Semiosis & sign exchange: design for a subjective situationism, including conceptual grounds of business information modeling

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Any semiotic theory built from Peirce’s triad, while leaving its irreducibility essentially intact, is representational. The ennead explains semiosis with additional dynamics oriented at a sign (engineering) and issuing from a sign (observation).

The metapattern corresponds to the ennead’s sign dimension (see Chapter 4). Through its formal concept of signature, it allows discrete shifts of focus within a model. A particular focus suggests an object, but only to the extent of exhibiting particular behavior (as represented by a foreground interpretant on the ideal dimension) in a particular situation (as represented by a background interpretant on the ideal dimension). Every change of focus yields a different configuration from the model.

Thus, as an enneadic tool the metapattern confers on conceptual models a potential for greatly increased variety. But it certainly is not the last word on representation. Chapter 6 prepares the ground for a departure from a naive (also read: objective) theory of representation.

Though the so-called mind-body problem is usually not openly addressed, a preferred solution is often implied. Traditionally, it holds that the mind, or intellect, one-sidedly controls the body. That is, the body is seen to merely wait on the intellect to execute its designs. Even when the body is obviously indispensable for sign engineering and observation, it is only conceived as an auxiliary element. Another assumption – mostly implied, too – is that the intellect is ultimately rational. The inference is then made that a sign is rational, too.

When the intellect is considered a straightforward repository of objective knowledge about an external reality, signs are supposed to be equally straightforward pictures, statements, etcetera of reality. It only marginally changes with the view that the intellect also forms intentions. With intentions once again as rational constructs, the implied solution for both the mind-body
problem and the rationality of the mind/intellect is not challenged. Still, signs are seen as one-to-one representations. An internal reality is allowed to enter the picture, with the concept of intention as a stop-gap for upholding the mind-over-body position reflecting a rational will.

The mind-body problem does not permit an empirically decisive outcome. Of course, the mind-over-body axiom seems attractive. Is not it natural to award priority to the element, i.e., the intellect, which appears to produce such an axiom in the first place?

As any designer has learned from experience, it is often an assumption that is at first counterintuitive which proves especially productive. For example, why is the number zero such a powerful invention? Because it is not a number, too. Schopenhauer performs a similarly contradictory design step where it counts most. Cutting through the paradox of what he calls the Weltknoten, he radically turns priorities around. His concept of the will is not intermediary, i.e., it is not what results from an intellect. With Schopenhauer, will is the ultimate ground. Then, a particular body is a unique objectification of the will. And a unique intellect is an irreducible part of a unique body. As such, the intellect is an instrument of the will.

It follows that the Schopenhauerean intellect is not in exhaustive, leave aside rational, control of the body. By definition, the will is in control. And the will is preintellectual. Anyway, it is from the relative and necessarily limited perspective of the intellect (which, at the same time, is all it can develop as perspective).

For the representational nature of a sign, this has three major consequences. First, and again by definition, a sign is always instrumental to the Schopenhauerean will, too. Second, the intellect is not in complete rational control of signs; the will-as-ground implies preintellectuality for signs. Third, how a sign is engineered is immediately tied up with the uniqueness of the sign engineer, and how it is observed is likewise connected with the uniqueness of the sign observer.

Subjective situationism changes through Chapter 6 yet again. It openly does not start from rationalist assumptions. It concedes fundamental irrationality, thus achieving improved rationality for concepts that are subsequently erected on the will-as-ground. And with models as signs, the body-over-mind axiom also influences how a conceptual information models is valued.

Chapter 6, the last of Part i, essentially completes the design of subjective situationism. Part ii, starting with Chapter 7, applies the ontology to human communication. It sheds penetrating light on signs, resulting in much-extended models of their representational structure.
Since Immanuel Kant (1724-1804) theories about world, subject, and their relationship as knowledge, are known as transcendental idealism. They have in common that the existence of the world holds axiomatic value. Another axiom is that a ‘knowledge entity’ exists, i.e., some ‘thing’ that is considered a separate part of the whole world. It is assumed to entertain information about the world. That part is usually called the subject. For semiotic emphasis I also call it the sign user.

A theory of knowledge is idealist when its axiomatic subject actively con-

1. Kant’s major work in this respect is *Kritik der reinen Vernunft* (1781). The English translation is titled *Critique of Pure Reason*. An earlier attempt to formulate a systematic view, based on empirical science, on the nature of knowledge makes John Locke (1632-1704) with his *Essay concerning Human Understanding* (1690). He is followed by George Berkeley (1685-1753) who writes *A Treatise concerning the Principles of Human Knowledge* (1710), and David Hume (1711-1776) with *A Treatise on Human Nature* (1739) and *An Enquiry concerning Human Understanding* (1748). A contemporary of Locke is Gotteried Wilhelm Leibniz (1646-1716) who responds with *New Essays on Human Understanding* (written in French and completed in 1704, published in 1765). The works of especially Hume are taken up by Thomas Reid (1710-1796) who writes *An Inquiry into the Human Mind* (1764). Of special interest for my ontological design is Alexander B. Johnson’s (1786-1867) *A Treatise on Language* (1828).

Transcendental idealism is a way to experience reality. Using its grounds, it is still impossible to get there, i.e., to experience reality both directly and conceptually. But I also think it is impossible to get any closer, conceptually. So, I believe that the best way to be a realist is by practicing transcendental idealism.

Anyway, it may just as well be called transcendental realism. Such a change of label no doubt increases chances for broad acceptance.
structs knowledge objects (PEIRCE: interpretants) which it assumes to correspond to world objects (PEIRCE: objects) but are different from it. Starting from such axioms it can be theorized about how the knowledge faculty (PEIRCE: intelligence or, even, scientific intelligence) of the subject operates. This line of inquiry abstracts from individual interpretants. In other words, it transcends them, as it transcends the mutual exclusion of knowledge objects and world objects. Such inquiries into the general nature of knowledge are classified as transcendental idealism.

A philosopher who considers himself a practitioner of transcendental idealism is ARTHUR SCHOPENHAUER (1788-1860). In this Chapter I demonstrate that even this label is insufficient. I promote a proper understanding of his work, as I see it being highly relevant for a wide range of present-day inquiries. For, like PEIRCE after him, SCHOPENHAUER designs his system of concepts to include behavior. However, those thinkers differ widely in several of their important assumptions, or conceptual grounds.

The relevance of SCHOPENHAUER lies in both his emphasis on grounds and his particular conceptual design of grounds. The concept of the will is fundamental to his argument. It is his single, ultimate ground. As such, it is a very different concept from what nowadays is commonly referred to as will. With a single stroke, SCHOPENHAUER integrates everything that is impossible to treat conceptually. His productive paradox is to nonetheless admit this, say, a-conceptual collection to the realm of concepts. There, it must of course be yet another concept. SCHOPENHAUER recognizes that the opportunities for rationalization are optimized by minimizing the number of such a-conceptual concepts. One, only one, special concept is necessary and sufficient: the will. It is an extraordinary design, the Schopenhauerean will. To appreciate its nature, for example compare it with the number zero. That, too, is a far-reaching design resulting from a productive paradox.

I take SCHopenhauer’s concept of the will as an invaluable inspiration to arrive at a compact yet flexible model for explaining meaning. His conceptual scheme supports my idea of absence of identical meaning for different sign users (or even of absence of identical meaning for the same sign user at different times, i.e., occurring through different semioses).

What is present, then? It is a radical subjective situationism, or situational subjectivity. This model itself, or anatomy of meaning as I call it, is developed in Part ii, particularly in Chapters 7 and 8. But first SCHopenhauer’s conceptual scheme needs detailed exposition. Without it, the anatomy of meaning that follows cannot be fully appreciated.
6.1 a structural theory beyond the mind

I review two publications by SCHOPENHAUER. They are Über die vierfache Wurzel des Satzes vom zureichenden Grunde (1813, 1847)\(^2\) and Die Welt als Wille und Vorstellung (1818, 1848, 1859).\(^3\) Of the latter I limit myself to Books 1 and 2 of its Part I. I comment upon those in §§ 6.2 and 6.3, respectively.

For a necessary introduction to SCHOPENHAUER’s major work, in this first paragraph I concentrate on Über die vierfache Wurzel des Satzes vom zureichenden Grunde. It is his first book. He submits it, successfully, as his doctoral thesis.

My summary of SCHOPENHAUER’s dissertation follows an account of the development of my interpretation of his text. I start by approaching Über die vierfache Wurzel des Satzes vom zureichenden Grunde from the perspective of a strict transcendental idealism. Indeed, SCHOPENHAUER presents a theory of knowledge faculties. He sketches how the mind is structured.\(^4\) His inquiry starts from the assumption that (p 12)\(^5\)

[nichts ist ohne Grund warum es sei.

nothing is without a ground or reason why it is.

For publication in English the title of SCHOPENHAUER’s dissertation is translated as On the Fourfold Root of the Principle of Sufficient Reason. Please note that the original term “Grund” appears as “Reason” in the English version. I don’t agree with the translator. By once translating “Grund” as “ground or reason,”

2. This text is originally published in 1813 as SCHOPENHAUER’s dissertation, earning him a doctorate in philosophy. Much later, he augments it; the second edition is published in 1847. I consult, in German, the second edition. It has been translated into English by E.F.J. PAYNE: On the Fourfold Root of the Principle of Sufficient Reason (1974).

3. E.F.J. PAYNE (see note 2, above) also translates both parts of Die Welt als Wille und Vorstellung into English: The World as Will and Representation (1958).

4. Especially famous are ideas of SIGMUND FREUD (1856-1939). His classifications of, initially, the conscious and the unconscious, and, later, ego, id and super id, are structural theories of the mind, too. That “[c]onsciousness plays a far smaller role in human life than Western culture has tended to believe” is the theme that T. NORRETRANDELS exposits in his popular account The User Illusion (1991, p ix). His book’s subtitle is: cutting consciousness down to size.

5. I have chosen to present both the original German texts, and the English translations. I don’t change the English to include my preferred terms except for changing representation to interpretant. In other cases I add comments where I favor a different terminology.

I don’t include the page numbers of the quotations’ translations; where they can be found in the English version is easily traced through the German version.
as shown above, he licenses himself to continue using the term “reason,” only. In English, I prefer ground. It avoids the confusion from which the 'official' translation suffers. For one of the four roots also manifests itself as – the faculty of – reason (Vernunft). Though context may well guide the reader for every instance to its appropriate meaning (German: Grund oder Vernunft), confusion must especially be avoided for the term reason. In any translation of SCHOPENHAUER’s thesis it also needs to retain as singular a context, and thus meaning, as possible. I point out that PEIRCE later introduces a concept called ground, too.⁶

As I already stressed, SCHOPENHAUER starts his inquiry by acknowledging the universal virtue of asking: Why? It is important to appreciate that, initially, such questioning is about existence. So, why does something in the world exist?

I have deliberately chosen this grounding of my interpretation in his concept of virtue. For it seems to me the most direct way of showing where SCHOPENHAUER’s conceptual system reflects a choice of value. Placing an emphasis on value is not his particular shortcoming, at all. For any theory implies moral judgment. Or ideology (VOLOSHINOV, 1929). Or is, to apply SCHOPENHAUER’s theory to itself, an expression of the will. An important task of the scientific interpreter – who is himself of course also value-based – is to discover those transitions between value and reason.⁷ They often occur

6. A comparison between the ground of SCHOPENHAUER and PEIRCE, respectively, has to wait for my summary of SCHOPENHAUER’s concept, later in this chapter. See also note 15 in this chapter. Of course, PEIRCE’s concept of the ground has already been treated and elaborated upon – and departed from – in Chapter 2.

7. This is my idea of deconstruction. I of course derive it from the work of JACQUES DERRIDA (1930 - ). See for example his book Writing and Difference (1967).

My privately developed metaphor is that every attempt at exposition is like an inflated bicycle tire (with my own presentation here definitely not excluded!). No matter how full the theorist pumps and fills it with air, the tire invariably has some holes. Deconstruction is about discovering where the leaks are. The harder a theorist has pumped, the easier it is to detect holes for they also widen under the additional pressure. With a well-designed tire, a moderate amount of air, and therefore minute holes, only, it helps to submerge the tire in water where bubbles make it much easier to pinpoint (pun intended) them. For holes there always are.

What I learn from DERRIDA is that close reading of a text often soon enough shows an author’s forced attempts to maintain the impression of intact air pressure in his tire. Those are precisely the locations where what I call premature contradictions arise. See § 9.1 for more details about my concept of premature contradictions. And throughout I have, at least when critically discussing an author’s work, a preference for quoting her or him where the source of contradiction(s) is most obvious. For nobody likes to ride a bicycle with (too) leaky tires; it will then fail to serve to cover sufficient distance.
right at the start of a theory’s exposition. The logic of an argument’s continuation could be flawless. What keeps bothering an interpreter may be the, often implicit, assumptions (also read: the axiomatic system, or paradigm).

What makes a study of Schopenhauer extra worthwhile is that he occupies himself especially with (basic) assumptions. That is, with ground. He shows acute awareness of its axiomatic character. In fact, one of the outcomes of Über die vierfache Wurzel des Satzes vom zureichenden Grunde is the moral dimension of assumptions. I miss in that particular work that Schopenhauer already makes his assumptions sufficiently explicit for his own exposition. The lack of reflexivity is precisely the greatest obstacle I encounter interpreting his thesis—‘sign.’

How Schopenhauer proceeds is nevertheless straightforward enough. He shifts his attention to knowledge. He refocuses his inquiry from ‘Why does something exist in the world?’ to ‘What can somebody know about the world?’ Several additional assumptions help to constitute his new focus. The steps from realism to idealism are sketched in Figure 6.1.1. Particular knowledge is possible, Schopenhauer claims, because a ground of knowledge is available. He also calls it a priori knowledge. As he directs his attention primarily toward this ground annex a priori knowledge, or knowledge faculties, his inquiry deserves the label transcendental idealist in the Kantian sense. Its assumptions are presented as related concepts in Figure 6.1.2.

The breadth of his statements indicates that Schopenhauer aims his theory at a priori knowledge in general, i.e., not restricted to a particular subject. Figure 6.1.3 is therefore more appropriate for transcendental idealism.
This ground, or a priori knowledge, is not singular and homogeneous, though. Schopenhauer classifies four “roots.” Every root determines a specific category of knowledge. Figure 6.1.4 diagrams his “fourfold root of the principle of sufficient ground.”

The articulation of the single ground into different roots clearly makes the concept of knowledge too wide for an analysis at the level of the specialized roots. Schopenhauer introduces “Vorstellungen” as the building blocks of knowledge. In the singular, his term is normally translated into English as representation. Again I am not happy with it. It lacks the connotation of initiative by the subject. Presentation, rather than representation, is already much better. The concept of reality construct (Holzner, 1968) also captures the sub-
ject’s active involvement well. With the aim of aligning—some important—concepts from SCHOPENHAUER and PEIRCE I prefer interpretant.\(^8\) This particular terminology has already gained acceptance through semiotics.

As a structural theory of the mind, SCHOPENHAUER’s system of concepts in Über die vierfache Wurzel des Satzes vom zureichenden Grunde is not completely consistent. The first two types of root he describes are easily recognizable as cognitive faculties as they are still conceived of today.

First of all, a subject has a faculty of perception (Verstand). The corresponding category of interpretants are, in English, similarly called perceptions (Anschauungen). It helps, though, to clearly distinguish the faculty from its products. I therefore prefer to call the latter perceptive interpretants. Perception is rooted in causality. Every perceptive interpretant is taken as the effect of a cause.

Secondly, a subject has a reasoning faculty (Vernunft). Reason abstracts from perceptive interpretants to form concepts (Begriffe). Concepts, SCHOPENHAUER argues, are not connected through outer-worldly cause and effect, but by logic.

It is SCHOPENHAUER’s third category of interpretants that is difficult to place in his proposed structure. He presents it as a category beyond (underlying?) the faculty of perception and subsequently the perceptive interpretants resulting from that faculty. As such, its interpretants are susceptible to reason. According to SCHOPENHAUER’s argument, they are especially evident as manifestations of time and space. However, he does not specify a cognitive faculty that ‘produces’ or ‘handles’ these interpretants.

Aiming at more formal balance—and elegance—in the model as a preparation for further inquiry I posit pairs of faculty/interpretant throughout. From the causally normative interpretants (Normalanschauungen) SCHOPENHAUER mentions as members of his third category, I propose to call the corresponding faculty that of pure mathematics or, better still, of formalization. As already indicated above, its two branches refer to time (arithmetic) and space (geometry), respectively. Following KANT, for SCHOPENHAUER this class of interpretants constitutes the a priori knowledge for perception (and perceptive interpretants constitute the a priori knowledge for reason).

The immutable condition vested in—his assumption of—causally normative interpretants already bothers SCHOPENHAUER himself. He subsequently

\(^8\) See § 6.2, especially Figure 6.2.1, for a comparison between concepts of interpretant. In general, the correspondence between the conceptual systems of SCHOPENHAUER and PEIRCE is remarkable, even though SCHOPENHAUER doesn’t argue from explicit assumptions about signs. However, introducing them helps to better understand some of his statements. Later, I show that SCHOPENHAUER can nevertheless be labeled a semiotician, too.
revises his fourfold system somewhat in *Die Welt als Wille und Vorstellung*. I point this out later (see the beginning of the next paragraph). At the same time, I do not want to elaborate upon his conceptual development too much. This treatise is not about the history of ideas on the structure of the mind. Rather, I engage in an ontological design for which SHOPENHAUER’s concept of the will forms an essential ingredient. I must make my immediate derivation from SHOPENHAUER clear. It doesn’t require extensive treatment of developmental issues nor a review of secondary sources.

SHOPENHAUER’s work in cognitive science avant la lettre at the stage of his original fourfold root is shown in Figure 6.1.5. My condensation of course leaves much of his thesis unaccounted for. But as I have already indicated, what is left out I consider not relevant for my own ontological design.

Figure 6.1.5.
Overview of SHOPENHAUER’s structural theory of the mind.

It is the fourth cognitive *faculty* that is of most interest here. Equally unspecified by SHOPENHAUER as the third faculty is, he limits himself to classify interpretants. His fourth class of interpretants are motives. A motive results from a subject – and see below for more on SHOPENHAUER’s concept of subject – trying to interpret himself. I therefore suggest to name this faculty introspection. The whole of SHOPENHAUER’s philosophical system actually rests on his answer to what a subject ‘knows’ reflexively (p 176):

> Das erkannte in uns [ist] nicht das Erkennende, sondern das Wollende, das Subjekt des Wollens, der Wille. […]Wenn wir in unser Inneres blicken, finden wir uns immer als wollend.

Within us the known as such is not the knower but the willer, the subject of willing, the will. […] When we are introspective, we always find ourselves as the willer.

The critical point SHOPENHAUER presumes is that the subject is *more* than his knowledge faculties and subsequent particular knowledge. C. JANAWAY summarizes (1989, p7):

> It is central to Schopenhauer, that we are not […] passive, disembodied spectators of the world of objects, but are essentially embodied and active. The will in us is primary, not the intellect. This one thought is extremely fruitful for Schopenhauer, and he uses it to mount a sustained attack on the notion of the purely rational and self-transparent subject of perspectiveless knowledge.
Indeed, the highly productive insight underlying SCHOPENHAUER’s whole conceptual system is that he distinctively places the will outside and a priori the intellect. A subject does not do what he earlier thinks out deliberately, he argues. It is the other way around. At most, and limited by his ground of knowledge, a subject may be aware, through particular motives, of what he wants (and, often, of how he has already acted).

SCHOPENHAUER’s emphasis on motives explains why his theory goes further than the structure of the mind. With his dissertation he attempts, however tentatively, to integrate intellectual with non-intellectual determinants of behavior. Rather than a structural theory of the mind, only, it could be viewed as a structural, comprehensive theory of behavior. This is shown in Figure 6.1.6.

![Diagram](image)

Figure 6.1.6.
The will as primary determinant of behavior; intellectual determinants come second.

With his concept of the will SCHOPENHAUER goes beyond rationalism. The poor scientific reception of his work during the twentieth century is therefore no surprise. Especially logical positivists tend to completely ignore it. Someone who assumes that human behavior, especially his own, is purely rationally grounded must find it impossible to accept – a theory suggesting – any irrational determinants. For analytical theorists, a theory of the rational mind is a theory of behavior.

The development of behavioral sciences, especially during the last few decennia, has created an academic climate for proper assessment of SCHOPENHAUER’s theory. In some places, slowly his ideas are being recognized again for their groundbreaking originality.9 Elsewhere, though, they remain

completely forgotten. Often without awareness of their origin, they are rediscovered as for example by GENDLIN.

Many of SCHOPENHAUER’s detailed analyses have of course been superseded. His overall direction of thought keeps its relevance (p 177):

Die Identität [...] des Subjekt des Wollens mit dem erkennenden Subjekt, vermöge welcher (und zwar nothwendig) das Wort “Ich” beide einschließt und bezeichnet, ist der Weltknoten und daher unerläßlich.

[T]he identity of the subject of willing with that of knowing by virtue whereof (and indeed necessarily) the word “I” includes and indicates both, is the knot of the world [...], and hence inexplicable.

On the surface, Über die vierfache Wurzel des Satzes vom zureichenden Grunde is SCHOPENHAUER’s contribution to ideas on what and how a subject knows. As an exercise in transcendental idealism, alone, it already offers a powerful argument from explicitly stated axioms. But far more importantly, he prepares the ground for the question: Why does a subject know? After this hidden question is unearthed and rightfully emphasized, it is much easier to appreciate his axioms and follow his arguments. Indeed, he doesn’t yet openly formulate this vital question in his thesis, but already provides part – actually, start – of the answer by introducing the concept of the preintellectual will.

6.2 a semiotic reconstruction

Die Welt als Wille und Vorstellung is SCHOPENHAUER’s major philosophical work. Its key ingredients, however, are already all present in Über die vierfache Wurzel des Satzes vom zureichenden Grunde. As the title indicates, SCHOPENHAUER reorganizes his systematic exposition. He also elaborates widely.

His new book also starts with the world, a concept that encompasses the concepts of will and interpretant (again, the latter being my translation of Vorstellung, rather than the traditional representation). The overall composition of Die Welt als Wille und Vorstellung reflects an attempt to eliminate (some) of the conceptual confusion from which his earlier thesis suffers. SCHOPENHAUER now right away makes the distinction between the world as will, and the world as interpretant, respectively.

SCHOPENHAUER deals first of all with the world as interpretant. Indeed, this first Book of Part I of *Die Welt als Wille und Vorstellung* revisits in many ways his theory of knowledge that *Über die vierfache Wurzel des Satzes vom zureichenden Grunde* contains. He certainly makes his conceptual scheme clearer by excluding the will from the level of the separate knowledge faculties. In fact, only two, rather than four “roots” of interpretants remain. He merges the third root into the first. Again, he eliminates the fourth altogether, that is, as a separate root. As I discuss below, the will returns as the overall, ultimate ground of a priori knowledge. As C. JANAWAY remarks (1989, p 7):

Given this, the heart of a great vision, the rest of Schopenhauer’s thought falls quite naturally into place.

The subtitle SCHOPENHAUER gives to Book 1 of Part I confirms his reduction of the number of roots and their reorganization. It mentions the object as resulting from experience, and science, respectively. Those are two, not four, classes of interpretants. But still SCHOPENHAUER often refers to his doctoral thesis. He does not repeat, though, the fourfold nature of the ground of interpretation. In general, he just mentions his “Satz vom Grunde,” or principle of the ground.

The original fourth root is not removed from SCHOPENHAUER’s conceptual system. On the contrary, it reappears to occupy a more important position. In *Die Welt als Wille und Vorstellung*, the whole ground of knowledge is ‘grounded’ on it (1813, 1844, 1859; p 55):

Wir sind [...] weder vom Objekt noch vom Subjekt ausgegangen; sondern von der Vorstellung, welche jene beide schon enthält und voraussetzt; da das Zerfallen in Objekt und Subjekt ihre erste, allgemeinste und wesentlichste Form ist.

We started neither from the object nor from the subject, but from the [interpretation], which contains and presupposes them both; for the division into object and subject is the first, universal, and essential form of the [interpretation].

This is the basic tenet of transcendental idealism. The world as interpretant constitutes both subject and object. The subject’s knowledge is by definition knowledge about objects. And objects only exist as knowledge of the subject.

PEIRCE’s later definition of the sign closely resembles SCHOPENHAUER’s definition of the interpretant as ‘consisting’ of subject, object, and their relationship. The triadic diagrams, derived from their respective theories, are sketched in Figure 6.2.1.

As Figure 6.2.1 stands, it points at a contradiction. How can one and the same concept serve different purposes? The problem immediately dissolves when it is simply acknowledged that the purposes of SCHOPENHAUER and PEIRCE differ when they suggest their definitions. The former’s meaning of interpretant accordingly differs from the latter’s. Or in terms of subjective situationism, their respective terminologies must be attributed to different situa-
tions. In a metapattern-based model (see Chapter 4 for an introduction to the metapattern technique), the interpretant ‘object’ appears as signature instances with characteristic intexts in – at least – two contexts reflecting those different theorizing ‘situations.’

![Figure 6.2.1.](image)

Different triadic definitions of interpretant (left) and sign (right).

SCHOPENHAUER uses the term interpretant (Vorstellung) in the singular mainly for indicating the overall *possibility* of knowledge. Speaking of interpretation, rather than interpretant, is already an improvement. However, I don’t want to *start* my discussion by disturbing the terminological unity from the original. As interpretation, though, it constitutes the class of subjects. A particular subject has actual knowledge.

For the *actual content* of the subject’s knowledge SCHOPENHAUER applies the same term, be it often in the plural (interpretants, Vorstellungen), as the one he starts with. SCHOPENHAUER’s triangle on the left of Figure 6.2.1 does not cover this second meaning. But this is precisely PEIRCE’s productive meaning of interpretant. His triangle presents an interpretant as a particular *instance*, originating from a particular sign and (then) installing a particular measure of belief, or doubt, in the subject about a particular object. For PEIRCE then, the possibility of knowledge is not only a priori, as it is with SCHOPENHAUER, but remains outside his explicit theoretical scope.

In other respects, SCHOPENHAUER is not less but more detailed than PEIRCE. The latter does not elaborate on the *structure* of the intellect beyond assuming a “cognitive mass” involved in constructing interpretants. SCHOPENHAUER is already more of a cognitive psychologist. Then again, PEIRCE has more to say about the *mechanism* of semiosis (see Chapter 2). His model of sign use dynamics rests on the assumption that the interpretant resulting from one step may act as the sign triggering another step. The whole

10. Especially seen from the perspective of the part “cognitive mass” plays in the dynamics of Peircean semiosis (see Chapter 2, above), *Remembering the Personal Past: Descriptions of Autobiographical Memory* (1991) by B.M. ROSS acquires relevant additional (also read: interdisciplinary) relief.
process starts with what I have called the original sign. I use the term *interpretant* in the second sense of Schopenhauer. It refers to specific content elements of knowledge, thus equaling the Peircian concept of interpretant.

In *Die Welt als Wille und Vorstellung* Schopenhauer reduces the fourfold knowledge ground outlined in Über die vierfache Wurzel des Satzes vom zureichenden Grunde to the two faculties of perception (Verstand) and reason (Vernunft). At the same time he brings more differentiation, avant la lettre of course, to semiosis. There is, first of all (p 48),

*die bloß sinnliche Empfindung, das unmittelbare Bewußtsein der Veränderungen des Leibes.*

Sensations cause the subject to construct perceptive interpretants. The faculty of reason may abstract them with concepts as a result. Conversely, and regardless of the complexity of logical derivations or actually semiosis in general, every concept is ultimately grounded on a preceptive interpretant.

![Figure 6.2.2](image)

Figure 6.2.2. Schopenhauer’s knowledge dynamics with semiotic hindsight.

Figure 6.2.2 captures Schopenhauer’s main points about the creation of perceptive and conceptual interpretants. It suggests a fruitful comparison between the epistemological theories of Schopenhauer and Peirce after some terminology is straightened out. They overlap considerably. Their theories are complementary to some degree, too. I remark again briefly on their opposition in the next paragraph.

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11. It is interesting that Peirce acknowledges the positive influence of Kant while venting negative commentary on Schopenhauer. For some remarks to this extent, see Charles...
schopenhauer's view on how – the faculties of – perception and reason are related comes out beautifully in his work (p 100):

Jeder Mensch hat durch Erfahrung, durch Betrachtung des sich darbietenden Einzelnen, ein Wissen um mancherlei Dinge erlangt; aber nur wer sich die Aufgabe macht, über irgend eine Art von Gegenständen vollständige Erkenntniß in abstracto zu erlangen, strebt nach Wissenschaft. […] Der Zweck der Wissenschaft [ist] nicht größere Gewißheit […] sondern Erleichterung des Wissens.

Every person has obtained a rational knowledge about many different things through experience, through a consideration of the individual things presented to him; but only the person who sets himself the task of obtaining a complete knowledge in the abstract about some species of objects aspires to science. […] The aim of science is not greater certainty […] it is rather facility of rational knowledge.

Nowhere does SCHOPENHAUER reason with, and from, sign as a general category. I nevertheless apply the label semiotic to his conceptual system, too. His acute awareness of the importance of ‘signs’ may be derived from statements to the extent that (p 69)

der Mensch theilt dem andern Gedanken mit, durch Sprache, oder verbirgt Gedanken, durch Sprache. Sprache ist das erste Erzeugniss und das nothwendige Werkzeug seiner Vernunft.

man communicates thought to another, or conceals it from him, by language.

Speech is the first product and the necessary instrument of his faculty of reason.

He mentions that (p 92)

Zeichen die komplicirtesten Abstraktionen vertreten.

symbols represent the most complicated abstractions.

And because signs make important aspects of life-as-practice possible SCHOPENHAUER argues that

das Wissen, die abstrakte Erkenntniß, hat ihren größten Werth in der Mittheilbarkeit und in der Möglichkeit, fixirt aufbehalten zu werden: erst hierdurch wird sie für das Praktische so unschätzbar wichtig.

[rational or abstract knowledge has its greatest value in its communicability, and in its possibility of being fixed and retained; only through this does it become so invaluable for practice.

Following KANT, with practice SCHOPENHAUER means what I call behavior. He distinguishes two knowledge-directed types of behavior. Of course they types correspond to the faculties of perception and reason (p 92):

Selbst für das Praktische ist eine Erkenntniß der ersten Art, d.h. unmittelbare, anschauliche Erkenntniß im bloßen Verstande[,] hinreichend, sobald [der Mensch] auch die Ausführung ganz allein übernimmt, und zwar in einer, während noch die anschauliche Erkenntniß

Pragmatist, not the semiotician, has studied the work of SCHOPENHAUER, his predecessor.
Even knowledge of the first kind, i.e., an immediate, perceptive knowledge in the mere understanding, is sufficient for practice, as soon as a man puts it into execution entirely by himself, in fact when he carries it out in a practical action, while the knowledge from perception is still vivid. But such knowledge is not sufficient if a man requires the help of another, or if he needs to carry out on his own part some action manifested at different times and therefore needing a deliberate plan.

So, the coordination of behavior or conduct requires communication of concepts. As I remarked before, SCHOPENHAUER does not extend his philosophy to a general treatment of signs. His conceptual system is easier to comprehend, though, when an overall semiotic approach is applied, too. Because he places interpretant (Vorstellung) high in his conceptual order his invitation is actually impossible to miss in a so-called age of information.

6.3 a proposal for empathy

A review of SCHOPENHAUER’s philosophy in later semiotic terms helps to appreciate its contribution to the design of subjective situationism. I outline especially his theory of knowledge. Some acquaintance with it is necessary to understand his a priori concept of the will. Next, I present the overall line of reasoning from the second Book of Part I of Die Welt als Wille und Vorstellung. It also serves to emphasize which of his ideas I apply.

SCHOPENHAUER continues by questioning the strictly idealist position of the world as interpretant, only. He argues that the subject as pictured in the first Book of Part I knows his own body, too, as an object. As knowledge, however, this interpretant constitutes an indirect relationship between the subject and his body. In the second Book of Part I he adds that, in a direct sense, the subject also is his body. But the whole body as being lies by definition outside knowledge, i.e., its wholeness is never a perceptive interpretant, let alone a concept. It is only known through specific manifestations.

Applying the metapattern for modeling, Figure 6.3.1 captures how the most important concepts taken so far from SCHOPENHAUER’s scheme are formally

12. Elsewhere SCHOPENHAUER shows an interest in etymology. It is therefore surprising that he does not point out that Leib, that is, the German word for body, is intimately connected to the verb leben (to live). His whole philosophy does not suffer, at least, that is my opinion, when life is substituted for will. In my account of SCHOPENHAUER’s reasoning I use the term being.
related. The key to this particular model lies in the assumption of – in this case – two different situations for – further – conceptualization of bodily behavior. On the one side there is behavior of knowledge of the body which, as is the nature of knowledge, is an intermediate phenomenon (see the left-hand branch of Figure 6.3.1). On the other side there is an approach, as a conceptualization itself of necessity intermediate, to behavior as being of the body with being assumed as immediate (see right-hand branch).

See also GENDLIN on his concept of experiencing (1962, 1997). And J.G. MEYER attempts the impossible, that is to develop SCHOPENHAUER’s concept of Weltknoten (see last quotation in § 6.1, above) including the necessary duality involved in conscious knowledge as follows. Writing in German, there is “Ich” and “Nicht Ich.” He argues for the latter to be designated “Es.” Then, labeling unity by conjugation yields “Iches,” “Ichs,” or “Ix” (1913, p 25, my translation from the German):

For the symbol of the unity of Ix wills and Ix knows [...] may be taken the endlessly revolving circle: “Ix wills that Ix knows that Ix wills.”

I urge no attempt is made to discover the internal logic of Figure 6.3.1 as a system. For it reflects a set of axioms that are themselves by definition illogical or, in other words, without ground. The most the interpreter of any axiomatic ‘system’ can achieve is to show where, as exactly as possible, the necessary conceptual transitions occur. A clear indication of where a theorist tries to make divergent ends meet is the use of a single term for different meanings, with those differences often kept implicit. This practice can also be observed in SCHOPENHAUER. But at least he readily admits the unexplainable nature of first principles. H.M. WOLFF (1960, p 6, my translation from the German)
insightfully comments on the accusations of contradictions made against SCHOPENHAUER:

Schopenhauer often applies [...] contradictory formulations, punctuated as paradoxes, [...] to inspire in his readers an awareness of the problems he treated, of the complexity of the world in general. He aimed to show that a particular thesis can be interpreted comprehensively only when its antithesis is also taken into account. As he himself was completely aware of the paradoxical nature of such figures of speech, they should definitely not be mistaken for contradictions, i.e., for theses that Schopenhauer believed could be integrated.

In *Die Welt als Wille und Vorstellung* SCHOPENHAUER orients himself at the actions of the body. For that is how the body manifests itself. Introspection reveals, he argues, that actions essentially happen to accomplish what a subject-as-body will in a particular configuration of time and space. What a subject therefore knows from introspection are his motives. But what counts outside knowledge is (direct) action.

From perceptions of such bodily actions SCHOPENHAUER abstracts the body-as-being as a concept in order to (further) reason about it. The term he chooses for this concept is *will*. So, in the realm of knowledge, the world is interpretant. The subject lives in a dual world, though. In direct action, his world is will. Because the will is unknowable it might be confusing to associate the subject with it. He therefore introduces the additional term individual. The duality of an individual consists of a subject and a body. Rather, ‘his’ subject is a subdivision of a body-individual. The subject knows (world as interpretant) and the encompassing body acts (world as will). See 6.3.2 for this stage of SCHOPENHAUER’s theorizing. It is clear he experiments with interpretants, and their signs, to arrive at an optimally consistent axiomatic system.

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Figure 6.3.2.
A further stage of SCHOPENHAUER’s conceptual development.
At least from SCHOPENHAUER’s point of view, Figure 6.3.2 introduces a contradiction. For actions are modeled as intext of the will. SCHOPENHAUER maintains that the will is only knowable as a collection of interests or motives. But then he mentions actions. What is their place in his system?

Philosophers generally don’t present visualizations for conceptual schemes. Exceptional among philosophers, SCHOPENHAUER reports a method for precisely such visualization.\textsuperscript{13} He regretfully omits applying it to the axiomatic system of his own ground.

The additional orientation at action is of course another decisive point in SCHOPENHAUER’s argument. Every attempt to balance idealism with realism needs to make assumptions about reality. The ontology SCHOPENHAUER proposes is still largely transcendental idealist. What he places in reality outside knowledge is the will. It is the one and only \textit{Ding an sich} in his conceptual system. Every‘thing’ else is interpreted as object by subjective knowledge.

\begin{figure}[h]
\centering
\includegraphics[width=0.7\textwidth]{figure6.3.3}
\caption{The world as will, with individuals as the will’s objectifications.}
\end{figure}

SCHOPENHAUER holds that objects are ‘subject’ to the world as will as the ultimate ground of knowledge. It involves, he argues in an extremely dense step, that a subject experiences what an object is as closely to the will as its knowledge faculties allow. While irreducibly represented by an interpretant, an object is \textit{necessarily perceived/conceived} as an objectification of the will.

\textsuperscript{13} See pp 75-86 in Book 1 of Part I of \textit{Die Welt als Wille und Vorstellung}.\n
\pagebreak
The implications become recognizable where SCHOPENHAUER declares that man – every single man or woman, that is – is the will’s objectification at its most individualized stage. One individual human being is always different from another (H. REMPLEIN, 1954). He is by definition unique. Much more so, for example, than one grain of sand differs from another grain of sand. Whatever species of individuals is concerned, the concept of the will moves to an even more important position in the overall conceptual system. Figure 6.3.3 shows this next stage of development.

A person experiences the duality of will and interpretant first of all about himself. The degree varies between persons. SCHOPENHAUER admonishes that every person also projects – and he does it to an equally unique degree – this duality upon other persons and how they exist. In fact, this kind of projection occurs for all objects.

Precisely this capacity – or is it a ground, too? – for empathy is another vital ingredient for my own ontological design. A sign user is an actor. He behaves in a world where other people act, too. His behavioral acts are determined by conscious knowledge and by other determinants. Once the actor is aware, and accepts, that his own behavior is not completely controlled by his “scientific intellect,” he may then acknowledge that his co-actors enjoy, or suffer, the same fact of life. Figure 6.3.3 already shows that the knowledge of one subject pertains to objectifications of the will, other than that subject itself. In their turn, such (other) objectifications are also of a dual nature, i.e., they are both knowing subject and acting body.

With his concept of the will, is SCHOPENHAUER perhaps an early social psychologist? For himself he has a different ambition. After theorizing on the ground of knowledge in Über die vierfache Wurzel des Satzes vom zureichenden

14. Any organism’s genetic uniqueness is practically secured through so-called recombination of parental genetic ‘material’ (POLLOCK, 1994). This makes uniqueness a highly empirically credible ontological assumption.

15. A more detailed structure of behavioral determinants is beyond the scope of this treatise. There are for example many different positions taken in the debate on influences from nature versus nurture. However, nobody nowadays maintains that behavior is completely controlled by either nature or nurture. See also Rethinking Innateness: A Connectionist Perspective on Development (1996) by J.L. ELMAN et al. They argue that (p xi) “the distal effects of gene products are highly indirect, complicated, and most often dependent on interactions not only with other gene products but also with external events.”

The first point I demonstrate in this chapter is the coexistence of behavioral determinants. And the second, strongly related, point is that nature and nurture do not govern disjoint areas of behavior. Influences jointly determine behavior. Again, for my ontological design of subjective situationism I don’t
Grund of that knowledge ground. He is keenly aware of the paradoxical nature of his enterprise. He cannot make it work by proving anything. It is impossible with axioms. So, he sets out to develop a credible axiomatic system.

The next step in SCHOPENHAUER’s search for what actually may be called ‘a single ground of existence’ is to enlarge the sphere of empathy. Above, I interrupted my account of his reasoning about the will at the point where an individual person is attributed with the capacity for empathizing with other persons. He then assume that everybody else, too, is constituted by the duality of will and interpretant. SCHOPENHAUER continues by extending this empathy to all objects of perception, both organic and inorganic. To recognize an object as an objectification of the will, he states, is to come as close as possible to the essence (German: das Wesen) of the object. It is not the introspective slogan “I doubt, therefore I am” of DESCARTES but an equally introspective variation: I have a dual nature, therefore the world is of a dual nature.

Now SCHOPENHAUER does not write this. I do. But don’t I suggest that he might have? At this stage an intermezzo is therefore in order. I address accountability in the next few passages.

In Part ii of this treatise I propose for every sign that first and foremost its engineer reflects his interests in it. Semiosis of the sign observer is equally driven by interests, but there they are the observer’s (see Chapters 7 and 8). Especially regarding SCHOPENHAUER’s conceptual scheme, a responsible account of it must address this issue of interests. I therefore report on some additional interpretations on my part.

As an interpreter I take liberties with SCHOPENHAUER’s texts. For in spite of some reorganization he essentially composes *Die Welt als Wille und Vorstellung*

need to go into details. Even a much less radical position than SCHOPENHAUER’s suffices to acknowledge that some behavior occurs beyond rational control, regardless of details provided for the actor.

16. As announced in note 6, above, the uses SCHOPENHAUER and PEIRCE make of the concept of ground may be compared. With SCHOPENHAUER ground occupies an axiomatic place in his overall conceptual system. The extreme position is reserved for the will. The will itself being unknowable, he even calls it groundless. But it supplies the foundation for his theory of knowledge. This is clearer in *Die Welt als Wille und Vorstellung* than it is in his earlier *Über die vierte Wurzel des Satzes vom zureichenden Grund*.

PEIRCE, on the contrary, keeps his meaning of ground quite open. It seems a procedure within, not a priori, knowledge. It types an object as an element of a class, or what PEIRCE calls an idea. It then ‘inherits’ properties. My own development of the concept of ground, inspired by PEIRCE, is to emphasize plurality of behavior, leading me to assume

situational objects.
as an extension of Über die vierfache Wurzel des Satzes vom zureichenden Grunde. Yet at the same time he engages in repairing his earlier work. His repairs are not clearly marked, though. Aiming at overview I experience an extra burden of interpretation. Do I ignore discrepancies too easily? And consciously and unconsciously I am ‘filling in’ what I find lacking according to my interest in designing conceptual grounds of business information modeling. It is in fact precisely SCHOPENHAUER’s theory which explains why this is inevitable. It becomes equally obvious that my discussion must to a certain degree depart from interests underlying his – designing of his – conceptual scheme. This is the argument why I don’t position this chapter as an impartial contribution Schopenhauerian science. Rather, I am accountable for the use of some of his original concepts in a different situation, i.e., for an ontological design to suit information modeling of differential behaviors. It is with that interest I continue to summarize his conceptual scheme.

From my intermezzo I return to following SCHOPENHAUER. Knowledge still comes first in his system. Then body, and next will. But he subsequently moves the concept of will to even groundless status. There it secures the ground for the a priori knowledge. And, for example, where should the interpreter of his conceptual system locate the essence of an object? Is it outside himself as subject? But when it is, reality is more than only the will as Ding an sich. So, in SCHOPENHAUER’s scheme, an object’s essence is probably a ‘matter’ of knowledge, too.

Does the assumption of the will help to gain a different knowledge about an object? It certainly does when the perspective on human behavior has so far been purely rational, or even mechanistic. What it does for SCHOPENHAUER is to provide him with a single concept to integrate all explanations. A stone, for example, also objectifies the will. This doesn’t mean that the concept of the will can ever explain anything empirically. It cannot, SCHOPENHAUER emphasizes. But it serves to unify explanations by their proper, often complementary means.

17. It has become common knowledge that behavior is not just rational, but SCHOPENHAUER thought and wrote long before the origin of psychoanalytic theory, for example. It is even documented that SCHOPENHAUER anticipated FREUD. As F.J. SULLOWAY writes in Freud, Biologist of the Mind (1979, p 468): “It is simply inconceivable that Freud [...] was as totally uninfluenced by Schopenhauer and Nietzsche as he liked to think.” He adds that their (p 467) “philosophies [...] closely resemble the leading tenets of psychoanalysis. [...] They] described the unconscious and irrational sources of human behavior and stressed the self-deluding character of the intellect.”

18. Scientifically speaking, an axiom serves explanation. It does not prove in the sense that it provides a ground. It cannot provide
ground because it is a ground. What makes SCHOPENHAUER a pleasure to read is that he consistently adjoins his general statements with examples. He is faithful to his adagium that every concept ultimately depends on a perceptive interpretation.

The problem with the concept of the will is that, by itself, it is too general. As I report next in the main text, SCHOPENHAUER not only links it to individuals as objectifications of the will. He also includes levels in his conceptual system, thus creating the opportunity to elaborate on dynamics at a particular level and between different levels of objectification of the will. How an individual behaves, he states, is largely determined by his own level and that of the individuals he comes into contact with. What SCHOPENHAUER emphasizes is conflict between individuals, rather than their cooperation. See also note 19, below.

SCHOPENHAUER’s axiomatic system in which he moves the will to center stage does indeed suggest explanations to a wide range of phenomena. With his own explanations he predates many empirical results of science.

His work must not be confused with that of, for example, R. SHELDRAKE whose theory of formative causation (A new science of life: the hypothesis of formative causation, 1981) is self-fulfilling to a significantly larger degree than SCHOPENHAUER’s world as will and interpretant. They have in common that neither theory is susceptible to proof through empirical science. And for this reason only, it is that I draw attention to SHELDRAKE’s theory, too. I find his axiomatic system, and as such it stands far removed from SCHOPENHAUER’s speculative ideas, misses an explanatory potential that yields interesting results.

On the other hand, in The Selfish Gene (1976) R. DAWKINS proposes a compact set of first principles admirably comparable, both in the abstract and in its applications, to what SCHOPENHAUER creates. DAWKINS takes the single gene, whatever it is, as the concept from which to construct an intriguing background perspective for explaining the behaviors of what are normally considered individual organisms. The latter, he says with human beings notably included, are mere “survival machines” for the genes.

All such explanations assume that the object (also read: system) being studied behaves from a particular purpose. In general, teleology is described by A. ROSENBERG (1991, p 885) as “the property of objects whose behaviour is or appears to be directed at attaining or maintaining some goal, purpose, end, or aim. Teleological systems also include ones to which ‘functions’ are accorded. Such behavior is manifested in human action, and by organisms, and their components, organs, tissues, cells, and subcellular organelles. Advances in technology have also given currency to teleological descriptions of complex mechanical and electronic devices, such as steam engine governors, guided missiles, and computers.” On teleology see also, for example, On Purposeful Systems (1972) by R.L. ACKOFF and F.E. EMERY. They apply the cybernetic concept of teleology, first developed by A. ROSENBLUETH, N. WIENER and J. BIGELOW in Behavior, Purpose, and Teleology (1943). Elsewhere, in his “capacity as an experimenter and neurophysiologist” R. GRANIT remarks that (1972, p 401) “[i]t is not a question of whether Nature is designed on teleological principles or not, but only of whether, and to what an extent, we can obtain scientific knowledge by teleological reasoning.” In
SCHOPENHAUER. His conceptual scheme allows innovative ways to hypothesize “pragmatic unit[s] of analysis” (BOWKER and STAR, 1999).

Once again continuing with my account of his exposition on the will, SCHOPENHAUER proposes different levels of its objectification. His hypothesis is that an appearance at a higher level of objectification of the will envelopes objectifications at lower levels. He applies the terminology of appearance because he takes a particular level of objectification to correspond to a Platonic idea. Again, his approach raises questions. Why doesn’t he call it an interpretant? That is, an object to a subject? Or is there plurality in the world as will, after all? Anyway, what exists at the higher level as configuration,

the aptly titled essay In Defense of Teleology, published in the collection Brain and Human Behavior edited by A.G. KARCZMAR and J.C. ECCLES, GRANIT continues by observing that “knowledge of a causal connexion may remain a trivial statement unless or until it leads to teleological insight of the kind we accept as a real contribution to the understanding of something.” His opening statement reads (p 400): “The bad reputation teleological thinking enjoys in many circles may perhaps be traceable to its metaphysical history.”

My goal anyway is to contribute to a better reputation for metaphysics/ontology. For the positivist will sooner or later run into problems with his limitation to observable causes and effects. For example a child of about four years old, in fact one of my own daughters at the time, is usually able to find the critical flaw. “Yes I understand, but why? But what, then, is the cause of that?” Quite rightly, the answer “That is why!” is unacceptable. So, a first cause – or what, according to A. ROSENBERG, ARISTOTLE calls a final cause – must be assumed. Allowing a chain of, say, regular causes and effects, the first cause must of course be set apart conceptually as a cause of a different order. That is why it is given a different name, such as a purpose. SCHOPENHAUER has just taken this teleological necessity for conducting proper science to an extreme; the will is the first cause in representation. Rather than opposing science, his metaphysics is enabling it. As GRANIT writes, a scientist’s (p 400) “real problem is to find out in what way it is possible to find a causal connexion between events within his particular domain of research.” Only when an object can be understood in a way that (p 401) “a sensible purpose is served,” does its behavior become “interesting and respectable. [...] A teleological lead is stimulating and valuable, because it inspires much experimentation. [...] Insight often appears as a blending of causal experimentation with teleological hypotheses.” Such a hypothesis (p 407) “adds to [causal analysis] a special distinction, that of arriving at an understanding of integrative action.” In Logical Learning Theory: A Human Teleology and Its Empirical Support, J.F. RYCHLAK argues (1994, p xix): “If we begin with a technical language that is intentional rather than mechanistic, we can end with a perfectly valid, experimentally proven view of human behavior.” Cynically and probably out of frustration, GRANIT concludes his essay by stating (p 407): “I realize quite well that there are people who think it quite useless to understand the wider purpose.”
or system, is never fully explainable at the constituting lower levels. It is a systems approach avant la lettre: the whole is more than the sum of its parts. SCHOPENHAUER thus provides a compelling argument against reductionism.

He also introduces the idea of conflict between individuals. Objectification of the will results in a battle for matter; objects want to gain a place in space and time. At the same time, SCHOPENHAUER’s view is already ecological. For a sequence of individuals to have conflicts over matter, their overall species need to coexist. Species adapt to their environment, which includes other species, to secure continuity of objectification of the will through individual conflict. At this point in his argument SCHOPENHAUER elegantly weaves in the contribution of knowledge. I select several quotations emphasizing, much better than is possible in a derived account, the place of knowledge faculties in his overall theory (p 201):


19. When reading SCHOPENHAUER I cannot help to imagine that it is, indeed, easy to misread him on the will … because of a particular objectification of the will (also read here: political perspective). After him, NIETZSCHE comes to be associated with the will to power and, what sounds even more aggressive, the glorification of action. And especially the misreading of NIETZSCHE enters the ideology of nazi Germany. But, again, it was SCHOPENHAUER to give the term its first prominence. It is sadly ironic that he himself notes in Über die vierfache Wurzel des Satzes vom zureichenden Grunde how concepts are often used, even centuries long, for the wrong purposes. His point is certainly proven.
The higher and higher grades of the will’s objectivity lead ultimately to the point where the individual […] must seek and select his food. […] Thus movement consequent on motives and, because of this, knowledge, here becomes necessary; and hence knowledge enters as an expedient […] required at this stage of the will’s objectification for the preservation of the individual and the propagation of the species. […] But with this expedient […] the world as [interpretation] now stands out at one stroke with all its forms, object and subject, time, space, plurality, and causality. The world now shows its second side; hitherto mere will, it is now at the same time [interpretation], object of the knowing subject. The will, which hitherto followed its tendency in the dark with extreme certainty and infallibility, has at this stage kindled a light for itself. This was a means that became necessary for getting rid of the disadvantage which would result from the throng and the complicated nature of its phenomena, and would accrue precisely to the most perfect of them. […] The world as interpretation now intervenes in the sequence of phenomena of the will. Thus their infallible certainty now comes to an end. […] Error becomes possible, and in many cases obstructs the adequate objectification of the will through actions. […] Thus knowledge in general, rational knowledge as well as mere knowledge from perception, proceeds originally from the will itself, belongs to the inner being of the will’s objectification as a […] means for preserving the individual and the species, just like any organ of the body.

SCHOPENHAUER mentions that KANT causes a revolution in philosophy by making the intellect an active constructor of the world. He himself attempts another revolution. He dethrones the intellect. SCHOPENHAUER no longer sees it as absolute master. In his scheme the intellect as the system of knowledge faculties is the servant, the instrument of the will.20

20. When SCHOPENHAUER is right on the instrumental nature of the intellect, and more and more it is confirmed that he is, it also simply follows why artificial intelligence is misconceived as long as the intellect is thought to control a ‘body,’ rather than the other way around (at least at the most fundamental conceptual level). In Affective Computing (1997) R.W. PICARD clings to a rationally atomistic order with particular emotions included as something like irrational reasons (pp 126-127): “A research problem in the development of animated agents is how to associate behaviors with emotions. A neglected part of this problem is the issue of the ‘will,’ which in agents is rarely directly implemented, but rather emerges from the mechanisms that consider goals, values, and situations, and decides whether or not the emotion which arises is suppressed, expressed, or acted upon in a particular way.” Her orientation shifts the problem to what she calls “goals” and “values.” Therefore, the actual contribution PICARD makes lies elsewhere. She emphasizes improvements in the quality of information tools by designing them for a wider range of human behaviors, i.e., making them responsive to what are naively called separate human emotions.

An example of a much-needed attempt at departure from absolutist claims for artificial intelligence provides Expertise in Context: Human and Machine (1997) by P.J. FELTOVICH,
But SCHOPENHAUER’s proposal is not accepted as a revolution. It is an evolution. Slowly but undeniably behavioral sciences are established showing that behavior, indeed, is determined by a wide range of factors, not only by how a person consciously intends to act. The work of psychotherapist E.T. GENDLIN, his pivotal concept being that of experiencing, aims at reintegrating such insight into philosophy. See also Cultural Materialism: The Struggle for a Science of Culture (1979) by anthropologist M. HARRIS (1927-2001). In Culture, People, Nature (seventh edition, 1997) HARRIS applies the point of view of cultural materialism (p 102):

This research strategy holds that the primary task of cultural anthropology is is to give scientific causal explanations for the differences and similarities in thought and behavior found among human groups. Cultural materialism makes the assumption that this task can best be carried out by studying the material constraints and opportunities to which human existence is exposed.

My interest in the particular view of SCHOPENHAUER is that he radically sets a limit to the rationality underlying signs. See § 6.5 for an overview of structural sign determinants.

Here I already indicate where SCHOPENHAUER and PEIRCE differ in their ideas on the determinants of behavior, or conduct. The latter proposes pragmatism as an essentially rationalist doctrine. Conduct is controlled by the intellect. In this sense, a subject’s will is free because he first of all controls his intellect.

According to SCHOPENHAUER it is the other way around. In his Preisschrift über die Freiheit des Willens (1839, p 206) he comments on the incommensurability of the concepts of will and freedom. The intellect is an instrument of the will. Inquiring after what controls the will only leads to a concept of the will at yet another level, etcetera. In actually quite a Hegelian fashion his conceptualization ends and starts with the will. Anyway, SCHOPENHAUER extends the meaning of the concept of the will far beyond the more daily meaning PEIRCE applies. It is thus difficult to compare their views on this concept taken is iso-

K.M. FORD and R.R. HOFFMAN (editors). However, it lacks more widely productive conceptual grounds.

Despite their authors’ explicit claims there are many publications that are not really about artificial intelligence, after all. Instead, many authors apply concepts from machine computation and, more generally, cybernetics for theorizing on human psychology, often calling it cognitive science. I refrain from providing any references, with the exception of The Mind’s New Science: A History of the Cognitive Revolution (1985) by H. GARDNER who sketches an illuminating overview. What is currently known as cognitive science does not deal with the Schopenhaueran concept of the will. Of course, as an axiom the will cannot be empirically demonstrated, but neither can the presumably rational assumptions of today’s cognitive scientists.
lation. For example, SCHOPENHAUER readily admits that knowledge influences action. What he writes about is what he considers the essence of action. And that essence doesn’t lie in any separate plan for action (p 143):


Only the carrying out stamps the resolve; till then it is always a mere intention that can be altered; it exists only in reason, in the abstract.

SCHOPENHAUER and PEIRCE both propose productive theories about the general relationship between knowledge and behavior. The value of SCHOPENHAUER lies in his convincing realism, often mistaken for pessimism. It seems odd to apply the label of realism on someone who is especially known for his transcendental idealism. However, SCHOPENHAUER really is a great teacher for seeing the world as it is because he directs attention at how particular things individually act. Then gain, often a person is not content with the current state of the world. When he wants to change it to the measure that surpasses immediate solitary action, he needs – the conviction of acting according to deliberate – plans. For supporting such a normative attitude PEIRCE offers more. The paradox is that the person who can best be portrayed with SCHOPENHAUER is best served to act with PEIRCE as a guide. For the fiction of his free will is necessary to aim conduct at complex change. SCHOPENHAUER is mainly an observer, not an engineer.

6.4 converging schemes

I reiterate that SCHOPENHAUER starts his conceptual development from an individualistic perspective. He retains this purely psychological perspective to the extent that knowledge is grounded in – with me borrowing VOLOSHINOV’s phrase here – individualistic subjectivism. Every individual’s behavior is social, though, which immediately follows from its empathic faculty.

The distinction between personal knowledge and social behavior is important. It helps to understand how for example SCHOPENHAUER and VOLOSHINOV, though starting from opposing positions, end up with conceptual schemes that are quite similar. Another attempt at such synthesis provides A. SCHÜTZ with The Phenomenology of the Social World (1932). My point is to illustrate how explicitly stated first principles about psychology (or sociology) may be practically mitigated by sociological (or psychological) orientations. For my illustration this paragraph concentrates on VOLOSHINOV and traces how he arrives at a balanced view.

VOLOSHINOV doesn’t start reasoning from a separate individual. His first
assumption is sociological in nature. It concerns the existence of an organized collection of individuals. Then it remains to be observed how he accounts for the equally inevitable psychological orientation. For the time being, VOLOSHINOV argues that social life is grounded in ideologies, as Marxist theory has it. This is exactly why he writes that (1929, p 9)

[...] problems of the philosophy of language have [...] acquired exceptional pertinence and importance for Marxism.

For, he continues,

[...] any ideological product is not only itself a part of a reality (natural or social), just as is any physical body, any instrument of production, or any product for consumption, it also, in contradistinction to these other phenomena, reflects and refracts another reality outside itself. Everything ideological possesses meaning: it represents, depicts, or stands for something lying outside itself. In other words, it is a sign. Without signs there is no ideology.

Placing such emphasis on ideology, it is reasonable to expect VOLOSHINOV to explain what he means by it. But he avoids the immediate question of ideology by practically substituting semiotics for it (p 10):

The domain of ideology coincides with the domain of signs. They equate with one another.

Wherever a sign is present, ideology is present, too. Everything ideological possesses semiotic value.

With ideology as meaning at the level of a social group, VOLOSHINOV then seems set on a direct course to declare his support for abstract objectivism. The decisive departure, however, originates from a main tenet of Marxism. It is the insistence on change. Carefully, VOLOSHINOV creates some confusion about the meaning of ideology. In fact, he subsequently establishes different meanings (p 14):

A word [...] is neutral with respect to any specific ideological function. It can carry out ideological functions of any kind[...]. Moreover, there is that immense area of ideological communication that cannot be pinned down to any one ideological sphere: the area of communication in human life, human behavior.

But pinning it down as a separate concept is precisely what he continues to do:

[T]he material of behavioral communication is preeminently the word. The locale of so-called conversational language and its forms is precisely here, in the area of behavioral ideology.

VOLOSHINOV now applies an originally sociological term, ideology, in a psychological situation too:

Although the reality of the word, as is true of any sign, resides between individuals, a word, at the same time, is produced by the individual organism’s own means without recourse to any equipment or any other kind of extracorporeal material. This has determined the role of word as the semiotic material of inner life - of consciousness (inner speech). [...] The problem of individual consciousness as the inner word (as an inner sign in general) becomes one of the most vital problems in philosophy of language.

It is a both remarkable and highly productive turn of perspective. At the same
time, it can hardly still be called Marxist. Where it is not necessary to pay lip-service to party doctrine, development of dialogical theory becomes much more focused (WOLD, 1993). But VOLOSHINOV needs to maintain his ‘ideological’ balancing act. He introduces Marxism’s trump card, i.e., the concept of change (p 19):

[T]he word is the most sensitive index of social change [...]. The word has the capacity to register all the transitory, delicate, momentary phases of social change.

So, what essentially starts as an individual contribution (behavioral ideology), may end up acquiring social status (p 18):

It is essential above all to determine the meaning of any given ideological change in the context of ideology appropriate to it, seeing that every domain of ideology is a unified whole which reacts with its entire constitution to a change in the basis. [... p 20] And it is here, in the inner workings of this verbally materialized social psychology, that the barely noticeable shifts and changes that will later find expression in fully fledged ideological products accumulate.

Marxism requires that change results from human activities with participants organized in classes. If in proven mathematical fashion I take the separate individual as the minimum size of a class, the correspondence between the assumptions of SCHOPENHAUER and VOLOSHINOV becomes immediately clear. What the latter (p 23) concludes with respect to the life of signs is equally well concluded from how the former argues about conflicting objectifications of the will:

Existence reflected in sign is not merely reflected but refracted. How is this refraction of existence in the ideological sign determined? By an intersecting of differently oriented social interests within one and the same community, i.e., by the class struggle. [...] As a result, differently oriented accents intersect in every ideological sign. Sign becomes an arena of the class struggle.

This social multiaccentuality of the ideological sign is a very crucial aspect. By and large, it is thanks to this intersecting of accents that a sign maintains its vitality and dynamism and the capacity for further development.

The crucial concept is that of social interaction. For SCHOPENHAUER empathy that mitigates the egoism of the individual as a unique objectification of the will. Reasoning from the opposite direction, VOLOSHINOV nevertheless assumes a similar variety (p 34):

[A] rigorous distinction must always be made between the concept of the individual as natural specimen without reference to the social world [...], and the concept of individuality which has the status of an ideological-semantic superstructure over the natural individual and which, therefore, is a social concept. These two meanings of the word “individual” (the natural specimen and the person) are commonly confused.

Indeed, SCHOPENHAUER is often wrongly accused of a pessimism featuring man as singular egoist. He certainly doesn’t harbour false illusions about the extent of man’s social interests. But an egoism that includes an empathic faculty
is an essentially social concept. That is why their apparently different conceptual schemes are, after all, quite similar. And it is therefore allowed to draw essentially identical conclusions from them. Compare the possible range of empathic egoism (SCHOPENHAUER) with how VOLOSHINOV (p 87) posits the variety of social orientations in behavior:

With regard to the potential [...] addressee, a distinction can be made between two poles, two extremes between which an experience can be apprehended and ideologically structured, tending now toward the one, now toward the other. Let us label these two extremes the “I-experience” the “we-experience.”

6.5 toward a group picture of sign users

Which characteristics of the sign user especially come out when his solo picture is drawn taking account of SCHOPENHAUER’s concept of will?

1. The sign user is a person with subjective knowledge. The world is his interpretant (also read: interpretation).
2. But it is interpretant for which a ‘cause’ exterior to the knowledge faculties exist. His intelligence is an instrument of his will. And what he wants, what his motives or interests are, he wants for himself. So, he is portrayed as an egoist.
3. Of course the sign user can, and often will, support a group. For he is an empathic egoist. But, still, when he does act in the interests of one or more other persons it always is because he ultimately hopes to profit himself. That is his interest in group membership.
4. He is not to be completely trusted. This is not a blanket value judgment. He really cannot help it that he misleads for he is never in complete intellectual control of his own actions, including sign use of course. His intelligence is only an instrument, imperfect at that. It is simply impossible for the part to wholly interpret the whole.

It is a compact portrait. And it is unflattering, at least for people who not only value altruism and perfect honesty but also believe they practice those values without exception. How realistic the portrait is depends on the person and, as subjective situationism suggests, on the situation the person finds himself in.

I have drawn the sign user with these characteristics for indicating the boundaries of what a sign may be taken to represent. Already the doctrine of transcendental idealism implies that any sign reflects the objectified reality of its engineer. This is something quite different from representing the reality. The latter is not objectively known, by definition. Only subjectively as objectified reality. This essential characteristic of the sign is sketched in Figure 6.5.1.
With the will in control of the intellect, rather than the other way around, the sign is issued as a message from ultimately the sign user’s will. It doesn’t provide a disinterested representation of the subject’s objectified reality. What it represents foremost, as Figure 6.5.2 indicates, are the individual preintellectual interests\(^ {21} \) of the sign user.

Another consideration is that any sign, however perfectly produced from interpretants, deflects – VOLOSHINOV might say: defracts – from the whole of subjective knowledge is objectified reality.

\(^{21}\) To call interests preintellectual already presupposes, of course, the concept of intellect. In spite of this bias I choose this term here for emphasizing that the world as will can only be conceptually ‘constructed’ by the intellect, by reason in particular.

In many scientific disciplines researchers maintain that their work is value-free, that reason alone drives them. Or that it ought to, anyway. Right along with that, much work that is also called science is oriented at understanding the relative nature of the rational intellect. Here I mention a few publications. Approaches are widely scattered, so I don’t make any pretense at overview or synthesis. I just want to demonstrate that scientific studies of behavior are not restricted to so-called rational determinants. Quite apart from the vast literature on psychoanalysis, and chosen arbitrarily, see for example *Emotions and Memory* (1942) by D. RAPAPORT, *Assessment of Human Motives* (1958) by G. LINDZIEY (editor),
the sign engineer. As objectified reality, it can not express anything beyond what has earlier become exemplified by the set of interpretants of the sign engineer. Knowledge is not only subjective, but always incomplete. Thus, how GENDLIN posits his concept of experiencing is both similar to the Schopenhauerean will and reflects the Peircean irreducibility of the semiotic triad (1962, p 153):

If experiencing is not constituted of unit experiences (but only symbolizing makes it so), then it follows that experiencing is not organized in schematic relationships of units to each other, but only symbolizing makes it so.

The intellect also has incomplete self-knowledge, i.e., knowledge about the sign user whose instrument for behavior it is. What his mind doesn’t (yet) interpret as objects cannot make an appearance in a sign to represent the sign user’s reality. It follows that his own interests, too, are only partly, and subjectively, represented by motivational interpretants. This distinction is added in Figure 6.5.3.

Figure 6.5.3.
The impossibility of wholly representing the self with intellectual means.

Please observe that the relationship between object and (its) sign does not at all imply consciousness. Or, as S. ROSENTHAL indicates in Speculative Pragmatism (1986, p 27):

Pragmatic meaning is not to be understood fundamentally in terms of language, but rather as that matrix within which language emerges. This is not to say that we have consciously explicit prelinguistic experience. At the level of everyday lived experience, language and

pragmatic meaning are separable only by abstraction. Language is the expression of pragmatic meaning; pragmatic meaning becomes explicit and communicable within the structures of language. Meaning, however, is not fundamentally propositional; at its basic level meaning is embodied in the activity of a purposive agent engrossed in the world, and language emerges as an expression of such active engagement. The unity of the object is brought about by the purposive activity of the human organism as expressive of a vital intentionality, not by a “thinking subject.”

ROSENTHAL displays several mentions of “language,” six to be exact. Her exposition gains in clarity when a distinction between language system and language use is applied. Then, her first, third and fifth mention are changed into language system, and the second, fourth and sixth into language use. Organizing concepts this way, a language system results as an “abstraction” from language uses or “pragmatic meanings.” Anyway, through some sign an individual may believe he consciously experiences of an object. Then again, it may not enter conscious experiencing. Consciousness as knowledge-of-being, or whatever, is a ‘situation’ that lies outside the scope of this treatise.

To the extent that the intellect controls production of the sign, the egoistic nature is even misrepresented. I stress once more that the reverse relationship should be always acknowledged as a possibility, too. Figure 6.5.2 has already shown this. The sign user is not in complete intellectual control of sign production. So, a sign may include aspects, or elements, that don’t correspond to the subject’s objectified reality.

The arrows in Figure 6.5.3 are numbered. Those numbers reflect some reorganization of the major aspects required for a Schopenhauerean solo portrait of a sign user. The three aspects of subjectivity, egoism, and motivational (mis)representation, respectively, are identified at the start of this paragraph. Based on SCHOPENHAUER’s conceptual system the determinants of a sign can be specified still further. His main division of the intellect is between the faculties of perception and reason. Combined with the division of the sign user’s objectified reality between his own body and what is experienced to lie outside it, a matrix results. Figure 6.5.4 shows this elaboration.

The purpose of thus classifying sign determinants is to make a both credible and productive ground for it that every sign is produced with the sign user only partly in rational control.22 So, a sign is reasonable, or rational, as a result of

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22. I don’t claim to have developed an accurate model of, for example, interaction between body and cognition. It must ‘just’ be accurate enough to proceed theorizing on the possibility or impossibility of shared meaning.

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On the relationship between body and sign, GENDLIN remarks (1997, p 28): “The body implies what we want to do and say. [...] Our bodies shape the next thing we say, and perform many other implicit functions essential to language. [...] With linguistic and
determinants (1a) and (2a). All other determinants are unreasonable, or irrational. Determinant (3) is even preintellectual. As an exercise with SCHOPENHAUER’s concept of will, recognition of irrational determinants is a vital step toward a more rational perspective on communication.

So far in this paragraph, I have concentrated on the sign engineer, that is, on the sign user who produces a sign. But a sign user is also an observer of signs. I simply propose that the process of observation and, possibly, subsequent interpretation occurs on the same ground as Figure 6.5.4 sketches for engineering. Later, Chapters 7 and 8 treat differences in sign structure for engineer and observer, respectively.

Figure 6.5.4.
An overview of determinants for sign engineering.

The concept of the sign of course presupposes that it yields an interpretant objectifying reality for the interpreting subject. I suggest that the sign user’s preintellectual interests determine whether or not ‘something’ is taken up as a sign. So, when – the faculty of – perception is actively involved, there already is a sign. See Figures 6.5.5 and 6.5.6.

Many signs never enter semiosis beyond perception. Some are, and by definition the observer tries to make reasonable sense of the sign. For the pur-

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cultural elaborations, our bodies imply what we want to say, which can be typical or something very new. It can surprise us. Our bodies imply the next words and actions to carry our situations forward.” One page earlier GUNDERLIN writes: “We have situational bodies . . . . The body knows the situation directly.” In A TREATISE ON LANGUAGE (1828) A.B. JOHNSON already expounds a similar relationship between experience and language.
pose of this treatise I assume that the reasoning faculty of the observer attempts to reach a conclusion whether or not the sign was, say, artificially produced. Does it originate from an object deserving of the observer’s empathy? If not, further interpretation is relatively straightforward. A sign is then considered unintentional. That is, the observer will not bother himself trying to find a sign engineer’s interests represented in the sign. He can – continue to – modify his objectified reality with complete devotion to his very own interests.

Figure 6.5.5.
Signship is individually determined, too.

On the other hand, suppose the observer continues his semiosis with the assumption that the sign, indeed, expresses a(nother) will. He is then faced with far more complexity. As part of his observation effort he infers at what the sign does and does not convey about the sign engineer. What are the interests in it, and what objectified reality? And the observer needs to create an impression about the engineer’s egoism versus community orientation. For example, is the observer included in the implied community of the engineer? Thus it is really not that the sign engineer has projected onto his sign less of the reality than the sign observer might expect. Their interests and objectified realities could be altogether different.

I don’t pursue these issues here. Part ii deals with them systematically. My
preparations in Part i have put emphasis on the individual sign user. In Figure 6.5.7 I have therefore let the determinants, or rather the types of determinants, of sign engineering reappear during observation. The numbered arrows arriving at and leaving from the sign all depict projections by the sign observer. There is also an arrow from the sign to the faculty of perception of the observer. It refers to the primary observation of the sign.

Figure 6.5.7.
Interpretation of a sign believed to originate from an equally-willed sign engineer.

Concluding this chapter, and Part i of this treatise, I suggest to imagine an ideal sign. It is a short preview of Chapters 7 and 8 in Part ii.

What does the sign engineer represent in his ideal sign? Suppose no constraints exist on what he both wants to, and can, express. What I then take as ideal(ization) is that he makes behavior of objects completely explicit. This he accomplishes by modeling situations, and then placing objects with their behavior in them. The metapattern, described in Chapter 4, supports the engineering of information models where these qualities are easily recognizable. But so far, all that the sign stands for only concerns the objectified reality external to the sign engineer. He has an internal objectified reality, too. To ideally reflect this, the sign must express its original engineer’s behavior. Even more importantly, what interests underlie – his engineering of – the ideal sign? What are his assumptions about his internal and external objectified reality. Making his particular interest(s) ‘visible’ requires representing that engineer’s particular situation when producing the sign, i.e., preempting an answer to the question of how his behavior fits in his objectified reality. In sign engineering, the metapattern can also be used for modeling the relevant introspective interpretants.

This so-called ideal sign is only determined by influences numbered [1a] and [2a] (see Figure 6.5.4). An ideal sign first of all implies complete and perfect self-knowledge on the part of the engineer. Secondly, for an ideal sign the
engineer derives perfect concepts from his perceptive interpretants. Both requirements are impossible to fulfill. Schopenhauer's concept of will determines that signs run into limits of rationality. There are really no ideal signs in a rational sense. In fact, for any particular sign it will always be impossible to specify how far it is removed from any such ideal. As I have already indicated, sign engineering involves irrational determinants, too. As a corollary, interpretation is an act of much guesswork (also read: construction) on the part of the sign observer. For his task is also highly complex because the observer has his picture drawn with the same characteristics as the engineer of the sign. That is, he cannot completely trust his own (intellectual) judgment. And he fundamentally is also an empathic egoist. I can of course imagine some ideal frame of interpretation for the sign observer. He is then aware of his own assumptions for objectifying his external reality. As for the observer's internal objectified reality, he fully understands the situation he experiences for sign observation, and – the goals of – his behavior in it.

With realistic limits on rationality, sign exchange between a sign engineer and a sign observer yields a complex group picture. It therefore makes urgent scientific sense to explain sign use across sign users with more variables than communication theories resting on naive realism and/or analytic rationality offer. Schopenhauer's philosophy leads to the recognition that behavior also has irrational determinants, even essentially so.

Determinants, whether they lie within or outside the (rational) intelligence of the sign user, are not further specified here. Sign use always partly being irrational is already a sufficient assumption for developing a much richer theory of communication. It is the goal for Part II where the focus shifts from semiosis in the individual sign user to the exchange of signs between individual participants. For a conceptual information model, too, is always made to conduct relationships.

23. The transition seems bigger than it really is, though. Communication that occurs strictly within an individual sign user is structurally largely identical to communication between different sign users. See Chapters 7 and 8 for a development of sign structures from the perspectives of sign engineer and sign observer, respectively.