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From substitute to supplement: towards a normative reading of Merleau-Ponty's Schneider case

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Abstract

How do philosophers and psychologists receive paradigmatic cases from pathology? More specifically, how are some essential features of 'normal' cognitive, affective or perceptual functions derived these pathological cases? In this paper, I argue that Maurice Merleau-Ponty offers a fecund answer to this question by putting forth a logic of supplementation in pathology that distinguishes the coping behavior of the organic world in contrast to an inorganic one. Supplementation, instead of substitution, marks the world of the living, particularly in its higher forms, as it denotes a persistence through impairment governed by an organic norm. A prominent example of this appears in his reading of the patient Schneider case, a classic example from Goldstein and Gelb's Gestalt psychology. While earlier commentators were interested in underlying whether or not Merleau-Ponty used this example to denote the persistence of a key function or the disruption of another, what has been missed, on my view, is a far more consequential point about pathologies and how they structure our relation to our world.

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Il faut comprendre les suppléances comme des suppléances, comme des allusions à une fonction fondamentale qu'elles essayent de remplacer et dont elles ne nous donnent pas l'image directe.

*The substitutions must be understood as substitutions, as allusions to a fundamental function that they attempt to replace, but of which they do not give us the direct image.¹ Maurice Merleau-Ponty, *Phenomenology of Perception**

Can we infer so-called normal and integral features of perception through study cases of pathology? This question may seem somewhat odd insofar as pathology has largely interested psychology and philosophy precisely because normality can be derived therefrom. In moving from pathology's "indirect image" to normal perceptual functions, *Phenomenology of Perception's* most equivocal and famous case, that of patient Johann

Schneider, gives rise to two seemingly irreconcilable readings. On the one hand, according to one traditional commentary notably found in Dreyfus, Merleau-Ponty uses the Schneider case to express a certain *impairment* of the patient's motor intentionality as it pertains to switching tasks which "normal people . . . (but not Schneider)" can do (Dreyfus, 2007, p. 69). On the other hand, the philosopher seems to evince the *persistence* of "a kind of pure motor intentionality," a concrete motor ability that likens Schneider to a "normal subject" despite the patient's inability to take a critical step away from the current situation (Kelly, 2000, p. 168). Both possible readings hinge on the hitherto little discussed notion of "normality", paradigmatically, yet indirectly revealed through pathology.

After a brief overview of the Schneider case as it appears in *Phenomenology of Perception* and *Structure of Behavior*, I will argue that these views are predicated on an equivocation – at least in part due to Merleau-Ponty himself – between the normal and the pathological. In moving toward a normative reading of the Schneider case, I will further maintain that the more fundamental point at play is that perceptual norms are supplemented – supplementation understood as *persistence through impairment* – with a vital norm and not substituted in pathology. This will, in turn, require elucidating the *sui generis* attitudinal vital norm at play in organisms. To make my case, I will argue, in the second section of this paper that supplementation can be contrasted with a certain rigidity that also marks the experience of the child. While this rigidity seems at variance with the flexibility of supplementation, what differentiates the rigidity of children from that of the ill is precisely the robust organic function that persists while maimed. In this sense, rigidity does not find its antonym in flexibility but *robustness*, i.e., the ability of organic forms to find various ways of achieving the same vital task of re-establishing order. In the last section, I expand on my understanding of supplementation and contextualize my reading in the normative framework that I chose to adopt. The numerous caveats encountered in the analysis of the passage from pathological study cases to perceptual norms may be surmounted, or at the very least better understood, by bringing to the fore the normative question at the center of a phenomenological account of illness and abnormality.

The Schneider case

Patient Johann Schneider, a musketeer for the German army during the First World War, was wounded by mine-splinters, two of which apparently reached his occiput. As a result of this incident, he was put under the care of psychologist Adhémar Gelb and neurologist Kurt Goldstein, who offered the following diagnosis: "psychic blindness" or visual agnosia, which

entailed a hindered ability to integrate visual data into whole conceptual forms (Goldstein & Gelb, 1918, p. 9). The details surrounding the case are notoriously murky, and the diagnosis has long been debated within the scientific community,² but more important for us is to account for the descriptions of this condition taken up by Merleau-Ponty. Consider, for the moment, two examples: when blindfolded and asked to perform abstract tasks such as pointing to different parts of his body – his nose for example – or describing their positions, Schneider fails to do so. Yet, Merleau-Ponty continues, the patient executes movements necessary for life with extraordinary speed and confidence, provided they are concrete movements: he seamlessly takes his handkerchief from his pocket and blows his nose. How can we explain the paradox of this inability to perform a simple motor task on command, while the execution of similar or even more complex tasks offers no hurdles to the patient? Goldstein and Gelb's answer is somewhat straightforward: while the first task is described by them as abstract and requires a reflective input, the second is concrete and resides in the possibilities at play within Johann Schneider's perceptual environment. It would be anachronistic to view these possibilities as implicit, dispositional affordances: the crucial point, also taken up by Merleau-Ponty, is a dynamic feature of the patient's history and factual properties of his *milieu*. Indeed, these possibilities gain their meaning through the patient's pre-reflective motor project and ingrained habits.

It should not come as a surprise that Schneider's case falls (perhaps too well) in line with Merleau-Ponty's systematic critiques of intellectualist and sensualist accounts of perception to the backdrop of which he aims to put forth a phenomenological and existential description. If, per the intellectualist or cognitivist explanation, our grasp on the world was always reflective and therefore abstract and mediated (say, by mental imagery or fully formed doxastic beliefs), there would be no reason why Schneider could perform complex motor tasks such as blowing his nose but not point to his limbs. The charge against the intellectualist explanation is all the more incisive as it reproduces the pathological, and not the normal, apprehension of the world: rather than acting within the world, the patient comes to calculate his movements and place himself "into the spirit of the actual situation" (Merleau-Ponty, 1945, p. 134, 2012, p. 107). While it might seem that the phenomenologist seeks an intermedial path between two extremes, both Intellectualism and Empiricism share the same unquestioned belief in the world [*préjugé du monde*] (Merleau-Ponty, 1945, p. 27, 2012, p. 5). Indeed, Empiricism fares no better than its supposed counterpart. For the empiricist throws the baby out with the bathwater with his purportedly exhaustive functional breakdown of the reflex arc that does away with the useful distinction between involuntary reflex movement and directed and skillful motor reaction.³ This is particularly important, as we will see, in building

toward a normative reading of the Schneider case as intentional motor action is uniquely normative since the act of grasping a handkerchief is failed if I do not end up holding the handkerchief but the reflex act “depends entirely on the occurrence of the relevant muscular contractions” (Kelly, 2000, p. 167). As Elisabeth Pacherie points out (Pacherie, 2018, p. 378), this normativity is not solely a dichotomy between the success or failure of the motion as correctness can also be evaluated by “the specific way in which the outcome is achieved.”

By endowing motor intentionality with too little or too much cognitive significance, the empiricist and intellectualist explanations fail to account that the “know-how” involved in skillful negotiation of the subject with its milieu is, *contra* Empiricism, indeed a form knowledge and yet, *contra* Intellectualism, a pragmatic skill that is not reducible to propositional beliefs (cf. Romdenh-Romluc, 2011, p. 90). Not only is it easier to navigate a complex itinerary than to explain it to someone, Merleau-Ponty points out that we often use a “motor mimic without which we would not be able to mentally navigate the path” (Merleau-Ponty, 1942, p. 127, 1983, p. 117). A “know-how” is formally different from the knowledge of the molecular composition of water in the sense that the former can never be contained within a stable set of propositional beliefs, while the latter can. In fact, every iteration of an applied “know-how” involves contextual differences, however minute, that would require an infinite set of propositional beliefs (e.g., going over an ice sheet requires that the skier extends her knee over her toes, a debris demands that we make a detour, etc.). Not only is such a step absent at the phenomenal level, that of ordinary lived experience, the experienced skier falls precisely at the moment she “overthinks” the angle of her turn away from the ice sheet. This is not to say that cognition is absent in skillful action: pragmatic situations are rife with demands and our engagement with them is never impartial (Pacherie, 2002, 2018, p. 379). Not only is there for Merleau-Ponty a “storage of practical intentionality”, but also motor intentionality itself mediates actuality and virtuality within unitary action (Halák, 2021; Merleau-Ponty, 2020, p. 155). The skier “intuitively” knows from experience or visualization that an ice sheet lays beneath the seemingly neat layer of snow.

This practical skill is also what allows us to perform with relative ease even when the instrument with which we have gained mastery is not the one with which we are meant to play in front of an audience. As Merleau-Ponty explains, the master organist, given a few hours of practice, can play with a new organ that has different keyboards and stops that are differently arranged than the stops on his customary instrument (Merleau-Ponty, 1945 -181, p. 180; Merleau-Ponty, 2012, p. 146). Skill acquisition is not so much a matter of responding to singular environmental solicitations as it is a new *aptitude* toward solving problems of the

same form (Merleau-Ponty, 1942, p. 106). Of course, to Pacherie's point, the skilled organist is not indifferent to the instrument with which she has to perform as though specialized instruments were perfectly interchangeable: the professional musician often holds her instrument as a singularly prized possession.⁴ It is important to give an account of motor intentionality that can render the malleability of the means of achieving a motor goal without erasing the minute differences that become considerable to the eyes of the skilled musician, cook, or athlete. Nevertheless, it remains that our skillful movements are skillful precisely because they are directed toward goals or in Merleau-Ponty's words "poles of action" that, although situated, remain open to change (Merleau-Ponty, 1945, p. 136, 2012, p. 108). Each step of our concrete actions, such as typing this text or, in Schneider's case swatting a fly, does not need to be the object of calculation. In this sense, beyond a negative critique of Empiricism and Intellectualism, the positive foray into a phenomenological account of bodily movement indicates that grasping and pointing involve different types of spatial knowledge as "knowledge of a location can be understood in several senses" (Merleau-Ponty, 1945, p. 133, 2012, p. 106).

It is important to note that this distinction, although eminently useful, can prove overly schematic as only a limited number of our daily actions are purely abstract or concrete. Take, for example, Schneider's trade as a wallet maker: we are told, among a number of concrete movements that he can accomplish with fair ease that his output reaches three-quarters of a normal worker's output (Merleau-Ponty, 1945, p. 133, 2012, p. 105). However streamlined his tasks might have been, can we indeed compare factory work with blowing one's nose with a handkerchief or taking a match from a matchbox and lighting a lamp as Merleau-Ponty seems to do? Commentators have used this example to either maintain (Dreyfus, 2007, p. 63; Carman, 2008, pp. 113–15) or contest (Jackson, 2018, p. 7; Jensen, 2009, p. 386) that Schneider's concrete movements are broadly unaffected by his injury, but little attention has been paid to the entwinement of concrete and abstract movements in complex tasks such as a trade or a sport. Through this second remark, we get an insight into a notion earlier broached, i.e., motor intentionality, an action-oriented and pre-reflective⁵ type of intentionality. Merleau-Ponty himself admits that there remains an ambiguity as to whether this categorial attitude is pre-reflective or conceptual in nature. In the preparatory notes for his 1953–1954 seminar on speech at the Collège de France, following Cassirer, Merleau-Ponty notes that the categorial attitude brought to light in the Schneider case may be a function of understanding.⁶ Yet, more compellingly, he hints that this categorial attitude may be something "deeper than knowledge, more general, more

tightly knit to the subject's whole life at work in all sectors and structuring language itself" (Merleau-Ponty, 2020, p. 115[80](4)).⁷

In motor intentionality, Brentano's insight about consciousness's transitive nature takes its pragmatic meaning within unitary action. Simply put, motor intentionality denotes the dynamic negotiation between the situation's solicitation of the body and our affective states, goals, and projects. Motor intentionality's projective function pertains, in large, to the virtual, i.e., the ability to answer the situation's solicitation with our own motor, intersubjective, affective, behavioral intents. Merleau-Ponty's twofold aim in distinguishing the actual from the virtual is to reprobate the "atomistic" or identity view of neuronal functions, or what Gestalt psychologist Wolfgang Köhler had called the "mosaics of independent local facts" (Köhler, 1992, p. 123), without reducing the latter to an undifferentiated activity. If this distinction is narrowly intertwined in Gestalt psychology's figure-ground distinction – Merleau-Ponty insists that it is the notion of the figure that allows to understand virtual and concrete spaces as distinct (Merleau-Ponty, 1942, p. 100) – it remains unclear how the virtual can be explained through a figure. After all, isn't the virtual precisely what is *not* there in the concrete situation? How can it then be, as it were, figured in the figure-ground dynamic? We can take on Sartre's example in *Being and Nothingness*, also informed by Gestalt psychology, of meeting a friend at café to spell out the relationship between the ground-form and actual-virtual binaries (Sartre, 2017, p. 44ff.).

I am 30 min late for a meeting with a friend at a café at 4 o'clock, knowing he is always punctual. Will he have waited for me? Scanning across the café I realize that he isn't there. But is this a judgment or a perceptual act? Sartre explains that as I enter the café, "a synthetic organization" of all the objects and people is formed, and it is against this ground that my friend has to appear. If my friend is there, he then appears as a form around whom all the disparate elements acquire signification precisely because I am expecting to see him. Yet, the friend is not "there" – the indexical refers not to a particular part of the space where he isn't but to the whole café – and his absence "haunts" the actual space of the café. This perceptual presence of an absence is, for Sartre, something quite different from the abstract judgment that poet Paul Valéry is not there at the café. In all likelihood, Schneider would have had no issues performing the same purposeful scan. Yet, I can imagine heading to the same café, with the intent to read a book and yet coming across the friend whom I had not expected to see. My lived or "hodological" space is still structured by my intentions of, say, finding a quiet corner where I won't be bothered by the neighboring group's conversation, but I am easily able to deviate from these intents to spot my friend on the other side of the room. Consider, by way of contrast, Schneider who never goes out for a walk, but always runs an errand. Merleau-Ponty

highlights, referencing Goldstein's notes, that he does not recognize the latter's house when walking by it "because he has not gone out with the intention of going there" (Merleau-Ponty, 1945, p. 166, 2012, p. 138). Schneider's rigid visual capabilities, marred by integrative agnosia, cannot be disturbed by the *punctum* of an object that is not part of his pragmatic intent, however familiar he may be with it. Contrastively, the healthy adult has enough flexibility to interact not only dynamically with intended poles of action but also with new, emergent poles as they may enter his visual field.

Yet there arises the paradox – first underscored in 1964 by Richard M. Zaner (1964, p. 186) – that has shaped the scholarly debates surrounding the case: Schneider's pathology is meant to exemplify both the persistence of motor intentionality and its impairment in a seemingly contradictory manner.⁸ Philosophers such as Sean Kelly and Hubert Dreyfus have, in turn, respectively, insisted on either the persistence or the impairment of motor intentionality. Yet the normative picture of the case that I will now draw will perhaps allow for a better understanding of Merleau-Ponty's more fundamental point about the organism's persistence *through* impairment.

The ill and the child

How does the organism cope with illness and pathology? While describing classical psychology's erroneous explanation of the phantom limb as suppression or organic repression, Merleau-Ponty alludes to vital differences between "normal" human coping and other types of responses. For one, the insect that replaces a leg that has been cut off does so through a "preestablished safety mechanism [that] is automatically triggered" (Merleau-Ponty, 1945, p. 106, 2012, p. 80).⁹ Automatic reflex provides an exhaustive explanation here because if the leg is tied, continues Merleau-Ponty, it is not "*supplemented*" [*suppléé*]¹⁰ by the free leg as the activity current that is world-oriented still passes through that leg. Here, there is no more choice than for the drop of oil that uses all its internal forces to solve the maximum/minimum problem which is posed to it. The difference then, which will help us move from the drop of oil to the insect, to the human being, lies in that "the drop of oil adapts itself to given external forces, while the animal itself projects the norms of its milieu and establishes the terms of its vital problem" (*ibidem.*). The distance that separates the drop of oil and the insect from human beings is analogous to that between laws and norms: whereas the physical world is bound by laws, human behavior is governed by norms. The *sui generis* nature of organic norms is a "certain type of transitive action," defining the organisms' own ways of achieving its equilibrium through a "general attitude towards the world" where the inorganic reaches its equilibrium through a sum of extrinsic forces (Merleau-Ponty, 1942, p. 161). I will come back to this in the next section.

To be sure, the organism's vital problem is not a discrete set of projective responses to the environment's solicitation, but behavior understood as a complex pattern involving engrained habitus, affective and linguistic expression and a motivation directed at poles of action. When he is forced to step away from the actually given (e.g., using a pen to write) into the "categorical attitude" of the virtual (e.g., viewing the pen as functionally interchangeable with a chalk), Schneider is led to failure (cf. Merleau-Ponty, 1942, p. 69; 1983, p. 64). Even Schneider's comparative strengths with regard to other aphasic patients – as van Woerkom notes, Schneider can grasp and manipulate concepts better than his own aphasic patient (van Woerkom, 1925; cf.; Merleau-Ponty, 1942, p. 73; 1983, p. 67) – belie for Merleau-Ponty the deficiencies masked by the supplements: "we must take into account the supplements [*suppléances*] that mask, [in Schneider], the gravity of the deficiencies" (Merleau-Ponty, 1942, p. 73). Merleau-Ponty draws this notion of the supplement, in *Phenomenology of Perception* but more explicitly in *Structure of Behavior* and his 1953–1954 Course notes from Goldstein's technical use of *Ersatzleistung* in his *Aufbau des Organismus* understood as a compensatory performance to elude catastrophic situations (Merleau-Ponty, 2020, p. 115[80](4)). For Goldstein, the meaning of these supplementary actions does not lie in their specific contents but that they are "in themselves possible" [*dass sie an sich möglich sind*] (Goldstein, 1934, p. 27–28). The supplementary action, in this case consists, as was the case elsewhere, in adopting the abstract action indirectly: for Schneider to recite the lyrics of a song, he must adopt the attitude of the singer. and Merleau-Ponty insists, the reorganizations and supplementation described by Goldstein and Gelb must be apprehended as pathological themselves because they do not reconstitute or substitute a "normal" function. If we are to maintain the notion of substitution it is important here to resituate the specific meaning at play to avoid misreading Merleau-Ponty's point, which is, as we have seen, neither exactly about the persistence nor the impairment of a fundamental function but *supplementation understood as persistence through impairment*.¹¹

This equivocation between supplementary and substitutive action is all the more pernicious as the logic of substitution is used by the empiricist's reflex model to explain pathology. In the *Structure of Behavior*, Merleau-Ponty emphasizes that the empiricist's causal model of behavior fails insofar as it presents the "normal activity of the organism . . . without veritable norms, only effects" (Merleau-Ponty, 1942, p. 7, 1983, p. 9). Discussing a case of lesion of the pyramidal tract in this early work, he notes that the foot reflex is replaced by an extension of the fingers. Instead of taking into account the qualitative alteration in behavior, classical physiology explains this change by the "simple *substitution*" of a preestablished circuit by another (Merleau-Ponty, 1942, p. 18, 1983, p. 20). It is clear then that

Merleau-Ponty invites us to shift from a logic of substitution to that of supplementation when analyzing pathological behavioral norms.

Moreover, pathological behavior, he insists, is not to be understood as a “subtraction from normal behavior” or, as it pertains to the Schneider case “nothing could be more mistaken than to assume that the same operations are at work for the normal person and merely abridged by habit” (Merleau-Ponty, 1942, p. 18, 1945, p. 138, 1983, p. 20, 2012, p. 110). Neither the behavior of the ill, the child, nor the “primitive” should be understood as a disaggregation of an “adult, healthy, and civilized behavior” (Merleau-Ponty, 1942, p. 18, 1983, p. 20). Expanding on this point in the *Phenomenology of Perception*, he adds that these should be understood as functional wholes and the very supplementary steps made by the organ to attain order are themselves pathological (Merleau-Ponty, 1945, p. 138, 2012, p. 110). Are the child and the “primitive” simple developmental and anthropological variations on the idea of a deficiency with regard to the healthy, “civilized,” adult human being? It would be wrong here to understand infancy as an *état de nature* from which sociality would be subtracted. Merleau-Ponty suggests, in his class on infant intersubjectivity, that this very presupposition leads to the common yet erroneous conclusion that children’s drawings are “abortive adult drawings” [*dessin d’adulte manqué*], frustrated attempts at representing the world as would the “white, ‘civilised’, Western adult” (Merleau-Ponty, 1982, p. 98, 1997, p. 150). In other words, it is a presupposition stemming from the natural attitude – that of the classical perspective of Euclidian geometry – that the developmental variation brings to the fore. The transcendental and empirical aims of the project are thus not disjointed for Merleau-Ponty: the empirical work on pathology and infant psychology has value for itself and not *against* a preestablished dogma about “normal” perception, and yet it reveals deeply engrained beliefs of the natural attitude about perception as unfounded prejudices that point, indirectly, toward invariant features of perceptual experience. It is thus crucial to stress again that, for the phenomenologist, neither the ill, the child, nor the so-called primitive are “lesser than” the healthy, white, adult.

As such, the phenomenologist, in his 1949–1952 Sorbonne classes on infant psychology and pedagogy, insists against Piaget that toddlers are always already in the social world that shapes them, e.g., through the nursing bottle (Merleau-Ponty, 2001, p. 471).¹² What is problematic in infancy is thus not a lack of sociality but its excess: there is no *differentiation* between self and others in infancy.¹³ As Merleau-Ponty highlights, language acquisition is part and parcel of a differentiation onto adulthood (cf. Bimbenet, 2011, pp. 70–71). More recent literature on children’s spatial communication has demonstrated that they are often unable to demarcate a specific location against other potential targets. In an experiment where a child helps the scientist hide a toy, 4-year-olds had more difficulties than

6- and 8-year-olds in relating the primary landmark where the toy was hidden to a secondary landmark in the environing space (Plumert, 1996). What is often missing in children, especially with an upbringing that has forged “psychological rigidity” is the ability to face ambivalence and accept contradictions as part and parcel of an ambiguous world (Merleau-Ponty, 1997, p. 156ff). Where ambivalence, the mark of childhood, calls for neat and polar categorizations, ambiguity is a phenomenon that allows the healthy adult to assert that a person is at once good *and* imperfect – in short a nuanced being.

To test this, through a series of experiences measuring psychological rigidity, young students are asked to solve a number of easy problems. In a second step, the subjects are shown a problem which seems to share the same methodological framework as the previous, but it can be solved with more ease through another method. For the subject to be able to perform the methodological switch, she must have the malleability [*souplesse*] required to answer the situation’s novel traits. To this study by psychologist Else Frenkel-Brunswick, Merleau-Ponty will add several remarks one of which is of particular salience for the purpose of understanding the organism’s supplementary action in pathology: an assessment of perceptual rigidity does not follow a subject’s demonstration of psychological or intellectual rigidity. In fact, some subjects “*compensate*” psychological rigidity with great perceptual malleability or adaptiveness (Merleau-Ponty, 1997, p. 161, emphasis his). Merleau-Ponty’s point about children’s aversion to ambiguity can be measured by the increased aptitude in children as they age to place a narrative barrier between themselves and events that generate high levels of negative affect (Nolen-Hoeksema et al., 1992). Yet we are still left wondering whether adulthood forms a *telos* toward which childhood would be set. Merleau-Ponty suggests otherwise by claiming, in his class on infant intersubjectivity, that although childhood anticipates adulthood, straying back toward childhood is a constant possibility as “childhood is never radically liquidated” (Merleau-Ponty, 1997, p. 206). Similarly, a regression to a biological, anonymous order through pathology is always a possibility since we “fall” sick in the same way that we “fall back” into childhood (Bimbenet, 2011, p. 134).¹⁴

Thus, we see the kernel of truth in the third-person description of the intellectualist explanation: the sick – and not the healthy – person acts in accordance with the intellectualist model because pathology represents the body’s waning into third-person anonymity. And it is precisely at the moment, in the experience of illness or disability, where the distinction between reflex and concerted reaction is lost that life norms cede way to biological laws. Because health is a precarious order, never guaranteed in theory or practice, that pathology ought to be viewed as seamlessly tied to it. While pathology in Merleau-Ponty casts light on the “taken-for-granted” of

normalcy (Carel, 2021; Dorfman, 2005), here we see that the developmental and anthropological variations of the child and the “primitive” are instructive for shifting toward a holistic view of the organism. While we might be left with the impression that the normal (i.e., adult, healthy, and civilized) serves as, at the very least, a more optimal configuration for the organism’s order, Merleau-Ponty’s concern is with an alterity whose axiological significance is not straightforward to parse. This long detour by way of his account of developmental psychology and sociality meant to illustrate the specificity of pathological rigidity: while “the child, the ill and the primitive” offer variational perspectives away from our engrained norms of behavior, their idiosyncratic takes on the world cannot be assimilated under the same rubric of the “abnormal”. Rather, here developmental psychology helped us understand a significant difference between the rigidity evinced in pathology and child perception. The “rigidity” that seems to mark both the experience of the ill and the child, I maintain, means two different things for each. For the child, rigidity is cashed out in the difference between ambivalence and ambiguity: while adult perception is markedly ambiguous, allowing for the coexistence of perceptual contradictions such as in Escher drawings, the child, for Merleau-Ponty, translates such complexities into radical dichotomous choices. Rigidity, when pathological, does not refer to ambivalence as much as a lack of organic robustness. That is, while correct coping in pathology involves, as we will see in the next section, erecting norms of interaction between the organism and its environment to reestablish homeostasis. It is this sense of organic robustness that guides supplementation as a form of persistence through impairment. Finally, it is worth repeating again that the child, the so-called primitive and the ill are not in any case lesser than the prevailing norm but all serve to bring to the fore a norm that lacks awareness of itself precisely because it is the prevailing norm. Thus, not every anomaly is pathological because the former refers, more broadly, to the diversity of the living, whereas pathology refers to the *pathos* of suffering. We can then say that whereas pathology is an index for anomaly, an anomaly is not always pathological.¹⁵ Pathology’s true antonym is health, defined as an immediate and pre-reflective relationship to the body marked – or rather unmarked – by a “silence of the organs,” following René Leriche’s expression (Canguilhem, 1943, p. 91). As a result, pathology, alongside developmental psychology and cultural anthropology, offers paradigmatic moments when this silent *status quo* is called into question.

The normal, the norm, the pathological

What separated the oil drop and the insect in Merleau-Ponty’s reading to the compensatory behavior of the pathological in human beings, I earlier claimed, reflects the distance between laws and norms. In this final section,

I aim to clarify the step from the supplementary effort of the healing individual to this normative reading of human coping behavior. The aptitude to generate norms in living creatures can be contrasted to the laws of the physical world by turning to Quine's (1970) distinction between rule-fitting (or "rule-conforming" in debates of social cognition) and rule-guided behavior. For Quine, it is absurd to claim that the rock rolling down a hill is guided by gravitational pull insofar as it is unaware of the laws of physics. This is a rule-fitting "behavior", if behavior is even the appropriate word here. A rule-guided mechanism involves following a rule due to the knowledge of it *qua* rule. This can be illustrated by my decision to give right away to vehicles already in the roundabout before it is my turn to integrate it. While the drop of oil or the insect can be characterized as rule-conforming in the sense defined by Quine, the norms of health are not quite readily understood as rule-guided. For him, rule-guided behavior is defined by the subject's ability to know and be able to state the rule by which one abides. Of course, this also implies, at least in some cases, an ability to divert from or transgress a given rule: it is insofar as I know that I must yield to the cars already in the roundabout that I can break this driving law. The obvious difference, however, between the norms of health and rule-guided behavior is that we are never fully conscious of the norms that guide our interactions with our environment. Rather, to borrow a term from Varela (1992, 2016, p. 173) in its original meaning, we enact – in the strict sense of "bringing forth" – the norms that govern our health.

Indeed, for Merleau-Ponty, and we see echoes of this in the work of George Canguilhem,¹⁶ health in an organism is a precarious equilibrium that is reached through an array of regulative measures that allow for an adaptive negotiation of the said organism to its *milieu*. It is only in relation to this *milieu*, upon which the organism is bound to act, that a particular anomaly becomes pathological (cf. Wolfe et al., 2020, p. 228). Or, in the more dynamic terms in which Merleau-Ponty would come to characterize this regulatory force in his late *Nature* (Merleau-Ponty, 1995, p. 199) notes: the living being conforms to a "self-regulating fluctuation" caught between the organism's need for stability and variation. The *sui generis* norm of the organism, for him, is not to be limited to "present" or "real" conditions of a given milieu but virtual conditions that the organic system brings itself into existence (Merleau-Ponty, 1942, p. 157). In this sense organic reactions cannot be understood through the logic of inorganic laws as they are acts addressed to a situation, "either present or virtual" (*ibidem*. p 164). These organic *a priori* are never established once and for all and are norms inscribed in the organism's interactions with its environment. For both Canguilhem and Merleau-Ponty, the difference between health and pathology is, therefore the incapacity of the pathological body to erect norms other than its own unique one, that is, to be properly normative. This "attitudinal"

vital norm – attitudinal in the sense defined by Charles Wolfe (2015) that does not imply a metaphysical or factual vitalism – looms over the healthy organism just as it does the unhealthy because perspective is synonymous with precarity in the logic of life.

The case of the phantom limb in Merleau-Ponty serves to illustrate this. Often the result of an amputation, some individuals experience the enduring presence of the absent limb through sensations and a sense of control. Both the physiologist's recourse to mechanistic explanations and the classical psychologist's use of beliefs fail to account for the inextricable link between mind and body evinced in phantom limb experience for Merleau-Ponty. Although Merleau-Ponty does not consider the possibility that the phantom limb might be congenital, i.e., not be preceded by experiences of the “real” absent limb,¹⁷ his explanation of the phantom limb relies on an ever-open practical field of action that one had prior to the mutilation. This field of action renders the arm present to the patient as vividly “as I can sense . . . the existence of a friend who is, nevertheless, not here before my eyes” (Merleau-Ponty, 2012, p. 83). This vivid experience of presence shapes the patient's relation to the world much in the same way as, in Sartre's example of the café, the absence of my friend at the café shapes my perception of its interior space. What marks the experience of the phantom limb patient is a sense of rigidity that I developed in contrast to the last section in my reading of Merleau-Ponty's account of child psychology. Rather than being an erroneous belief, and Merleau-Ponty stresses that this process is by no means a doxastic one, the phantom limb marks the perdurance of a space of action that cannot be realized. As he explains, and again this ties back to the difference between ambiguity and ambivalence in his reading of works in developmental psychology the phantom limb is “the ambivalent presence of an arm.” What is properly missing in this case is an ability to supplement the absent pragmatic possibilities afforded by the missing limb by the sensorimotor capabilities of the actual body. The rigidity in the phantom limb experience, in this sense, shows the inability of the organism to be robust: to supplement inconclusive pathways toward re-establishing regulated interactions with the environment through the supplemental exploration of new pathways.

This reading of the phantom limb brings us back to the patient Schneider. If the notions of norm and normativity have gained traction in recent phenomenological scholarship, it is because, as Sara Heinämaa (2019, p. 9) suggests, intentionality “involves acts of intending that necessarily are either fulfilled or disappointed in the course of experiencing.” To be sure, motor intentionality as a bidirectional unitary *intending* can also be fulfilled or disappointed in a practical sense – the Schneider case makes this obvious. Heinämaa also differentiates norms of action and behavior that concern us here and now and norms of being that “concern our lives as dynamic and open-ended wholes” (*Ibid.*, 12). While Schneider can still be solicited by his surroundings, his

inability to project onto a given situation denotes both an inability to generate norms of action and norms of being. Although projection has a practical meaning within motor intentionality, it also has an existential meaning that is not reducible to our actions but also to our thoughts, fantasies, and affective life – in short, the “intentional arc” that, according to Merleau-Ponty underpins, sensitivity and motricity and projects around us our past and future (Merleau-Ponty, 2012, p. 170). Schneider’s inability to perform abstract and habitual movements normally denotes an inadequate or partial capacity to attune normatively and project onto his surroundings. In turn, his ability to self-correct when the situation requires it remains significantly compromised.

Conclusion

Returning to the question I proposed at the beginning of my paper about whether or not “normal” functions can be derived from pathological states, what I attempted to demonstrate is that although the straightforward and *de facto* answer remains yes, and we do so regularly for therapeutic or theoretical purposes, the way we conceive this passage should give us pause. Yet the ambiguous answer offered by Maurice Merleau-Ponty provides insight into the difficulties of treading what Paul Ricœur (2000, p. 543) has fittingly called “the uncertain border between the normal and the pathological.” The long trajectory that brought us from the Schneider case to Merleau-Ponty’s interest in developmental psychology, to attitudinal vital norms, back again to Schneider had the heuristic purpose contextualizing an important point often left unanswered in engagements with the phenomenologist’s work on pathology. This is the vital organic norm that shapes the organism’s relationship to its *milieu* even in the absence of pathology.

Notes

1. (Merleau-Ponty, 1945, p. 138, 2012, p. 110) Colin Smith also translates *suppléances* as substitutions (Merleau-Ponty, 2006).
2. Georg Goldenberg (Goldenberg, 2003, p. 282) has argued that Schneider was eager to comply to Gelb and Goldstein’s ideas about the influence of brain damage on perception and reasoning leading them “to invent fantastic embellishments.” Hans-Lukas Teuber remarked that Schneider “to some of us seemed more like the platonic idea of a brain-injured patient than a patient himself” (Teuber, 1966, p. 306). Martha J. Farah has contrastively argued that the alleged theatricality of Schneider’s performance in front of psychologists does not hold up to Schneider’s “tracing strategy” being present in other patients with similar visual impairments (Farah, 2004, p. 21) J. J. Marotta and M. Behrmann suggest that instead of apperceptive agnosia, the case be reclassified under “integrative agnosia” (Marotta & Behrmann, 2004, p. 636). While most commentators agree that the case is accurate enough to still yield valuable insight both scientific and philosophical (Halák, 2021; Jackson, 2018), it is important to note that others (e.g., de Vignemont, 2023) cast doubt on its veracity but aim to

prolong the Merleau-Pontian gesture of dialogue with empirical studies. This latter perspective is the one I will adopt.

3. For Jacques Lacan, the distinction between reflex and reaction – superseded in the empiricist explanation – is what distinguishes the healthy person from other animals (his example being the racoon) because human beings have the capacity to distinguish the signifier from the signified. While a person can be trained to contract her eyelids after being told the word “contract,” this word can also be understood within other contexts as “breach of contract,” “marriage contract,” etc (Lacan, 1966, p. 273-274). This is precisely what Schneider *cannot* do, i.e., insert the word into possible situational meanings. For Derrida’s challenge against this distinction between the human and the animal in Lacan see (Derrida, 2006, 170ff).
4. Kora player Ballaké Sissoko, one of Mali’s most prominent musicians, was particularly dismayed when he realized, after a flight from New York to Paris, that his instrument had been allegedly disassembled by TSA agents. More than the money lost, Sissoko regretted the time and care required to make another specially designed instrument and B.B.C. presenter Lucy Durán even went on to note that such “custom-made koras are simply impossible to replace” (Tsioulcas, 2020).
5. Most scholars agree that motor intentionality is pre-reflective or pre-predicative (Carman, 2008, p. 116; Kelly, 2000, p. 176) a notable exception see (Romdenh-Romluc, 2007).
6. Cf. Matherne (2014) for a reading of Cassirer’s influence on Merleau-Ponty’s account of pathology and a non-discursive reflective account of motor intentionality.
7. As Pacherie points out (Pacherie, 2018), Merleau-Ponty might be wrong here to view representations as *de facto* conceptual.
8. Jensen (Jensen, 2009, p. 372) holds that these are mutually exclusive: “The apparent contradiction is a product of the fact that Merleau-Ponty uses the case of Schneider in two mutually exclusive ways: motor intentionality is to be revealed both by its perspicuous preservation and by its contrastive impairment in one and the same case.”
9. While work in contemporary biology gives a more complex picture of regeneration than the one to which Merleau-Ponty had access (Davidian & Levin, 2022; Levin, 2009; Tseng et al., 2007), emphasizing feedback loops, purposiveness and bioelectrical communication as integral elements of the process, whether a mechanistic explanation gives us a full picture of human coping, is the key *explanandum* for our purposes.
10. Here Landes translates *suppléé* with “replaces.”
11. Importantly, “substitution” is a reasonable translation of Goldstein’s *Ersatzleistung* (thanks to one of the reviewers for stressing this point). The issue here is not as much an exegetic one as an important possible equivocation in considering the possibility of remission of the unhealthy individual.
12. As Dan Zahavi (2020, p. 180) also points out “the period between two and six months might be classified as the most social period in one’s life”.
13. Although whether or not toddlers can form metarepresentations about other’s mental states before the age of 4 is still hotly debated within developmental psychology through different iterations of the false-belief task (e.g., Steinbeis, 2016), what is notable about Merleau-Ponty’s analysis is a reversal of the usual terms. It is not just that the toddler before the age of four cannot attribute erroneous beliefs to herself or others, but her perspective of the world is fully mediated by – thus becoming indistinguishable from – others’. Work on imitation in neonates (Gallagher & Meltzoff, 1996; Meltzoff, 2007) has been used to suggest an innate self-other distinction as a bedrock for empathy and sociality.

14. [“On « tombe » malade, comme on « retombe » en enfance.”].
15. As an example, George Canguilhem (1943) reminds us that hemophilia is only an anomaly if we extract the body from the external context, namely, the possibility of a tissular lesion.
16. While the line of influence linking Merleau-Ponty to Canguilhem is mostly unidirectional (for a noteworthy exception see Merleau-Ponty, 1995, p. 199, 239, 259), it is worth noting the importance of Merleau-Ponty’s *Structure of Behavior* which Canguilhem claims to have been much in line with his own thesis developed in the seminal *The Normal and the Pathological* (Canguilhem, 1943)
17. This is the case of children who are born without a limb and yet experience the phantom feeling of the missing part (Melzack, 1990; Gallagher & Meltzoff, 1996; de Vignemont, 2023, p. 5-7)

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References

- Bimbenet, É. (2011). *Après Merleau-Ponty : Études sur la fécondité d’une pensée*. J. Vrin.
- Canguilhem, G. (1943). *Le normal et le pathologique*. Presses Universitaires de France.
- Carel, H. (2021). Pathology as a phenomenological tool. *Continental Philosophy Review*, 54 (2), 201–217. <https://doi.org/10.1007/s11007-021-09538-9>
- Carman, T. (2008). *Merleau-Ponty*. Routledge.
- Davidian, D., & Levin, M. (2022). Inducing vertebrate limb regeneration: A review of past advances and future outlook. *Cold Spring Harbor Perspectives in Biology*, 14(4), a040782. <https://doi.org/10.1101/cshperspect.a040782>
- Derrida, J. (2006). *L’animal que donc je suis*. Galilée.
- de Vignemont, F. (2023). *Désenchanter le corps : Aux origines de la conscience de soi*. Odile Jacob.
- Dorfman, E. (2005). Normality and pathology: Towards a therapeutic phenomenology. *Journal of the British Society for Phenomenology*, 36(1), 23–37. <https://doi.org/10.1080/00071773.2005.11007462>

- Dreyfus, H. L. (2007). Reply to Romdenh-Romluc. In D. T. Baldwin (Ed.), *Reading Merleau-Ponty : On phenomenology of perception* (pp. 59–69). Routledge.
- Farah, M. J. (2004). *Visual agnosia* (2nd ed.). MIT Press.
- Gallagher, S., & Meltzoff, A. N. (1996). The earliest sense of self and others: Merleau-Ponty and recent developmental studies. *Philosophical Psychology*, 9(2), 211–233. <https://doi.org/10.1080/09515089608573181>
- Goldenberg, G. (2003). Goldstein and Gelb's case sch. : A classic case in neuropsychology? In C. C. Dans & Y. Joannette (Eds.), *Classic cases in neuropsychology, volume II* (pp. 281–300). Psychology Press.
- Goldstein, K. (1934). *Der aufbau des organismus*. Springer.
- Goldstein, K., & Gelb, A. (1918). Psychologische analysen hirnpathologischer Fälle auf grund von untersuchungen hirnerkrankter. *Zeitschrift für die gesamte Neurologie und Psychiatrie*, 41(1), 1–142. <https://doi.org/10.1007/BF02874477>
- Halák, J. (2021). Embodied higher cognition: Insights from Merleau-Ponty's interpretation of motor intentionality. *Phenomenology and the Cognitive Sciences*, 22(2), 369–397. <https://doi.org/10.1007/s11097-021-09769-4>
- Heinämaa, S. (2019). Constitutive, prescriptive, technical, or ideal? On the ambiguity of the term « norm ». In M. B. Dans, J. Marsh, & I. McMullin (Eds.), *Normativity, meaning, and the promise of phenomenology* (pp. 9–28). Routledge.
- Jackson, G. B. (2018). Maurice Merleau-Ponty's concept of motor intentionality: Unifying two kinds of bodily agency. *European Journal of Philosophy*, 26(2), 763–779. <https://doi.org/10.1111/ejop.12301>
- Jensen, R. T. (2009). Motor intentionality and the case of schneider. *Phenomenology and the Cognitive Sciences*, 8(3), 371–388. <https://doi.org/10.1007/s11097-009-9122-x>
- Kelly, S. D. (2000). Grasping at straws : Motor intentionality and the Cognitive science of skilled behavior. In D. M. Wrathall & J. Malpas (Eds.), *Heidegger, coping, and cognitive science : Essays in honor of Hubert L. Dreyfus: Vol. II* (pp. 161–177). MIT Press.
- Köhler, W. (1992). *Gestalt Psychology: An Intorduction to New Concepts in Modern Psychology*. New York: Liveright.
- Lacan, J. (1966). Fonction et champ de la parole et du langage en psychanalyse. In *Écrits* (pp. 237–322). Paris: Éditions du Seuil.
- Levin, M. (2009). Bioelectric mechanisms in regeneration : Unique aspects and future perspectives. *Seminars in Cell & Developmental Biology*, 20(5), 543–556. <https://doi.org/10.1016/j.semcd.2009.04.013>
- Marotta, J. J., & Behrmann, M. (2004). Patient sch. : Has goldstein and gelb's case withstood the test of time? *Neuropsychologia*, 42(5), 633–638. <https://doi.org/10.1016/j.neuropsychologia.2003.10.004>
- Matherne, S. (2014). The kantian roots of Merleau-Ponty's account of pathology. *British Journal for the History of Philosophy*, 22(1), 124–149. <https://doi.org/10.1080/09608788.2013.876610>
- Meltzoff, A. N. (2007). 'Like me': A foundation for social cognition. *Developmental Science*, 10(1), 126–134. <https://doi.org/10.1111/j.1467-7687.2007.00574.x>
- Melzack, R. (1990). Phantom limbs and the concept of a neuromatrix. *Trends in Neurosciences*, 13(3), 88–92. [https://doi.org/10.1016/0166-2236\(90\)90179-E](https://doi.org/10.1016/0166-2236(90)90179-E)
- Merleau-Ponty, M. (1942). *La structure du comportement*. Presses Universitaires de France.
- Merleau-Ponty, M. (1945). *Phénoménologie de la perception*. Gallimard.
- Merleau-Ponty, M. (1982). *The primacy of perception : And other essays on phenomenological psychology, the philosophy of art, history and politics*. (J. M. Edie, Éd.) 6print. Northwestern Univ. Pr.
- Merleau-Ponty, M. (1983). *The Structure of behavior* (A. Fischer, Ed.) Trad Beacon Press.

- Merleau-Ponty, M. (1995). *La nature : Notes; cours du Collège de France; suivi des résumés de cours correspondants de Maurice Merleau-Ponty*. Éd. du Seuil.
- Merleau-Ponty, M. (1997). *Parcours : 1935–1951*. Verdier.
- Merleau-Ponty, M. (2001). *Psychologie et pédagogie de l'enfant : Cours de Sorbonne 1949–1952*. Verdier.
- Merleau-Ponty, M. (2006). *Phenomenology of perception : An introduction* (C. Smith, Ed.) Trad Repr Routledge.
- Merleau-Ponty, M. (2012). *Phenomenology of perception* (D. A. Landes, Ed.) Trad Routledge.
- Merleau-Ponty, M. (2020). *Le problème de la parole : Cours au Collège de France notes 1953–1954*. MétisPresses.
- Nolen-Hoeksema, S., Girgus, J. S., & Seligman, M. E. P. (1992). Predictors and consequences of childhood depressive symptoms: A 5-year longitudinal study. *Journal of Abnormal Psychology, 101*(3), 405–422. <https://doi.org/10.1037/0021-843X.101.3.405>
- Pacherie, E. (2002). The role of emotions in the explanation of action. *European Review of Philosophy, 5*, 55–90.
- Pacherie, E. (2018). Motor intentionality. In D. A. Newen, L. De Bruin, & S. Gallagher (Eds.), *The oxford handbook of 4E cognition* (pp. 368–388). Oxford University Press. <https://doi.org/10.1093/oxfordhb/9780198735410.013.1>
- Plumert, J. M. (1996). Young children's ability to detect ambiguity in descriptions of location. *Cognitive Development, 11*(3), 375–396. [https://doi.org/10.1016/S0885-2014\(96\)90010-6](https://doi.org/10.1016/S0885-2014(96)90010-6)
- Quine, W. V. (1970). Methodological reflections on Current linguistic theory. *Synthese, 21* (3/4), 386–398. <https://doi.org/10.1007/BF00484806>
- Ricœur, P. (2000). *La mémoire, l'histoire, l'oubli*. Seuil.
- Romdenh-Romluc, K. (2007). Merleau-Ponty and the power to reckon with the possible. In D. T. Baldwin (Ed.), *Reading Merleau-Ponty : On phenomenology of perception* (pp. 44–58). Routledge.
- Romdenh-Romluc, K. (2011). *Routledge philosophy guidebook to Merleau-Ponty and phenomenology of perception*. Routledge.
- Sartre, J.-P. (2017). *L'être et le néant : Essai d'ontologie phénoménologique*. Gallimard.
- Steinbeis, N. (2016). The role of self–other distinction in understanding others' mental and emotional states: Neurocognitive mechanisms in children and adults. *Philosophical Transactions of the Royal Society B: Biological Sciences, 371*(1686), 20150074. <https://doi.org/10.1098/rstb.2015.0074>
- Teuber, H.-L. (1966). Kurt Goldstein's role in the development of neuropsychology. *Neuropsychologia, 4*(4), 299–310. [https://doi.org/10.1016/0028-3932\(66\)90003-0](https://doi.org/10.1016/0028-3932(66)90003-0)
- Tseng, A.-S., Adams, D. S., Qiu, D., Koustubhan, P., & Levin, M. (2007). Apoptosis is required during early stages of tail regeneration in *xenopus laevis*. *Developmental Biology, 301*(1), 62–69. <https://doi.org/10.1016/j.ydbio.2006.10.048>
- Tsioulcas, A. (2020, février 6). Ballaké Sissoko's Kora dismantled in transit—who and why remain a mystery. NPR, <https://www.npr.org/2020/02/06/803353360/prominent-malian-musician-alleges-that-tsa-destroyed-his-instrument>
- van Woerkom, W. (1925). Über Störungen im Denken bei Aphasiepatienten. Ihre Schwierigkeiten beim Erfassen elementarer Beziehungen. *European Neurology, 59*(5–6), 300–322. <https://doi.org/10.1159/000190457>
- Varela, F. J. (1992). Whence perceptual meaning? A cartography of Current ideas. In D. F. J. Varela & J.-P. Dupuy (Eds.), *Understanding origins : Contemporary views on the origin of life, mind and society* (pp. 235–263). Springer Netherlands. https://doi.org/10.1007/978-94-015-8054-0_13

- Varela, F. J., Thompson, E., & Rosch, E. (2016). *The embodied mind : Cognitive science and human experience* (revised ed.). MIT Press.
- Wolfe, C. (2015). The return of vitalism: Canguilhem and French biophilosophy in the 1960s.
- Wolfe, C., Penoncelli, M., & Wong, A. (2020). *What kind of vitalism in « the normal and the pathological »? Dans vital norms : Canguilhem's « the normal and the pathological » in the twenty-first century*. Hermann. <http://hdl.handle.net/1854/LU-8758245>
- Zahavi, D. (2020). *Self awareness and alterity : A phenomenological investigation* (New ed.). Northwestern University Press.
- Zaner, R. M. (1964). *The problem of embodiment. Some contributions to a phenomenology of the body*. Nijhoff.