Between Vision and Touch

From Husserl to Merleau-Ponty

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No phenomenology of life, of body and the flesh, can be constituted without basing itself on a phenomenology of touch.

—Jean-Louis Chrétien, The Call and the Response

The characterization of the human being as a rational animal is already present in the form and organization of his *hand*, his *fingers*, and his *fingertips*; partly through their structure, partly through their sensitive feeling. By this means nature has made the human being not suited for one way of manipulating things but undetermined [*unbestimmt*] for every way, consequently suited for the use of reason; and thereby has indicated the technical predisposition, or the predisposition of skill, of his species as a *rational animal*.

—Immanuel Kant, Anthropology from a Pragmatic Point of View, 1798²

It is commonly recognized that Maurice Merleau-Ponty's phenomenology of embodiment depends heavily on Edmund Husserl's analyses of *Leiblichkeit* as found in the latter's unpublished *Ideen* II.³ In this paper⁴ I shall argue that Merleau-Ponty, especially in his posthumously published *Le Visible et l'invisible*,⁵ significantly reinterprets and transforms the phenomenon of the "double sensation" (*Doppelempfindung*), i.e., one hand touching the other,⁶ discussed by Husserl. Husserl claims the double sensation belongs exclusively to touch and indicates a priority of touch over sight in the composition of the living organic body (*Leib*). In contrast, Merleau-Ponty rejects both of Husserl's theses. For him, reversibility and doubling of sensation are characteristic of all five sensory modalities. Moreover, precisely because of this intertwining of the senses, he maintains—

contra Husserl—that there is no priority of touch over sight. Indeed the double sensation precisely illustrates what Merleau-Ponty variously calls the "chiasm," "interlacing," "overlapping," "blending," "coiling over," "inversion," and even the "metamorphosis," of the "flesh" (la chair—a term which Merleau-Ponty sometimes uses as equivalent to Husserl's Leib) and of the activity of "sensing" of all the senses. For Merleau-Ponty, this "duplicity" and "reflexivity of the sensible,"12 has ontological significance and expresses the ambiguous character of human embodied being-in-theworld, expressed in his late conception of the "flesh of the world"13 or "flesh of things."14

Merleau-Ponty's conception of this reflexivity is radical: reflexivity is characteristic of all the senses; indeed it prefigures and founds the reflexivity of thought. Merleau-Ponty-citing the testimony of painters (André Marchand and Paul Klee)—evocatively expresses this intertwining as it is found in sight, such that just as the seer sees the visible so too the visible in a sense sees the seer. 15 In Visible and Invisible he writes:

As many painters have said, I feel myself looked at by the things [je me sens regardé par les choses], my activity is equally passivity—which is the second and more profound sense of the narcissism: not to see in the outside [dans le dehors], as the others see it, the contour of a body one inhabits, but especially to be seen by the outside, to exist within it, to emigrate into it, to be seduced, captivated, alienated by the phantom, so that the seer and the visible reciprocate one another [se réciproquent] and we no longer know which sees and which is seen.16

The very flesh of the external world, embodied in sensuousness, mirrors the embodied subject's own flesh: "it is already the flesh of things that speaks to us of our own flesh."17 There is not just a remarkable correlation between the world's availability to perception and human perceptual systems, but the human subject is itself part of this world and is also the perceived.

Merleau-Ponty's departure from Husserl on the priority of touch over sight and on the universality of the reflexivity of the senses needs to be more carefully charted, including the study of important intermediaries who point the way for Merleau-Ponty, among them Husserl's own former student and colleague at Göttingen, David Katz (1884–1953), 18 who went on to become perhaps the most innovative psychologist of color and touch of the twentieth century. Although the limits of space do not permit me a thorough accounting of Katz's work—which explored in great empirical detail the parallels and differences between the senses of sight and touch—I

will offer some preliminary connections between Katz's work and Merleau-Ponty's work, especially the early discussion of spatial perception in the *Phénoménologie de la perception* (1945).¹⁹

Touch and Sight in the History of Philosophy

The topics of the primacy of touch and the interrelationship between sight and touch have been discussed since Aristotle's *De anima*.²⁰ In modernity, George Berkeley's groundbreaking *New Theory of Vision* ²¹ argued for the *heterogeneity* of the objects of touch and sight such that touch and sight deliver different ideas of space that may subsequently become intermingled or confused by the perceiver. For Berkeley, touch fixes the size of objects that get smaller or larger to vision as they move away or approach the viewer. The idea of according a certain primacy to touch is already found in John Locke's *Essay Concerning Human Understanding* Book II chapter IX § 8, as well as in Étienne Bonnot de Condillac's *Traité des sensations*.²² According to Condillac, who agrees with Berkeley and is critical of Locke's acceptance of innate powers of the mind, touch assists the eyes in the assessment of distance, size, and figure.²³

During the early decades of the twentieth century, Husserl's phenomenology at Göttingen was closely associated with the then current empirical psychological explorations of perception, especially the senses of vision and touch²⁴ and the constitution of space.²⁵ Indeed, phenomenology appears to have anticipated and even influenced some of the later findings of Gestalt psychology.²⁶ Erich R. Jaensch,²⁷ Heinrich Hofmann,²⁸ Wilhelm Schapp,²⁹ Jean Hering,³⁰ and David Katz,³¹ among others, studied perception both from the view of psychology and phenomenology with Husserl in Göttingen, often taking part as subjects in the laboratory experiments of Husserl's colleague, the Göttingen psychologist Georg Elias Müller.³²

Of course, the discussion of what is immediately given in perception (the "proper sensibles") had a longer tradition in empiricism, including Berkeley, Hume and Reid, and in the Kantian tradition (relating to his account of the matter and form of sensuous intuition), but Husserl appears to strike out on his own path, with groundbreaking results. Husserl is fascinated by the fact that the senses convey the sense of a single, seamlessly unified sensuous world, with touch and vision combining to give rise to one single shared space. But how is this possible? This is both Berkeley's and Husserl's question.

Husserl's answer in his *Ding und Raum* lectures³³ is that spatiality is constituted by objectivated sensory experiences (i.e., sensory experienced

contents that are somehow interpreted as properties of objects) combined with interpreted sensations of bodily self-movement:

A body is constituted as a sensuous schema by the sense of touch and the sense of sight, and every sense is a sense through an apperceptive conjunction of the corresponding sense-data with kinaesthetic data.³⁴

According to this account, the presented sensuous content (i.e., experiences of colors, shadings, light, darkness, in the case of sight) is coordinated with a complex of kinaesthetic sensuous experiences to yield the "sensuous schema" (not yet the full object, because temporality, causation, etc., have still to be considered).³⁵ Husserl is, of course, not claiming in Berkeleyan fashion that the so called external, material object is formed exclusively from our *ideas* of it such that there is no external material world, but rather that the object as experienced is assembled out of our experiences (color, shape, etc.) and certain correlated bodily movements (eyes, neck, head, sweeping movements of the fingers, and so on). Indeed, this approach corresponds with Berkeley's approach in his *New Theory of Vision*.

Also similar to Berkeley, Husserl claims in his 1907 *Ding und Raum* lectures that the ocular visual field, taken strictly on its own, is actually experienced as a two-dimensional field, at least if we attend only to the visual image or "phantom" as Husserl calls it (i.e., the purely sensibly apprehended thing as it appears minus its full causal interconnectedness with other things):³⁶ "The visual field, as a strictly ordered system of two 'dimensions,' has its fixed orientations, and so does, accordingly, the oculomotor field as well."³⁷ Both the visual and oculomotor fields in themselves are two-dimensional³⁸ and what they present are "phantoms" in Husserl's sense. Merleau-Ponty agrees. In *The Visible and the Invisible* he writes:

The binocular perception is not made up of two monocular perceptions surmounted; it is of another order. The monocular images *are* not in the same sense that the thing perceived with both eyes is. They are phantoms and it is the real; they are pre-things and it is the thing.³⁹

Husserl wants to preserve the phenomenological intuition that we can actually *see* space (and do not just apply it in some Kantian manner to structure our sensuous intuiting), including empty space. Furthermore he believes, and Merleau-Ponty follows him here, that it is the animate body's *movements* (approaching, receding, turning, focusing, reaching, grasping) that allow us to penetrate "into" the visual field as it were, that yields up

the experiences of depth and distance.⁴⁰ There can be no sensory experience without bodily movement (even the eyes must saccade in the act of seeing, never mind the blinking of the eyelids). As Merleau-Ponty will later insist: "*Wahrnehmen* and *sich bewegen* are synonymous."⁴¹

It is important to emphasize that, for Husserl, in Ding und Raum, the "field of vision" (Sehfeld) or "visual field" (das visuelle Feld), understood as a two-dimensional continuous spread of colored images and shapes, is not yet what Husserl calls "empirical," i.e., experiential, space in the full sense. The visual field as such must not be conceived as a "surface in objective space."42 In fact Husserl employs the term "pre-empirical" (präempirisch) to refer to this layered stratum of images and their associated contents that make up visual space as experienced.⁴³ At this level, every "image" is coordinated with a specific and predelineated set of kinaesthetic sensations (which may include movements of the eye, head, neck, torso, and so on). Moreover, to complicate matters, each kinaesthetic sensation pertaining to ocular experience can in principle be coordinated with any visual image ("every [kinaesthetic] sensation is compatible with every image" 44). A series of eye movements or a series of head movements can each reveal the same visual scene and the particular series of movements are neutral with respect to what they convey, i.e., the movements do not predelineate what range of visual sensations will be uncovered by them (this may not be true of the other senses). Husserl also recognizes that, depending on the circumstances, one sensory modality can stand in for or correct another, 45 as touch does for someone with poor sight or sight must do for the tactile feel of objects that are out of reach (i.e., that ceiling looks smooth). Let us take first consider what Husserl was trying to do.

The Roles of Touch and Vision in Constituting Spatiality

In *Thing and Space* Section 46 Husserl focuses on the constitution of space insofar as this is achieved through vision and touch.⁴⁶ In a quite Berkeleyan manner, he discusses visual and touch sensations separately as to whether they underpin different "spaces." Is visual space essentially different from tactile space? For Husserl both sets of sensations (tactile and visual) are marked off from the other sensory faculties (olfactory, auditory) because they cohere together into a "field of sensations" (*Empfindungsfeld*). This concept of a "field" is crucial,⁴⁷ and is explicated by Husserl as a "preempirical expanse" (*präempirische Ausdehnung*) with determinate fillings. For Husserl, among the senses, one can genuinely speak only of visual and tactile sensations as being organized into "fields." While Husserl acknowledges that olfactory, auditory and thermal sensations may also be

said to belong to "fields" in some looser sense, he denies that they contain in themselves "primordial pre-empirical extension" (ursprünglicher präempirischer Extension). 49 Smell and taste on their own lack this "pre-empirical expanse" and hence do not underpin extension. Color, however, has a character of being a particular shade with a certain amount of "brilliance and saturation," all of which require expanse and filling: "the red-moment, with such and such brilliance and saturation (Helligkeit und Sättigung) is what it is only as the fullness of a certain extension; the red-moment expands."50 Husserl sees that the quality of visual experience is copresented with a certain not yet fully "objective" extension. 51 There are specific aspects of the quality in a narrow sense—its brightness, saturatedness, and so on. Extension can be experienced with different degrees of "filling." The visual field is continuous, with no gaps, although it has limits. It also has a center which has sharp definition, as well as a fading off. Although it appears two-dimensional, it nonetheless has a horizon that is indeterminately far away. In contrast to vision that is oriented away from the body into the distance, embodiment does not allow us to withdraw from ourselves: "we cannot approach or recede from ourselves at will."52

Husserl also discusses the sensations that give the sense of movement (*self-movement* as opposed to the sensation of *being moved*).⁵³ He employs two terms: "sensations of movement" or "kinetic sensations" (*Bewegungs-empfindungen*) and "kinaesthetic sensations" (*kinästhetische Empfindungen*). He expresses a preference for the term "kinaesthetic" and regards the former term as "unusable" since it is, for him, overly charged with psychological meaning.⁵⁴ Moreover, sensations of movement as such (e.g., the landscape going by as I sit in the train) are different from experiences of my own body willfully moving.

Kinaesthetic sensations (kinästhetische Empfindungen),⁵⁵ for Husserl, strictly speaking, are those sensations of movement which occur when I move myself, i.e., "sensations" by which I am aware of movements on and in my body.⁵⁶ This term was frequently employed by German, British, and American psychologists of the day.⁵⁷ Husserl does not clearly indicate if kinaesthetic sensations include all forms of proprioceptive experience, muscle sensations, experiences of effort, force, balance, and so on.⁵⁸ A kinaesthetic sensation, for Husserl, must have its "locus" or "position" (Stellung) in a particular part of the body, must be under voluntary control, or as Husserl puts it, have the character of "I can" (Ich kann) such that it can be controlled through "practice" (Übung).⁵⁹ Not all body sensations are kinaesthetic sensations. Furthermore, it is not clear if Husserl considers all kinaesthetic sensations to belong essentially to touch (i.e., if I extend my leg out under the table, is this sense of the limb extending communicated

through touch?). It does seem that he considers the experiences of walking, sitting, and so on, as primarily constituted out of touch sensations.⁶⁰

Husserl's view is that there is an "extensional moment" (das extensionale Moment) in both vision and touch but that these "pre-empirical" experiences of spatiality are not yet sufficient to produce the experience of empirical spatiality. The sensation of movement (and specifically self-movement) is also necessary. Movement sensations always have position but do not necessarily add to the "projection" (Projektion) of a thing (I suspect that Husserl means here that the moving of the visual field when I walk, for instance, is not attributed to the objects themselves which I am passing). Movement sensations are quite different from those of vision and touch and do not primarily constitute the body in terms of its own characteristics. At times, Husserl speaks as if movement sensations have no "matter" (he makes a similar claim about time-sensations in his Lectures on Time Consciousness), 61 that is, they do not contain a determinate sensory qualitative content (feelings of willing are similar in this respect). This is a very interesting phenomenological observation.

In *Thing and Space* § 47, as elsewhere, Husserl claims that the "egobody" (*Ichleib*) is a kind of physical body (*Körper*)—subject to causal laws—that is yet different from other physical objects because of its animateness, which means it is subject to voluntary control. Husserl's first point is that visual experiences are not experienced as "localized" in the body in contradistinction to the way in which I locate touch sensations in specific parts of my body. Vision, although it does issue "from the head," in an experienced way, is not conspicuously a bodily performance. All visual experiences, colors, and so on, take place *at a distance from me* and not on my surface. Similarly, Merleau-Ponty writes: "to see is to have at a distance" (*voir c'est avoir à distance*). The opposite is the case with touch which requires contact with its object, although interestingly Merleau-Ponty will emphasize that there is still a "gap" or *écart* in the case of touch, since touching and touched never merge into one.

In *Thing and Space* section 47, Husserl goes on to discuss the phenomenon according to which, when I touch the smoothness or roughness of the object, I also have a sense of that smoothness "on or in the appearing finger tips." He writes:

If with my left hand I touch my right, then along with the touch sensations and the kinaesthetic sensations there is constituted, reciprocally, the appearance of the left and right hands, the one moving over the other in such and such a manner. At the same time, however, i.e., with a reversal of the apprehension (*bei Wechsel der Auffassung*), the self-moving appears in an other sense, which applies only to the body, and in general the same group of sensations which have an objectivating function are apprehended, through a reversal of the attention and apprehension, as subjectivating and specifically as something which members of the body, those that appear in the objectivating function, "have" as localized within themselves.⁶⁶

For Husserl, if we limit ourselves solely to the visual experience of space and to kinaestheses, the body cannot be constituted as *my* body. The body has a special relation to visual space in that it is invariant with regard to its position, always "here" as opposed to objects that are over "there." But it is not yet experienced as *my* body since seeing as a subjective experience does not include a reference to the organ that does the seeing. As Husserl points out, we never have a pure sensation of light just as it is experienced that is not at the same time the communication of the presentation of the colored visual thing.⁶⁷ The eye cannot perceive itself by its visual sensations but knows of its existence by its being able to move and be touched. In other words, movement and touch sensations found our sense of the "object" *eye*.

The experience of tactile space, on the other hand, allows us to call the body "mine" by virtue of the "double-sensation" (*Doppelempfindung*) that characterizes it through the exercise of the organ of touch. When I touch my own body (and not merely look at it), for example, when my hand touches my leg, I am aware of a "positional-givenness" (*Stellungsdatum*) in my hand because my hand organizes the spatiality of my tactile consciousness. I also apprehend a "profile" of my leg and grasp my leg as mine (through the *being-touched* sensations occurring at the same time in my leg). But this could be reversed and the leg could be the perceiver: I could touch my leg against my hand. Through experiencing the body as self-touch it is constituted as *mine* in tactile space alone. Interestingly, Condillac makes the same point in his *Traité des sensations* in his discussion of the hypothetical statue at the point where it has only touch-sensations. When I touch myself, I have the experience of "I and again I." Condillac writes:

It is accordingly through this sensation that the body, spatial objects begin for the statue, through which it recognizes what belongs to it. It learns to know its body and to know itself in all the parts which compose it, because, as soon as it places his hand on one [of these parts], the same sentient being responds to itself in some way from one to the other: "it is I." As it continues to touch itself, throughout

the sensation of solidity will place resistance between the manners of being, and everywhere also the same sentient being will answer itself: "it is I; it is again I."⁶⁸

According to Condillac's thought experiment, the statue learns to say "I" as a result of discovering the same sentience in each of the touched parts of the body. The hand runs itself smoothly along the surface of its body and discovers only itself. For Condillac, this tactile contact with the body also includes the sensory experiences of resistance and solidity. It is through experiencing these sensations (in fact in discovering its own body) that it comes to have a sensation (later "idea") of *external* material body.

This phenomenon of the "double sensation" of the hand that can touch a part of its own body or itself became a recurrent theme in nineteenth-century German psychology. ⁶⁹ Indeed, recognition of the peculiarity of touch can be traced back to Aristotle in *De anima*. Aristotle even discusses a "touch illusion" whereby one crosses the fingers of one hand and touches an object with the outside of the fingers and has the sense of touching two distinct objects. Aristotle's illusion is taken up and discussed by the German psychophysicist E. H. Weber in his groundbreaking studies of touch published in 1834 and 1846. ⁷⁰ In *Der Tastsinn*, Weber claimed that perception combined touch and sight but that sight is more accurate than touch for localization:

The touch organs, like the visual organs, have a localization sense, but to a far less developed degree: we therefore owe our accurate perception of spatial relationships to both senses.⁷¹

Weber also discusses the issue of whether two sensations arise when sensitive areas touch each other. He claims (and Merleau-Ponty will develop this idea) that the two sensations do not simply merge into one so as to lose their separate identities: a cold limb touching a warm limb reveals both heat and cold; or a hand touching the forehead. Weber is concerned with which body part feels like the subject touching and which the object being touched. In one hand touching the other (palm touch the back of the hand), he opts for a physiological explanation and suggests that the "object" is that skin which has the thinner epidermis.

It is possible that Husserl learned of the concept of "double sensation" from the Göttingen psychologists, possibly from the students he shared with Georg Elias Müller who ran the Göttingen Psychological Institute. Müller himself remained quite aloof from Husserl and disapproved of him. But Husserl explicitly employs the term "double sensation" (Doppelemp-

findung), common in the psychological literature, in *Ideas* II.⁷³ Here he regards it as unique to touch as opposed to sight.

In *Ideas* II Husserl claims to be interested precisely in the "intertwining" or "interweaving" (Verflechtung⁷⁴) between ego-body and object. He sees the sensations as having an objectivating function of allowing the object (smooth surface) to appear, as well as the body touching it (fingertips) and the sensation of the body as a "bearer of sensations" (Träger der Empfindungen). Husserl's analysis of the double sensation is very complex and is discussed primarily in Ding und Raum and in Ideen II. He denies that "kinaesthetic sensations" have any "matter" but they permit an apprehension that transforms them in a more determinate way. Kinaesthetic sensations and their flow motivate the apprehension of new presentations (turning my head opens up a new angle of vision on the object). Furthermore, Husserl believes sequences of kinaesthetic sensations themselves (such that those of the eyes are similar to those of the head) are "phenomenologically related" (phänomenologisch verwandt)⁷⁵ while remaining separate and not "passing over into each other." There is much to explore here. Does Husserl mean that head movements *feel* more or less the same as shoulder movements in terms of the pure quality of the experience or that they can stand in for one another in revealing the same perceptual scene? Other psychologists had explored whether different regions of the body or skin yielded different tactile sensations. I think Husserl does not come to a decision on these points. The main issue for him is that kinaesthetic sensations combine with their related visual sensations to provide a foundation for the constitution of the physical thing in perception. Secondly, he thinks that series of kinaesthetic sequences can stand in for one another (instead of moving my eyes left, I can turn my head left and reveal the same visual scene):

Our body (*Leib*) contains several systems of movement (*Bewegungs-systeme*), which, however, can stand for one another vicariously (*für einander vikariieren können*) and thereby do not have, relative to each other, a different constitutive significance for the constitution of space.⁷⁷

In relation to the purely visual perception of "pre-empirical" depth, Husserl maintains it cannot at all be analogous to the perception of a straight line spread out on a two-dimensional plane. Indeed, Merleau-Ponty will make the same point in criticizing both empiricist (Berkeleyan) and intellectualist accounts of the perception of depth: "In both cases depth is tacitly equated with *breadth seen from the side*, and this is what makes it invisible." Breadth and depth are as distinct from one another as are tem-

poral and spatial distance.⁷⁹ This pre-empirical "sensation of depth" (not yet true "objective" depth) is borne out of the experience of color with extension and a certain "relief" (*Relief*) between colors.⁸⁰ This "relief" is the pre-empirical correlate of depth. It has a "near-far" structure inside the "up-down" and "left-right" structure of the visual field. Husserl emphasizes that the concept of a two-dimensional plane does not underlie or found the concept of three-dimensional bodily space; it is precisely the other way round.⁸¹ Only *because* there is genuine three-dimensional space do two-dimensional planes make sense.⁸²

In agreement with Condillac in his *Traité des sensations*, Husserl characterizes touch as an omnipresent but dispersed sensation. We can attend to elements of it at will (I can now attend to and notice my toes in my shoes or the back of my legs against the chair which were not salient before my attention lit them up), but there is a continuous sense of the body being present to itself, through something like an inner sensation of touch.

Touch and Vision in Husserl's *Ideas* II

Husserl's *Ideas* II develops an ever more layered account of the constitution of material, animate, and spiritual natures in the world. The aim of Part II of the book is to determine the manner in which physical objects (including embodied persons) are constituted. Again, Husserl wants to explore all the "strata" and "layers" as given in sensory experience (especially touch and vision). Their psychic being (in contrast to the material object which in principle can remain unchanged) is one of constant flux.⁸³ Similarly, it has no parts; unlike a material body, it is not separable into pieces. Material things are not conditioned by their past, unlike psychic animate beings.⁸⁴ Moreover, as grasped *in the personalistic attitude*, "in immediate spiritual apprehension"⁸⁵ the human being is experienced as a human *person* (about which a great deal more needs to be said).

In *Ideas* II § 36, as part of a general investigation of the manner in which the body is apprehended in our animate living, Husserl is interested in the manner in which the lived-body (*Leib*) is constituted as a "bearer of localized sensations." "Localization" means, for Husserl, as for the psychological tradition of that time, both that the sensations are somehow distinguished with regard to a certain place in the body and are recognized as belonging phenomenally to it. ⁸⁶ Ernst Mach, for instance, characterizes emotions as not well localized sensations, and William James speaks of self-consciousness as largely localized in the head. These "localized sensations"—also calls "sensings" are not directly sensed in our sensory awareness but can be brought to attention by a shift of apprehension.

In *Ideas* II Husserl begins his analysis by acknowledging several features that apply to touch and not to vision. There are parts of the body that can be both touched and seen, parts that can be touched but not seen (e.g., lower back, back of the head), but there is also a very particular difference between visual and tactile appearings. In *Ideas* II § 36, Husserl introduces the example of the right hand touching the left. The touching hand has to make movements in order to feel the smoothness and softness texture of the touched hand. This touching gives rise to sensations which Husserl calls "indicational sensations of movement" (die anzeigenden Bewegungsempfindungen) and with them come the "representational" (repräsentierenden) sensations or "appearances" of smoothness. These representational sensations of smoothness in fact belong to the touching right hand but they are "objectivated" or localized in the touched left hand. But Husserl goes on to say that, in the touched left hand also, I have sensations that are active and "localized" within it. In other words, I am aware of the left hand as sensitive to being touched and this sensitivity possesses its own peculiar kind of sensation complex. Both touching and touched hands have their respective "touch sensations":

If I speak of the *physical* thing, "left hand," then I am abstracting from these sensations. . . . If I do include them, then it is not that the physical thing is now richer, instead *it becomes Body, it senses* [*es wird Leib, es empfindet*]. "Touch"-sensations belong to every appearing objective spatial position on the touched hand, when it is touched precisely at those place. The hand that is touching . . . likewise has its touch sensations at the place on its corporeal surface where it touches (or is touched by the other).⁸⁸

As with Sartre, to grasp the hand as an objective hand is to abstract from or, as Sartre would put it, "surpass" this field of sensory experiences and objectify the hand as a distinct object on its own independent of the sensations. If I apprehend the hand with its sensings, Husserl continues, then I am apprehending it as my living body (*Leib*). The hand can be touched, pressed, stroked, pinched, etc. by the other hand or other bodies. In this context, Husserl speaks of the sensation being "*doubled*"89 when one hand touches or pinches the other. There is doubling but no identity. 90

Furthermore, Husserl (followed by Katz and Merleau-Ponty) notes that the sensations can linger after the touching is completed and the hand or fingers have been removed. ⁹¹ There are great complexities involving the sensation of touch. I can sense my fingers moving and touch not just surfaces but things beneath the surface (I can press on the bone beneath my skin). Touch yields different sensations: I can feel not just coldness,

smoothness, and softness, but also heaviness, immobility, and so on (indeed, Weber made a detailed study of perception of weight). These specific kinds of experiences (of motion, weight, etc.) Husserl calls, employing a neologism, "sensings" (*Empfindnisse*).⁹²

Husserl distinguishes between "indicational or presentational" sensations, 93 i.e., sensations that are interpreted as properties of the object, and the sensings themselves, which he speaks of as "touch-effects" of the thing. I press my finger on the surface and apprehend the table's solidity and also that that *solidity* is causing the sensation of pressure in my finger. These are apprehended by "different directions of attention." Husserl says we can thus feel the surface as cold and my finger touching it as "cold." These are two experiences of cold in the one experience.

Husserl says one hand touching the other is an even more complicated scenario. Husserl claims that each hand experiences this "double sensation" and each is apprehended in a two-fold way. Each hand has a sensing and a sensed and both occur simultaneously. There is a double constitution of the body with both "positional-givenness" (*Stellungsdatum*) and "aspect givenness" (*Aspektdatum*). As Husserl will elaborate in a Supplement to *Ideas* II, the body is both *ichlich* and *ichfremd* at the same time.⁹⁴

Most importantly for our purposes in this paper, Husserl claims in Ideas II § 37 that this "double sensation" (Doppelempfindung) or "double apprehension" (Doppelauffassung) belongs exclusively to touch and not to vision. He declares: "in the case of an object constituted purely visually we have nothing comparable."95 Although the eye in one sense "touches" the object it sees (alights on it), the eye itself does not appear as a component in its own vision. Likewise, we see colors but there is no comparable localized sensing of the experiencing of color or of the eyes that are doing the seeing. Moreover, one eye cannot *see* the other eye directly (and as an active sensing organ) as one hand can touch the other. I do not constitute my eye as an external object in the same way I constitute the touching hand as an object over and against a second touched object. All Husserl will allow is that the eye can itself be a field of localization, in that it can be a center for touch sensations (the eyeball can be touched, we can feel the localized movement of the eye in the eye socket, through "eye muscle sensations," and so on). In general, for Husserl: "I do not see myself, my body (Leib), the way I touch myself"96 and he concludes, "The role of the visual sensations in the correlative constitution of the body and external things is thus different from that of the sensations of touch."97

Touchability, for Husserl, is something that pertains to all visible things (at least in principle—one cannot touch the sky, for instance), but not all

touchable things are visible. Crucially, Husserl maintains that the sense of touch has primacy with regard to localization and someone without the sense of touch could not at all have an appearing body. Someone who simply *saw* his body (e.g., as Sartre describes looking at his hand as an alien object resting on the table) would have no experience of it as one with his living body since it lacks kinaesthetic character. The hand is mine because it is animated through my sensation and touched by me. All the other senses are, then, subordinate to touch, in regard to their role in constituting *Leib* as *Leib*. Someone who simply saw his body.

Merleau-Ponty's Synaesthesia of the Senses in *Phenomenology of Perception*

As is well known, Merleau-Ponty's *Phenomenology of Perception* draws heavily on various resources, including phenomenological analyses of perception (found especially in Husserl, Stein, Schapp, Katz, Linke, and Fink), as well as the then current Gestalt accounts (Gelb, Goldstein, Köhler, Koffka, Wertheimer, Gurwitsch, etc.) and those of clinical psychologists (most notably Marius Von Senden¹⁰⁰). From Schapp, for instance, Merleau-Ponty takes the claim (also found in Husserl) that we see the surfaces of things as revealing something of their internal natures: "The brilliance of gold palpably holds out to us its homogeneous composition, and the dull colour of wood its heterogeneous make-up."¹⁰¹

Merleau-Ponty's general aim in his *The Phenomenology of Perception* is to argue for a sentient subject prior to intellection that has his or her own way of experiencing the world. The life of hands, eyes, and ears are "so many natural selves." His target is both empiricist and intellectualist accounts of sensation. In his chapter on "Sense Experience," Merleau-Ponty relies heavily on David Katz's studies of color. Similarly in his chapter on "The Thing and the Natural World," he discusses, in relation to constancy phenomena, touch invoking Katz's study. In relation to color, Merleau-Ponty follows Katz's account of the distinction between "surface colors" and "color areas." Surface colors are properties of objects, whereas colored areas (such as the sky) are more complex: located at a distance, on a parallel frontal plane, flat. He also draws on Katz's discussion of our manner of experiencing lighting and illumination, the "logic of lighting." 105

Merleau-Ponty discusses touch in relation to the feeling of constancy of weight. He remarks, with a footnote to Katz: "Thus analysis of the perception of weight elucidates the whole of tactile perception: the movement of one's own body is to touch what lighting is to vision." ¹⁰⁶ He goes on

to distinguish between active (the "knowing touch") and passive touch (passive touch is mostly the inner feeling of being touched in an area without that area itself engaging in a corresponding reciprocal probing, e.g., when the inside of the ear is touched). Movement is necessary for touch certain tactile qualities (roughness, smoothness) disappear if movement is eliminated. He draws on Katz's World of Touch to support the claim that temporality is an integral aspect of touching. Not only must the fingers be moved over a surface in objective time, but the temporal extension of the touch sensation is an important feature in our sense of the spatial continuity of the surface. For Merleau-Ponty, "smoothness is not a collection of similar pressures, but the way in which a surface utilizes the time occupied by our tactile exploration or modulates the movement of my hand."107 And again: "Movement and time are not only an objective condition of knowing touch, but a phenomenal component of tactile data (des donnés tactiles)."108 Merleau-Ponty is making the general claim that human action assumes a "global bodily knowledge" (un savoir global du corps) that systematically embraces all parts of the body.¹⁰⁹

In his study, Katz particularly emphasized the role of the hand and the range and complexity of its various modalities of touching, stroking, grasping, poking, rubbing, and so on. Indeed, he is Merleau-Ponty's source for the supposed Kantian claim that "the hand is an outer brain." Katz also distinguished between the sense of something vibrating and the sense of pressure. Merleau-Ponty, following Katz, also emphasizes the hand as a tool for exploring space. However, as Merleau-Ponty says, it is not, strictly speaking, the hand that touches; the whole body touches. At the same time, Merleau-Ponty reiterates a point Husserl and Edith Stein also both make, namely, that I keep the sense of touch *at an unspecified distance* from myself: "It is not I who touch, it is my body." I feel a part of my body being touched, e.g., the table touches my leg.

In contrast to Husserl, Merleau-Ponty emphasizes the deep parallels and continuities between touch and vision, faculties that are more usually contrasted in regard to constituting the sense of materiality and spatiality. For instance, it is often thought that the sense of touch disappears when one lifts one's hand off one kind of surface before touching another surface. Merleau-Ponty, on the contrary, thinks a kind of indefinite sense of touch remains. It is not, Merleau-Ponty says, "a tactile nothingness" but "a tactile space devoid of matter, a tactile background." Similarly, for both Katz and Merleau-Ponty, there is a kind of tactile *memory* akin to a visual after-image. When I touch the surface of a material (e.g., silk or fur), I have a sense of what that surface feels like and I will expect that sense in

future contacts with the material. There is a kind of "memory" in my body for what it feels like to lean against a wall, to have my back touching the chair, and so on. Through this memory I gain a sense of the "constancy" of the object. 113

Katz distinguishes between the subjective (I feel my finger being pricked) and the objective (I am touching something sharp) dimensions of touch (and sight), and believes this varies in different experiences. Normally, one is oriented to the objective but, in case of pain for instance, the subjective side predominates. Touching a surface with gloved fingers still gives an impression of a surface on the other side of the glove. In *Phenomenology of Perception* Merleau-Ponty emphasizes the manner in which touch brings body and world literally into contact with one another, unlike the situation of sight (which gives me the sense that I am "everywhere and nowhere"):

Tactile experience, on the other hand, adheres to the surface of the body; we cannot unfold it before us and it never quite becomes an object. Correspondingly, as the subject of touch, I cannot flatter myself that I am everywhere and nowhere; I cannot forget in this case that it is through my body that I go to the world.¹¹⁴

Merleau-Ponty thinks that the experience of "lived" depth (not simply the putative assumption that it is breadth seen from the side, seen by another) reveals the world as it is formed by us prior to the imposition of science, ¹¹⁵ as "grasped from within," ¹¹⁶ not due to the assumptions of some "natural geometry." There is need to rediscover the undeniable experience of depth before it is objectified. Perception is "initiation into the world" ¹¹⁷ and Merleau-Ponty speaks of a "primordial depth." ¹¹⁸ There is a "depth" to colors prior to them being attributed to things. I press my pen through the white to write on the paper. For Merleau-Ponty, prior to geometrical three-dimensionality, there is the "existential" experience of depth as "the link between the subject and space." ¹¹⁹

Merleau-Ponty's overall claim is that it is the body as a whole and the whole system of sensory experiences that give us our sense of objects in the world. There is not just a "reality-for-sight" (*une réalité-pour-la-vue*) and a "reality-for-touch" (*une réalité-pour-le-toucher*) but one "absolute reality" based on "my full co-existence (*ma pleine coexistence*) with the phenomenon." He goes on to say that "the brittleness, hardness, transparency, and crystal ring of a glass all translate a single manner of being." This is, for Merleau-Ponty, what Husserl means by the presence of something "in person," "in the flesh." There is not the sense of different sensory streams but of the one sensible world.

The Reversibility of Flesh in the Late Merleau-Ponty

Some fifteen years after the *Phenomenology of Perception*, in his much discussed chapter on "The Intertwining—The Chiasm" in the unfinished *The Visible and the Invisible*, Merleau-Ponty tries to articulate that phenomenological sense in which we find ourselves as perceivers in a world of the visible which envelops us and which, as it were, mirrors us as seers:

The visible about us seems to rest in itself. It is as though our vision were formed in the heart of the visible, or as though there were between it and us an intimacy as between the sea and the strand.¹²³

The seer does not disappear into the visible or vice versa but the seer forms part of the visible and is in communication with it. We don't have any sense that we create the visible, rather we ourselves are visible within this sphere of visibility: "my seeing body subtends my visible body, and all the visibles with it. There is a reciprocal insertion and intertwining (*entrelacs*) of one with the other." 124

In this text, Merleau-Ponty attempts to express this "intertwining" of visible and vision, of "sensed body" (corps senti) and sensing body (corps sentant), which is for him at the heart of his ontological monism of flesh. He speaks of our vision "palpating" (literally touching) the visible 125 and of the seer as "incorporated" into the visible in what is a genuine incarnation. Similarly, with regard to touch, there is also an intertwining: my hand, felt from within, is "also accessible from without." 126 There is an internal "synergy" in the senses such that I can, for instance, feel myself touching and being touched at the same time.¹²⁷ It is as though there is a "pre-established" harmony between seer and the visible. It is "flesh offered to flesh."128 Flesh (la chair) is, for Merleau-Ponty, an "ultimate notion . . . not the union or compound of two substances but thinkable in itself."129 Flesh, moreover, is essentially characterized by reversibility, and in this regard Merleau-Ponty takes up the exemplary case of one hand touching the other (and fingers touching) to confirm reversibility as an essential characteristic not just of touch but of sensibility as such. For Merleau-Ponty there is a circle or circuit of touching and touched; and similarly there is a circle of seeing and the visible. 130 There is, furthermore, an intertwining between the senses, an "inscription of touching in the visible, of the seeing in the tangible—and the converse."131 Merleau-Ponty writes:

When one of my hands touches the other, the world of each opens upon that of the other because the operation is reversible at will, because they both belong (as we say) to one sole space of consciousness, because one sole man touches one sole thing through both hands.¹³²

Merleau-Ponty claims the unity of the experience of both hands is akin to the unity of both eyes. Our consciousness is sustained by the prereflective, preobjective unity of my body. Moreover, what unifies my body is also that which opens my body to the experience of others' bodies. Two human subjects' bodies touch each other in a handshake and this reversibility is already prefigured in the single subject. The world is actually an "intercorporeal being"; my body "couples" with the "flesh of the world." Merleau-Ponty finds this embodiment and reversibility in other areas, especially, in the coupling of vocalization and being heard. I can hear my own voice; I can listen to myself speaking. He takes reversibility to be indicative of human being-in-the-world. This reversibility has within it a certain distantiation. I cannot ever completely coincide with my self in the act of self-touching, rather I have a presence a Soi qui est absence de soi").

In the late Merleau-Ponty, "intercorporeality," with its flesh-touching-flesh scenario, is part of a new ontology that replaces traditional subject-object dualism. Merleau-Ponty speaks of this reversibility as always "imminent" and never in fact consummated or "realized in fact." When one hand touches the other, there is never complete coincidence; the experiences do not completely overlap. There is a "hiatus" between the touching hand and the touched. For Merleau-Ponty, there is a "chiasm," an intertwining, between touch and sight, such that neither is prior to the other (except, perhaps, when one of them is dysfunctional).

For Merleau-Ponty, the reversibility that for Husserl constitutes the essence of touch also characterizes seeing and visibility and indeed sensuous incorporation in general (including the incorporation of the voice). As Merleau-Ponty puts it, the relation between the seeing and the seen is a "remarkable variant" of that between the touching and the touched. According to Merleau-Ponty, the eye is as "close to" the visible as the hand is to the tangible, so close that, like the hand, it virtually palpates things within its own medium of light, shadow, and distance. The focusing of the eye reaches out as it were to embrace light, to touch the light that touches it, the light that envelops the visible things. Merleau-Ponty writes:

There is a relation of my body to itself which makes it the vinculum of the self and things. When my right hand touches my left, I am aware of it as a "physical thing." But at the same moment, if I wish, an extraordinary event takes place: here is my left hand as well starting to perceive my right, *es wird Leib*, *es empfindet*. The physical thing becomes animate. Or, more precisely, it remains what it was (the event does not enrich it), but an exploratory power comes to rest upon or dwell in it. Thus I touch myself touching: my body accomplishes "a sort of reflection." In it, through it, there is not just the unidirectional relationship of the one who perceives to what he perceives. The relationship is reversed, the touched hand becomes the touching hand, and I am obliged to say that the sense of touch here is diffused into the body—that the body is a "perceiving thing," a "subject-object."¹³⁸

Note that in this passage Merleau-Ponty is directly quoting Husserl's *Ideas* II: *es wird Leib*, *es empfindet*¹³⁹—in relation to body (*Körper*) *becoming* animate (*Leib*), and also in recognizing that the doubling and reflexivity of the senses is already a "kind of reflexion" (*eine Art von Reflexion*). ¹⁴⁰

In his 1961 essay "Eye and Mind," Merleau-Ponty emphasizes the "interlacing" (*l'interlacs*) between seer in the seen and vice-versa. ¹⁴¹ There is an essential "undividedness" (*l'indivision*) ¹⁴² between sensing and sensed (and, as Merleau-Ponty will suggest, between thinking and self-reflection). Without a body that can reflect itself in touching and seeing "there would be no humanity." The double sensation has now become a cipher for the reflexivity of consciousness and an essential trait of humanity itself.

Conclusion

Husserl's remarkably detailed and innovative accounts of sensuous perception and specifically of the nature of touch and its priority for embodiment (*Leiblichkeit*) provided the ground for Merleau-Ponty's more speculative metaphysical elaboration of the flesh. For Husserl, touch and vision combine to form the unified field of perception, but the kinaesthetic field, itself belonging primarily to touch, gives touch a certain "primacy." Furthermore, Husserl presents the phenomenon of the "double sensation" as unique to touch and as highlighting the role of touch in the constitution of the body as *Leib*. His Göttingen student David Katz expanded in great empirical detail on the senses of touch and vision and the parallels between them, and his charting of the relations between touch and sight had a deep effect on Merleau-Ponty especially when he was writing *Phenomenology of Perception*. Whereas Sartre, in *Being and Nothingness* (1943), rejects the double sensation as a merely contingent feature of our embodiment, ¹⁴³ Merleau-Ponty gives the double sensation ontological significance in his

late works, including "The Philosopher and His Shadow" (1959), "Eye and Mind" (1961), in the chapters of the posthumously published *Visible and Invisible* (1964), and the associated *Working Notes* (1959–1961). For Merleau-Ponty, this phenomenon of "intertwining" and "reversibility" introduces a new ontological paradigm of flesh, overcoming Cartesian dualism of mind and body, and expresses the condition he calls "intercorporeity" (*l'intercorporéité*). 144

The phenomenology of touch and of intertwining continues to be a topic of discussion in Jean-Luc Nancy, Jacques Derrida, Luce Irigaray, and others. 145 Irigaray, for instance, implausibly in my view, accuses Merleau-Ponty of absorbing touch into sight, 146 whereas in fact he takes the reversibility that Husserl finds peculiar to flesh to apply to all aspects of incorporation. It is absolutely not a question of giving priority to the visible. Rather Merleau-Ponty is focusing on vision to show that the intertwining occurs there also and not just in touch: "my body sees only because it is a part of the visible";147 "the visible takes hold of the look."148 Indeed, Merleau-Ponty is trying to reconceive vision as a kind of touch; he is precisely not prioritizing vision over touch. Merleau-Ponty complained that everything "we say and think about vision has to make a thought of it." 149 In one of his late *Notes de travail*, commenting on Descartes's *Dioptrics*, he especially criticizes Descartes for tracing back seeing into the mind so that all that remains is the thought of seeing, 150 "contracted into a metaphysical point." The opposite is the case, Merleau-Ponty writes:

For finally we know no vision but that by a composite substance (substance composée), and it is this subtilized vision (cette vision subtilisée) that we call thought—if being is to disclose itself, it will do so before a transcendence, and not before an intentionality, it will be the engulfed brute being that returns to itself (l'être brut enlisé qui revient à lui-même), it will be the sensible that hollows itself out (le sensible qui se creuse). 151

It is this "hollowing out" of the sensible in its incorporated self-reflexive intertwining with its unity and distantiation (*l'écart*) that truly characterizes human being-in-the-world as flesh, and which is better captured, according to Merleau-Ponty, by painting rather than technicized science.

Husserl's careful prying apart of the layers of sense-constitution at the level of prereflective embodied sensibility needs to be revisited. In particular, his account of the role of kinaesthetic sensations in the constitution of the perceived object needs a considerable amount of elaboration and updating. An especially challenging issue is whether the sense of touch has profiles, horizons, and backgrounds, in the same manner as vision. It may

very well be that further exploration will continue to confirm and enrich Husserl's original breakthrough. What is undeniable is that, through the elaborations of Katz and the transformations of Merleau-Ponty, Husserl's phenomenology of embodied perception had a remarkable influence on twentieth-century studies of vision, touch, and incorporation in general.