousness (Fuchs 2016) that has, I contend, a powerful normative impact on our perceptual lives: together, they play nothing less than a *necessary function* for the satisfactory performance of any perceptual action.

## 4 Conclusion

This chapter aimed to show that both Husserl and Merleau-Ponty think of normal perception as being constitutively multisensory, that is, as always requiring the involvement of two or more senses. In support of this view, I have offered a series of reasons as to why we ought to enlarge our conception of perceptual consciousness such as to include forms of bodily self-experiences and felt possibilities of action. To a large extent, the argument I defended throughout the paper rests on the accuracy or plausibility of the descriptions provided. In presenting them, it has been shown that the dominant views in the current debates on multisensory perception – those of Tim Bayne, Charles Spence, and Casey O’Callaghan especially – fall prey (to varying degree) to two important prejudices: (1) first, these views disregard in important ways how bodily forms of self-relation informs what I have called perceptual agency; and second, (2) by restricting the analysis of phenomenal consciousness to qualitative features, these analyses also fail to fully appreciate normative dimensions of normal perceptual experiencing. Whereas O’Callaghan certainly fares better than his contemporary counterparts on both scores, the paper provides a certain number of reasons to think that the classical analyses of Husserl and Merleau-Ponty still contain largely underexplored resources that make the argument for the normative character of multisensory perception even stronger.

## Notes

- 1 Here’s a passage that supports this reading: “When philosophers and psychologists suggest that consciousness is multisensory, what they typically appear to mean is that a subject’s overall conscious state can, at a single point in time, include within itself experiences that can be fully identified with particular sensory modalities – i.e., that sense-specific experiences can be co-conscious. At any rate, this is what *we* mean by MSV. This claim is importantly different from the claim that there might be perceptual experiences that are not sense-specific” (Bayne and Spence 2015, 99). By the latter, Bayne and Spence mean the constitutive view held by Casey O’Callaghan (2014; 2015; 2017).
- 2 More examples can be found in O’Callaghan (2012). Additional support for this view is provided by Briscoe (2019), who makes a similar point concerning haptic (viz., explorative or active) touch and egocentric space.
- 3 See Husserl (1966, 12–14/49–51) and Husserl (1991, 56/61). For a more detailed analysis, see Drummond (1983) and Doyon (2019).

- 4 The problem, in short, is that kinesthetic sensations cannot *on their own* motivate perceptual content (Drummond 1983; Crowell 2013). Minimally, the contribution of our proprioceptive sense is also required (see Doyon 2015). In this context, the difference between kinesthesia and proprioception is not insignificant: whereas Husserl uses the term “kinaesthesia” to refer exclusively to the *sensations* of one’s own bodily *movement* (direction, speed, rhythm, etc.), proprioception registers our own self-movement by collecting “information from kinetic, muscular, articular, and cutaneous sources,” and the contributions of our “vestibular and equilibrational functions” (Gallagher 2005, 45). Hence, our proprioceptive system *includes* kinesthetic sensations, but is not limited to them.
- 5 This idea was not only massively at work in Merleau-Ponty (see Section 2), but it lies at the heart of sensorimotor enactivism as well: “On the enactive view, one should expect that visual content requires integration with kinesthesia and proprioception; after all, visual content depends on sensory effects of movement” (Noë 2004, 95).
- 6 Considering spatial location, Briscoe recently developed a robust and empirically informed argument that leads to the same conclusion: “Location in egocentric space is novel relative to the representational powers of *any* modality working by itself” (2019, 5).
- 7 There is a fairly large consensus in the scientific literature around the necessity of revisiting the traditional (*viz.*, Aristotelian) list of the senses, and proprioception seems – and by far – to be the best candidate to join the group. Arguments for its inclusion can be found in Fridland (2011), Schwenkler (2013), and de Vignemont (2020). On the absence of widespread assent on this question, see Durie (2005), Macpherson (2011), and Matthen (2017).
- 8 More details on the development of this idea in Husserl’s work and its consequences in the larger context of its reception are provided in Doyon and Wehrle (forthcoming).
- 9 In fact, we could even go further, since for Husserl, even my *perception of time* depends on the body. The point is that both objective and subjective time would be impossible without experiencing a flow of changing appearances, which are themselves motivated by bodily intentionality. Since I need to experience change to experience time, and change depends on the body, it follows that even the perception of time constitutively depends on the body.
- 10 The claim that I am making here is not an eidetic, but a descriptive one, that is, it does not belong to the essence of perception that it is multisensory. That’s why there could be exceptions. Merleau-Ponty, to whom we will turn our attention in the next section, seems to be holding the same when he writes that “the unity of the senses” is nothing “but the formal expression of a fundamental contingency: the fact that we are in the world” (Merleau-Ponty [1945] 2012, 266/229).
- 11 This is incidentally the reason why some philosophers and scientists treat touch and proprioception as constituting a single sense. See, for instance, Fulkerson (2014).
- 12 This quote from *Ideas II* confirms that Husserl would reject Bayne and Spence’s thesis about consciousness being the mere sum of modality specific features: “The thing (...) is constituted in unitary apperception. (...) It makes no sense to assign to each sense its property-complexes as separate components of the thing” (Husserl 1991, 70/75).
- 13 I am aware that there is a cost to this terminological change, for it invites back in the “separation” of the senses that Merleau-Ponty wanted to avoid. Still, I think that the conceptual distinction I make (and which reflects the current scientific consensus) between synesthetic and multisensory

experiences is necessary to appreciate the universality of the claim that Merleau-Ponty advances.

- 14 I explain this view in detail in Doyon (2021).
- 15 For a detailed analysis of Husserl's conception of perceptual optimality, see Doyon (2018).
- 16 To illustrate: what counts as an optimal visual experience of a flower for the botanist and the layman differs because their interests in flowers differs (cf. Husserl 1973, §36).
- 17 In a well-known passage from *Analyses Concerning Active and Passive Syntheses*, Husserl explains how the systematic interconnection between appearances is kinaesthetically lived-through (*erlebt*) as forming a practical horizon of possibilities of action. It is almost as if the thing were calling out to us "there is still more to see here, turn me so you can see all my sides, let your gaze run through me, draw closer to me, open me up, divide me up; keep on looking me over again and again, turning me to see all sides. You will get to see me like this, all that I am, all my surface qualities, all my inner sensible qualities, etc." (Husserl 1966, 5/41).
- 18 Husserl argues for this reason that the *kinaesthetic paths themselves* have their own laws and should therefore be regarded from the point of view of the optimum as well: "Nun sind aber auch die Wege selbst unter optimalen Gesichtspunkten zu betrachten: derjenige Weg ist das Optimum, auf dem in jedem Differenzial die Klarheitssteigerung die größtmögliche ist, oder auf dem, was dasselbe [ist], die schnellste und geradeste Steigerung gegen das absolute Optimum sich vollzieht" (Ms. D13 I, 63a).

## References

- Abath, André. 2017. "Merleau-Ponty and the Problem of Synaesthesia." In *Sensory Blending: On Synaesthesia and Related Phenomena*, ed. Ophelia Deroy, 151–165. Oxford: Oxford University Press.
- Bayne, Tim. 2014. "The Multisensory Nature of Perceptual Consciousness." In *Sensory Integration and the Unity of Consciousness*, eds. David J. Bennett and Christopher S. Hill, 15–36. Cambridge, MA: The MIT Press.
- Bayne, Tim, and Charles Spence. 2015. "Multisensory Perception." In *The Oxford Handbook to Philosophy of Perception*, ed. Mohan Matthen, 603–620. Oxford: Oxford University Press.
- Briscoe, Robert E. 2019. "Bodily Awareness and Novel Multisensory Features." *Synthese*: 1–29. doi:10.1007/s11229-019-02156-2
- Crowell, Steven. 2013. *Normativity and Phenomenology in Husserl and Heidegger*. Cambridge: Cambridge University Press.
- de Vignemont, Frédérique. 2014. "Multimodal Unity and Multimodal Binding." In *Sensory Integration and the Unity of Consciousness*, eds. David J. Bennett and Christopher S. Hill, 125–150. Cambridge, MA: The MIT Press.
- de Vignemont, Frédérique. 2020. "Bodily Awareness." In *The Stanford Encyclopedia of Philosophy* (Fall 2020 ed.), ed. Edward N. Zalta. <https://plato.stanford.edu/archives/fall2020/entries/bodily-awareness/>
- Doyon, Maxime. 2015. "Perception and Normative Self-Consciousness." In *Normativity in Perception*, eds. Maxime Doyon and Thiemo Breyer, 38–55. London: Palgrave Macmillan.
- Doyon, Maxime. 2018. "Husserl on Perceptual Optimality." *Husserl Studies* 34, no. 2: 171–189.

- Doyon, Maxime. 2019. "Kant and Husserl on the (Alleged) Function of Imagination in Perception." In *The New Yearbook for Phenomenology and Phenomenological Philosophy*, Vol. XVIII, eds. Maxime Doyon and Augustin Dumont, 180–203. London: Routledge.
- Doyon, Maxime. 2021. "The Normative Turn of Intentionality and Its Metaphysical Implications (Or Why Husserl Was neither a Disjunctivist nor a Conjunctivist)." In *The Husserlian Mind*, ed. Hanne Jacobs. London: Routledge.
- Doyon, Maxime, and Maren Wehrle. Forthcoming. "Bodily Self-Awareness in French Philosophy." In *Routledge Handbook to Bodily Awareness*, eds. Matt Longo and Adrian Alsmith. London: Routledge.
- Drummond, John. 1983. "Objects' Optimal Appearances and the Immediate Awareness of Space in Vision." *Man and World* 16, no. 3: 177–205.
- Durie, Bruce. 2005. "Senses Special: Doors of Perception." *New Scientist*, January 26.
- Fridland, Ellen. 2011. "The Case for Proprioception." *Phenomenology and the Cognitive Sciences* 10, no. 4: 521–540.
- Fuchs, Thomas. 2016. *Ecology of the Brain*. London: Oxford University Press.
- Fulkerson, Matthew. 2014. "Rethinking the Senses and Their Interactions: The Case for Sensory Pluralism." *Frontiers in Psychology* 5, article 1426: 1–14.
- Gallagher, Shaun. 2005. *How the Body Shapes the Mind*. Oxford: Oxford University Press.
- Gallagher, Shaun. 2020. *Action and Interaction*. London: Oxford University Press.
- Gallagher, Shaun, and Dan Zahavi. 2020. *The Phenomenological Mind*. London: Routledge.
- Husserl, Edmund. 1966. *Analysen zur passiven Synthesis*. Husserliana XI. Ed. Margot Fleischer. The Hague: Martinus Nijhoff. In English: *Analyses Concerning Passive and Active Synthesis: Lectures on Transcendental Logic*. Trans. Anthony Steinbock. Dordrecht: Springer, 2001.
- Husserl, Edmund. 1973. *Ding und Raum: Vorlesungen 1907*. Husserliana XVI. Ed. Ulrich Claesges. The Hague: Martinus Nijhoff. In English: *Thing and Space: Lectures of 1907*. Trans. Richard Rojcewicz. Dordrecht: Springer, 1998.
- Husserl, Edmund. 1991. *Ideen zu einer reinen Phänomenologie und phänomenologischen Philosophie, Zweites Buch*. Husserliana IV. Ed. Marly Biemel. The Hague: Martinus Nijhoff. In English: *Ideas Pertaining to a Pure Phenomenology and to a Phenomenological Philosophy, Second Book: Studies in the Phenomenology of Constitution*. Trans. Richard Rojcewicz and Andr w Schuwer. Dordrecht: Springer, 1989.
- Macpherson, Fiona. 2011. "Individuating the Senses." In *The Senses: Classic and Contemporary Philosophical Perspectives*, ed. Fiona Macpherson, 3–46. Oxford: Oxford University Press.
- Man, Kingson, Gabriela Melo, Antonio Damasio, and Jonas Kaplan. 2020. "Seeing Objects Improves Our Hearing of the Sounds They Make." *Neuroscience of Consciousness* 2020, no. 1: 1–9.
- Matthen, Mohan. 2017. "Is Perceptual Experience Normally Multimodal?" In *Philosophy of Mind: Current Controversies*, ed. Bence Nanay, 121–136. London: Routledge.
- Merleau-Ponty, Maurice. 1945. *Ph nom nologie de la perception*. Paris: Gallimard. In English: *Phenomenology of Perception*. Trans. Donald A. Landes. London: Routledge, 2012.

- Nagel, Thomas. 1974. "What It's Like to Be a Bat." *Philosophical Review* 83 (October): 435–450.
- Navajas, Joaquin, Chandni Hindocha, Hebah Foda, Mehdi Keramati, Peter E. Latham, and Bahador Bahrami. 2017. "The Idiosyncratic Nature of Confidence." *Nature Human Behaviour* 1, no. 11 (November): 810–818.
- Noë, Alva. 2004. *Action in Perception*. Cambridge, MA: The MIT Press.
- O'Callaghan, Casey. 2012. "Perception and Multimodality." In *Oxford Handbook of Philosophy of Cognitive Science*, eds. E. Margolis, R. Samuels, and S.P. Stich, 92–117. Oxford: Oxford University Press.
- O'Callaghan, Casey. 2014. "Intermodal Binding Awareness." In *Sensory Integration and the Unity of Consciousness*, eds. David J. Bennette and Christopher S. Hill, 73–104. Cambridge, MA: The MIT Press.
- O'Callaghan, Casey. 2015. "The Multisensory Character of Perception." *The Journal of Philosophy* 112, no. 10 (October): 551–569.
- O'Callaghan, Casey. 2017. "Enhancement through Coordination." In *Current Controversies in Philosophy of Perception*, ed. Bence Nanay, 109–120. London: Routledge.
- Pacherie, Elisabeth. 2007. "The Sense of Control and the Sense of Agency." *Psyche* 13, no. 1: 1–30.
- Schwenkler, John. 2013. "The Objects of Bodily Awareness." *Philosophical Studies* 162, no. 2: 465–472.