

Chapter 4

Consciousness and *Psyche***§ 1. Consciousness**

The phenomenon of consciousness is one of the most Self-evident characteristics of human *Existenz*, so much so that the *Dasein* of personal consciousness is held by each person to be as certain as anything can be – at least insofar as one's own personal consciousness is concerned. It is possible for a person to entertain doubts about whether other people "have consciousness," but only a solipsist really takes this doubt seriously and then only because he or she entertains the premise that perhaps other people do not really exist at all apart from the solipsist's own fantasies. But, as Self-evident as the phenomenon of consciousness is, as soon as one tries to dig deeper and ask, "What *is* consciousness?" we find ourselves caught up in yet another of the most contentious debates in the history of philosophy and science.

Chapter 5 of *CPPM* reviews a number of the more prominent views in this contentious history before moving on to the Critical examination of consciousness. Again, we will not re-cover this history here in this book, but it is necessary to touch upon at least the flavor of the difficulties as seen by present-day psychology and neuroscience. In the *Dictionary of Psychology* Arthur and Emily Reber say of "consciousness" that,

The term has a distinctly chequered history. It has sometimes represented the central focus of psychology (structuralism) and at others been banned from the psychologist's lexicon as representing nothing more than the epiphenomenal flotsam of bodily activity (behaviorism). The ongoing fascination with it, however, stems from the compelling sense that consciousness is one of the defining features of our species, if not *the* defining feature; that to be human is to possess not only self-awareness but the even more remarkable capacity to scan and review mentally that of which we are aware. Many authorities treat consciousness not as a 'thing' but as representing a continuum.

In the most common usages of the term employed by psychologists and neuroscientists, the word "consciousness" is little different from the usual nontechnical dictionary definitions and is used almost as a synonym for "awareness." Reber's *Dictionary* defines the adjective "conscious" as:

conscious 1. adj. In its most general sense the term is used to characterize that mental state of an individual who is capable of (a) having sensations and perceptions, (b) reacting to stimuli, (c) having feelings and emotions, (d) having thoughts, ideas, plans, and images, and (e) being aware of (a) to (d).

From this we come to their principal definitions of consciousness:

consciousness 1. Generally, a state of awareness; a state of being conscious. This is the most general usage of the term and is that intended in a phrase such as "he lost consciousness." 2. A domain of mind that contains the sensations, perceptions and

memories of which one is momentarily aware; that is, those aspects of present mental life that one is attending to. **3.** That component of mind available for introspection. This meaning is found in the older writings of the structuralists and in other introspectionists as well as in the modern discussions conducted on the assumption that knowledge held in consciousness is knowledge that is available for recall and can be communicated to others. **4.** In psychoanalysis, the conscious.¹

Definition (1) is a fairly uncontentious and practical, if incomplete, description of conditions (delimited in the definition of "conscious") regarded as being sufficient for an observer to declare consciousness is present. What this definition describes is what we here will call empirical consciousness since this practical description applies to appearances of the Self.²

The contention begins when we try to "get behind the appearance" described in Reber's first definition and talk about such things as "what causes consciousness?" or "what is consciousness as a *thing*?" or "what is the Object for which empirical consciousness is the appearance in experience?" It is precisely at this point where issues of metaphysics – or, more often among most scientists, pseudo-metaphysical prejudices – become relevant. In the absence of a common and scientific metaphysical base, it is no wonder that this aspect of the question has been so historically contentious. Neuroscientist and Nobel laureate Eric Kandel calls the nature of consciousness "one of the great mysteries of cognitive neural science, in fact of all science." Kandel goes on to say:

To begin with, how does one define consciousness? At the beginning of this book we stated that what we commonly call the mind is simply the entire set of operations of the brain. In this sense, consciousness is fundamentally a function of the brain and therefore in principle we should be able to identify neural mechanisms that give rise to consciousness. This, of course, does not begin to tell us what to look for in the brain. We must first come to terms with the defining characteristics of consciousness if we are to develop productive neural theories of consciousness. . .

We do not yet know how the firing of specific neurons lead to conscious perception even in the most simple case. In fact, according to Searle³, we completely lack an adequate theoretical model of how an *objective* phenomenon – electrical signals in a person's brain – can cause a *subjective* experience such as pain. Because consciousness is irreducibly subjective, it lies beyond the reach of science as we *currently* practice it.

Since science, as we currently practice it, is essentially a reductionist approach to events, it cannot, according to Nagel⁴, address consciousness without a significant change in method, one that would allow the demonstration and analysis of the *elements* of subjective experience. These elements are likely to be basic components of brain function much as atoms and molecules are basic components of matter. . . What we lack in a

¹ In psychoanalytic theory, "the conscious" is the aspect of mind that encompasses all one is momentarily aware of. (Reber's *Dictionary*)

² **Self** is the part of a real disjunction of Nature that constitutes the Object of an Organized Being's cognitions of its own *Existenz*. The contrary term under this disjunction is called the **not-Self**. Recall that Nature is the Organized Being's objective representation of all-that-exists ("world-model").

³ John Searle (b. 1932) is a modern and well-respected philosopher of language and cognitive science.

⁴ Thomas Nagel (b. 1937) is a contemporary and respected American philosopher characterized by some as a diagnostician of philosophical trouble-spots.

science of consciousness are rules for extrapolating subjective properties (consciousness) from the properties of objects (interconnected nerve cells). . .

The aim of most neural scientists working on consciousness is more modest than that envisioned by Nagel. They are not necessarily working toward a revolution in scientific thought. Although neural scientists must struggle with the difficulties of defining consciousness experimentally, these difficulties do not appear to be totally forbidding. This optimism is due in part to the fact that neural scientists are not immediately concerned with the subjective and unitary nature of consciousness. . .

Indeed, neural scientists have been able to make considerable progress in understanding the neurobiology of perception without having to account for individual experience. The philosopher Patricia Churchland⁵ reminds us that cognitive neural scientists have made progress in the understanding the basis of the perception of color without addressing whether each of us sees the same blue. Since considerable progress has been made in understanding color perception without having to account for its subjective qualities, or *qualia*, perhaps the question about qualia is itself not so meaningful within a neurobiological approach to behavior. As we shall learn in later chapters, the brain does indeed *construct* our perception of an object, but the resulting perception is not *arbitrary* and appears to correspond to independently determined properties of the objects. What we do not understand is how action potentials give rise to meaning. . .

Thus the initial task is to focus on neural correlates of consciousness, by locating within the brain neurons whose activity correlates best with conscious experience, and to determine the neural circuits to which they belong. [KAND1: Ch. 20 (396-400)]

Kandel is quoted at length here because he provides one of the best and well-articulated descriptions of the current situation in regard to consciousness and neuroscience as well as how neuroscientists regard the issue of consciousness under the current paradigm. It is this paradigm the Critique in this book seeks to change.

The most overriding characteristic of the current paradigm used in neuroscience is that it regards not only consciousness but mind as a whole as being an effect for which brain stands as the efficient cause. The paradigm is materialist and implicitly accepts as a premise that the mind-body division is a real division. Even though "the brain does indeed construct our perception of an object," the deep-lying premise here is the copy-of-reality hypothesis in one of its more subtle and insidious forms. This is revealed in the statement that the *resulting* perception "appears to correspond to independently determined properties of the object." This is an ontology-centered metaphysic and, like all ontology-centered metaphysics, it cannot avoid positing a copy-of-reality in some form as soon as it seeks to solve rather than admire or avoid the problem. Although the practice of neuroscience in the laboratory is largely a practical approach, the fact remains that the most fundamental premises underlying its paradigm arise from a theoretical standpoint within this ontology-centered prejudice. The many difficulties to which Kandel alludes and Nagel's call for "a significant change in method" (the "revolution in scientific thought" to which Kandel refers)

⁵ Patricia Churchland is another well-regarded contemporary philosopher of mind at the University of California, San Diego. She describes herself as a materialist, which makes her something of a rarity among professional philosophers.

both arise as a direct consequence of ontology-centered metaphysical thinking.

Neuroscience practice is correct to take a practical approach in its experimental endeavors, and Kandel is right to say the task of biological neuroscience is to focus on the neural correlates of consciousness. This, it may be added, also is the case for the other subjective phenomena of mind. Research such as this, in terms of the Organized Being model, is research aimed at forging an empirical understanding of the character of *nous-soma* reciprocity, knowledge that speaks directly to and will provide for our *empirical* understanding of the *Existenz* of *psyche* in mental physics. Where contemporary neuroscience and psychology misstep is in: (1) regarding the mind-body division as a real division rather than merely a logical division, and (2) presuming that the Relation between *soma* and *nous* must be a Relation of causality & dependency (*modus* of succession in time) rather than, as it must be, a Relation of community (*modus* of coexistence in time). These two presuppositions in an ontology-centered system leave science with little choice but to regard mind as either an epiphenomenon or an emergent property. The former lacks objective validity and the latter is not a property having objective validity under the Relation of causality & dependency. The principle of emergent properties is grounded in the Relation of community (reciprocity in co-determinations).⁶

As for Nagel's call for a "significant change in method": That is what mental physics proposes to be.

§ 1.1 Empirical Consciousness and Pure Consciousness

The idea of consciousness *per se* is a primitive idea standing right at the horizon of possible experience. The Critical Philosophy teaches us that attempts to "get inside" consciousness *per se* as a thing-regarded-as-it-is-in-itself can lead only to transcendent illusion, irresolvable antinomies, and equally irresolvable paralogisms. The *Dasein* of consciousness is necessary for the possibility of experience and so, as a transcendental Object, this *Dasein* has objective validity. However, our attempts to *understand* consciousness can only be directed with objective validity at understanding the Nature of the *Existenz* of empirical consciousness. Consciousness *per se* can only be a practical Object. This is an epistemological requirement for every scientific primitive.

We will begin with a primal raw fact of experience. **Empirical consciousness** is

1. the phenomenon of experiencing perceptions, as intuitions and affective perceptions, with knowledge of the *Existenz* of objects;

⁶ This same causality & dependency vs. community issue, in another manifestation, shows up in modern physics in the form of the "non-locality" and "entanglement" issues in quantum mechanics. The resolution there is the same as for neuroscience. Kant's applied metaphysic of natural science is a non-local theory and the resolution of "entanglement" comes from understanding the wave mechanics of entanglement as the Relation of community and not as a law of causality & dependency.

2. the sense of presentment *in concreto* of particular perceptions with the exclusion of other possible sensible representations; in this context the term is synonymous with the term "sense of awareness."

These are the two contexts of empirical consciousness, the first in the objective terms of the theoretical Standpoint of Critical epistemology, the second in the subjective terms of the judicial Standpoint of Critical epistemology. Human experience is at once both objective and subjective in its Nature, and these two contexts of empirical consciousness are, in a manner of speaking, the two sides of one and the same coin. Jointly they constitute the *Realerklärung* of the phenomenon we require our theory to address. **Presentment** (*Darstellen* in Kant's terminology) **is that in the synthesis of apprehension which is made conscious as a merely subjective factor in the synthesis.** The *sense* of presentment is an affective perception, but one of empirical apperception rather than apprehension.

Seen from the practical Standpoint empirical consciousness is an outcome. Consciousness theory must "get in front of" this outcome and address the noetic capabilities by which this outcome is made possible. In Critical metaphysics the term **pure** means "containing nothing that belongs to sensation or experience." The pure factors of mental physics are those transcendental factors necessary for the possibility of experience. They are inherently practical factors and denizens of facet B in our theory. The possibility of empirical consciousness must presume an ability of the Organized Being to *produce* it, and this is what we call pure consciousness. **Pure consciousness** is:

1. the representation that another representation is in me (i.e. in the Organized Being);
2. the organization (faculty) of the theoretical structure of the *Existenz* of transcendental apperception;
3. the ability to present empirical representations in relationship to transcendental apperception (also called the *power* of pure consciousness).

(1) is pure consciousness viewed from the practical Standpoint. (2) is pure consciousness viewed from the theoretical Standpoint. We will call this connotation of pure consciousness by the name **faculty of pure consciousness**, bearing in mind that "faculty" means the form of an ability insofar as the ability is represented in an idea of organization. (3) is pure consciousness from the judicial Standpoint. The "representation that another representation is in me" is pure consciousness as an *act of nous*. The faculty of pure consciousness is the logical representation of the organization (organizing) of perceptions by the Organized Being. Figure 4.1.1 illustrates the faculty of pure consciousness in 2LAR form.

Transcendental apperception is the most fundamental *noumenon* of Critical epistemology. It is best explained as the Organized Being's sense of awareness of its own *Dasein*. But awareness is

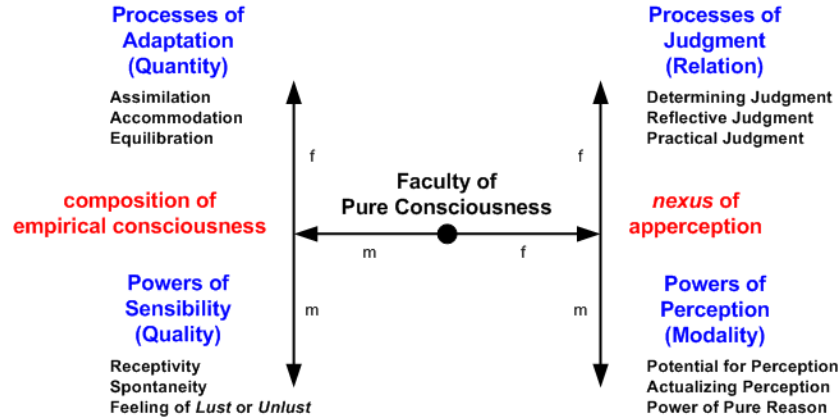


Figure 4.1.1: 2LAR representation of the faculty of pure consciousness.

here confined *strictly* to awareness of one's own *Dasein* with utterly no accompanying awareness of one's own *Existenz*. It can equally well be called the Organized Being's "sense of its own aliveness" because transcendental apperception imputes nothing more at all than this sense of "I am." This "I" of transcendental apperception, this pure ego, occupies a privileged and very special place in Critical epistemology because *it is the one and only noumenon for which Dasein is held to be absolutely real and certain by the Organized Being*. As such, it is *the ultimate standard gauge* relative to which all other concepts of the real and the certain are measured and judged. The Greek philosopher Protagoras announced an epistemologically fundamental truth when he said, "Man is the measure of all things." From the judicial Standpoint pure consciousness is the capacity of the Organized Being to bring cognitions of forms of *Existenz* ("how I exist") to this utterly formless *a priori* knowledge the Organized Being possesses of its own *Dasein* ("I exist").

§ 1.2 The Faculty of Pure Consciousness

The acroams of Rational Psychology tell us that any representation of the faculty of pure consciousness can only be a logical representation of factors necessary for the possibility of the phenomenon of empirical consciousness. The idea of pure consciousness is practical and can have no other objectively valid meaning than that stated above: consciousness is the representation (representing) that another representation is "in me." The transcendental necessity of pure consciousness was deduced by Kant in the first (1781) edition of *Critique of Pure Reason*. There he wrote:

One should attend well to this proposition, which is of great importance. All representations have a necessary reference to a *possible* empirical consciousness: for if they did not have this, and if it were entirely impossible to become conscious of them, that would be as much as to say that they did not exist at all. All empirical consciousness, however, has a necessary reference to a transcendental consciousness (preceding all particular experience), namely the consciousness of myself as original apperception. It is therefore absolutely necessary that in my knowledge all consciousness belong to one

consciousness (of myself). Now here is a synthetic unity of the manifold (of consciousness) that is recognized *a priori*, and that yields the ground for synthetic *a priori* propositions concerning pure thinking . . . The synthetic proposition that every different *empirical consciousness* must be combined into a single self-consciousness is the absolutely first and synthetic fundamental principle of our thinking in general.⁷ But it should not go unnoticed that the mere representation *I* in reference to all others (the collective unity of which it makes possible) is the transcendental consciousness. Now it does not matter here whether this representation be clear (empirical consciousness) or obscure, even whether it be actual; but the possibility of the logical form of all cognition necessarily rests on the relationship to this apperception *as a capacity*. [KANT: 4 (87fn)]

All acts of perception have a logical and necessary reference to the *Dasein* of the Organized Being who perceives. In acts of cognition, this is the logical form, *I think x*; for affective perception it is, *I feel y*. Likewise, all actions of conscious volition necessarily take a logical form we can best express as *I will z*. If I think, "The cat is yellow," this *I think* is a necessary part of the overall act of cognition even when the cognition itself does not explicitly include "I think" as part of the cognitive representation. This *I* of pure apperception is a *noumenon* but, as noted above, it is, for each one of us individually, the most special and privileged of all *noumena* because it is the only *noumenon* for which an Organized Being knows *Dasein absolutely*.

However, this fundamental and *a priori* knowledge of the transcendental *I* goes no further than *Dasein* and can in no way lead to objectively valid inner propositions of the *Existenz* of this *I*. This is to say that the Organized Being's absolute knowledge of its own *Dasein* cannot be extended (with objective validity) beyond the horizon of possible experience to conclude that this *I* either is or is-not a soul, a spirit, an homunculus (Descartes' *res cogitans*), or anything else whatsoever. The fundamental *phenomenon* of all one's concepts of one's own *Existenz* is no more and no less than the phenomenon of one's Self as an Organized Being. All concepts of the Organized Being attaching as concepts of its *Existenz*, if they are to be objectively valid, are concepts of the *appearance* of the Organized Being in experience, and these are not cognitions of the *I* of transcendental apperception but, rather, of the *Self* of empirical experience. Let a physicist say to me, "You are made of atoms," and I will say, "I think that is true." Let him say to me, "You *are* the atoms of which you are made," and I will say, "I think you are a learned fool." Let a philosopher say to me, "How do you know you really exist?" and I will say, "I just know." I am, for myself, *the most primitive of facts*.

To theorize about the Nature of consciousness is to theorize about *the capacity for an*

⁷ There are psychological phenomena, such as those once called hysterical neurosis, as well as speculations from split-brain (commissurotomy) studies [GAZZ] that put Kant's unity of consciousness principle to the test. Here the key issue is not whether *empirical* consciousness can be divided but, rather, whether the unity of *pure* consciousness can be violated. This is discussed in *CPPM* in Chapter 22, where we find that these neuroses and split-brain studies do not, in fact, violate the principle of unity of consciousness or present experimental counter-examples of the principle.

Organized Being to represent that another representation is presented. This theory can only be a logical representation of capacities in a merely logical and mathematical division of concepts of *Self-Existenz*. Thus, the faculty of pure consciousness is nothing else than the theoretical idea of the logical facets of *Self-organization* in terms of processes and powers necessary for the possibility of human experience. Figure 4.1.1 represents this organization and, transcendently, nothing more than this.

Ability is the exhibition of a change in the appearance of an object insofar as the ground for the determination of this change has its transcendental place in the Nature of that object. The poles of the ILAR division of ability are called its power in the narrow sense (matter of an ability⁸) and its faculty (form of an ability). Faculty represents how the ability is exhibited in experience. Power (in the narrow sense) is what the ability actually does. The term has a kinetic connotation, i.e., **power is the actualization (making actual) of the ability.** **Capacity is the potential to realize an ability through an action.** One can think of capacity as an unrealized (latent) power to act. This is much like the distinction physics draws between "potential energy" and "kinetic energy" insofar as the relationship between capacity and power is regarded.

This is an extremely fine distinction between the ideas of capacity (*Vermögen*) and power in the narrow sense. The depiction of the faculty of pure consciousness in Figure 4.1.1 depicts consciousness as the organization of a *Vermögen*, that is, *as the organization of the capacity for empirical consciousness*. The ILAR division of a capacity in general (Figure 4.1.2) divides into the matter of power (in the narrow sense) and the form of process. A **process (*processus*) is the development or course of an action, event, etc.** Since power is defined as the matter of an ability, an ability and a capacity share power in the narrow sense as a common pole (that is, power is the matter for both ideas), and thus ability and capacity are coordinated concepts that stand under the idea of power in the narrow sense.⁹ This is illustrated in Figure 4.1.2 (B).

We combine this idea of capacity now with the idea of organization. **Organization** in practical

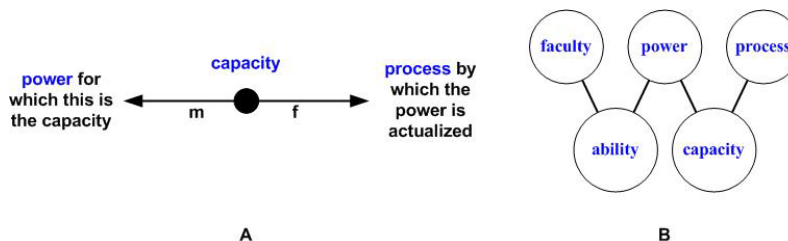


Figure 4.1.2: Capacity and ability. (A) ILAR division of a capacity. (B) Coordinated concept structure.

⁸ The term power also has a definition in a wider sense, under which power in the narrow sense is one specific context of the term. We will come to this wider-sense definition shortly.

⁹ Professional philosophers will recognize in this concept structure a similarity between the relationship of ability and capacity and the relationship of Aristotle's ideas of entelechy and *energeia*.

context¹⁰ and as a noun is understood in the following connotations:

1. an organizing or being organized;
2. organic structure; manner of being organized;
3. an organism;
4. any unified, consolidated group of elements; systematized whole.

The noun is derived from the verb *to organize*, which in its turn comes down to us from the Greek word *organon*, an instrument, implement, or tool for making or doing a thing. This is the context in which we are to understand the idea of the organization of a capacity. In this context, the organization of the capacity for empirical consciousness (faculty of pure consciousness) has the 1LAR division into: (1) the capacity for composition (composing) of empirical consciousness; and (2) the capacity for connecting (forming the *nexus* of) representations in empirical apperception (the representation of Self-consciousness in the manifold in time). This is the first-level division shown in Figure 4.1.1.

The second level of division (into Quantity, Quality, Relation, and Modality) are the 1LAR divisions of capacity in the contexts of composition and *nexus*. We will call the matter of compositional capacity the **powers of sensibility**. The form of compositional capacity we call the **processes of adaptation**. The matter of connecting capacity we call the **powers of perception**. The form of connecting capacity we call the **processes of judgment**.

§ 1.3 The *Momenta* of the Faculty of Pure Consciousness

We must now deal with the functional *momenta* of pure consciousness. If you examine Figure 4.1.1, you will notice that the *momenta* of Quality and Relation are already familiar to us. In the deduction of the organization of *nous*, as this was developed in *CPPM*, the analysis of the faculty of pure consciousness came first, and it was from this analysis that the organization shown in Figure 1.5.1 was deduced. Empirical consciousness is a fundamental psychological fact characteristic of the phenomenon of *being human*. *Nous* is a supersensible, intelligible Object of mental physics and the transcendental deduction of the logical organization of *nous* obtains its objective validity only from what is required as necessary for the possibility of experience in the system of Critical epistemology. Empirical consciousness is, as we saw Kant state earlier, necessarily referenced by all representations and representing is the primitive act of mind. This is why the *logical organization* of *nous* is grounded fundamentally in transcendental apperception and the faculty of pure consciousness.

The twelve *momenta* of the faculty of pure consciousness will all be ideas of synthesis and are

¹⁰ The word also has a transcendental context. In this context, **organization** is the interconnected and reciprocally determining functional totality of an Organized Being; organization in this context is one of two **functional invariants** of an Organized Being, the other of which is adaptation.

species under the *genera* of the corresponding ideas of representation in general (identification, differentiation, etc.). The specialization of these ideas to the topic of consciousness is made by combining the general ideas with the idea of consciousness. We will begin with Quality.

§ 1.3.1 The Powers of Sensibility

The general ideas of Quality are agreement, opposition, and subcontrarity. In the context of the faculty of pure consciousness, we first ask: agreement, opposition, and subcontrarity with respect to what? First, as the matter of the matter of pure consciousness these ideas must be ideas of a power to do something. Second, this power must be a power for representing that another representation is in me. Third, we must bear in mind that in the composition of empirical consciousness human awareness is not an awareness of representations but, rather, an awareness of appearances. Representation with consciousness is perception and is either objective (intuition) or subjective (affective perception). Agreement in the context of appearances is the idea of representing the presentation of the representation of something else (the transcendental object of sensuous intuition), and this is nothing else than the power of organizing the receptivity of *nous* in sensibility. Hence, the first *momentum* of Quality is *nous'* **faculty of receptivity**. Opposition to receptivity is the **faculty of spontaneity**, i.e., the power of *nous* in the Organized Being to act as the agent in originating a perception. By contrast, in receptivity *nous* stands in the role of patient to the agency of *psyche*. As for the idea of subcontrarity, the third idea in a triad of *momenta* can always be viewed as the synthesis of the other two ideas. In receptivity perceptions are seen as being *givable*, in spontaneity they are *made* or *produced* (e.g., memories). Taken together in synthesis, the effect in sensibility is a *spontaneously givable* perception that is not the perception of an appearance and so subcontrarity is the idea of the **faculty of feeling *Lust* or *Unlust***. In Kant's words, "the feeling of *Lust* or *Unlust* is part spontaneity, part receptivity" [KANT: 29 (881)]. These are the powers of sensibility.

§ 1.3.2 The Powers of Perception

We turn next to Modality and its general ideas of the determinable, the determination, and the determining factor. The power we are dealing with here is not a power of composition but, rather, of connection and therefore concerns the ability to produce a coherent structuring of consciousness. The determinable in an act of representing is that which may go into a determined representation but which, prior to this act, has no context. The determinable is that which provides the *potential* for making a determination. An undetermined representation is obscure (an unconscious representation) and not yet a perception. But the context of the *momenta* of the powers of perception is not the representation itself but rather the power to present or not present

representations (connection in apperception). "The act of perception is the apprehension of the representation of sensation" [KANT: 7 (128)]. Logically, before the Organized Being can apprehend a representation it must have, in its "state of mind," representations to apprehend. Freud tells us,

We can go further and in support of an unconscious mental state allege that only a small content is embraced by consciousness at any given moment, so that the greater part of what we call *conscious knowledge* must in any case exist for very considerable periods of time in a condition of latency, that is to say, of unconsciousness. When all our latent memories are taken into consideration, it becomes totally incomprehensible how the existence of the unconscious can be gainsaid. . . Now, as far as their physical characteristics are concerned, they are totally inaccessible to us . . . On the other hand, we know for certain that they have abundant points of contact with conscious mental processes . . . and all the categories which we employ to describe conscious mental acts, such as ideas, purposes, resolutions, and so forth, can be applied to them. Indeed, of many of these latent states we have to assert that the only point in which they differ from states which are conscious is just in the lack of consciousness of them. So we will not hesitate to treat them as objects of psychological research, and that in the most intimate connection with conscious mental acts. [FREUD: 428-429]

The determinable in the faculty of pure consciousness is not the idea of obscure representations but, rather, the idea of the power to make a particular representation the matter for a merely possible perception. We will call this power the **potential for perception**. It is the power of making a connection in the manifold of representations but only insofar as made representations are merely connected in the manifold of sensibility but are not yet marked by consciousness (the representing that the representation is present).

The *materia* in this manifold of representation lack only one thing distinguishing them from sensation and perception, and this is the presentation-in-consciousness itself. The idea of determination in the Modality of the faculty of pure consciousness is simply the idea of the power to present them, i.e., the power of making representations conscious. We call this the **power of actualizing perception** (making perception actual, i.e., "non-latent").

These first two *momenta* function to provide for the possibility and actuality of perception but this stills leaves the determining factor. For the faculty of pure consciousness, this determining factor must be a power to govern and regulate the form of the *nexus* in the manifold of representations and to regulate the selection of the place occupied by each determinable (either as conscious or unconscious) in this manifold. This determining power must contain nothing that is empirical (i.e., it must be a pure power) because in this power lies the ground for the *Existenz* of the *nexus* and, therefore, for the possibility of experience itself. The manifold exists in whatever form it takes on because of this determining power as the regulator of mental acts. But this power is nothing else than the **power of Reason**. This completes our triad of the *momenta* of Modality in the faculty of pure consciousness.

§ 1.3.3 The Processes of Adaptation

We may define **cognizance in general** as the act of becoming conscious and **cognizance in the narrow sense** (in German, *Kenntnis*) as the act of becoming conscious in which an intuition is transformed into a concept. The processes of Quantity and Relation in the faculty of pure consciousness speak to *how cognizance is accomplished* by the Organized Being. It is evident, or should be by now, that the processes of cognizance are not themselves cognitions but, rather, belong to the Organized Being's store of knowledge *a priori* (know-how) since these processes are themselves necessary for the possibility of experience. Cognizance is not a simple "act of illumination" by shining some metaphorical spotlight on representations. Rather, and in keeping with the definition of a structure, cognizance consists of various acts of transformation, and it is with these acts that we are presently concerned.

We begin with cognizance in composition and look for those *a priori* acts of transformation necessary for the composition of empirical consciousness. To do so, we look first at the logical (formal) Nature of human experience. Here we find three principles of structured experience that speak directly to the general ideas of identification, differentiation, and integration:

Reason thus prepares its field for understanding: (1) through a principle of *homogeneity* of the manifold under higher genera, (2) through a first principle of the *variety* of the homogeneous under inferior species; and in order to complete the systematic unity it decrees (3) yet in addition a law of the *affinity* of all concepts, which requires a continuous transition from every species to every other through a step-wise growth of varieties. We can call these the principles of the *homogeneity*, *specification*, and *continuity* of forms. . .

The first law, therefore, wards off excess in the manifold variety of the original genera and recommends homogeneity; the second, on the contrary, limits in turn this inclination to unanimity and demands distinction of subspecies before one turns to the individuals with one's universal concepts. The third law joins the first two, prescribing even in the case of the manifoldness a homogeneity through the step-wise transition from one species to others, which shows a kind of affinity of various branches insofar as they have all sprouted from one stem.

This logical law of the *continui specierum (formarum logicarum)*¹¹ presupposes, however, a transcendental law (*lex continui in natura*)¹² without which the use of understanding through the former law would only mislead since the prescriptions would perhaps take a path directly opposed to nature. This law must therefore rest on pure transcendental and not empirical grounds. For in the latter case it would come later than the systems; but it really first produced what is systematic in the cognition of nature. [KANT1: B685-689]

To unite diverse representations under the homogeneity of a generalizing representation is an act of identification of species by a genera. We say the species are *assimilated* into the genera. **Assimilation** is incorporation of a representation or scheme into a general structure. The *process*

¹¹ continuum of species (of logical forms).

¹² law of the continuum in nature.

of assimilation is the idea of identification applied to the Quantity of the faculty of pure consciousness. This is the first necessary process of transformation in Quantity.

The second is accommodation. **Accommodation** is the modification of an existing structure to permit incorporation of a new representation or scheme. It is obvious that to "demand distinction of subspecies" is to set up a substructure within the overall representation structure, i.e. to make a differentiation among representations while still conserving the overall unity of the structure as a whole.

Kant's idea of affinity is a synthesis of homogeneity and variety, and this is best understood in terms of a *balancing* between acts of assimilation and accommodation. We call the process of transformation in striking this balance **equilibration: the process of synthesizing a balance between generalization and speciation**. Equilibration is the idea of integration applied to the faculty of pure consciousness.

Now, we define **adaptation as the equilibrating (producing of an equilibrium) of assimilation and accommodation**. The distinction between the *action* of adaptation and the *process* of equilibration is a bit subtle and this reflects the subtlety of the distinction between action (*Wirkung, actio*) and act (*Handlung, actus*). **Action is change in appearance of accidents**. It occupies the place of matter in the 1LAR division of a *Kraft* (a Critical ontological notion fully explained in §2 of this chapter). **Act is the determination of a Kraft as a cause of accidents** and is the *nexus* in the 1LAR division of *Kraft*. As for this term *Kraft*, this is the transcendental notion of an ability (a broader notion of power) in a very specific and fundamental context. (The *Realerklärung* of *Kraft* will take some time to cover, and this is why I postpone that discussion for a little while). An adaptation is an action – thus it is a matter term – and speaks to "what happens." Assimilation, accommodation, and equilibration are acts – they are form terms, *transformations* – and speak to "how it happens." Thus the *momenta* of Quantity in the faculty of pure consciousness are, collectively, called the *processes* of adaptation.

To help further clarify the distinction between adaptation and equilibration, let us briefly look at the mathematical idea of an adaptive automaton. The verb "adapt" has the dictionary definition

adapt, v.t., 1. to make suitable to requirements or conditions; to adjust or modify fittingly; . . . v.i., 2. to adjust oneself to different conditions, environments, etc.

This verb underlies the various definitions of the noun "adaptation" employed in biology, physiology, and psychology. An **adaptive automaton** is a system whose structure is alterable or adjustable in such a way that its behavior or performance (according to some desired criterion) improves through contact with its environment. The idea of equilibration speaks to the rules of structuring the system; that of adaptation speaks to the appearances of that structure as it is altered

in time.

Now, principles of transcendental epistemology always have consequences for experience and thus *testable* consequences. In the case of the processes of adaptation we find this expected empirical support in the conclusions of a major study of cognizance carried out in the 1970s by Jean Piaget and his collaborators. The findings of this study included the following:

In addition to enabling us to analyze how a child gains cognizance as such, this research has shown us that action in itself constitutes autonomous and already powerful knowledge. Even if this knowledge (just knowing how to do something) is not conscious in the sense of a conceptualized understanding, it nevertheless constitutes the latter's source, since on almost every point the cognizance lags, and often markedly so, behind this initial knowledge, which is thus of remarkable efficacy despite the lack of understanding. . .

Clearly, at the action level, initial reactions consist in proceeding through isolated assimilation schemes; there is an attempt to link these to their object, but the reactions remain at the stage of temporary accommodations . . . [.] Progress consists in coordinations that first involve reciprocal assimilations of the schemes in use and then become increasingly general and independent of the specific content . . . Conceptualization is far from constituting a simple reading: it is a reconstruction, which introduces new characteristics in the form of logical links, providing a connection with understanding and extensions, and so on. . . Although the action itself cannot be called a true cognizance since it is not yet conscious, in relation to its neurological substrate, it constitutes a progressive conquest, with reconstructions and enrichments, analogous to conceptualization in relation to actions. [PIAG6: 346-348]

Assimilation, accommodation, and equilibration are clearly evidenced in the behaviors of Piaget's test subjects and we should take sharp notice of the *a priori* character revealed by the finding that cognizance at the most primitive levels is tied to and anchored in the sensorimotor actions (action schemes) of the youngest subjects. We should also note the clear connection in Piaget's findings to what he called the neurological substrate of the Subject. This tells us, if this was not clear enough already from the previous discussion of adaptation, that the idea of adaptation is likewise tied to *psyche* in the Organized Being.

§ 1.3.4 The Processes of Judgment

We have already introduced the three processes of determining, reflective, and practical judgment in the earlier chapters and we will be discussing each of them in much more detail in the chapters to come. Therefore it is sufficient here at this point merely to discuss why these processes of judgment find their transcendental place as *momenta* of Relation in the faculty of pure consciousness. Kant explained this in *Critique of Pure Reason*:

I have never been able to satisfy myself with the explanation the logicians give of a judgment in general: it is, they say, the representation of a relationship between two concepts. Without quarreling here with this faulty explanation . . . I remark only that it is not here determined wherein this relationship subsists.

But if I investigate more closely the reference of given knowledge in every judgment . .

. I find that a judgment is nothing but the manner of bringing given knowledge to the *objective* unity of apperception. . . For this indicates the reference of these representations to original apperception and their *necessary unity* even if the judgment is empirical, therefore contingent . . . I do not say by this that these representations *necessarily* belong to *each other* in the empirical intuition, but rather that they belong to one another by virtue of the *necessary unity* of apperception in the synthesis of intuitions, i.e. according to principles of the objective determination of all our representations, so far as knowledge can arise from them, these principles being all derived from the first principle of the transcendental unity of apperception. In this way alone can there arise from this relationship a *judgment*, that is, a relationship that is *objectively valid*, and is perfectly distinct from the relationship of the same representation which has only subjective validity according to the laws of association. [KANT1: B140-142]

In every judgment there is an inherent relationship to the *I* of transcendental apperception, e.g. *I think x* or *I feel z*. "The logicians" of Kant's day were disciples of the post-renaissance movement known as the Port Royal Logic, which was composed by Antoine Arnauld and Pierre Nicole in 1662. The Port Royal Logic held center stage for some 200 years until it was eventually supplanted by the development of mathematical (symbolic) logic beginning in the nineteenth century.

The Port Royalists were basically Cartesians but Cartesians because they viewed Descartes' philosophy as a revival of Augustinianism and, therefore, an ally of their theology. In his *Rules for the Direction of the Mind* (rule XII), Descartes wrote that "the mind" was capable of immediately knowing "simple things" and that

all these simple natures are known *per se* and are wholly free from falsity. It will be easy to show this, provided we distinguish that faculty of our understanding by which it has intuitive awareness of things and knows them, from that by which it judges, making use of affirmation and denial. . . Whence it is evident that we are in error if we judge that any one of these simple natures is not completely known by us. For if our mind attains to the least acquaintance with it, as must be the case since we are assumed to pass some judgment on it, this fact alone makes us infer that we know it completely.

The Port Royal logic doctrine, following from the system Descartes built upon premises such as these, held that a logical proposition, such as "All men are mortal," and a judgment are to be regarded as being *in essence* the same thing, namely real relationship between the concepts "all men" and "mortal"; furthermore, knowledge of "simple things" was apodictic knowledge and required no further consideration of the relationship of concept to conceiver. The mind held, in other words, a copy of reality and a judgment was, when all is said and done, nothing but the recognition of that reality. Mind was the thinking substance, the *res cogitans*, distinct from and independent of body (the *res extensa*), endowed by God with understanding. Descartes' system, and the logic of the Port Royalists, was not only ontology-centered but theology-centered as well.

These systems are utterly baseless (without objective validity) at their foundations and, hence, "the logicians' definition" of "judgment" was equally baseless. The fundamental ground for objectively valid understanding of judgment in Critical epistemology is the Organized Being and

here this comes from the necessary relationship of judgment and apperception. This is why the processes of judgment belong to the faculty of pure consciousness and why these *momenta* are *momenta* of Relation (form of the *nexus* of apperception).

The ideas of Relation in the general 2LAR of representation are the internal, the external, and the transitive Relations. In the context of apperception and consciousness, the internal Relation is the process of determining judgment. The internal Relation pertains to the process of judging the connection of representations insofar as the making of these connections "in" apperception is regarded as necessary for the possibility of objective experience. In other words, all representations are contained in empirical consciousness, either as clear (i.e. "conscious") representations or as obscure (i.e. "unconscious") representations. The Relation is Relation among representations in regard to the form of connection *in* apperception.

From the side of understanding, human cognition is *discursive*, i.e., it takes place through representations which take as the ground of cognition that which is common to many things, hence through *marks* as such. Thus we know things *through marks* and that is just called *recognition*, which comes from "*being aware of*." [KANT: 9 (58)]

A clear representation *x* is one where connection in apperception, e.g. *I think x*, is made. An obscure representation *x* is one where the connection has not been made. Determining judgment makes the connections among *representations* (as concepts) once representations are made clear in the synthesis of apperception. Determining judgment serves empirical *objective* consciousness.

Next we turn to the idea of the external Relation. Consciousness is the representation that another representation is in me. This means that the idea of empirical consciousness contains two distinct Objects, namely the manifold of representations and the representing Subject. The idea of external Relation in the context of consciousness is Relation of the unity of the manifold of representations and the transcendental Subject of the *I* of apperception. The first and principal practical character of mental representation is that my representations are *my* representations.

The Organized Being is not conscious of representations *as* representations. On the cognitive plane, consciousness is consciousness of appearances of objects. On the non-cognitive plane, the consciousness of the Organized Being is consciousness of its own affective condition and this is affective perception. However, **the principle of unity in apperception states: Every perception must stand in a relationship of meaning, either immediate or mediate, with all other perceptions.** This principle is nothing other than the positive statement of the transcendental Idea of Modality in Rational Psychology from the judicial Standpoint (unconditioned unity in apperception of all perceptions). In this regard, Kant tells us,

Now since the proposition *I think* (taken problematically) contains the form of every judgment of understanding generally, and accompanies all categories as their vehicle, it is

clear that the inferences from this proposition can contain a merely transcendental use of understanding, excluding every admixture of experience . . .

All *modi* of self-consciousness in thinking are therefore not yet themselves notions of the understanding of Objects (categories), but mere logical functions, which provide thought with no object at all, and hence also do not present my self as an object to be known. It is not the consciousness of the *determining* but only that of the *determinable* self, i.e., of my inner intuition (insofar as its manifold can be compounded in accord with the universal condition of the unity of apperception in thinking) that is the *Object*. [KANT1: B406-407]

The Object in which representations and the transcendental Subject are united is what we call the Self and, as we have seen in the quote above, this knowledge is knowledge only of the *determinable* Self. The Organized Being knows itself only as the accidents of appearance that it *self-organizes* in its understanding of itself according to the acroamatic principle of unity in apperception. Determining judgment alone is not sufficient for the possibility of this achievement because a determinant judgment is a judgment that finds only particulars to unite under a general concept and the making of general concepts is beyond the capability of the process of determining judgment:

The determining power of judgment under general transcendental laws, that understanding gives, is merely subsuming; the law is presubscribed for it *a priori*, and hence it does not need to think of a law for itself so that it can subsume the particular in nature under the general. But the forms of nature are so manifold, so many modifications, as it were, of general transcendental natural concepts that are left undetermined by those laws which pure understanding gives *a priori* . . . that there must be laws for these also which, as empirical, may seem contingent from the point of view of *our* understanding and yet, if they are to be called laws (as the idea of nature requires), they must be regarded as necessary in virtue of a principle of the unity of the manifold . . . The reflective power of judgment, which is obliged to ascend from the particular in nature to the general, requires on that account a principle that it cannot borrow from experience, because it is supposed to ground the unity of all empirical principles under higher ones, and hence to ground the possibility of their systematic subordination under one another. Such a transcendental principle, then, the reflective power of judgment can only give as a law from and to itself, not derive it from outside (because then it would be determining judgment), nor can it prescribe it to nature: for reflexion upon the laws of nature is directed by nature, and not nature by the conditions according to which we attempt to arrive at a concept of it which is quite contingent in respect to nature. [KANT: 5 (179-180)]

Nature is the "world-model" every Organized Being constructs for itself. But how does the Organized Being achieve this when it utterly lacks innate ideas (as these were conceived by the rationalist philosophers) and likewise utterly lacks a copy-of-reality mechanism? We each understand Nature *as a system* and it is this *systematic* understanding that is beyond the grasp of determining judgment alone. Rather, the possibility of the unity *of* Nature is grounded in the acroam of unity *in* apperception. If the Organized Being were incapable of self-organization, the organization of concepts of Nature into *one* Nature would be unachievable. The process of external Relation in the faculty of pure consciousness is the process of reflective judgment.

For most people, the idea that reflective judgment – which is, after all, only concerned with affective perceptions, and these can never be part of the perception of an object in Nature – is an idea that is at first strange and difficult to grasp. It has only been in recent years that neuroscience and psychology (or some part of the community of psychologists) have come to appreciate the vital importance of affectivity for cognitive understanding. For centuries scientists and philosophers alike tried to ban affectivity from science, regarding it (as the Greeks did) as being inimical to rational thinking. Today we know, from a great many empirical findings, that this is worse than simply untrue; it is a false compass for science, a false presupposition that spawns other falsehoods. Some even give a name – "emotional intelligence" – to the role affectivity plays in thinking, understanding, and learning. Antonio Damasio, a highly regarded neurologist, provides a splendid overview of this in his book *Descartes' Error* [DAMA2].

Philosophers and pseudo-philosophers who cling to ontology-centered metaphysical presumptions have often challenged works such as Kant's or the American Pragmatism of William James on the question of how, if there is no copy-of-reality mechanism, human beings could come to understand the world in such a remarkably nearly-uniform way. For example, C.E.M. Joad, who was a highly regarded Platonist, wrote,

But if experience is really an indeterminate flux or blur, as void of distinction, say, as a sheet of white paper, it may be asked why the mind should carve out of it certain objects rather than others. Why, for example, should my mind carve out a chair instead of a rhinoceros as the object upon which I am now sitting, unless there is some distinctive mark or feature in reality itself in virtue of which I do in fact say "chair" and not "rhinoceros"? Is it not, then, necessary to assume, as most philosophers have assumed, that reality is not wholly featureless, not wholly without differentiation, but contains within itself certain rudimentary distinctions which form the basis upon which mind builds the structure of the world known to science and to common sense? [JOAD: 457-458]

No, it is not necessary to assume what Joad says we must assume. It is only necessary to assume this if one's metaphysical prejudices are ontology-centered because then it becomes impossible to avoid invoking an illusory copy-of-reality hypothesis, as Joad does in the quote above. After this, the entrapped philosopher finds himself required to require "reality" to "do something" (impress itself on us). Thus "reality itself" is reified – made into a thing of such perplexing character that the philosopher is unable to even explain what he means by the term unless "reality" be a god. Experience is not an indeterminate flux or blur. **Experience** is the totality of knowledge of Objects, as an absolute subjective unity of the manifold of sensible representations, through sensuous representations; it is the *structured system* of empirical cognitions. Experience is not indeterminate; it is *determinable*. The *phenomenon* of experience is a fundamental psychological fact of being human, and Critical epistemology is the science tasked with understanding this

fundamental psychological fact.

Lastly, we come to the transitive Relation in the faculty of pure consciousness. The idea of transitive Relation is an idea we can view in terms of a synthesis of the logically contrary ideas of internal and external Relations. To do so, we must identify the third factor, the idea of synthesis, serving as the basis of such a synthesis in the context of the faculty of pure consciousness. This, however, we have already done; it is the idea of that which we call a *purpose*. **Purpose is the object of a concept insofar as the concept has been taken as the real ground of the possibility of the object**, i.e., the concept is seen as the cause by which the *Dasein* of the object is made possible.

Acts of determining judgment are objective judgments; those of reflective judgment are subjective judgments. The subjective viewed as the objective is called the *purposive*. **Purposiveness** is expedience in the narrow sense, i.e., expedience regarded in terms of the instantiation *in an act of the Organized Being* of something congruent with that property of things regarded as possible *only* in accordance with some purpose. Here we should recall that expedience in general (*Zweckmäßigkeit*) is a property of representations regarded as possible only with respect to some purpose from the *practical* Standpoint.

It is among the tasks of reflective judgment to see to it that objective representation is "fit" or "suitable" to serve a purpose of pure practical Reason, and it is in this context – and only in this context – that we can say a purpose is "contained in" an objective representation. However, neither the objective representation nor the object it represents can be viewed as the *source* of a purpose. (These merely "reflect" the purpose). The source of any purpose can be found nowhere else than in the Organized Being itself and so "purpose" is something common to both objective representations and apperception. It is an idea of transitive context.

But at the same time, Relation in the 2LAR of the faculty of pure consciousness is *process* and so purpose is not the idea of transitive Relation. Rather, it is the *judgment* of purpose that must fill this role, and this is none other than the process of practical judgment. Practical judgment judges possible *actions* the Organized Being might undertake against the criterion of a practical formula of pure practical Reason (which we call the formula of the categorical imperative of pure practical Reason). The practical judgment of a purpose is not at all concerned with particular objective or subjective perceptions (which merely reflect purpose in a concrete instantiation). Indeed, *all* such conscious representations *serve their purpose* and this is something quite different from the judging *of* a purpose. The judgment of a purpose stands in immediate relationship only to the action that does or does-not follow upon the rendering of the judgment. This is why the process of practical judgment is called *practical*. It is part of the system of

regulation of the non-autonomic acts of the Organized Being by the power of pure Reason.

§ 2. Substance, Accident, and *Kraft*

We have defined *psyche* as the faculty of animating principles of *nous-soma* reciprocity. The transcendental necessity of introducing *psyche* into our logical division of the Organized Being arises precisely because the mind-body division has objective validity *only* as a logical (and never as a real) division. Because of this, *nous* and *soma* must be viewed as Objects coexisting in time and therefore, under the Ideas of Relation in Rational Physics, they must be co-determining (i.e., their *co-Existenz* must be understood as being one of thorough-going reciprocity). Figuratively speaking, *psyche* is the logical "go-between" term, and this is why it is depicted as being sandwiched between *nous* and *soma* in the Organized Being model, repeated for convenience of reference in Figure 4.2.1 below.

The actions of a human being are never actions-in-general. Every action we ever undertake is an action-in-the-particular. This is such a basic empirical characteristic of the Organized Being that it amounts to an empirical law of Nature. But behind every such law, if the law is to have objective validity, there must be found a transcendental law. For actions this must be a principle for acting-in-the-particular. We will be calling this acroam the *Lust* principle¹³. Like the principle of formal expedience for reflective judgment and the principle of conformity to law for determining judgment, the *Lust* principle is a fundamental acroam, in this case of *psyche*. But before we can undertake to understand this acroam, we must first come to grips with another notion, namely the Critical notion of *Kraft*.

The German word *Kraft* translates into English as "power." The idea of "power" has a narrow

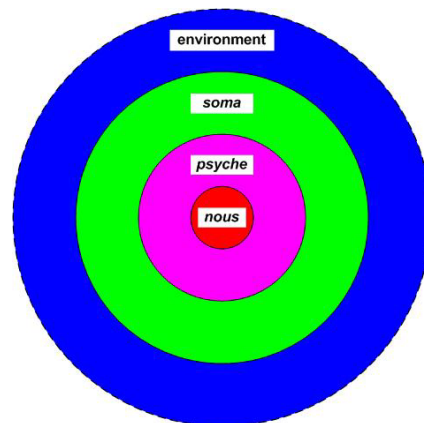


Figure 4.2.1: The Organized Being Model.

¹³ This Critical acroam is not at all the same as Freud's famous *Lustprinzip* (commonly and erroneously translated into English as "the pleasure principle").



Figure 4.2.2: 1LAR of *Kraft*. This represents "power" in a wider and metaphysical context.

context in terms of ability and capacity, as we have already discussed. However, it also has a broader metaphysical context and it is for this context that we reserve the use of the technical term *Kraft*. Figure 4.2.2 illustrates the 1LAR division of *Kraft* in terms of action and act. Action is defined as change in appearance of accidents. Act, on the other hand, is the somewhat more subtle idea of the determination of a *Kraft* as a *cause of accidents*. To understand this we must understand more fully the notion of *accident* and its accompanying notion of *substance* as these notions are understood by Critical epistemology.

The notion of "substance" by itself and the notion of "accident" by itself are both ontological notions of Critical metaphysics. However, in the Critical system all ontological notions are made subordinate to Critical epistemology. This is the essence of what has come to be called Kant's **Copernican hypothesis** in philosophy:

Up until now it has been assumed that all our knowledge must conform to the objects; but all attempts to find out something about them *a priori* through ideas that would extend our knowledge have, on this presupposition, come to nothing. Hence let us once try whether we do not get farther with the problems of metaphysics by assuming that the objects must conform to our cognition, which would better agree with the requested possibility of an *a priori* knowledge of them, which is to establish something about objects before they are given to us. This would be just like the first thoughts of Copernicus, who, when he did not make good progress in the explanation of the celestial motions if he assumed that the entire celestial host revolves around the observer, tried to see if he might not have greater success if he made the observer revolve and left the stars at rest. Now in metaphysics we can try in a similar way regarding the *intuition* of objects. If intuition has to conform to the constitution of the objects, then I do not see how we can know anything of them *a priori*; but if the object (as an Object of the senses) conforms to the constitution of our faculty of intuition, then I can very well represent this possibility to myself. [KANT1: Bxvi-xvii]

The knowledge *a priori* to which Kant refers goes today by the name *theoretical knowledge* and this is at root what the business of science is all about. It is what separates a science from a craft (e.g. the science of metallurgy vs. the craft of metalworking). Once Kant had taken this first step, regarding intuitions, then subsequently this same hypothesis had to be applied to concepts as well and the subordination of ontology to the requirements of epistemology was complete.

All our knowledge of empirical *things* is knowledge of their appearances in experience. Our knowledge of phenomena is constructed knowledge through the connection of appearances by means of the three-fold synthesis of apprehension, imagination, and the process of determining judgment. Knowledge of appearances is knowledge of the *Existenz* of Objects. But all this is left floating in the mist if we do not also concede that appearances are appearances *of* something, and

this something is the transcendental object *of* the appearance. Just as appearance implicates *Existenz*, Object implicates *Dasein*. The object stands as cause of effects in sensibility and this is nothing else than to say the Organized Being is acted upon by its environment.

The ontological notion of "substance" is the logical notion of the *Dasein* of an object in the *modus* of object-persistent-in-time. The straw-haired boy who was "me" in the 1950s and the gray-haired man who is "me" today are both the same object – "me" – despite the enormous changes in my appearances between "the boy who was me" and "the man who is me" over my lifetime. The ontological notion of "accident" is the logical notion of the *Existenz* of the object. Thus, the primary connotation of the terms "substance" and "accident" is a *logical* connotation. *Both* notions derive from a *primitive* notion ("substance & accident"), which is a pure notion of understanding (a category of understanding) that occupies the position of the internal Relation in the 2LAR of determinant judgments (and is therefore an *epistemological* primitive). Kant explained the notions of substance and of accident in the following way:

Substance is that, regarded as it is in itself, which exists only as subject; accident, what exists only as predicate or determination of a thing, or whose *Existenz* is mere inherence.

. . .

Accidents are manners of thinking the *Existenz* of a thing and not different *Existenzen*¹⁴; just as Locke says, that the substance is the bearer of accidents, for that reason it [substance] is also called *substratum*. The relationship of the accidents to the substance is not the relationship of cause to the effect. Substance can clearly exist as *rationatum*¹⁵, but not as predicate. These are wholly different concepts. We are indeed acquainted with the accidents, but not with the substantial. This is the subject which exists *after the separation of all accidents*, and that is unbeknownst to us, for we are aware of substances only through accidents . . . The *Existenz* of a substance is subsistence, the *Existenz* of an accident is inherence. [KANT: 28 (563)]

We can see that a Kantian "substance" means something altogether different than what the physicist or the chemist (or the ontology-centered philosopher) means by that word. We will not try to reconcile these distinct usages; they *cannot be* reconciled. The notion of the Kantian substance is objectively valid; the usages by the physicist or chemist are not unless these usages are carefully defined in *none but practical terms of predictions of experimental outcomes*. Without this the physicist's or chemist's "substance" has no *real* meaning at all.

The notions of substance and accident are distinguished by how a phenomenal object is represented in the manifold of concepts by determining judgment. The principle is easy to state in terms of objective outcome: A substance is that which occupies the position of subject in the logical form of a predication of categorical judgment; an accident is that which takes its place in

¹⁴ The plural of *Existenz*.

¹⁵ That which is the implication of a premise. For example, the *Dasein* of a cause is implicated by the actual experiencing of an effect.

the position of the predicate in such a judgment. *Dasein* can never be used as the predicate of a judgment; we cannot place *Existenz* in the position of subject in a judgment.

There can be no accident without a substance in which this accident inheres. In terms of their relationship, we say *a substance contains the causality¹⁶ of accidents* because without the substance the accident could not *logically* exist. Concepts of accidents cannot be connected in the manifold of concepts except by a concept that stands as the concept of the substantial object in a Relation of substance & accident. This is the Critical **acrom of substance and accident**. This epistemological law is also the ground for our next important ontological idea, namely the *general* idea of *Kraft*. At its most basic ontological level, *Kraft* is nothing else than the ontological corollary of the acrom of substance and accident. Kant explained it this way:

In every experience the real is the relationship of substance to accident . . . With a substance we can have two *respectus*¹⁷: *respectu accidentium*¹⁸ it has *Kraft* in so far as it is the ground of their inherence; and respective of the first subject without any accidents, that is the substantial.¹⁹ *Kraft* is thus not a new accident²⁰, but rather accidents are effects produced by *Kraft* . . . The other *respectus* is of the substance with its accidents, i.e., to the subject which is distinguished from all *other* accidents . . . I do not say that substance is a *Kraft*, but rather that it has *Kraft*; the *respectus* of the substance to the accidents, in so far as it contains the ground of their actuality, is *Kraft*. [KANT: 29 (770-771)]

Kraft is not the notion of a substance but, rather, the notion of the possibility for us to come to *know* of the *Dasein* of a substance. In this context, the philosopher might call substance and *Kraft* "ontological moments" of the same thing. Physics has its correspondent to this way of looking at things with its "matter-energy" distinction. Since Einstein published his famous $E = mc^2$ formula in 1905, physics has regarded "matter" and "energy" as two aspects of the same underlying thing and formalizes this in its law of conservation of matter *and* energy ("matter" can be converted to "energy" and, likewise, "energy" can be converted to "matter"; the *totality* is what is conserved).

¹⁶ Recall that causality is the notion of the determination of a change by which the change is established according to general rules. Cause is the notion of the *agency* of a substance in containing the ground of the actuality of the determination of a change. A *causatum* is a *rule* for the determination of a change under the condition of a cause as its *ground*. Cause, causality, and *causatum* are the synthesis factors for the idea of change, i.e., they occupy the positions of determinable, determination, and determining factor.

¹⁷ "Respect" in the connotation of "having regard to or with respect to." The term denotes an inter-relationship.

¹⁸ "in regard to accidents."

¹⁹ All concepts of objects have to start somewhere and "substance" is the most general ontological notion of any object. The first conceptual representation of an object, prior to combination with other concepts in determinant judgments that make up the representation of its *Existenz*, is the "first subject" of which Kant speaks. Such a **root concept** gets its first representation from an inference of *reflective* judgment and comes to be a concept via the synthesis of re-cognition in imagination.

²⁰ The idea of *Kraft* is the idea of a *noumenon*, namely the notion that a substance has the power to produce accidents. In this sense, electric charge is a *Kraft* of an electron. We never have an immediate, actual experience of a *Kraft* and this is why *Kraft* is not an accident of a substance. The pure category of understanding that grounds the notion of *Kraft* is called the category of causality & dependency, which is the primitive notion of external Relation in determinant judgments.

When we additionally factor in the idea of *change* and delve deeper into our Critical "ontological moments" of substance and *Kraft* we arrive at the ontological understanding of action, act, and, in addition, the *practical* idea of a "state." Kant tells us,

The coexistence of the changeable with the fixed is state. In everything, something is constant, that is, fixed. The changeable, insofar as it coexists with *Existenz*, is state – it is thus nothing but the determination of a substance in time. In time only changes are possible; if the determinations in different times are different, then the state is changed; if they are the same, the state is not changed. . . Substance acts insofar as it contains not merely the ground of the accidents, but rather also determines the *Existenz* of the accidents; or substance, insofar as its accidents inhere, is in action, and it acts insofar as it is the ground of the actuality of accidents[.] [KANT: 29 (772-773, 822-823)]

Change in state – i.e., **action** – is change in the appearance of accidents from one moment in time to another. Action thus belongs to sensible Nature. Act, on the other hand, belongs to intelligible Nature. Kant tells us,

Acting and action can only be attributed to substances. The act is the determination of the *Kraft* of a substance as the cause of a certain accident. Causality is the property of a substance in so far as it is regarded as the cause of an accident. We can recognize the powers [*Kräfte*] of things through changes. Action is either immanent or transeunt. If an inner act or immanent action is performed then it is said: the substance actuates. Transeunt action is also called *influxus*, influence . . . *Vermögen* and *Kraft* are distinct. In the case of *Vermögen* we present only the possibility of the *Kraft*. [KANT: 28 (564-565)]

Act is *Kraft* regarded as the practical causality of a substance in the determination of accidents of appearance. It is, in other words, the practical notion of causality that we attribute to a Kantian substance and, as such, its objective validity can only be that of practical – not theoretical – objective validity. As causality is a notion of form, act is the form of *Kraft*. Action, as the sensible change, is the matter of *Kraft*, and thus the 1LAR of Figure 4.2.2 above. We can somewhat loosely think of the distinction between action and act as: (1) action is "what a substance does"; (2) act is "how it does it." This is, of course, a *practical* viewpoint.

§ 3. *Psyche*

Our root *Realerklärung* of *psyche* is that it is the organized structure of animating principles of *nous-soma* reciprocity. It represents the necessary Relations of community (the transitive Relation of the pure notions of understanding corresponding to coexistence in time) that must exist between *soma* and *nous* by virtue of the fact that the mind-body division is only a logical division and that, as substances, *soma* and *nous* are always coexistent in time. Now, as an idea of the ongoing reciprocity between *soma* and *nous*, the idea of *psyche* does not fall under the Relation of substance & accident but rather under the notion of the Relation of community. This is to say that we do not regard *psyche per se* as a substance, i.e. as an object persistent in time, but rather as a

happening – something that occurs.²¹ However, *because reciprocal Relations must always exist between nous and soma at every moment in time*, the *unity* of these Relations *is* persistent in time and the *structure* of this unity *is* an object persistent in time (hence, a substance). This distinction is, to be sure, one of Kant's subtler fine points, but it is nonetheless an important distinction for the following reason. A happening *per se* is not a real substance and therefore cannot be validly said to possess any *Kraft*. Only a real substance can be said to possess a *Kraft*. To understand "what *psyche* does" in the Organized Being model is to understand the *Kraft* of its manifestations, and this requires us to be precise in our understanding of the objectively valid ground for positing the *real Dasein* of *psyche*.

Psyche first entered into the Organized Being model as a merely logical necessity that followed as a consequence of the merely logical mind-body division. But this logical necessity is not enough. We cannot, with objective validity, say *soma* is the *cause* of *nous-soma* reciprocity, nor can we say *nous* is the cause of this. Either statement replaces the Relation of community with the Relation of causality & dependency, thereby requiring a *real* mind-body division and, thus, destroying the objective validity of the Organized Being model. *Psyche* cannot find its transcendental place in either *soma* or in *nous*. It cannot be regarded as a property of either of these substances. It is only in this very limited context of *persistent* reciprocity in the co-determination of *soma* and *nous* that *psyche* can be validly viewed as a real substance.

Even in this very limited context, we must still be very careful in how we look at and understand *psyche*. When we regard an object as a *thing*, we may do so in three distinct contexts, corresponding to the three *modi* of time in human intuition. A **Sache-thing** is an object regarded from the empirical perspective as a thing-in-the-world. Its temporal *modus* is persistence in time. An **Unsache-thing** is an event regarded as an Object from the empirical perspective; its temporal *modus* is succession in time. The *synthesis* of these two ideas in the empirical perspective is the idea of the coexistence of the changeable with the fixed, i.e. **state**. Its *modus* is, of course, co-existence in time. As an empirical *thing*, *psyche* is *state of Self-Existenz* of the Organized Being. This idea is an idea of functional Self-organization. In his book, *The Feeling of What Happens*, Damasio commented, "the mind is embodied, not just embrained." This is true but it does not go far enough. To this we must add, "the body is *minded*." The idea of the substantial *psyche* can be stated as "the embodied mind **and** the minded body." In order to have clear terminology for this empirical perspective of the idea of *psyche*, we will give it the name **adaptive psyche**.

In order to understand this name, we turn to the idea of the psychic *Kraft*. *Psyche* is the faculty

²¹ More precisely, a **happening** is change in appearances in direct succession in time. The unity of a happening is called an **event**. An event regarded as an Object is called an **Unsache-thing**.

of animating principles of the Organized Being and *to animate* means to give motion to or put into action. Causality is the determination of a change by which the change is established according to general rules, and so the notion of *Kraft* in *psyche* is to be viewed in terms of general rules governing change in the Organized Being's state of *Self-Existenz*. The ground for effecting such a change is disturbance from a state of equilibrium since by definition a state of equilibrium is one which is in some manner regarded as static. Now, adaptation is an alteration of a structure that accommodates the Organized Being to disturbances and restores equilibrium through either the assimilation or removal of the disturbance. Thus, the idea of the *Kraft* of *psyche* is an idea of adaptation. *The name we give to the Kraft of adaptive psyche is Lust per se.*

The notion of *Kraft* is the notion of how it is possible for us to know of the *Dasein* of an object; the idea of a *Kraft* is the exposition of how we can know the Object. As mentioned earlier in this book, *Lust* (pronounced "loost") is a word that does not travel into English very well. The feeling of *Lust* can be described as a kind of "motivated wanting" such as when one says, "I'm up for that!" Its opposite feeling is the feeling of *Unlust*. Feeling is not a *Kraft*, however, and we must delve into the *Kraft* behind the human capacities for these feelings. Our *Realerklärung* of this *Kraft* can be none but a practical explanation, and as the idea of the adaptive *psyche* is the idea of an Object from the empirical perspective, our explanation of *Lust per se* must equally be sought from the empirical perspective. From this practical-empirical perspective, *Lust per se* is the fundamental property of adaptive *psyche* for determining adaptation to a state of equilibrium in the *Self-organization of an Organized Being*. *Psyche* is the *structure* of animating principles and a structure is a system of self-organizing transformations. **Structuring** is the act of putting into effect one or more of these self-regulating transformations. It is the dynamical counterpart of organization. As Piaget put it,

From the biological point of view, organization is inseparable from adaptation: They are two complementary processes of a single mechanism, the first being the internal aspect of the cycle of which adaptation constitutes the external aspect. With regard to intelligence, in its reflective as well as its practical form, this dual phenomenon of functional totality and interdependence between organization and adaptation is found again . . . The relationships between this organization and adaptation are consequently the same as on the organic level. [PIAG7: 7] . . . Moreover, adaptation is only organization grappling with the actions of the environment. [PIAG7: 12]

Adaptation and organization are two aspects found in somatic appearances of every organism all of us agree to call "living." They are found once again in psychological studies of child development and, indeed, in the psychology of adults as well. Adaptation and organization comprise what we will call the **functional invariants** of the Organized Being. They define what we may call the two *dimensions* of the adaptive *psyche*. Adaptation is a dimension of composition in a 1LAR division of adaptive *psyche*; organization is a dimension of *nexus*.

§ 3.1 The Adaptive *Psyche*

A faculty (*facultas, Fähigkeit*) in general is the form of an ability insofar as the ability is represented in an idea of organization. Faculty represents how that ability is exhibited in experience. An ability in general is the exhibition of a change in the appearance of an object insofar as the ground for the determination of this change has its transcendental place in the Nature of that object. The matter of an ability is power (*Kraft* in the narrow sense); the form of an ability is called a faculty in the narrow sense of the organization of capacity (*Vermögen*). In the context of our present discussion of *psyche*, this is the capacity for **Self-organization**.

Making a second analytic division in the representation of the faculty of adaptive *psyche*, we arrive at the 2LAR shown in Figure 4.3.1 below. For the adaptation dimension, we divide the matter of psychic *Kraft* of composition into extensive form of composition (Quantity) and intensive matter of composition (Quality). We give Quantity in adaptive *psyche* the name somatic *Kraft*. **Somatic *Kraft*** is defined as the power of *soma* to either produce or suffer effects. *Soma* is the substance of body in the logical mind-body division of the Organized Being and, as such, is the extensive character of composition of the appearances of the Organized Being. Thus, the power we attribute to *soma* to effect changes in appearance is an idea of Quantity. **Noetic *Kraft*** is the power of *nous* to produce or suffer effects. *Nous* is the substance of mind in our mind-body division, thus constituting the intensive character of composition of the appearances of the Organized Being. Therefore the power we attribute to *nous* to effect changes is an idea of Quality.

Next we turn to the form of capacity (*Vermögen* of *nexus*) in the 2LAR of the adaptive *psyche*. Here the division takes place in terms of the physical *nexus* (Relation) and the metaphysical *nexus* (Modality). Now, the capacity idea in adaptive *psyche* is the idea speaking to the organization dimension, and in the context of adaptive *psyche* what we are speaking of here is the organization

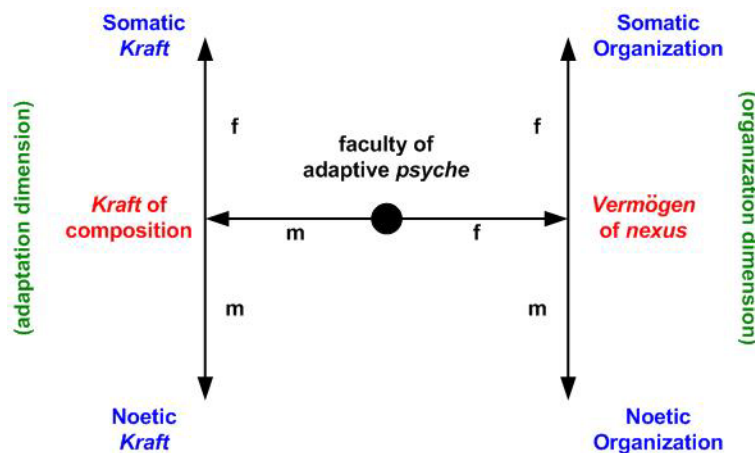


Figure 4.3.1: 2LAR of the faculty of adaptive *psyche*.

of changes through *nous-soma* reciprocity. Put into other words, the *nexus* of the adaptive *psyche* is the organizational form of adaptations (the "inner aspect" of animation, as Piaget might have put it). Because *soma* is the physical dimension of the mind-body division, **somatic organization is the somatic structure of adaptation in *nous-soma* reciprocity**. It is Relation in the 2LAR of the faculty of adaptive *psyche*. *Nous*, on the other hand, is the substance of a supersensible Object (mind) and so belongs to the metaphysical *nexus*. **Noetic organization is the noetic structure of adaptation in *nous-soma* reciprocity** and occupies the title of Modality in our 2LAR. **It is the *nexus of meanings in nous-soma reciprocity***.

We will not proceed from here immediately to synthetic *momenta* under each of these four headings. The reason for this precaution lies with the peculiar transcendental place occupied by the division of *psyche* in the Organized Being model. Unlike *soma* and *nous*, *psyche* occupies the most peculiar and *noumenal* border region between experiences of outer sense and experiences of introspection (which comes from understanding and therefore provides personal and subjective experiences of inner sense). The division of *psyche* is not itself an Object of immediate experience, and for us under Critical epistemology all our ideas of its structure can hold none but practical objective validity. Its theory belongs to facet B and our great challenge will be to locate aspects of it that can yield up principal quantities, and indeed to verify that principal quantities are found in it at all.

§ 3.2 The Sensorimotor Idea

Kant's Critical Philosophy divides the field of metaphysics into three endeavors: (1) Critical epistemology (Critique), also called transcendental metaphysics; (2) metaphysics proper (Rational Physics, Psychology, Cosmology, and Theology); and (3) applied metaphysics. Every proper science, if it is to be solidly grounded upon objectively valid general principles, requires its own applied metaphysic. This applied metaphysic serves to connect the requirements of metaphysics proper to the paradigms and practices of the special science. It is an unfortunate state of affairs today that *none* of our special sciences can today claim to be grounded in a *scientific* doctrine of an applied metaphysic. It is rather the case that all the special sciences rely, implicitly, on metaphysical presuppositions held by its various practitioners, and even here the claim cannot be legitimately made that these practitioners share a common base of metaphysical presuppositions. All that can be claimed for today is that the community of scientists, each in their respective fields, conform to a set of loosely defined accepted practices, and these practices constitute the paradigm (or, in some cases, paradigms) of that special science. It would not be unfair or untrue to say that physics today enjoys the most well developed paradigm and psychology perhaps the

least developed and most fragmented *set* of paradigms. Perhaps only the science of education is more lacking in and more in need of a well developed paradigm, if indeed one is willing to concede that education is practiced as a science rather than an art, an assertion many people would be prepared to dispute.

Every special science has its own Objects of study and these serve to both define and limit the *topic* of that science. The science can speak with authority – of greater or lesser extent depending on the state of development of that science – only on matters contained in its topic. Outside of its topic, it cannot validly claim to speak with authority at all. The psychologist, *as* psychologist, cannot offer discourse upon the atom; the physicist *as* physicist cannot speak with any authority whatsoever on mental phenomena. Physics deals in dead matter and nothing whatsoever in its paradigm grounds such ideas as emotions, motivations, thinking, or cognition. There are no happy or sad electrons; there are no pontifical cells; there is no mind dust. Likewise, physiology – the marriage of physics, chemistry, and biology – deals only in dead matter and likewise cannot address mental phenomena with scientific authority. A science is a systematic doctrine with a methodology for discovering generalizing ideas (theory) for explaining phenomena within its chosen topic. No special science can legitimately claim the title of "queen of all the sciences"; to so claim is nothing but a pretentious and empty boast. Neither can philosophy make this claim until and unless its practitioners practice it *as* a science; the name of such a science is metaphysics.

Generalizing ideas are never given in or by empirical facts and thus *theory* is never given in or by empirical facts. A theory is nothing else but the organized structure of generalized scientific ideas. If a theory is to claim objective validity its generalizing principles must have a *rational basis*. A *system* of such rational principles, limited by and applied to the Objects of the science, is called the **applied metaphysic** of that science. A *Critical* applied metaphysic provides a *transition* from metaphysics proper to the special science for which it is the applied metaphysic. Kant tells us,

The transition from one science [metaphysics] to the other [the special science] must have certain intermediate concepts, which are given in the one and applied to the other, and which thus belong to both territories alike; otherwise this advance is not a law-like transition but a leap in which one neither knows where one is going nor, in looking back, understands from whence he came. [KANT: 21 (525-526)]

It is the applied metaphysic that provides this transition.

Because of the precarious position it occupies in the Organized Being model, with one foot (so to speak) in *soma* and the other in *nous*, it is crucial that the bridge-like transition that is the role of the logical division of *psyche* have firm foundations, i.e. an applied metaphysic of its own. We

call this metaphysic the sensorimotor idea. **The sensorimotor idea is the applied metaphysic of Self-Existenz for the Organized Being model.** The deduction and development of the sensorimotor idea is set down in chapters 6 and 15 of *CPPM*. In keeping with the objectives of *this* book on the *principles* of mental physics, we will not repeat this work of deduction here but simply state and explain its outcomes.

In a 2LAR illustration of the sensorimotor idea, the synthetic *momenta* under the titles of Quantity, Quality, Relation, and Modality are grouped into three functional ideas: (1) the transcendental sensorimotor idea; (2) the empirical sensorimotor idea; and (3) the data of the senses. **The transcendental sensorimotor idea** is the idea for employing the acroams of metaphysics proper to the connection of *psyche* with its condition, namely the transcendental Subject (the Object of Rational Psychology). From metaphysics proper, the transcendental *I* is a *noumenon* which we must regard: (1) in Relation as a substance; (2) in Quality as simple (that is, the transcendental *I* suffers no possibility of any real division); (3) in Quantity as identity in one and the same Subject throughout the multiplicity of time (there is only one *I* for the Organized Being); and (4) in Modality as the necessary *Dasein*, in respect to which all objective perceptions must be regarded as accidents of *Existenz* (appearances) [KANT: 4 (A404)]. The transcendental sensorimotor idea is deduced by applying the Ideas of Rational Theology to obtain the pure and *a priori* boundaries in Reality²² of what we can attribute to Self-Existenz as a phenomenon. In terms of our general ideas of representation, the transcendental sensorimotor idea is

transcendental sensorimotor idea = {identification, agreement, the internal, the determining factor}.

The empirical sensorimotor idea is the bridgehead idea linking the metaphysics of *psyche* to phenomenal experience. Kant called the science proper of the rules of actual human behavior by the name **practical anthropology** and the empirical sensorimotor idea is deduced from Kant's pragmatic view of this topic. More specifically, the empirical sensorimotor idea is obtained by applying Rational Physics to the appearances of the Self to understand how we are to regard the accidents of appearance in regard to *psyche*. This application obtains from the Ideas of Rational Physics the concepts and ideas of Self-Existenz. In terms of our general ideas of representation, the empirical sensorimotor idea is

empirical sensorimotor idea = {differentiation, opposition, the external, the determination}.

The data of the senses is the transitional sensorimotor idea taking us from metaphysics to empirical science (neuroscience, empirical psychology, etc.). It provides the metaphysical rules to which a proper empirical anthropology must adhere. The transition is obtained from a synthesis

²² Recall that the Object of Rational Theology is Reality.

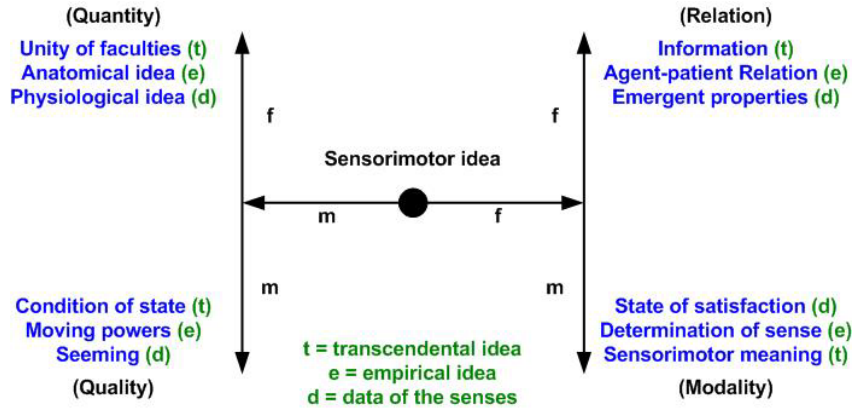


Figure 4.3.2: 2LAR of the sensorimotor idea.

of the transcendental and empirical sensorimotor ideas. Because it is the outcome of a synthesis, the data of the senses in terms of our general ideas of representation becomes

data of the senses = {integration, subcontrarity, the transitive Relation, the determinable}.

Figure 4.3.2 illustrates the 2LAR of the sensorimotor idea with its twelve functions of synthesis (the ideas of its *momenta*). The synthesis of the *momenta* of the sensorimotor idea is carried out under the restrictions imposed by three general principles: (1) the principle of the real unity of the Self (which is grounded in Rational Theology); (2) the principle of organization of the empirical Self in terms of the logical divisions of *nous*, *soma*, and *psyche* (which is grounded in Rational Physics); and (3) the empirical principle of sense and motor *modi* in mind-body reciprocity (which is grounded in Rational Cosmology). These principles are applied, respectively, to the transcendental sensorimotor idea, the empirical sensorimotor idea, and the data of the senses. In all three cases, the context of the synthesis falls under the restrictions imposed by Rational Psychology since the Object of this context is the Self. It is worth reminding ourselves at this point that the Object of Rational Theology is Reality, that of Rational Cosmology is Nature, and that of Rational Physics is all objects of outer sense. Thus, the transcendental sensorimotor idea deals with the real Self, the empirical sensorimotor idea with the Self as Object, and the data of the senses with the doctrine of the Self in Nature. The deduction of the sensorimotor idea thus brings to bear the scope of Critical metaphysics proper on the idea of a science of the real Self as object in Nature.

Quantity in the transcendental sensorimotor idea brings the real Self under the transcendental Idea of *entis realissimi* in Rational Theology. The result is the idea of **unity of faculties**: **Biological and mental faculties are merely coordinate representations of one and the same real faculty**. Quantity in the empirical sensorimotor idea brings the empirical appearances of sensorimotor phenomena under the Axioms of Intuition in Rational Physics. The result is called

the **anatomical idea**: Complex sensorimotor phenomena are representable in terms of arrangements of parts of the Organized Being. The anatomical idea is a generalized idea of anatomy, i.e. that there is an anatomy of *nous* as well as an anatomy of *soma* and the overall anatomy of the Self is the combination of these two as coordinated parts. It emerges from these syntheses that Quantity in the transcendental sensorimotor idea is identification and Quantity in the empirical sensorimotor idea is differentiation. Quantity in the data of the senses is the synthesis of these two results under the restrictions imposed by the Idea of Quantity in Rational Cosmology (absolute completeness of the composition of the given whole of all appearances). The result is the **physiological idea**: The unity of faculties regarded in terms of organized anatomy is the entirety of all functions and vital processes of the Organized Being. In biology the physiology of an organism is defined as "the processes that occur within living organisms, including interactions between cells, tissues, and organs and all forms of intercellular communications, both energetic and metabolic." The physiological idea is a generalization of this concept to include the mental processes, powers, and transformations.

Quality in the transcendental sensorimotor idea is the idea of accordance of the condition of the faculties of Self with the real in appearance. The synthesis brings this idea of the state of the Self under the transcendental Idea of *ens originarium*. From the empirical perspective the idea of "state" is that it is the coexistence of the changeable with the fixed; coupled to this is a transcendental perspective (that is, a perspective with regard to Rational Psychology)²³, namely that *state is a coalition of representations which, along with the representation of the effect of a stimulus, is sufficient to uniquely determine empirical consciousness*. Hence the state of the Self is an idea of the complete condition of the unity of faculties in the Organized Being. *Ens originarium* is the transcendental Idea of the real *in* appearances of a thing. The synthesis of these two terms yields the idea of the **condition of state**: There exists a one-to-one correspondence between apprehensive and biological states. Like the other ideas of *momentum* in the sensorimotor idea, this is an acroamatic theorem in the applied metaphysic of *psyche*.

Quality in the empirical sensorimotor idea brings the concept of **motion** (change in external Relations) under the notion of **cause** (that which contains the ground of the actuality of a determination or of a substance). The synthesis of the concept of motion with the notion of cause brought under the Idea of Anticipations of Perception in Rational Physics is merely the idea that

²³ A **reflective perspective** is an objective perspective for evaluating philosophical concepts with regard to metaphysics. In Critical epistemology the 2LAR division of perspective yields four reflective perspectives. The logical perspective is perspective with regard to Rational Physics. The transcendental perspective is perspective with regard to Rational Psychology. The hypothetical perspective is perspective with regard to Rational Cosmology. The empirical perspective is perspective with regard to Rational Theology. Thus, every concept has a four-fold context of metaphysical interpretation from the theoretical Standpoint.

the object causes the motion. The power to cause changes in external Relations is called a *moving power* and thus we have the empirical sensorimotor idea of **moving powers**: The Self possesses *moving powers*. When we combine the ideas of condition of state and moving powers in a synthesis under the restrictions of Rational Cosmology (absolute unity of the conditions of all objects of thinking in general) we obtain for the idea of the data of the senses the idea of **seeming**: There are conditions of state in which the representations of sensibility completely contain the possibility of perception under the principle of formal expedience in reflective judgment. The idea of seeming understands the condition of state as representations of sensibility containing the grounds of causality for the Organized Being, and this speaks to receptivity in *psyche* as a power of co-determination of *nous* and *soma*. It is an idea of subcontrarity; as Kant put it,

Seeming is not true and also not false, for it is the inducement for a judgment of experience. Seeming must thus be distinguished from appearance. Appearances lie in the senses, but seeming is only the inducement for judging from appearances . . . We note accordingly the proposition: the senses do not deceive. This happens not because they judge correctly but rather because they do not judge at all, but in the senses lies the seeming. [KANT: 28 (234)]

Moving now to Relation, the transcendental sensorimotor idea of Relation brings the idea of a complete unity of representation of *nous* and *soma* (an idea that stands under the transcendental Idea of Relation in Rational Psychology) under the Idea of *ens summum* (the Idea of the real substance of an Organized Being, under which *nous* and *soma* are merely accidents). Here we consider the persistent Relation between representations of *nous* and those of *soma*, i.e. that these representations are but two sides of the very same coin. The essence of representations is that they *represent* something, and here in the context of Relation in the sensorimotor idea this is nothing else than the transcendental object of the idea of **information**: Information is that which is persistent in the coordinated representations of *nous* and *soma*. It is interesting to note in passing that the science of *information theory* speaks to how one determines (measures) the *amount* of information in a representation but stands mute on the question of what information *is*. Information theory treats information as a primitive *noumenon* and by doing so posits no more than its mere logical possibility. This is to say information theory holds that there can be *equivalent data representations* ("codes") that are equivalent in the sense that they represent *the same* information. Here in the transcendental sensorimotor idea of Relation we find the *real ground* for the objective validity of information and establish the ground of objective validity of this concept *for* information theory. The transcendental sensorimotor idea of information is likewise the real ground for all endeavors in theoretical neuroscience to discover what has come

to be known as "the neural code." Until now the *Dasein* of a "neural code" has been nothing more than the problematical object of a conjecture first put forth by John von Neumann [NEUM] in the 1950s. Our transcendental sensorimotor idea of information establishes the *real* and *necessary Dasein* of the neural code and gives the condition necessary for recognizing it. This condition *requires* the science of mental physics if the neural coding hypothesis is to be moved from mere mathematical speculation to real standing in any objectively valid theory of mind-brain.

The empirical sensorimotor idea of Relation is obtained from the application of the Idea of the Second Analogy of Experience in Rational Physics to the practical anthropology of sense. This gives us a three-fold idea for the *modi* of the power of receptivity in the determination of sense, an idea perhaps best understood as a *filtering function*. This is the idea of **agent-patient Relation**:

interior sense:	<i>nous</i>	→	<i>psyche</i>	→	<i>nous</i> ;	(reflective receptivity)
outer sense:	<i>soma</i>	→	<i>psyche</i>	→	<i>nous</i> ;	(psychonoetic receptivity)
internal sense:	<i>nous</i>	→	<i>psyche</i>	→	<i>soma</i>	(psychosomatic receptivity).

Here the left-hand terms stand as the determining agent of sensible change, the right-hand term as the patient that receives the change. *Psyche* determines by acting in the role of a sense filter.

When we combine the ideas of information and agent-patient Relation under the condition of the transcendental Idea of Relation in Rational Cosmology we combine the idea of information (the substance of all representations which contains the ground of "in-forming" the *Existenz* of the Self) with agent-patient Relation (the determining of sense) to arrive at the idea of **emergent properties: Complete reciprocity in Self-organization whereby the integrity of the Self as a structure is maintained**. This is a transitive idea of three *modi* of co-determination in the general principle of emergent properties, namely the reciprocal co-determinations of

<i>soma</i>	↔	<i>soma</i>	(intra-somatic community in biology)
<i>nous</i>	↔	<i>nous</i>	(intra-noetic community in empirical psychology)
<i>nous</i>	↔	<i>soma</i>	(the general psychophysical idea).

Finally we come to the *momenta* of Modality in the sensorimotor idea. For the transcendental sensorimotor idea the form of *nexus* is information. When we move to consider the matter of this *nexus* we consider the connection of information with *knowledge*. Information is "the in-forming substance" but this idea is without practical meaning without the additional modal concept of knowledge (information *per se* is not knowledge; this is why information theory is not a theory of epistemology). The unity of information in knowledge (under the Idea of Modality in Rational Psychology) subsumed under the transcendental Idea of *ens entium* (where we find the necessity of the reality of the Self) is the idea of the determining factor of **sensorimotor meaning: Biological signals have meanings in terms of mental representations and mental representations**

have meanings in terms of biological representations. Meanings are the *materia circa quam* around which all the various sensorimotor representations acquire Self-relevance.

We have heretofore been freely employing the word "sense" with the tacit presupposition that the idea of "sense" has real (rather than merely logical) objective validity. This is the standard practice in both neuroscience and psychology, which treat "sense" as a primitive term. (Physiology does not even use the word "sense" as a technical term; rather, it uses the term "sensory modalities"). The empirical sensorimotor idea applies the second Postulate of Empirical Thinking in General from Rational Physics²⁴ to the collective set of phenomena we regard as exhibitions of "the senses" to establish the idea of **determination of sense: The *Dasein* of sense *per se* is actual**. The significance of this idea is that it grounds our idea of sense in metaphysics proper and turns it from a mere logical presupposition to an idea of an Object with real objective validity in experience.

The idea of Modality for the data of the senses is again found from a synthesis of the other two *momenta*. Here the synthesis of sensorimotor meaning (the determining factor) with determination of sense (an idea of determination) yields the idea of the determinable in sense. The synthesis is again conditioned by the transcendental Idea of Modality in Rational Cosmology to yield the idea of **state of satisfaction: The *materia ex qua* of sensibility is determinable for a state of well-being or ill-being in the Organized Being**. This idea establishes the real possibility of affective perception in the Organized Being.

If we look back now in retrospect at the twelve sensorimotor ideas, one may be struck by the feeling that all this has been much ado about very little. It may seem that these ideas are almost trivially self-evident, especially since they have lain inherent in many of the discussions presented in the earlier chapters. The significance and importance of the sensorimotor idea lies less with the twelve *momenta* themselves than with the exposition of their real ground in metaphysics proper and the principles of their application (the data of the senses) in making the epistemological connection of fundamental metaphysical principles to theoretical neuroscience and empirical psychology, i.e. to an *empirical* science of mental physics. The Object of the data of the senses is *noumenal* sense and the four ideas of the data of the senses are ideas of the *Existenz* of sense in the coordination of somatic activity and noetic representation. Sense *per se* is a *noumenon* (hence, supersensible) but the *Existenz* of sense is phenomenal. It is in the representation of the *Existenz* of sense, and there alone, where we can, in Kant's words, make the idea of sense *recognizable in*

²⁴ This Idea is: What coheres with the material conditions of experience (sensations) is actual (theoretical Standpoint); that which coheres with the material conditions of meanings (somatic motoregulatory expression) is actual (judicial Standpoint); the act of reflective judgment that coheres with the condition of the manifold of rules (in pure practical Reason) becomes an action (practical Standpoint).

practice. The data of the senses gives us the practical *Realerklärung* that must ground all empirical ideas of sense in psychology and neuroscience.

§ 3.3 *Lust-Kraft*

As stated earlier, the idea of a *Kraft* is the exposition of how we can know an Object. In the case of *psyche*, the organized structure of animating principles of *nous-soma* reciprocity, the persistent Object is the adaptive *psyche* as the object of persistent reciprocity in the co-determinations of *nous* and *soma*. The *Kraft* of the adaptive *psyche* is *Lust per se* and we must now undertake the exposition of the practical *Realerklärung* of this idea. We will do this in two stages corresponding to the ILAR division of *Kraft* as matter of action and form of act. To the former we give the name *Lust-Kraft*. The latter we will call *Lust-Organization*, the act of Self-organization in *psyche*, by which we denote the determination of *Lust per se* as a cause of the accidents of Self-organization. *Lust-Kraft* is *Lust per se* in the adaptation dimension of the adaptive *psyche*; *Lust-Organization* is *Lust per se* in the organization dimension of *psyche*.

Synthesis of the idea of *Lust-Kraft* requires we augment the basic idea of *Kraft* with another *context-providing* idea and so the first question we face is: What is the context idea for the action of *Lust per se*? Action is change in appearance of accidents and our understanding of any action involves the possibility of perceiving this change regardless of whether the appearance in question is sensuous or merely intellectual. But perception belongs to the division of *nous* and in *nous* we have one structure where the sensuous and the intellectual coexist in *one* representation. Referring back to Figure 4.1.1, it is easily seen that this structure is the faculty of pure consciousness.

Lust per se, however, belongs to the division of *psyche* and so the synthesis we must make is one in which our two poles of synthesis cross a boundary line in the divisions of Organized Being. Even though this boundary line is a merely logical division, the faculty of pure consciousness and the adaptive *psyche* are non-homogeneous representations because they belong to different manifolds of representation. Thus, the specific synthesis operation we must undertake here is *transcendentally different* from those of the previous subsection (e.g. the synthesis of an idea of identification and an idea of differentiation to obtain an idea of integration). That synthesis is a synthesis of homogeneous parts and is what we may call a *proper* synthesis. The synthesis of non-homogeneous parts for the idea of *Lust-Kraft* is not such a proper synthesis and is better called an **anasyntesis** since, as we are about to see, it first involves an analytic division of the factors being synthetically combined followed by a synthesis of the resulting ILARs. This is a rather subtle fine point required in Kant's epistemology-centered transcendental Logic.

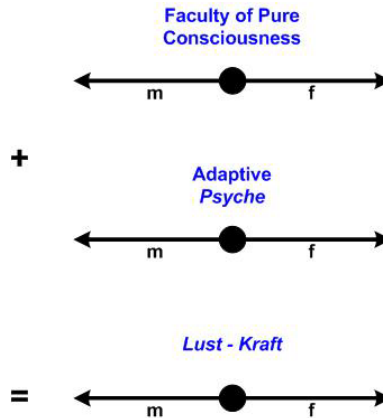


Figure 4.3.3: First stage in the anasynthesis of *Lust-Kraft*. Because the factors in the synthesis are non-homogeneous, this division must be followed by a second division forming a 2LAR of each term. These 2LARs are then combined in synthesis, which produces a 4th Level Synthetic Representation (4LSR).

Figure 4.3.3 illustrates the first stage, an analytic division, in the synthesis of *Lust-Kraft*. However, we cannot proceed directly to the combination of terms at this stage because of the non-homogeneity of the factors being combined. Specifically, we cannot combine matter with matter or form with form here because these matters and these forms are not homogeneous with one another. Because of this non-homogeneity, we must combine matter with form in the synthesis in order for the outcome to be a proper representation (all representations are combinations of matter and form). Consequently, we proceed to a second division (which produces 2LARs for each term). This provides us with one matter term and one form term for each of the resulting *four* permutations of combination that result. This will produce the 2LAR of *Lust-Kraft* as the final result. The synthesis is called a 4LSR (4th level synthetic representation).

Recalling that Quantity is form-of-the-matter, Quality is matter-of-the-matter, etc., the four permissible combinations in the 4LSR are found by tracing the lines of the 2LAR divisions of each factor to the point where they meet in combination. For example, the powers of sensibility (Quality) in the faculty of pure consciousness traces *outward* as composition followed by matter of composition, which we denote as mm. Tracing out along the composition of adaptive psyche to reach its *form* of composition, we have composition (m) followed by form-of-composition (f) to obtain mf. The synthesis of these terms then gives us, symbolically,

$$mm + mf \rightarrow mm.$$

Here, and in the other three anasyntheses, the term for the faculty of pure consciousness is written first, followed by the term for the adaptive *psyche*. This ordering cannot be commuted. By analogy with classical logic, the first factor we will call the **major term**, the second the **minor term** (which is subsumed under the major term). Then to trace back to the synthesized representation, we begin at the *endpoint* of the major term (mm), since this is the contact of the

minor with the major, and perform the *conjunctio* to reach the point of conjunction along the *initial* path (mf) of the minor. The four permissible anasyntheses that result from this procedure are:

- (Quality + Quantity): **mm + mf → mm** (matter-of-the-matter = Quality);
- (Modality + Relation): **fm + ff → mf** (matter-of-the-form = Modality);
- (Quantity + Quality): **mf + mm → fm** (form-of-the-matter = Quantity);
- (Relation + Modality): **ff + fm → ff** (form-of-the-form = Relation).

Note that this algorithm (rule of 4LSR synthesis) always makes the minor term (adaptive *psyche* in this case) the factor that determines if the synthesis is composition or *nexus*, whereas the major term determines if the synthesis is matter or form of the former.²⁵ The genesis of these four synthetic conjunctions is easily visualized using the representation in Figure 4.3.4 below.

The faculty of pure consciousness stands as the major term in our 4LSR synthesis because the *I* of transcendental apperception (the transcendental Subject) is the *absolute ground* of Organized Being and is therefore the *condition* (major term) of the synthesis. The faculty of pure consciousness, not the adaptive psyche, represents the *Existenz* of this apperception. The minor term is what is conditioned in the synthesis (an episylogism). Without further ado, let us now carry out the synthesis to obtain the 2LAR of *Lust-Kraft*. We have:

- Processes of adaptation + Noetic Kraft → Adaptation performance (Quantity);
- Powers of sensibility + Somatic Kraft → Adaptation measurement (Quality);
- Processes of judgment + Noetic Organization → Act of evaluation (Relation);
- Powers of perception + Somatic Organization → Act of innovation (Modality).

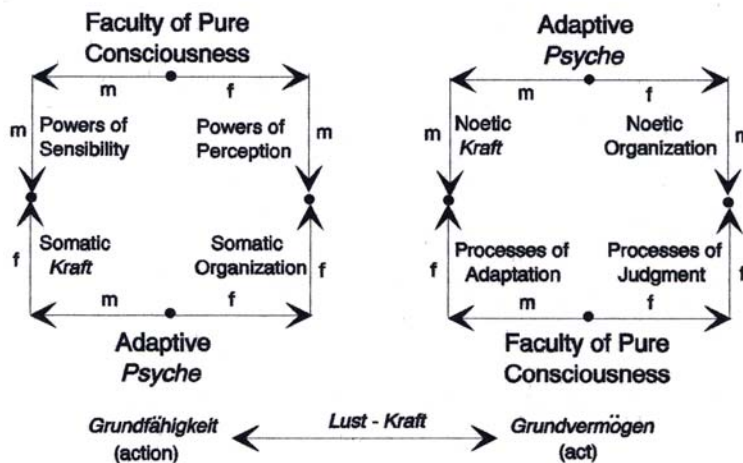


Figure 4.3.4: Alignment of synthesis terms in a 4LSR of *Lust-Kraft*.

²⁵ There is a deceptive semblance between this rule of anasynthesis and the well known first figure of the classical syllogism. Syllogisms in the first figure are written (M-P) + (S-M) → (S-P). If this were an anasynthesis rather than a syllogism, the outcome would have been (P-S) instead. The difference comes from the fact that the classical syllogism is a deductive analysis, whereas an anasynthesis is a synthesis.

Noetic *Kraft* (the minor term) regarded as a process of adaptation (assimilation, accommodation, and equilibration in the major term) can be called **adaptation performance** (an idea of Quantity) because noetic *Kraft* is the power in the adaptive *psyche* for *nous* to produce or suffer effects and a process is the form of a capacity. Somatic *Kraft* regarded as a power of sensibility can be called **adaptation measurement** because somatic *Kraft* is the power in the adaptive *psyche* for *soma* to produce or suffer effects and powers of sensibility is the matter of a capacity. Adaptation *per se* is the form of an action but the possibility of *knowledge* of this action is grounded in sensibility. Thus, for overt physical activity the Quality of *Lust-Kraft* lies in the receptivity of *psyche* while the Quantity lies in its motoregulatory expression. The same is true for covert activity (actions of thinking, etc.) insofar as the somatic correspondence (brain activity) to mental actions (ratio-expression and spontaneity of *nous*) is concerned. The sole difference in this case lies in how the effect in sensibility is filtered in a *pure* mental action and a large measure of the *materia sensibus* in sensibility is provided by the act of reproductive imagination (interior sense). This *materia*, however, is *originally grounded* in prior cognitions of experiences of sensorimotor actions (outer sense). Somatic action is involved (brain activity, somatic actions through the endocrine and limbic systems of the brain, etc.); the distinction is that the *appearance* of the action is covert (not displayed to another observer without the aid of instruments that extend the reach of his organic senses). Receptivity, likewise, is involved except that the *sensibility* is now *primarily* determined ("filtered") in the receptivity *modus* of interior sense (*nous* → *psyche* → *nous*).

Noetic organization regarded as a process of judgment may be called an **act of evaluation**. In Critical epistemology **value** is the form of Relation of an affective perception of desire presented in a reflective judgment and linked by reflective judgment to both motoregulatory expression and to the appetitive power of pure practical Reason. A **valuation** is the practical validation of actions (judgment of formal compliance of the action to the condition of the master regulative formula of pure practical Reason) and is an act of practical judgment. Practical **validation** is a determination of appetitive power (in pure practical Reason) permitting motoregulatory expression of all or part of the manifold of Desires by impetuous reflective judgment. (Strictly speaking, validation is not a positive act of Reason. Reason actively *veto*es expression and so Reason's act would be called an invalidation. The positive act of practical Reason occurs with ratio-expression). **Evaluation** is conscious representation reflecting the judgment of validation (or invalidation). Pure practical Reason knows no objects and knows no feelings and so the possibility of validation requires *organized actions* of *nous-soma* reciprocity and the *act* of evaluation thus belongs to the *Lust-Kraft* of *psyche* as Relation.

Finally, somatic organization (the somatic structure of adaptation in *psyche*) regarded as a power of perception may be called an **act of innovation**. Earlier *anticipation* was defined as knowledge through which an Organized Being can recognize and determine *a priori* what belongs to empirical cognition. In Critical epistemology a **fact** is a phenomenon for which the representation in the manifold of concepts bears assertoric logical Modality. **Innovation** is a condition of *Existenz* in which there exists an incongruence of fact with an anticipation. What we are calling an innovation some psychologists would term a "disturbance." The *act* of innovation is a *reorganization* undertaken in the *Existenz* of the Organized Being as a whole. It therefore belongs to the *Lust-Kraft* of *psyche* and is matter of the form of *Lust-Kraft* (Modality).

To summarize this section: *Lust-Kraft* is the psychic power of adaptation understood as a fundamental property (a *Grundeigenschaft*) of the Self. Its *Dasein* is grounded in the transcendental necessity of persistent and thorough-going *nous-soma* reciprocity in the *Existenz* of the Organized Being. It belongs to the adaptation dimension of *Lust per se*.

§ 3.4 *Lust-Organization*

Lust-Kraft is the matter of *Lust per se* and by another name could be called the adaptive power of the Organized Being. Now, adaptation as an event must follow some course of action and such a course is called a process. Adaptation is Self-structuring in action and so any process of adaptation is an *organized* process and is formative for the Organized Being. We call the form of *Lust per se* **Lust-Organization** and it constitutes the organization dimension, i.e. the connected manifold in *Lust per se*.

Now, any process of adaptation, as an organized process, must contain in its organization four essential factors. First, there must be a rule or rules governing the process of transformation effected by adaptation as a *causatum*. Second, there must be some means by which the measured performance of the adaptation is regulated. Third, there must be some determination of impelling cause standing as the reason the adaptation occurs. Fourth, there must be some criterion against which the outcome of the adaptation can be compared and judged. These factors speak to Quantity, Quality, Relation, and Modality for *Lust-Organization*. These are always encountered, either explicitly or implicitly in the concept of a system, in all cases where we say of a phenomenon that it is an adaptation.

Lust-Organization is the *nexus* of a manifold in which the matter is *Lust-Kraft*. We therefore seek its 2LAR through a synthesis that combines *Lust-Kraft* with some context-providing idea of *psyche*. Our synthesis this time is a synthesis of the homogeneous because both these factors belong solely to the logical division of *psyche*, and the synthesis is thus a proper synthesis.

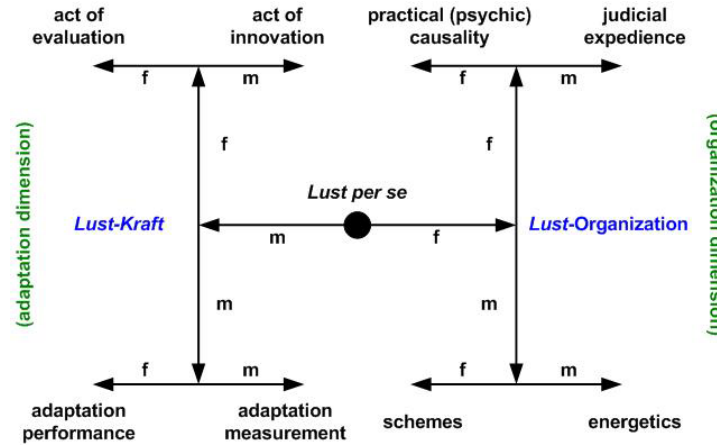


Figure 4.3.5: 3LAR structure of *Lust per se*.

The representation just described for *Lust per se* presented a 2LAR for *Lust-Kraft* and the synthesis just described likewise prescribes a 2LAR for *Lust-Organization*. From this we can see that the representative structure of *Lust per se* is a 3LAR. Figure 4.3.5 illustrates this, and we must now carry out the synthesis for which the outcomes are the titles shown in this figure.

Now, all our understanding of *psyche* is and must be a practical understanding because *psyche* is a *noumenon* and the ground of the objective validity of its idea is phenomenal experience. We find our context-providing term nowhere else than in the applied metaphysic of *psyche*, and here we must look for its organizational structure in an idea of {integration, subcontrarity, the transitive, and the determinable} because these are the ideas of representation of appearances understood as phenomenal experience. This idea is, of course, none other than the data of the senses. *Sense per se* and *Lust-Kraft* both belong to *psyche* as properties in the same logical division, in which *psyche* is regarded as containing a logical manifold. The relationships of *Lust-Organization* are consequently inner *logical* relationships (logical essence). As Kant tells us,

When we talk of the essence of things, then it proves to be of the logical essence (that subsists in the concept), not the real essence (nature), which is dealt with in metaphysics . . . The logical essence is the quintessence of those marks that are sufficient to lead to what belongs to the essence. [KANT: 24 (728)]

Quantity in *Lust-Organization* is the synthesis of the physiological idea and the *Lust-Kraft* of adaptation performance. The physiological idea is the idea of the entirety of all functions and vital processes of the Organized Being. In the conditioned context of adaptation performance, the idea of the synthesis is the idea of systematically organized rules of transformation, i.e. a constructed manifold that organizes activities so that, as part of *structure* in an open system, these rules are repeatable and generalizable in an action. We call such an organized rule a **scheme**. *Quantity in Lust-Organization exhibits as schemes of action*. Here we have a principal *somatic* quantity.

Quality in *Lust-Organization* is the synthesis of seeming and adaptation measurement. Seeming is an inducement of sense and the idea of adaptation measurement in the data of the senses implicates a magnitude for such an inducement. In terms of the organizational 2LAR, this term stands as matter of a composition for which schemes are the form. Now, the word *energy* is used in one way to denote strength of expression and in another to denote efficacy or effectual operation. This suggests the proper name for the Quality of *Lust-Organization*. **Energetics is the intensity of inducement for effecting a scheme of action.** This is a principal *mental* quantity.

For Relation we have the synthesis of emergent properties with act of evaluation. Emergent properties are properties of self-regulation in a system. Every adaptation requires the determination of an impelling cause as ground for effecting the adaptation. *Psyche*, and therefore *Lust per se*, stands in no immediate relationship with the environment of the Organized Being, nor does it belong to either *nous* or *soma*. Therefore such an impelling cause can lie nowhere else but in the faculty of *psyche* and is thus an intelligible cause. Such a cause is and can only be a practical object and, furthermore, must be viewed from the judicial Standpoint of Critical metaphysics. Determination of a cause is called causality and so **Relation in *Lust-Organization* is nothing else than the property of practical causality in *psyche*.** Now because this term is also used in other broader contexts, we may also call Relation in *Lust-Organization* **psychic causality** when we wish to make the context with *psyche* unequivocal. It is a secondary quantity of facet B.

For Modality we have the synthesis of state of satisfaction (determinability of sense as state of well-being or ill-being) with the act of innovation (the bringing forth of a new accidental state of being). The idea of state of satisfaction is an idea of the determinable, that of the act of innovation is an idea of the determination. Their proper synthesis is therefore a synthesis that yields an idea of determining factor. Now, *expedience* is the congruence of a thing with that property of things that is only possible in accordance with purposes. The idea of Modality in *Lust-Organization* is the idea of such a thing because it is an idea of a determining factor in *Lust-Organization*. Hence, **judicial expedience is the standard-gauge of evaluation in adaptation.** It is the counterpart in *psyche* to the principle of formal expedience in reflective judgment and a secondary quantity.

§ 3.5 Equilibrium and the *Lust* Principle

Every science seeks general principles of explanation for the set of phenomena within the topic of the science. This is no less true for a science of mental physics. When a science forms logical divisions in its topic, each such division must be a *division in principle*, which is to say that each logical division must have its own governing principle that provides the basis for setting that division apart from the others. For *soma* in the Organized Being model this principle is

conformity to the empirical laws of biology which, as the physicists never tire of reminding us, are derivative (either in fact or "in principle") from fundamental laws of physics. The divisions in *nous* likewise have their principles: conformity to law for determining judgment; the principle of formal expedience for reflective judgment; the principle of final purpose for Reason; and etc. The same must be true for the division of *psyche*, and here we call this the *Lust principle*. Our task in this section is to present this principle. In doing so we will find along the way that we must also make more crisp the idea of equilibrium.

Actions lie in sensible Nature, acts in intelligible Nature. All actions undertaken by an Organized Being are actions in the particular and hence the principle of *psyche* must be a principle for *acting in the particular*. By way of comparison and contrast, the regulative principles of pure Reason are principles of transcendental perfection that speak not to the particular but rather to the general.

To adapt is in general to seek an equilibrium between assimilation (the incorporation of a representation or a scheme into a general structure) and accommodation (the modification of the existing structure to permit this incorporation). We can view this idea from the practical Standpoint only as a state of practical perfection and so from this Standpoint *Lust per se* is to be regarded as a matter of practical perfection. *To orient* oneself means to make a determination according to a subjective principle in the face of insufficient grounding in objective principles. All acting involves an orienting toward the achievement of a state of the Self according to an Ideal of perfect expedience in *Self-Existenz*. Equilibrium is the mark of recognition of such a state since a state of equilibrium contingently implicates no further need for any act of innovation.

But now we must consider carefully what we must mean by this word "equilibrium." Contrary to the usual usage of this term, *we cannot regard equilibrium as implicating the absence of further change of state*. The reason for this derives from the nature of inner sense, i.e. the pure intuition of time. A moment in time is the marking (by reflective judgment) of a representation by which that representation becomes objectively conscious as an empirical intuition. Such a marking always denotes a change of state from that which obtained in the immediately previous moment in time. If "equilibrium" meant absence of further change, there could be neither a subjective nor an objective reason (cause) for the making of a mark and, quite literally, *time would cease* for the Organized Being.

It follows that the idea of equilibrium can have objective validity only in a very specific and restricted way, namely as *the cessation of further innovations in the totality of the state of Existenz of the Organized Being*. Here is where we find the transcendental ground for the idea of a **life cycle**. An anticipation is knowledge before-the-fact (*a priori*) by which the Organized

Being can recognize and determine what belongs to empirical cognition. A subjective innovation denotes a condition of *Existenz* in which there exists a perception of incongruence between fact and anticipation. We define a **sensible cycle** as a recurring succession of accidents of *Existenz* that can be represented in sensibility and can therefore be anticipated. A cycle is constituted as a repeating series of perceptions connected as successive moments in time. Thus, although each perception within a cycle represents a change of state, the cycle *as a whole* is persistent in time, which is to say **the substance of a cycle is repetition**.

A subjective **disturbance** of a cycle can therefore be defined as **any innovation in the comparison of actual perception with the anticipation of a cycle**. A **stable cycle** is a cycle that can be resumed after a disturbance without requiring any accommodation. This means that the disturbance is either rejected (ignored) or immediately assimilated. In such a case, we have a situation in which assimilation and accommodation can be said to be "in balance" requiring no adaptation. **A state of equilibrium is therefore an actual state of *Existenz* characterized by a stable sensible cycle**.

States of *Existenz* are contingent; they can (and are) subject to being upset by subsequent events. One cycle is said to be more robust to disturbance than another similar cycle if the former is maintained in the face of an innovation while the latter would undergo adaptation or cycle rupture (the complete abolition of the cycle). **An ideal of equilibrium is an equilibrium that is absolutely robust**, i.e. can never be ruptured nor require adaptation in response to any innovation whatsoever. Obviously the idea of an absolutely robust cycle is an idea of a perfection, a *noumenal* goal for the Organized Being to strive to attain rather than a phenomenon we expect to encounter in actual experience.

There are two ways in which the Organized Being can respond by accommodation to a disturbance. In the first, the accommodation may merely change the cycle that was in play prior to the innovation and by doing so assimilate the innovation. In an only slightly metaphorical sense, we can say the Organized Being is "attracted to" the existing cycle and wishes to maintain it. In this case we say that *Lust per se* is simply *Lust* proper. The second case is one in which the cycle is ruptured and the Organized Being establishes some other and different cycle of *Existenz*. We can say that because of the innovation the Organized Being is "repelled by" this new state of affairs and seeks to abolish it by abolishing the entire situation. This is the case that we say exhibits *Lust per se* in the character of *Unlust*. In this way of looking at things, we can call *Unlust* a "negative *Lust*." In either case, the Organized Being seeks to re-establish a stable cycle. It does so because a stable cycle represents a state of judicial and practical perfection and the attainment of such a state is mandated by the formula of the categorical imperative of pure practical Reason.

Considered from the judicial Standpoint, *Existenz* in a stable cycle can be called a **state of happiness** because the Organized Being feels no impulsion to change its state of *Existenz*. (This explanation of happiness is congruent with the conjecture made in 1987 by psychologists Elaine and Arthur Aron, namely that happiness is "the neutral gear" of the nervous system)²⁶. Now, to the energetics of *Lust*-Organization there correspond *feelings* of *Lust* or *Unlust* in affective perception. These feelings have intensive magnitudes with the feelings of *Lust* and of *Unlust* in real opposition to one another (*Unlust* is "negative" *Lust*). Equilibrium is represented in affective perception by the real negation of feelings of *Lust per se*, and from here we come directly to the ***Lust principle***: **Orientation in acting is the determination (in act) of an action judged expedient for the negation of the intensive magnitude of *Lust per se***. The judgment of this expedience belongs to the interplay of reflective judgment and practical judgment within judgmentation in general.

§ 3.6 The Animating Principles of *Psyche*

Psyche is the structure of animating principles of *nous-soma* reciprocity, and so it is fitting, if also somewhat premature, to state these principles now at the end of this Chapter. The statement is premature inasmuch as the deduction of these principles involves not only the considerations here in this Chapter but also the ideas of values, interests, and desires which we have not yet dealt with. Nonetheless, the general context and connotation of these ideas are sufficiently well known in a common (if still too-vague for the purposes of mental physics) dictionary sense for us to venture the statements of the animating principles at this point in the book, recognizing that we will later have to fill in some gaps.

There are four animating principles, one for each heading in Figure 4.3.1. The full deduction of these principles is found in Chapter 16 of *CPPM*, to which the reader is referred for the full import and significance of these principles. Without further ado:

The **animating principle of somatic *Kraft*** is: **Reciprocity through somatic *Kraft* is determination of a condition, called an *elater animi* ("driver of mind") through which the structuring of somatic actions expresses acts of aesthetical reflective judgment in composing the form of a system of values, desires and interests;**

The **animating principle of noetic *Kraft*** is: **The co-determination of somatic representations and affective perceptions of Quality are energetics for understanding and reasoning in the structuring of a value system and for the orienting of activity;**

²⁶ Aron, E.N. and Aron, A. (1987), "The influence of inner state on self-reported long term happiness," *Journal of Humanistic Psychology*, **27**, 248-270.

The **animating principle of somatic organization** is: Motivation is accommodation to perception and motoregulatory expression is acting to assimilate perception by adaptation;

The **animating principle of noetic organization** is: Equilibration is the activity leading to closure of the cycle of affective interaction in a state of equilibrium.

We may note that the animating principles of *psyche* are the practical *Realerklärung* for the ideas of drive, energetics, motivation, motoregulatory expression, and equilibration. Ideas that bear names similar to these in empirical psychology *must* obtain their context and meaning through a deduction from the real grounds provided by these animating principles if these empirical psychological ideas are to have real objective validity.

To close this chapter, it is fitting to remark that the subject discussed under the name *psyche* has its direct counterpart in empirical psychology in what is called *psychophysics*. The practices and paradigms of psychophysics evolved out of the mechanistic attitude of positivism that prevailed in the mid-nineteenth century. As a consequence, there has always been a displacement of the proper Object of psychophysics. Specifically, it has been concerned with attempting to subsume mental experience under the dead matter findings of physics (subordination of mind to body). The proper Object of empirical psychology is the empirical Self, and so this displacement is an ontological error in current practices. The proper focus and topic of psychophysics must be obtained through the applied metaphysic of *psyche*, namely the sensorimotor idea. Under the *noumenal* idea of the transcendental Subject we have the three-fold **base** discussed in this chapter. This relationship is as discussed above and visually depicted in a pyramid form of conceptualization below as Figure 4.3.6.

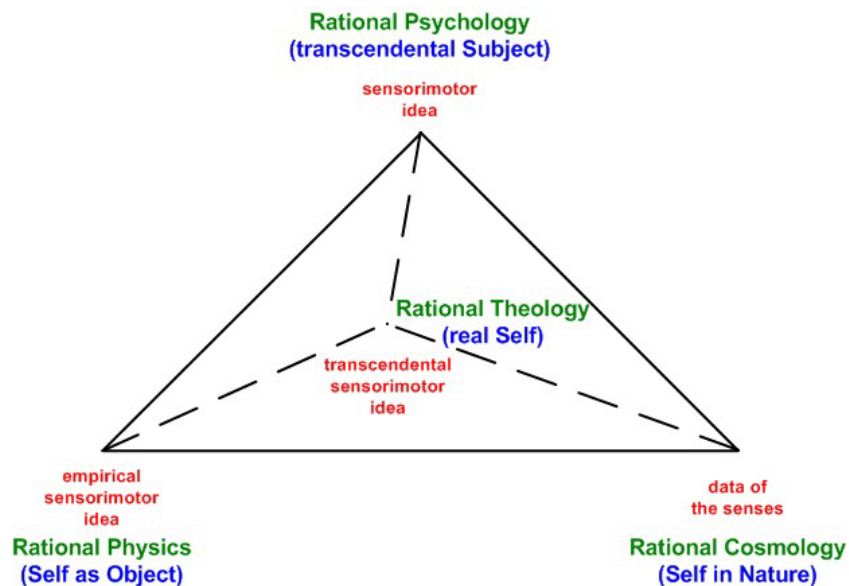


Figure 4.3.6: The pyramid structure of the sensorimotor idea.