

## Philosophy of Mind in the Phenomenological Tradition

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### 1. INTRODUCTION

Contemporary phenomenology and philosophy of mind are vast areas of research. In the PhilPapers database, phenomenology has over 11,000 entries, and philosophy of mind contains nearly 30,000 entries, distributed across consciousness, intentionality, perception, and metaphysics of mind, among others.<sup>1</sup> The two areas come together at many points – think of two galaxies colliding. But the metaphor is not quite apt. They are not independent bodies of research that happen to overlap, but are rather two phases of a continuous tradition that diverged for a time and are now, at least partially, reintegrating (the image of a diverging and re-converging flock of starlings – a murmuration – comes to mind).

Philosophy of mind in the 20th century is typically understood in terms of a certain historical progression (cf. Chapter 2): after rejecting introspection as unreliable, the behaviorists of the 1930s-1950s sought to understand the mind strictly in terms of publicly available data. But behaviorism cannot account for certain inner feelings and states, so the identity theory emerged in the late 1950's as a viable physicalist alternative (Place 1956; Feigl 1958; Smart 1959). The identity theory posits a strict, reductive identity between brain states and mental states. However the one-to-one link between psychological terms and corresponding physical terms was problematic, since terms like “pain” seem to have a one-many relation to physical kinds (many types of system can feel pain). To address this issue functionalists described mental states as states of a kind of finite state machine or probabilistic automaton, defined by a pattern of relationships between inputs, outputs, and other internal states (Fodor 1974; Putnam 1967). These structures have the attractive feature that they can be multiply realized in different physical systems. Thus octopi and humans can be in pain. It corresponds to a form of “non-reductive” physicalism because it does not posit a 1-1 identity relation between mental states and brain state types, but rather a many-one implementation relation (Stoljar 2015). Functionalism continues to be a dominant theory of mind.

However, problems with functionalism – which were essentially *phenomenological* problems – emerged beginning in the 1970s. Nagel (1974), and later Block (1980), Searle (1980), and Jackson (1982), pointed out that purely formal relations between states leave out the first-person, subjective character of consciousness. By the 1990's consciousness had become a central topic in philosophy of mind (Searle 1992; Flanagan 1992; Chalmers' 1996; also see chapter 3 on 20<sup>th</sup>

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<sup>1</sup> As of February 2015.

century theories of consciousness), and since then, more and more aspects of the mental are being addressed from a standpoint that does not try to reduce or analyze away consciousness.<sup>2</sup>

So contemporary philosophy of mind has rediscovered phenomenology, albeit in an (until recently) fairly impoverished form. Contemporary philosophers of mind often address “the phenomenology” of a particular form of experience by inquiring whether “there is something that it is like” to undergo it. The phrase is suggestive, but it has led to an austere phenomenology, an account of the “small mental residue” that materialist theories leave unexplained (Kim 2010, 333). On the other hand, this narrow conception of phenomenology has been expanding. “Liberal” accounts of phenomenal character include emotional-affective, agentive, and cognitive experience (Bayne and Montague 2011). Intentionality has been pursued in an increasingly phenomenological way (Horgan and Tienson 2002; Kriegel 2013). These and related projects come closer to phenomenology as historically conceived, which was extremely rich in terms of its method, scope, and conceptual apparatus.

In what follows we use the term “phenomenology” in two senses. In one sense, “phenomenology” is a method – the study of consciousness using first-person reflection. It studies the phenomenal character of mental states, or “what it is like” to experience them from the first-person perspective. In another sense, “phenomenology” is an explicit research program initiated by Edmund Husserl (1859-1938) and developed in different and sometimes inconsistent ways by Martin Heidegger (1889-1976), Maurice Merleau-Ponty (1908-1961), Simon De Beauvoir (1908-1986), and others.

In the next section we give an overview of the phenomenological tradition. In section 3 we survey some of the many ways phenomenology overlaps philosophy of mind: they have shared historical origins in Brentano, Frege and Husserl; there are numerous areas of thematic overlap; and there are also active collaborations, especially in the recent literature. In sections 4 and 5 we develop two case studies that show in more detail how phenomenology and philosophy mind can interact. In section 4 we describe a detailed phenomenological approach to perceptual content, and in section 5 we outline Husserl’s phenomenological analysis of mind-body relations.

## **2. OVERVIEW OF PHENOMENOLOGY**

Phenomenology is often defined as the study of consciousness, or sometimes, the study of phenomena, i.e. things as they appear as opposed to things as they really are. Although there are problems with this definition (Husserl and Heidegger would have quibbles with it), it is helpful as a first pass way of understanding what phenomenology is.

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<sup>2</sup> Interest in consciousness and other internal processes never completely disappeared, either in philosophy or psychology, even during the behaviorist era. See, e.g., Baars (1986).

The first of the classical phenomenologists, Husserl, developed the following first-person reflective method. He begins with the *phenomenological reduction* (Husserl 2014, §32ff.). The idea is to focus on lived experience in the “natural attitude” of daily life, and to describe it as accurately as possible. To do this, take some episode of everyday life, put it in “brackets” (i.e. do not make any extraneous assumptions about it, but simply treat it as a phenomenon to be studied) and describe it. Perhaps you are aware of a book page or a computer screen as you read these words, as well as pictures or people in the background. Perhaps you are aware of music playing, an itch in your body, or a lingering emotional state. You arguably have some sense of yourself and your body as separate from the things around you. You probably assume the things around you exist. Most of us are thus naïve realists in the natural attitude (in this way the method is supposed to differ from Descartes; there is no active doubting, there is simply a description of whatever our epistemic attitude happens to be at a time.)

Husserl dissected these conscious states into their various kinds of parts, using mereology, the study of parts and wholes, which he helped to develop (Varzi 2015). For example, within the total field of consciousness he distinguishes intentional experiences or “acts” of consciousness as entities that can be further analyzed (which, following his teacher Brentano, were an emphasis throughout his career; cf. chapter 8 on Intentionality). Within intentional experiences of physical objects, Husserl distinguishes their sensory character from their more cognitive components (the way the cup looks vs. my knowledge that it is a cup, that it was given to me at Christmas last year, etc.). He also distinguishes one’s sense of an object as an external object, from one’s sense of herself as perceiving the object. Several of the distinctions that Husserl made in his careful mereological analyses of perceptual experience foreshadow contemporary debates about the metaphysics and epistemology of perceptual experience. For example, Husserl claims that perceptual experience consists of non-intentional sensory stuff (which he referred to as *hyle*) in need of conceptual “interpretation” or “apprehension”, a topic that tracks several current debates (see section 4 below).

One of Husserl’s main innovations is his account of how the objects given in intentional experience are “constituted” in “webs of partial intentions”, characterized by “motivation” relations and “horizon” structures (Husserl 2001 vol. 2, §10; 1989, §56).<sup>3</sup> The idea is that my seeing a thing as being a certain way is founded on a pattern of counterfactual sensori-motor relationships between my current sensory experience and my immanent anticipations. As I turn the cup in my hands or move around it, my current sense of the front of the cup “motivates” a range of further perspectives (Walsh 2013). The totality of my motivated expectations forms a kind of “horizon” of understanding, which captures my overall sense of how I think the thing will look from different perspectives. When I move the cup, these motivated expectations will

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<sup>3</sup> Husserl uses terms like “horizon” and “motivation” in multiple ways, and much of the scholarly work in Husserlian phenomenology involves distinguishing and clarifying concepts like these. We have marked some but not all of the relevant distinctions here (e.g. we distinguish between an “immanent horizon” and “counter-factual horizon”).

either be fulfilled or frustrated by what I actually do see. When expectations are frustrated, I update my horizon understanding of the cup. When I learn something about the cup this information is “sedimented” in to my understanding of it. These changes in how I see things are studied by “genetic phenomenology.” In these and other ways reality is “constituted” for a person in flowing streams of experience. The study of how different features of experienced reality are related to conscious processes is what Husserl calls “constitutive phenomenology”. Much of Husserl’s vast output – 40,000 pages of research manuscripts – takes up questions relating to particular domains of constitutive phenomenology: the constitution of space, time, living beings, animals, other people, social worlds, cultural institutions, fictional worlds, abstract domains like mathematics, etc. In section 5 we consider one of these areas—Husserl’s account of the constitution of mind-body relations relative to our *experiences* of minds, bodies, and mind-body interactions—in relation to the contemporary metaphysics of mind.

Husserl makes a distinction between two general types of phenomenological process (Yoshimi 2009). On the one hand, there is a level of passive or pre-predicative constitution, which does not involve attention (hence “passive”) or language (hence “pre-predicative”). Simply by interacting with things we get a sense of how they work. As we walk around a neighborhood, interact with a cat, or practice skiing, we become familiar with how the neighborhood is laid out, or how the cat or skis tend to behave. As surprises occur, we update our knowledge of these things: we change what we expect at a turn in the neighborhood, or how we expect the cat to respond to a new person. Husserl refers to this a process of “passive genesis”, by which our intuitive, pre-attentive understanding of things is updated (Husserl1973; 2001c). Whenever we see a thing we tacitly bring all this implicitly acquired understanding to it, via what Husserl calls “passive synthesis”. When, by contrast, we start to talk about things, using the explicit conceptual resources of a language, a second dynamics—which is active and predicative—becomes involved. Husserl describes in great detail how, in acts of comparing, contrasting, explicating, counting, relating, and so forth, we develop a more explicit, linguistically mediated sense of things. This cat is named Lily. She is a Balinese and Balinese cats are known to be playful. These conceptual structures have their own horizon-structures, a kind of linguistic web of associations and patterns that further inform how we experience things. These two processes have been used to understand Husserl’s relation to social and embodied cognition (Walsh 2014), cognitive science (Yoshimi 2009), and perceptual content (Hopp 2008, see section 4 below).

Husserl also describes essences or *eide*, which are invariant features of a class of objects constituted in experience. He does so using a variational method, that may have derived from the mathematical theory of calculus of variations (*Variationsrechnung*) he wrote his Ph.D. dissertation on (Yoshimi 2007). The idea is to take some object given in the field of experience, e.g. a perceived cup or passage of music, and then imagine arbitrary variations to it, while remaining in some larger region of being (e.g. physical things in general, sounds in general). The cup could be larger, a different color, etc., but still remain a physical thing. Features of the

thing that remain constant through the variation are essences. Husserl says, for example, that it is an essence of perceived physical things that we never perceive them all at once: no matter how we alter the cup, we are always only perceiving one part of it. This is the essential “one-sidedness” of perception (Husserl 2014, 12; see also Husserl 2014, §42). Essences impose necessary constraints on how the members of given class of objects or processes must appear in consciousness. Eidetic phenomenology studies these essences. Essences are known *a priori* and are necessarily true, according to Husserl. There are interesting questions about the viability of eidetic phenomenology (Kasmier 2010) and its relation to rationalism, conceptual analysis, and contemporary epistemology.<sup>4</sup> In section 5 we consider Husserl's eidetic analysis of the phenomenology of the mind-body problem, a kind of conceptual analysis of what is necessary, and what is left open, when one experiences minds in relation to bodies.

Husserl thought of phenomenology as an active, collaborative research program and not as a static doctrine. In *Logical Investigations* he refers to the “zig-zag” (*Zickzack*) manner of phenomenological inquiry: “since the close interdependence of our various epistemological concepts leads us back again and again to our original analyses, where the new confirms the old, and the old the new” (Husserl 2001b, 175). A testament to this ethos can be found in the way his students have carried on this discussion, developing Husserl’s ideas across a wide range of topics. In the remainder of this section we overview some of the major phenomenological figures after Husserl.

Heidegger began as Husserl's assistant and envisioned protégé. He dedicated *Being and Time* to Husserl “with friendship and gratitude” (Husserl later added in marginal comments near this dedication: *Amicus Plato, sed magis amica veritas*; “Plato is a friend, but truth is a greater friend”; Husserl 1997). Heidegger had a distinctive vision of phenomenology and was increasingly critical of Husserl as their professional relationship unfolded. He eventually broke with Husserl completely, joining the Nazi party and, as rector of Freiburg, ostracizing Husserl, and removing the dedication to Husserl from *Being and Time*.

Heidegger's background and bearing are much different than Husserl's. Where Husserl was a mathematician by training, Heidegger was trained in theology and history of philosophy. Where Husserl was sanguine about the prospects of a rational foundation for all knowledge by way of eidetic analysis of pure consciousness, Heidegger came to distrust the very concept of consciousness, and the terms and categories of Western philosophy more generally. He advocated “destroying the history of ontology” (Heidegger 1962, 41), and developed a new vocabulary for describing human existence. Rather than referring to human beings or conscious agents, for example, he refers to “*Dasein*”, literally “there-being”, which he defines as that being whose “being is an issue for it”. Where Husserl emphasizes experiences of physical things like

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<sup>4</sup> On Husserl’s epistemology see (Willard 1984; D. Kasmier 2003; Hopp 2011). On Husserl’s eidetic method see (Sowa 2007).

trees and ink blotters, Heidegger emphasizes what is meaningful in a person's life, that “for the sake of which” a person lives. The cup is rarely perceived as such, but is rather a tool, ready-to-hand, there “in-order-to” provide refreshment and energy while writing or reading papers, which is something one does “for the sake of” being an academic. These more existential dimensions of everyday experience are Heidegger’s emphasis in phenomenology. Heidegger takes up all the classical phenomenological themes – space, time, things, language, other persons, etc. – but always with new language and emphases, and with fascinating results. Heidegger's approach to phenomenology has been influential in philosophy of mind and cognitive science, especially via the work of Hubert Dreyfus and his students (Dreyfus and Hall 1982; Dreyfus 1991; Wrathall and Malpas 2000).

Some notable students of Husserl include Edith Stein and Aron Gurwitsch. Stein’s dissertation, *On the Problem of Empathy* (1916/1989), conducted under Husserl’s supervision, provides a concise analysis of a variety of phenomena related to contemporary discussions of social cognition and the problem of other minds (see, e.g., Stueber 2006; Goldman 2006). Further links between Husserl’s theory of meaning and the social world were taken up by Alfred Schutz, who integrated phenomenology with Max Weber’s sociology. Husserl praised Schutz’s *The Phenomenology of the Social World* (Schutz 1932/1967), which remains relevant in contemporary discussions of collective intentionality and intersubjectivity (Chelstrom 2013).

Aron Gurwitsch was a philosopher and psychologist who did early work connecting phenomenology with Gestalt psychology and clinical psycho-pathology. After World War 1, he worked with brain-injured veterans at a special institute set up by the Prussian government (Embree 1972). He began meeting with Husserl in the late 1920s and early 1930s, and later became close friends with Schutz, with whom he carried on an extensive and illuminating correspondence (Grathoff 1989). In the 1930s he fled the Nazis to France, where he gave a series of lectures attended by Maurice Merleau-Ponty that may have influenced Merleau-Ponty’s way of interpreting psychological data (in particular, psycho-pathological cases) using phenomenology.<sup>5</sup> He fled again to America in the 1940s, where he (along with others, like Schutz and Farber) helped establish phenomenology as a field of philosophical research (Kaelin and Schrag 1989). He is perhaps best known for his “field theory of consciousness”, which studies the overall organization of consciousness into different parts – including inner thoughts, bodily experiences, and a sense of some part of the physical world – and the way these parts change their organization in time. This theory has been applied to the study of bodily awareness (de Vignemont 2011), attention (Arvidson 2006), and cognitive science (Embree 2004).

One of the first figures to bring phenomenology to France was Emmanuel Levinas. Levinas attended Husserl’s lectures in Freiburg in 1928-1929, around the same time Gurwitsch and Schutz began studying Husserl’s work. Levinas’ dissertation (Levinas 1930/1995) was devoted

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<sup>5</sup> On the nature and scope of Gurwitsch’s influence on Merleau-Ponty, see (Toadvine 2001).

to Husserl's theory of intuition, and he subsequently translated Husserl's lectures at the Sorbonne, *Cartesian Meditations*, from German into French (Husserl 1931/1960). Levinas' mature work on the ethical dimensions of experience stem from his critical engagement with Husserl's phenomenological analyses of empathy and intersubjectivity, developing an account that emphasizes the experience of looking at another conscious being (human or animal) in the face. Although Levinas is not typically understood as doing philosophy of mind, his work can be understood as making phenomenological contributions to topics in social cognition and moral psychology (Levin 1998; Atterton 2011).

It is said that Sartre was converted to phenomenology when Raymond Aron pointed at a cocktail and said "You see, my dear fellow, if you were a phenomenologist, you could talk about this cocktail and make a philosophy out of it", after which Sartre immediately went looking for a copy of Levinas' book on Husserl's theory of intuition (Flynn, 2014). Sartre went on to study Husserlian phenomenology in Berlin in 1933-1934. His early works are primarily interpretations of Husserl, but he went on to develop a distinctive approach to phenomenology. His point of departure is the phenomenological analysis of self-awareness and the structure of subjectivity. In *The Transcendence of the Ego* (Sartre 1937/1991), *Being and Nothingness* (Sartre 1943/2003), and elsewhere, Sartre develops an account of subjectivity, or the "ego", whereby the world-directed intentionality of experience necessarily includes a pre-reflexive form of self-awareness (D.W. Smith 1986). On Sartre's account, the self is not defined by any fixed essence, but is rather a kind of "nihilating" force, which surges forward, transcending its own concrete circumstances and historical situations (its "facticity") and creating values by its radically free acts. Sartre also develops an original account of human emotions like shame, which on his account is a form of self-relation through which the self becomes aware of itself *as an object*, i.e. as something fixed and visible to others. Shame "is not a feeling of being this or that guilty object but in general of being *an object*" (Sartre 2003, 312).

Simon de Beauvoir studied philosophy alongside Sartre and Merleau-Ponty at the Sorbonne, and engaged in a life-long personal and philosophical partnership with Sartre. She contributed to a wide range of philosophical topics from a phenomenological perspective. Her seminal *The Second Sex* (Beauvoir 1949/2011) is perhaps the most richly interdisciplinary work of classical phenomenology. Rather than relying solely on phenomenological reflection, Beauvoir draws on literary, historical, biological, and psychological sources to elaborate what the actual lived experiences of women have been at different times and places, and in different concrete circumstances. Going beyond Merleau-Ponty's brief analysis of sexuality in *Phenomenology of Perception*, Beauvoir connects phenomena such as menstruation and pregnancy to the intersubjective manner in which one's subjectivity is shaped by the norms and expectations of others (Murphy 2009). It has been argued that her main interest in the book is phenomenological: "Instead of putting forward a sociohistorical theory or a liberalist thesis, Beauvoir presents a phenomenological description. The phenomenon that she describes is the

reality named *woman*, and her aim is to analyze the meanings involved in this reality” (Heinämaa 1999, 115).

Merleau-Ponty’s *Phenomenology of Perception* (1945/2013) has been increasingly influential in recent philosophy of mind.<sup>7</sup> Developing a complex dialectic between rationalism and empiricism, judgment and sensation, Merleau-Ponty weaves together concepts from Husserl, Heidegger, and empirical psychology (among other sources) to develop an account of the essentially bodily nature of perception and of intentionality in general. For Merleau-Ponty, what is fundamental in experience is not the patterns of sensation emphasized by empiricists, or the abstract rules emphasized by rationalists, or the behavioral tendencies emphasized by psychologists, but rather the concrete situation a person or organism finds itself in, which is structured around its bodily existence and what is significant in a situation. Merleau-Ponty is notable for his detailed examination of clinical cases, for example Schneider, a patient with visual agnosia (a case which Gurwitsch first described to Merleau-Ponty on the basis of his work at the Prussian institute). Schneider could do concrete things like swatting away a mosquito or grabbing his nose, but could not identify abstract locations on his body. He was no longer sexually stimulated by direct bodily contact, but was aroused by suggestions of an intimate situation. These cases highlight the fundamental importance of our embodied existence in a meaningful world, where whole situations matter far more than discrete locations or explicit rules.

Husserl’s influence on 20th century philosophy extends even further than this. Theodor Adorno (1956/1982), Jacques Derrida (1967/2011), and Paul Ricoeur (Ricoeur 1967/2007) – central figures in contemporary continental philosophy – devoted their earliest monographs to extending and critiquing Husserl’s ideas. Husserl’s understanding of mind and consciousness, whether sympathetically elaborated upon or critically deconstructed, has thereby formed the basis of a great deal of 20th century philosophy.

### 3. PHENOMENOLOGY IN RELATION TO PHILOSOPHY OF MIND

The phenomenological tradition is related to the philosophy of mind in several broad ways, which we survey here.<sup>8</sup> First, we describe their shared historical origins in late 19<sup>th</sup> century

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<sup>7</sup> The new Landes (2013) translation is both timely for and evidence of this increasing appreciation.

<sup>8</sup> In this section we give a detailed overview of the main areas of overlap between phenomenology and philosophy of mind. It is worth noting that phenomenology overlaps other areas of philosophy in similar ways, including philosophy of math (Tieszen 2011; Hill and Da Silva 1997), philosophy of cognitive science (Gallagher and Schmicking 2010), epistemology (Willard 1984; Hopp 2011), feminist philosophy, in particular, feminist phenomenology (Fisher and Embree 2000; Heinämaa 1999), queer phenomenology (Ahmed 2006), and phenomenology of race (Alcoff 1999), among others. In the case of philosophy of math especially the historical origins overlap. Husserl was close friends with Hilbert and Cantor, had Weyl as his student, and was later read by

thought, and some of the surprising ways this shared history continued in to the 20<sup>th</sup> century. Second, we describe a few philosophical areas (e.g. mereology, the study of parts and wholes) that have phenomenological origins and that are today used by philosophers of mind. Third, we survey the many areas of thematic overlap between phenomenology and contemporary philosophy of mind.

Phenomenology and philosophy of mind have a shared history. Philosophy of mind is generally considered to be part of analytic philosophy, and analytic philosophy originated in the same milieu as phenomenology, an “Anglo-Austrian tradition” (Dummett 1993, 2) encompassing Bolzano, Brentano, Frege, Husserl, and others. Husserl's early work is distinctively analytic in its tone and content. Husserl makes fine-grained distinctions, resolves equivocations, and engages in the same issues of logic, language, and meaning as other early analytic philosophers. He was in close dialogue with Frege and his ideas were familiar to Russell and Wittgenstein.<sup>9</sup>

Phenomenology continued to be interwoven with analytic philosophy during the period of logical positivism and the Vienna school (D.W. Smith 2013; Livingston 2002). Carnap took seminars with Husserl at Freiburg, and his foundational program was rooted in phenomenological considerations, an effort to derive all knowledge claims from an analysis of “the given” (the *Aufbau* refers several times to Husserl in this connection). Husserl has been called “Carnap’s unknown master” (Haddock 2008). The verificationist idea that statements are meaningful only if they can be verified in immediate experience also has obvious affinities to phenomenology, since verification chains are themselves phenomenological constructs (D.W. Smith and McIntyre 1982; Lübcke 1999).<sup>10</sup>

There were also premonitions of the analytic / continental split in this period. Carnap (1931) famously critiqued Heidegger’s account of the “nothing” as a paradigm example of nonsense (interestingly, Carnap probably inherited his concept of nonsense from Husserl; Bar-Hillel 1957; Vrahimis 2011). Schlick vigorously disputed Husserl’s idea that non-sensory intuition of essences is possible (Livingston 2002). Later, as behaviorism—the view that internal mental states don’t exist or aren’t amenable to observation—took hold first among psychologists and then analytic philosophers like Wittgenstein and Ryle, all mention of private conscious states became suspect; “the air was laced with a certain suspicion of ‘inner’ mental states behind behavior and speech” (D.W. Smith and Thomasson 2005, 2). Overt references to consciousness—or worse, transcendental subjectivity—were clearly out of the question by the

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Gödel (Hill and Da Silva 1997). These overlaps between phenomenology and other areas of philosophy are themselves relevant to philosophy of mind, and merit further study.

<sup>9</sup> There is now a fairly extensive literature on these connections. A bibliography containing most of the relevant references is in (D.W. Smith 2013).

<sup>10</sup> See also Horgan and Tienson (2002), who independently develop a similar idea about phenomenal intentionality and verificationism.

middle of the 20<sup>th</sup> century—as was the dense, opaque style of prose associated with Heidegger and his followers.

Nonetheless, leading figures in early philosophy of mind, even in this period, maintained an interest in phenomenology.<sup>11</sup> Ryle went to Freiburg to meet Husserl and study with Heidegger (Thomasson 2002, 116), and then began his career at Oxford teaching phenomenology and related ideas. His first two publications were reviews of phenomenological texts. Over the course of his career Ryle wrote six papers “focused entirely on the phenomenological tradition” (Thomasson 2002, 116). Ryle’s conception of the scope and method of philosophy is, Thomasson argues, due in large part to Brentano’s and Husserl’s influence. All three sharply distinguished the methods of empirical science (psychology in particular) from the methods of philosophy. All three thought of philosophy as a distinctive form of inquiry, that should proceed independently of experimental results or inductive generalizations. Granting a proprietary form of conceptual analysis to philosophy was a bold move at that time: many felt “the Viennese dichotomy ‘Either Science or Nonsense’ had too few ‘ors’ in it” (Ryle, quoted in Thomasson, 122). Ryle’s specific approach to conceptual analysis was influenced by Husserl. In the *Logical Investigations* Husserl described a method for identifying categories of meaning by asking which terms could be substituted in to a sentence without producing some form of nonsense. Ryle’s concept of a category mistake seems to have been a direct application and broadening of this type of “nonsense detection” (more on this connection shortly), as do his efforts in *The Concept of Mind* to examine the logical relationships between different types of mental concepts (he himself described the book as “a sustained essay in phenomenology”; Thomasson, 122). Ryle was also influenced by Heidegger. Ryle’s critique of Cartesianism and associated talk of “inner” mental states is clearly resonant with Heidegger, as is Ryle’s method of ordinary language philosophy, which emphasizes everyday practice over theoretical reflection. Based on these and other observations Thomasson concludes that “the very idea of analytic philosophy and its proper role” (123) and “some of its characteristic methods” (134) owe more to phenomenology than is generally acknowledged.

Sellars was also trained in phenomenology. While pursuing his MA at SUNY Buffalo, Sellars met Marvin Farber, a student of Husserl’s who was one of the primary people to bring phenomenology to America (Kaelin and Schrag 1989). Sellars would later say, “For longer than I care to remember I have seen philosophical analysis (and synthesis) as akin to phenomenology (Thomasson 2002, 123). Sellars defended a kind of “outer observation” account of appearance-talk, which may have been influenced by Husserl’s method of phenomenological reduction. On this account, appearance-talk is parasitic on world-talk: “the concept of *looking green*, the ability to recognize that something *looks green*, presupposes the concept of *being green*” (Sellars, quoted in Thomasson 2005, 120). Compare Husserl’s method of phenomenological reduction,

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<sup>11</sup> In addition to Ryle and Sellars, there have been studies of early phenomenology in relation to Wittgenstein, Austen, and Hare, among others (Durfee 1976).

which, as we saw, begins with the naïve realism of everyday life. In everyday life we simply assume that things *are* certain ways. Husserl and Sellars both note that it is only by a complex and derivative procedure (e.g., coming to doubt our ability to judge colors in different lighting conditions) that we come to think of things in terms of their “appearances” (we return to these issues in section 4).

One general source of Husserl’s influence on 20<sup>th</sup> century philosophy of mind—already noted in the discussion of Ryle—is his work on “pure grammar” in the fourth logical investigation. Husserl distinguishes word sequences that are formally ungrammatical (e.g. “a man and is”) with word sequences that are grammatical but describe impossible situations (e.g. “round square” or “wooden iron”). The former are nonsense or *Unsinn*; the latter are countersense or *Widersinn*. Husserl’s grammatical analyses influenced Ryle, Carnap, and, perhaps indirectly, Chomsky. As we noted, there is evidence that Carnap’s concept of nonsense derived from Husserl, and it has also been suggested that *Logical Syntax of Language* was written under Husserl’s influence (Bar-Hillel 1957). Ryle’s account of category mistakes—cases where one category is mixed with another incompatible one—can plausibly be viewed as a refinement of Husserl’s account of countersense (Thomasson 2002). Husserl’s account of pure grammar is in some ways similar to Chomsky’s linguistic theory (Edie 1977).<sup>12</sup>

Beyond these historical interconnections, phenomenology is related to philosophy of mind via concepts and tools that now have independent philosophical interest. Examples include formal ontology (the study of the basic categories of being—object, property, fact, etc.—and their interrelations; B. Smith 1998), mereology (the study of parts and wholes; Varzi 2015; Simons 1987), facts (Mulligan and Correia 2013), and ontological dependence (Correia 2008). All of these originate in part in Husserl (each has other sources as well), and have become a standard part of the philosopher’s metaphysical toolkit. These tools have been applied in various ways to philosophy of mind. Mereology is relevant to the question of how unified mental states can be parsed in to distinct “experiential parts” (Brook and Raymont 2014). Ontological dependence and formal ontology have been deployed in the literature on mental-physical relations like supervenience, dependence, and grounding (Correia and Schnieder 2012).

Finally, and for our purposes most importantly, there are many areas of direct thematic overlap between phenomenology and philosophy of mind. In these cases we find both the explicit application of insights from the phenomenological tradition to philosophy of mind, as well as more implicit traces of phenomenology (both as tradition and method) in pursuit of contemporary topics. Examples include the structure of intentionality (D.W. Smith and

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<sup>12</sup> Though Katz has said “it is completely wrong...to speak of unity of purpose between Husserl and Chomsky” (qtd. in Kusch 1989, 63), in light of, among other things, Chomsky’s emphasis on the biological basis of the rules he describes, which sharply contrasts with Husserl’s *a priori* enterprise.

McIntyre 1982; Dreyfus and Hall 1982; Crane 1998); the twin-earth thought experiment and semantic externalism (Beyer 2013; Føllesdal forthcoming); Davidson’s anomalous monism (D.W. Smith 1995; Zhok 2011); the overlap between Husserl and John Searle’s philosophy of language, mind, and the social world (what some have called the “Searle in Husserl”<sup>13</sup>); functionalism and artificial intelligence<sup>14</sup>; first-person knowledge (Thomasson 2005), supervenience and metaphysics of mind (Yoshimi 2010); one-order and higher-order theories of consciousness (Kriegel 2009; Kriegel and Williford 2006); representational theories of mind (Shim 2011); and non-conceptual content (Hopp 2010).

In some areas phenomenology and philosophy of mind are actively collaborating, as in discussions of self and structure of self-awareness (D.W. Smith 1986; Kriegel 2009; Zahavi 2005; Siewert 2013), the study of social cognition, the problem of other minds, empathy, and collective intentionality (Schutz and Natanson 1970; Carr 1986; Schmid 2003, Zahavi 2005), embodied, enactive, and situated approaches to cognition (Gallagher 2005; Noë 2004; Thompson 2007; Hurley 1998; Rowlands 2010; ch. 10 on Boundaries of the mind in this volume), time-consciousness (Dainton 2000), bodily awareness (de Vignemont 2011) and whether non-sensory purely “cognitive phenomenology” exists (Siewert 1998; Pitt 2004; Bayne and Montague 2011; Chudnoff 2015).

We now consider two specific cases to further illustrate how phenomenology and philosophy of mind interact.

#### 4. PERCEPTUAL CONTENT

Suppose you enter a room with a round black dining table in the center. As you approach the table you are looking down at it from an oblique angle. Sunlight streams through an open window, creating variegated shades and tones across the surface of the table. What do you see? Or, to put the question differently, what is the *content* of your perceptual experience? On one hand, answering this question is straightforward: you see a table. On the other hand, it provokes further questions regarding *how*, precisely, one is aware of the table. For example, does the table

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<sup>13</sup> Or “Hussearle”, as Beyer (1997) puts it. More specific areas of overlap include the structure of intentionality, the relation of mind to language, Searle’s concept of the background, and his more recent work on social ontology (Beyer 1997; McIntyre 1984). Searle has responded to the claim that his work is similar to Husserl’s, acknowledging that he read some Husserl and assimilated phenomenological ideas via Dreyfus, but denying substantive influence (Searle 2005).

<sup>14</sup> The relationship between phenomenology, functionalism, and artificial intelligence or AI (which is closely related to functionalism) is multi-faceted. There may have been some historical influence via the connections outlined above, and in content there are notable similarities (McIntyre 1986; Mensch 1991), e.g. insofar as both emphasize abstract rules and structures (in Husserl’s case eidetic structures and horizon structures; in the case of functionalism and AI abstract relations between inputs, outputs, and inner states). In light of these similarities between Husserl and AI, Dreyfus regards Heidegger’s critique of Husserl as an implicit critique of AI (Dreyfus and Hall 1982). For a critical discussion of the assimilation of Husserl to classical AI see (Yoshimi 2009).

look round? Or, given the angle of your perspective, does it appear elliptical? Do you see it as being a uniform shade of black? Or are you unaware of the blackness, since the sunlight presents the table as a variegated set of shades and tones? What is the relationship between what is phenomenally manifest in the experience and what the experience represents as being the case? These questions about content, representation, and phenomenal character are at the center of several live debates in contemporary philosophy of mind (cf. Orlandi, Chapter 4 of this volume). Relative to these debates, we believe that Husserl developed a fairly rich view, whereby perceptual experience is built up from multiple non-conceptual and conceptual layers or strata. In what follows we distinguish four layers of perceptual experience: (1) what is intuitively given or “sensorily manifest” in the experience; (2) an “immanent horizon” of felt associations; (3) a “counter-factual horizon” of ways we expect an object to be relative to different movements with respect to it; and (4) a linguistically / conceptually-mediated stratum of “active” and “predicative” understandings of things. As we will see, these strata play different representational roles and are more or less phenomenally prominent in experience. We will also see that (1)-(4) involve different types of conceptual and non-conceptual content.

On Husserl’s account, objects dominate experience. *We live through* perceptions, but *experience things* (recall his emphasis on constitutive phenomenology, on how the objects that appear to us are constituted in experiential processes). This emphasis on objects is sometimes referred to as the “transparency” of consciousness (Kind 2010). As Lycan puts it “We normally ‘see right through’ perceptual states to external objects and do not even notice that we are *in* perceptual states” (Lycan 2014, sec. 3.3; see also Harman 1990; Tye 1995, 2000).

For Husserl, as for many contemporary authors, this object-centered feature of experience can be described in terms of perceptual *content*. Husserl describes the content of an act as that part of it which “*prescribes* – represents or presents – the object of my perception” (D.W. Smith 2007, 200); it “specifies the object of perception” (D.W. Smith 2007, 202). This object-prescribing content is distinct from the full experiential act that contains it, whose overall phenomenology seems to outstrip the object-prescribing content, as we will see. The content is also distinct from the actual object it refers to.<sup>16</sup> As Husserl said in the *Investigations*:

We must distinguish...between *the object as it is intended* [the intentional object]... and the *object which is intended* [the actual object]. In each act an object is presented as determined in this or that manner... (Husserl 2001a, 113)

Although objects dominate experience, for Husserl, perceptual phenomenology is richer than the set of properties we represent as being instantiated by objects. There is a complex pattern of shading on the table as a result of the lighting. The variegated shades (part of what Husserl calls “intuitive content”<sup>17</sup>) are *sensorily manifest*. Likewise, the array of shape and color that occupies my visual field is, in terms of what is strictly manifest in this sensory manner, elliptical. These features of perception are not what we initially focus on, but on reflection we can in some sense

<sup>16</sup> At least according to realist interpretations of Husserl (as contrasted with idealist readings). Cf. B. Smith (1995).

<sup>17</sup> See, e.g., Husserl 2001a Inv. VI.

identify that the table was “viewed as” elliptical, and as being colored in different shades due to lighting conditions and my spatial relation to it.

Intuitive content, however, includes more than what is strictly sensorily manifest. Husserl distinguishes non-intentional sensations or what he later calls “*hyle*”, from an interpretive element that “animates” them.<sup>20</sup> He makes this distinction using a variational method.<sup>21</sup> The contribution made by the interpretive part of perception can be varied independently of what is sensorily manifest, and vice versa. Thus, on the one hand, different patterns of sensation can yield the same perceptual sense you have of the table. As the lighting changes slightly, the same table appears. On the other hand, what is sensorily manifest can remain the same as perceptual sense varies. For this case, Husserl describes the interpretive shift that occurs when perceiving a figure in a wax museum initially as another person, and then as a wax figure or mannequin (Husserl 2001a, Inv. 5, Sec. 27). The shift is an *experiential* shift. The part that is different between these experiences – the part that *exceeds* their sensory character—is the “interpretation”, “act character”, or “apprehensional character” of the perceptual act.

Husserl associates this apprehensional character with several additional layers of structure in the perceptual act, which are in various ways conceptual and nonconceptual. To make these connections between Husserl’s account of perceptual content and conceptual structures, we distinguish two senses of “conceptual”. In one sense, concepts are the constituents of propositional contents – the stuff of language and thought. If one thinks that the table is black, one does so in virtue of the concepts ‘table’ and ‘black’. We will call these “linguistically-structured concepts”. In another sense, a concept is a kind of discriminative ability available to non-linguistic animals. Insofar as an animal can differentially respond to humans vs. non-human objects, or to perishable vs. unperishable food sources, animals have concepts in this sense (Margolis and Laurence 2014). We will call these “discriminative concepts”.

We now consider the relation between both kinds of conceptual structure and the four layers of perceptual experience Husserl describes.

First, the rich array of sensorily manifest properties—e.g. the elliptical array of variegated hues and tones of our table-top—is nonconceptual in both of our senses. We represent the table as being round, and a uniform shade of black. The richness of the sensorily manifest array far exceeds what the linguistically-structured concept “black table” prescribes. When we think “black table” we are thinking at a level of generality that, on Husserl’s account, is consistent with many different intuitive contents, many different ways an actual table could be given (Hopp 2010). Moreover, a well trained dog may possess a discriminative concept of table in virtue of which he treats this table in the same manner as he treats other tables. This discriminative

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<sup>20</sup> The concept of uninterpreted sensory or hyletic data has been controversial since Husserl’s own lifetime. Gurwitsch (1964), drawing on Gestalt psychology, argued that there were no such things as hyletic data, only interpreted Gestalt forms. Hopp (2010) develops his account of non-conceptual content in a Husserlian framework that rejects hyletic data. On the relation between hyletic data and contemporary debates about phenomenal consciousness also see (Shim 2011; Williford 2013).

<sup>21</sup> Cf. Siegel’s method of “phenomenal contrast” (Siegel 2007; 2010). This method of phenomenal contrast has played a prominent role in recent arguments about the nature and existence of cognitive phenomenology (Siewert 1998; Pitt 2004).

concept is compatible with many different ways the table can be sensorily manifest to the dog. So intuitive content is discriminatively nonconceptual.

Second, there is a kind of penumbra of felt associations between the occurrently manifest profile of an object and further possible profiles of the object – an “immanent horizon”. This is the level of passively synthesized motivations, which develop via passive genesis (cf. section 2). This penumbra of motivations is phenomenally manifest – according to Husserl – and contributes to how we take the object to be, but also exceeds what can be given in any kind of conceptualized experience. The motivation relations that comprise this stratum of experience are developed in Husserl’s early analyses in the *Logical Investigations*, and later in his lectures on *Active and Passive Synthesis* (Husserl 2001c). He describes them as a kind of experienced indication relation, a species of association (Walsh 2013). He is explicit, however, that this is not to be understood in terms of Hume’s discussion of discrete impressions causally “triggering” subsequent impressions. Rather,

If *A* summons *B* into consciousness, we are not merely simultaneously or successively conscious of both *A* and *B*, but we usually *feel* their connection forcing itself upon us, a connection in which the one points to the other and seems to belong to it. (Husserl 2001b, 187)

The phenomenal character of “felt-belonging” connects the phenomenal features of a momentary perceptual profile of a table to those subsequent profiles that are most imminent in the temporal flow of experience, i.e. what he calls “adumbrations” or “protentions”.<sup>22</sup> The immanent horizon or penumbra of the perception of the table includes the subtly felt expectation of how the object will continue to appear in the visual field based on my movements and the position of my eyes, head, and torso relative to it. As with intuitive content, the penumbra does not rely on linguistically-structured concepts. A dog need not have any concept of a table in order to experience this kind of felt penumbra of associations. So the immanent horizon is linguistically non-conceptual (whether it is discriminatively non-conceptual is less clear; we will not take up the issue further here).

A next level of “counter-factual” horizon structure (cf. section 2) further unpacks what apprehensional character is, e.g. what changes when we go from seeing an object as a mannequin to seeing it as a human. The horizon of an experience of a thing is the set of further possible experiences of that thing, which extends “in infinitely many directions in a *systematically and firmly rule-governed manner*, and... in each direction without end” (Husserl 2014, 78). That is, our overall understanding of a thing can be understood in terms of rule-governed patterns connecting how we interact with a thing with how we expect it to respond. When you see the figure first as a human then as a mannequin, this shift in representational content can be

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<sup>22</sup> Motivations in this sense are similar to what Gurwitsch calls the “thematic field” of an act (Gurwitsch 1964), and what William James called fringes (Mangan 2007). They are also a kind of horizon structure, an “immanent” horizon, which is distinct from the counterfactual horizons described in the main text.

explicated by analyzing the way the horizon of the experience changes. If I see a *mannequin*, I expect it not to move, to have a specific feel when I touch it. If I see a *human*, I expect the skin to give, and be warmer. I expect a living person to move and notice me. These expectations extend “in infinitely many directions” and “without end”, and can thus be thought of as systems of counterfactuals describing chains of possible interactions and expected experiences (D. W. Smith and McIntyre 1982; Yoshimi 2009).

Counter-factual horizon structures are linguistically nonconceptual, but discriminatively conceptual. Horizon structure does not require that we have linguistic concepts: our dog approaching the mannequin need not possess the linguistically-structured concept “mannequin” in order to *take* this object to be one thing and then another thing. So horizons are in that sense nonconceptual (cf. Hopp 2010). However, horizons *are* conceptual insofar as concepts are discriminative structures. The dog has a specific set of expectations when it approaches what it takes to be a human. When it begins to suspect it is not a real person, and just an inanimate object, it will activate a different set of expectations and thereby behave differently. These features of experience are clearly part of the content of an act – the full accuracy conditions for an act must specify how we expect it to be – but are not phenomenally present in the same way intuitive contents and the penumbra of motivations are. So we have a subtle layer of meaning: a further layer of content that is in one sense conceptual, in another sense nonconceptual. This layer is important for analyzing the representational content of experience in that it is essential for understanding the relation between what is phenomenally manifest in the experience and one’s dispositions. It is not, however, part of the occurrent phenomenal character of the experience in the same manner as the intuitively given content and the immanent horizon of motivations. This counter-factual horizon of expectations is far too detailed (it says what will be surprising or not relative to *all possible movements with respect* to an object) to plausibly be included in the phenomenology of an experience.

Finally, Husserl describes a layer of structure which is explicitly conceptual in the linguistic sense. This is a layer of predicative structures, which is engaged when we talk and think about things; when we compare them, explicate their properties, relate them to other things, read about them, and so forth (cf. section 2). We learn about the history of mannequins; we compare mannequins in terms of their weight, age, and cost; we talk to someone who worked with mannequins in a warehouse. In these ways we create layers or “sediments” of linguistic conceptual structure on top of the pre-given object, which is already endowed with the more passive motivational and horizon structures described above. Whereas many animals may possess the nonlinguistic discriminative concepts described above, it is plausible that only human perceptual experience includes this kind of explicitly conceptual strata. It is in virtue of the former that both the dog and I share a counter-factual horizon of expectations regarding how we expect the mannequin to behave (mainly, just sitting there) as we move around it, but it is in virtue of the latter that I, and not the dog, experience the mannequin as a cultural object of a

specific kind. These sedimented predicative structures have their own kind of horizons and motivation relations, e.g. the “arithmetical horizon” (Husserl 2014, sec. 28), the space of possible thoughts about numbers and transitions between these thoughts. Thus Husserl acknowledges – and in our view, expands on – the considerations that drive conceptualism (McDowell 1994; Brewer 1999), i.e. that what is given in perception must be able to connect in an appropriate way with the space of reasons, the logical space of language and thought.

Husserl’s account of perceptual content overlaps contemporary discussions in philosophy of mind in several ways beyond those already mentioned. His idea that perceptual content prescribes an object resonates with contemporary discussions of representational content in terms of “accuracy conditions”. For Husserl, perceptual content “prescribes” an object in that it conveys how the object *is* — i.e. what properties the object instantiates, and how it will behave relative to our interactions with it — rather than simply presenting us with how the object *appears* (from here, in this light, etc.). This view is akin to Siegel’s (2010) “content view”, whereby perceptual content is not like the contents of a bucket, but rather like the contents of a newspaper – the information conveyed by the experience, which can be assessed for accuracy (Siegel 2015). As we have seen with his analysis of the hyletic component of perceptual act, however, Husserl does not think that the phenomenal character of experience is fully determined by its representational content. As Shim (2011) argues, this puts Husserl at odds with “representationalist” or “intentionalist” views (Harman 1990; Dretske 1995; Tye 1995; 2000; Byrne 2001).

Husserl’s analysis of (in contemporary terms) perceptual content was also taken up and extended in interesting ways by Merleau-Ponty. Unlike Husserl (on some readings), Merleau-Ponty locates content in a kind of perceptual norm or optimum (cf. Crowell 2013, ch. 6; Kelly 2005). When you see the table from an oblique angle and it appears elliptical to you, the content of your perception represents it as being round since it would appear round from an optimal view (directly overhead). The normativity of this perceptual optimum is established by facts about how our bodies are structured and how our perceptual systems operate in relation to the world, and not necessarily by anything consciously accessible to us in the phenomenological reduction.

## **5. THE PHENOMENOLOGY OF THE MIND-BODY PROBLEM**

Whereas the issue of perceptual content in relation to phenomenology has been explored in some depth already, there is a largely unexplored area of overlap between phenomenology and the mind-body problem, which we briefly describe here.

In texts written around 1910, Husserl develops what can be called a “phenomenology of the mind-body problem” or more generally, a “phenomenology of the metaphysics of mind”. Rather than directly asking what mental states and physical states are, and how they are related,

he asks how people *experience* mental states, physical states, and their relationship (Yoshimi 2010).<sup>23</sup> That is, he considers how mental states, physical states, and mental-physical relationships are themselves constituted in the flux of experience. Husserl's phenomenology of the mind-body problem does not decide the philosophical issues, but rather sheds light on the space of possibilities available for philosophical consideration. Husserl's phenomenology can be viewed as a kind of transcendental or eidetic analysis of the mind-body problem, a framework within which any analysis of mind-body relations must unfold (recall that essences or *eide* are necessary constraints on the appearance of a given class of objects or processes). On Husserl's analysis, one can't have a position on the mind-body problem *except* relative to some prior experience of mind-body relations, and these experiences are constrained by certain eidetic structures. Empirical considerations further restrict the space of possible mind-body relations.<sup>24</sup> Eidetic and empirical considerations together determine what types of mind-body relationships are compatible with our way of experiencing the world together with what we know about how the world works. Again, this does not decide the philosophical issues, but rather helps delineate what the space of possible philosophical positions on the mind-body problem is for creatures like us.

We will begin by describing Husserl's analysis of how sensory states are experienced as supervening on brain states. Husserl's discussion to this point is similar to standard physicalist accounts of mental-physical relations. However, Husserl does not believe that *all* mental phenomena are experienced as supervening on physical states. His view can be thought of as involving a kind of "partial-supervenience". We end by considering the range of positions on the mind-body problem left open by Husserl's analysis.

According to Husserl, we experience sensations as arising from physical processes.<sup>25</sup> He calls this an "experience of psycho-physical conditionality" (Husserl 1989, 78) or "physiological dependences" (*physiologische Abhängigkeiten*; 143). For example, we know that running an object over the surface of the skin produces a determinate succession of sensings, which can be repeated: "If an object moves mechanically over the surface of my skin, touching it, then I obviously have a succession of sensings ordered in a determinate way" (161-162). He calls this a "phenomenal if-then". If the body is put in a certain state, then certain phenomenal states will

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<sup>23</sup> Experimental philosophers have addressed similar questions concerning how mind and body are intuitively understood (Knobe 2011). It would be interesting to extend these studies to the question of folk intuitions about mind-body relations, and thereby empirically investigate Husserl's claims in this domain.

<sup>24</sup> As Husserl puts it in the case of psycho-physical dependencies: "How far [mental-physical relations] actually reach is a matter for psycho-physiological empirical investigation to decide. How far [psycho-physical dependencies] can reach, on the other hand, that is to say, how far questions about "physiological correlates" and corresponding hypothetical constructions can be senseful and guiding for the process of actual research, is a matter for psycho-physical inquiries into essences" (Husserl 1980, 16; for further discussion see Yoshimi (2010).

<sup>25</sup> Assuming we are in the "naturalistic attitude" (*naturalistischen Einstellung*), "the attitude of the subject who intuitively and thinks in the natural-scientific way" (Husserl 1989, 3).

arise. Husserl also notes that we do not always understand how these experienced mental-physical connections or “conditionalities” work; we just have an understanding that somehow there is such a relationship (272).

Husserl describes a phenomenological form of supervenience between sensory states and physical states.<sup>26</sup> He says that we experience the physical states of organisms as determining their sensory states. If two experienced agents or “animate organisms” are experienced as physically indiscernible, they will also be experienced as mentally indiscernible.<sup>27</sup>

the sensibility presents itself [to consciousness] in such a way that we can say that if the animate organism is the same.. with regard to its materiality and its material states, then.... the stratum of sensation would also have to be the same (Husserl 1980, 120).

So, sensations are experienced as supervening on physical processes. If two agents are experienced as having the same physical properties, they will also be experienced as having the same “stratum of sensation” (i.e. sensory properties). Other phenomenological features are experienced as supervening on physical states of the brain, including “phantasy” (which includes imagination and memory), feelings, instincts, and “the proper character, the rhythm, of higher consciousness” (Husserl 1989, 308–309).

Thus far we have a picture of mind-body relations that is similar to a standard contemporary physicalist conception. According to this picture, mental properties are related to physical properties via synchronic “vertical” supervenience relations (think of how a pattern of atoms at a time determines a unique molecular pattern at that same time). See Fig. 1. Physical processes are related by dynamic or diachronic “horizontal” causal processes, where one state of (say) the brain gives rise to successive states, relative to an environment and a set of physical laws. The lower level dynamics then induce higher level dynamics via the supervenience relations (Yoshimi 2012). For example, when a brain changes from state P to P\* at the neural level, this gives rise to parallel changes from M to M\* at the psychological level, in virtue of the supervenience relation.

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<sup>26</sup> On the standard definition: A properties supervene on B properties iff objects with the same B properties will also have the same A properties. As it is also put: being B-indiscernible entails being A-indiscernible; B-twins must be A-twins, or B properties determine A properties. Also note that states are taken to be a kind of maximal property: the A-state of a thing is the set of A-properties that apply to it at a time; for example the mental state of an organism is (roughly) the distribution of mental properties that apply to it at that time (Yoshimi 2012).

<sup>27</sup> In other works he also gives a phenomenological analysis of indiscernibility or in his terms “qualitative identity”, in terms of series of pairwise comparison. See (D. Kasmier 2003).

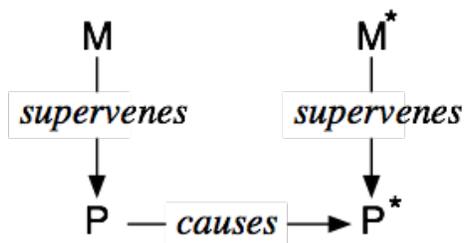


Fig 1: A standard account of mental-physical relations. Physical processes like P to P\* unfold dynamically and are shown as proceeding horizontally. Physical to mental supervenience relations occur synchronically and are shown as vertical lines.<sup>29</sup> Adapted from Kim (2003).

On the basis of this overall picture of mental-physical relations, many contemporary philosophers deny that true mental causation is possible (cf. chapter 7 on mental causation). All apparent causal processes are ultimately driven by bottom-level physical processes; the appearance of mental causation is an epiphenomenon. This has come to be known as the “causal exclusion argument”; think of low-level process “excluding” high level process from doing anything (Kim 2007). This argument has been addressed by physicalists in a variety of ingenious ways, which seek to preserve mental causation in a physicalist framework (Bennett 2008; Wilson 2009).

However, although we experience many mental properties as being fixed by physical properties, it is not clear that we experience *all* mental properties as being fixed by physical properties (Husserl 1980, 16). For some mental phenomena Husserl thinks it is unclear whether there is an assumed physical basis, and concludes that it is an empirical question which mental phenomena are experienced as having a physical basis and which aren't: “obviously, how far all this extends can only be decided empirically and if possible by means of experimental psychology” (Husserl 1989, 308). He goes on to give an argument that some properties relating to time-consciousness *must not* supervene on physical processes.<sup>30</sup> Husserl thus defends a form of *partial supervenience*: the idea that some, but not all mental properties are fixed by an agent's physical properties. This variant on the supervenience relation is novel to Husserl's account, and is of some independent philosophical interest (Yoshimi 2010).

<sup>29</sup> There are some simplifications involved in this diagram. For example, supervenience is typically construed as a relation between sets of properties, whereas it is shown here as a relation between individual states or property instances.

<sup>30</sup> Since on his view these processes have a necessary form that cannot be captured by any contingent physical process (Yoshimi 2010 critiques this argument).

Given that Husserl only endorses partial supervenience, he is open to a wider range of possibilities than most contemporary philosophers are. In particular, he is open to such possibilities as downward causation and temporal slippage, and is unconcerned about causal exclusion and related physicalist worries.

Downward causation occurs when mental phenomena directly cause changes in physical phenomena (Kim 1992). We could imagine, for example, a diagonal arrow from M to P\* in Fig. 1. Physicalists typically deny this is possible. However Husserl claims that it is phenomenologically coherent; we can imagine experiencing a scenario of “reverse dependency” where sensations are produced at the mental level, and the physical level changes accordingly. In such a scenario the mind has “its own causality”, and physical changes in the body (indexed by a variable B) are dependent on it:

...[in such a case] we assume that the mind has its own causality, an inner empirical lawfulness, in the production of sensations; i.e., a causality that can first of all unfold in itself and lead to a sensation, to which the state of B would then be linked as dependent on it (Husserl 1989, 309).

As an example, Husserl refers to “the voluntary production of hallucinations” (309) where, presumably, we first imagine something, and the brain then enters an appropriate state to support that imagination.

Husserl also considers the possibility of temporal drift between brain states and the mental states they give rise to, describing it as unclear “whether or not the Objective temporal point of the cerebral stimulation, corresponding to the movement of the hand, must be taken as the same identical temporal point of the sensation” (310). He goes on to locate the source of this unclarity in the more fundamental problem of determining what the time of conscious states is: “Everything depends here on the way of defining the temporal point of a determinate state of consciousness” (309-310). Husserl’s instincts were right: the timing of conscious events has emerged as a difficult but important topic, in the wake of Libet’s pioneering work on the neuroscience of free will, and in particular his controversial method for measuring the time of conscious intentions (Joordens, van Duijn, and Spalek 2002; Libet 2009).

Although downward causation and temporal drift are unpopular today, they have been endorsed by proponents of strong emergence. Emergence in the philosophy of mind is a family of relations (O’Connor and Wong 2012).<sup>31</sup> The strongest forms of emergence treat the mind as having some

<sup>31</sup> Weak or epistemic emergence (what most scientists mean by “emergence”) is the view that, though everything is physical, it is necessary for practical reasons to study some complex phenomena using higher level predicates and laws. It would be too unwieldy to, for example, develop a science of biology that only referred to atoms and atomic bonds. Concepts like “species” and laws applying to species are thus an epistemically ineliminable feature of our

genuine autonomy from the physical level, and allow for temporal drift, downward causation, and robust mental causation (O'Connor and Wong 2005).

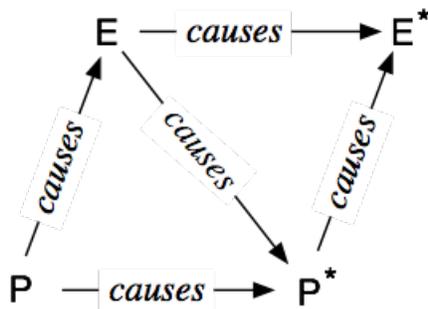


Fig 2: A version of strong emergence, between physical states P and emergent states E. Here the emergent states are mental states. Genuine mental causation is allowed via agent causation (upper horizontal arrow). Regular physical causation remains (lower horizontal arrow). Supervenience is replaced by upward causation from physical to mental. Downward causation from mental to physical is allowed.

Figure 2 depicts a simplified version of strong emergence, based primarily on (O'Connor and Wong 2005). Physical processes unfold just as they do in physicalism. In addition to causing each other, physical states also cause other emergent mental states to occur. Since the upwards mental-to-physical relation is “dynamic and causal” (664), some temporal drift can occur. Mental states can have causal effects of their own, both in terms of downward causation, and in terms of causation of other mental states. Their “effects... include directly determining aspects of the microphysical structure of the object as well as generating other emergent states” (665). There is no problem of causal exclusion in this framework: mental causation is alive and well, alongside physical-to-physical and physical-to-mental causation. The view naturally couples with property dualism and agent causal views of the will. An agent’s free choices have a direct causal impact on other mental states *and* on physical states.

So, within the space of possibilities left open by Husserl’s analysis of the essences of experienced physical bodies, mental states, and mental-physical interrelationships, existing theories have occupied many of the available spots. Experimental philosophy could supplement Husserl’s eidetic analyses with controlled studies of intuitions in these domains. Empirical work measuring mind-brain correlations could further constrain the space of open possibilities.

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scientific practice, even if species ultimately supervene on micro-features of physical systems. Also note that there are other forms of ontological emergence beyond the one described here, e.g. “fusion” based accounts (which draw on quantum physics), whereby the states of an emergent, compound system can determine the states of their constituents, but not conversely (Humphreys, 1996).

Perhaps these zig-zagging analyses will lead us to new, unexplored regions of the space of possible solutions to the mind-body problem.

## 6. CONCLUSION

We have seen that phenomenology and philosophy of mind – understood both as philosophical disciplines and as historical traditions – are interrelated in a complex, dynamic way. As historical traditions, they were at one time joined, later diverged, and are coming back together in a larger swarm-like pattern, characterized by local swirlings of overlap and mutual reinforcement, intermittent skirmishes, and shared new directions. Although it is impossible to detail all the integrative possibilities in a single chapter, we have tried to mark out some promising areas, and to illustrate how further collaborations might unfold.<sup>32</sup>

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