

HOW CAN WE SIGNIFY BEING? SEMIOTICS AND TOPOLOGICAL SELF- SIGNIFICATION

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ABSTRACT: The premise of this paper is that the goal of signifying Being central to ontological phenomenology has been tacitly subverted by the semiotic structure of conventional phenomenological writing. First it is demonstrated that the three components of the sign—sign-vehicle, object, and interpretant (C. S. Peirce)—bear an external relationship to each other when treated conventionally. This is linked to the abstractness of alphabetic language, which objectifies nature and splits subject and object. It is the subject-object divide that phenomenology must surmount if it is to signify Being. To this end, we go beyond alphabetic convention and explore the use of iconic signs. Following the lead of Merleau-Ponty, the iconic expression of Being is seen as entailing paradox, and we are directed to the fields of visual geometry and topology, where we work with three paradoxical figures: the Necker cube, Moebius strip, and Klein bottle. While the Necker cube and Moebius prove to have their limitations in fully signifying Being, the Klein bottle, possessing an added dimension (made palpable via a stereogram), can embody Being more intimately, provided that it is approached in a radically non-classical way. The essay closes with the realization that the most concrete signification of Being must be a *self*-signification. Here the author removes his cloak of anonymity and makes his presence tangibly felt in the text.

KEYWORDS: ontological phenomenology; subject and object; semiotics; alphabetic sign; iconic sign; Merleau-Ponty; Necker cube; topology; Klein bottle; dimension; self-signification

Over the centuries, much has been written by philosophers seeking to shed light on the meaning of Being. Inspired by the 18th–19th century works of F. W. J. von Schelling (see Gare 2011), ontological phenomenologists Maurice Merleau-Ponty, Martin Heidegger, and their followers have emphasized that Being can be elucidated effectively only by surpassing the division of subject and object long prevalent in mainstream philosophy. Yet, whatever the content of the phenomenological discourse on Being, however much this has reflected the

intention of surmounting the subject-object divide, the underlying semiotic structure of such discourse has been tacitly geared toward maintaining the split. This has resulted in an implicit objectification of Being that has undermined phenomenology's central aim. In the present essay, I will attempt to spell out the inadequacy of conventional semiosis for the signification of Being, and to offer a semiotic alternative more equal to the task.

1. CONVENTIONAL SEMIOSIS

In the most general terms, a sign is any entity capable of conveying meaning. Semiotics pioneer Charles Sanders Peirce identified three basic components of the sign. First there is the *representamen* or sign-vehicle, the physical token that does the signifying. Peirce also called this the sign in its "own material nature," the sign "as in itself," and the "ground" (Peirce 1931–1966, 1.339, 8.333–34, 2.228–29). The thing to which the sign refers gives the second component of the Peircian triad, the sign's *object*. Thirdly, there is the *interpretant*, defined as the meaning the sign conveys to the one who views or reads it. Every interpretant implies an interpreter, mind, or subjectivity that takes it in. In characterizing the sign as a "representation," Peirce sums up his fundamental triad: "A representation is that character of a thing by virtue of which, for the production of a certain mental effect, it may stand in place of another thing. The thing having this character I term a representamen, the mental effect, or thought, its interpretant, the thing for which it stands, its object" (Peirce 1931–1966, 1.564).

In the conventional text, the three aspects of the sign are related to each other in an external manner. Here sign-vehicles are primarily alphabetic, consisting of graphic marks on a page, such as the squiggles you are now processing as you read this essay. Given that these signifiers have been agreed on by convention and are purely arbitrary in themselves, the meaningful objects to which they refer can only be other than what the signifiers themselves inherently are. In the English language, the word "boat" can have no intrinsic relation to the object floating in the water; we just agree to refer to said object with that combination of letters.

Our system of alphabetic signs was designed to serve the interests of detached subjects who stand aloof from the objects cast before them. As a consequence, the relationship between the semiotic object of the conventional text and its interpretant—the meaning of the sign as given to the mind of the subject who reads it—is also entirely external. Anthropologists Jack Goody and Ian Watt (1963) indeed brought out that the rise of alphabetic literacy in the middle of the first millennium BCE coincided with the appearance of a new and more abstract form of subjectivity. Emerging from intimate participation in a mythic culture governed by orality, the now more sharply differentiated individual devised a system of writing that surpassed the impermanence and ambiguity of the spoken word, a system that would enable the world to be objectified and analyzed with greater precision

than ever before. To be sure, though orality was dominant in pre-literate mythic societies, systems of writing had already been developed, the earliest pictograms coming into use millennia before the Greek alphabet. But these precursors of mature literacy were cumbersome, inefficient, and equivocal. With the perfection of alphabetic writing at the hands of the Greeks, the graphemes now used could be combined so as to point to their referents with unprecedented clarity, reducing ambiguity to a minimum. The resulting accuracy enabled a far more effective objectification and analysis of the world than in earlier systems of writing or speaking, a parsing of reality into distinct categories and compartments, as is evident in the logico-empiricist tradition that arose in Greek science and philosophy. “The kinds of analysis involved in the syllogism,” say Goody and Watt, “and in the other forms of logical procedure, are clearly dependent upon writing, indeed upon [the alphabetic] form of writing....Only the analytic process that writing itself entails...make[s] possible the habitual separating out into formally distinct units of the various cultural elements whose indivisible wholeness is the essential...characteristic of the thinking of non-literate peoples” (1963, 344–45). And alphabetic literacy goes hand in hand with greater individuality, a more clearly defined center of identity, a subject or self whose starkly etched boundaries sets it apart from others and from the world. The objectification of language via alphabetic signs and the rise of individuality are explicitly tied together when Goody and Watt say that “writing, by objectifying words, and by making them and their meaning available for much more prolonged and intensive scrutiny than is possible orally, encourages private thought” (339). “Literate culture,” say the authors, is “inward and individualistic” (340).

2. THE CALL TO BEING AND SEMIOTICS

In his essay “The End of Philosophy and the Task of Thinking,” Heidegger asserts that philosophy “ends” with the mid-nineteenth century coming to dominance of scientific positivism. Modern science is thus what philosophy becomes in the limit, and philosophy’s end is not a mere termination, but a culmination of the scientific project. Heidegger states accordingly: “The end of philosophy proves to be the triumph of the manipulable arrangement of a scientific-technological world” (1964/1977, 377).

The transformation of philosophy into positivistic science was long in the making, beginning with the advent of alphabetic writing that made possible the logico-empirical initiatives of the early Greeks, as we just saw. Following the Middle Ages and the Renaissance, the advancement of science was taken up at an accelerated pace in the work of Galileo, Descartes, and Newton, these developments reaching their climax in the nineteenth century with the great successes of science and technology noted by Heidegger (specifically, the accomplishments included the discovery of electromagnetism; the invention of photography, the telegraph, and the telephone; the refinement of laboratory instruments and

exact techniques of measurement; and many more). From the standpoint of ontological phenomenology, the millennia of scientific progress can be seen as generally involving a process of individuation wherein subject and object were driven apart and Being was cast into shadow. In Heidegger's view, now that philosophy has been brought to an end by being transformed into science, we can consider a possibility for thinking that was never properly addressed in the entire history of philosophy itself. This long neglected "first possibility for thinking" (1964/1977, 377) is the thinking of Being as such.

In *Dimensions of Apeiron*, I went into depth on Heidegger's call to Being, his effort to elucidate Being through his meditations on the notion of *opening* or *unconcealment* (*alētheia*), and on the phenomenon of *light* (Rosen 2004, chapter 4). All of these matters are linked to the question of subject and object, as I brought out in the earlier work. Presently, I want to take up an issue that is perhaps more basic than the content of Heidegger's ruminations on Being, namely, the semiotic delivery system for expressing Being. What I propose is that heeding the call to Being, thinking Being and writing Being in an effective way, ultimately requires going beyond the alphabetic abstraction originally complicit in Being's banishment. Heidegger tells us that, with the exception of Parmenides's fragmentary glimmer of *alētheia* at the outset of philosophy, Being has gone unthought. The absence of Being from Western philosophy should come as no surprise when we realize that philosophical thinking has relied on alphabetic writing from its inception. For we have learned that, in the alphabetic splitting of the sign, the sign-vehicle is divided from its object, and the object from its interpretant or subject. It is this division of subject and object that renders Being forever an object in the alphabetic text, assuring the forgetfulness of Being per se. The consequent dilemma for ontological phenomenology is this: How can we write meaningfully of Being when our very manner of writing keeps Being away?

Let me put it this way: in the signification of Being thus far carried out by ontological phenomenology, the sign has referred to its signified content in a merely external fashion, projecting Being as an *other*, a free-floating semantic object cast before the reading subject. Our infatuation with the content of our texts has inclined us to lose sight of this process of projecting abstract meaning before a detached reader. And as long as we employ this means of signification, though the content of our writing may forcefully demonstrate or poetically express the way in which Being surpasses the division of subject and object, at the deeper level of the manner in which that content is tangibly delivered, Being will continue in eclipse, for it must appear as but an object separated from the subject who reads it. Taking into account then the concrete reality of how the meaning of Being is conveyed, any conventional mode of writing about Being can do naught but objectify it. To repeat the central question of this essay: can we find a *different* mode of writing, one that can give voice to Being without turning it into an object?

3. EMBODYING THE ONTOLOGICAL

The earliest forms of writing were the pictograms of ancient Mesopotamia and Egypt (ca. 3000 BCE). These first signs were not alphabetic but *iconic*: the sign-vehicle bore a tangible likeness to its object (a boat, for example, was signified by a picture of a boat). In contrast to the alphabetic writing that was to come later, the pictographic sign-vehicle and its object were related internally. In referring to the object, the sign-vehicle did not merely point to what was other than itself, but pointed *to* itself, to its own graphic composition.

The sign-vehicle and its object come together for the third element of the sign, the interpretant, the meaning the sign has for the subject. We have seen that the rise of alphabetic literacy in ancient Greece was coupled with an enhanced experience of individualized subjectivity. In the pre-alphabetic cultures that preceded the Greek, there was relatively little awareness of oneself as standing apart from others. Instead, the prevailing feeling was of participating in community, of being immersed in a social context (Rosen 2014). This intimate entwinement with one's surroundings must have shaped the first experiences of pictographic semiosis. Four millennia ago, when the sense of egoic subjectivity was as yet weakly developed, the sign's meaning must have suffused the fledgling subject, for there could have been no circumscribed subject standing apart from the sign. This way of encountering signs is no doubt foreign to the contemporary adult reader, but what about the child? I would like to recount a personal experience that speaks to this question.

A while back, I was rummaging through some old belongings and happened upon a book of mine from childhood. It was a colorful, richly illustrated volume featuring a large centerfold map of the United States showing logging in the Northwest, cotton farming in the South, and so on. I don't believe the book had even entered my mind since I was six or seven years old, and suddenly coming across its centerfold image seemed to bring back my original experience of it. As a child viewing this page, I could see vividly the logs splashing down the whitewater river, could feel the fluffy texture of the cotton in the field, could sense the warm sun beating down on me in the Arizona desert. To me, these iconic signs were not just images on a page but constituted a world in which I was immersed. If ontogeny recapitulates phylogeny, I suggest that the semiotic encounter I had with my childhood book mirrors the broader cultural experience of semiosis when writing was in its infancy. We can say in general that pre-alphabetic signification was an intimate affair in which all components of the sign were related internally.

In the two millennia that followed the first appearance of writing, signs became less and less concrete, with writing passing "from icons based on images to symbols based on abstraction" (Shlain 1998, 58). This process reached its climax with the establishment of the Greek alphabet, which accompanied the transition to a culture that externalized relations, splitting subject and object and relegating Being to oblivion. It seems clear that if we presently wish to follow phenomenological philosophy's call back to Being, we must find a

way of surpassing the constraints of conventional alphabetic signification. However, while merely writing about Being as I so far have will not bring it to actuality, this does not mean that the alphabetic text should simply be abandoned in favor of images. For, in such a regression to the pre-alphabetic, preliterate mindset, the sign would lose its differentiated character and, with it, the conceptual lucidity that alphabetic writing makes possible. Still, the fact remains that alphabetic signification alone will not suffice for the full-fledged expression of Being. I suggest then that our text must include *iconic* signifiers, for the icon bears the internal relationship to what it signifies that the articulation of Being requires. But what is the specific nature of the icons that are needed? This depends, of course, on the nature of Being.

Merleau-Ponty associated Being with what he called the *flesh of the world*, an idea for which “there is no name in traditional philosophy” (1968, 139), in fact, “no name in any philosophy” (147). The flesh cannot be named in traditional philosophy because it transgresses the most basic categories of the classical tradition:

The flesh is not matter, in the sense of corpuscles of being . . . is not mind, is not substance. To designate it, we should need the old term “element,” in the sense it was used to speak of water, air, earth, and fire, that is, in the sense of a *general thing*, midway between the spatio-temporal individual and the idea, a sort of incarnate principle that brings a style of being wherever there is a fragment of being. The flesh is in this sense an “element” of Being. (1968, 139)

With the notion of the flesh, Merleau-Ponty posed his greatest challenge to the long-standing philosophical division of subject and object. Neither a corporeal object nor a disembodied subject, the flesh is a “coiling over” of the body (1968, 146), a folding back of it upon itself from which the subject and its object first arise. To Merleau-Ponty, the flesh of the world is a “paradox of Being” (136). What we are presently looking for is a way of signifying this subject-object paradox that does not reduce Being to a mere object, as conventional alphabetic signification does. Merleau-Ponty offered two clues in this regard.

3.1. *The Necker Cube*

In *Phenomenology of Perception* (1962), Merleau-Ponty made use of a well-known visual paradox of modern psychology: the *Necker cube* (fig. 1b). It is this structure, I suggest, that can provide us with a preliminary iconic expression of the paradox of Being. Let us first consider the classical principle of opposition as demonstrated through visual perspective in Figure 1a.

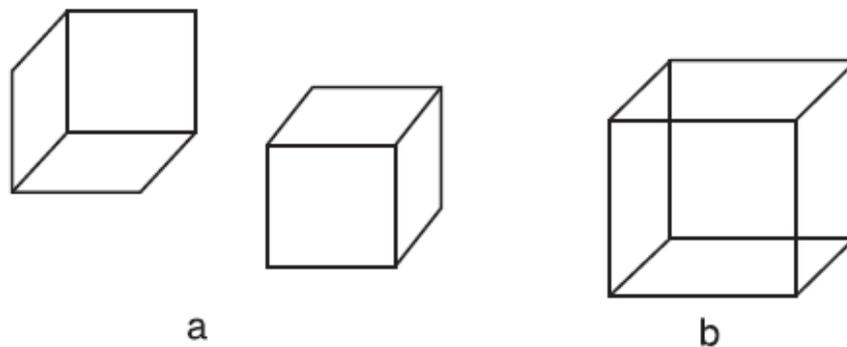


Figure 1. Opposing perspectives (a) and Necker cube (b)

If you were initially viewing a solid cube from the angle shown in the left-hand member of Figure 1a, you would obtain the point of view of the right-hand member by (1) moving 180° around the cube to the opposite side, and (2) moving above the cube, since the left-hand perspective gives the view from below. The faces of the symbolized solid that are visible from the right-hand perspective are precisely those that were concealed from the left-hand point of view, and vice versa. In our ordinary experience with perspective, it is of course impossible to view both the near side and the far side (or the inside and the outside) of an object simultaneously; all the faces of the cube cannot be apprehended in the same glance. Opposing faces are closed to each other.

The ordinary mode of perception is the classical one. Here we perceive objects and events as extended in the world outside us, but have no immediate access to the inner, subjective ground of our perceptions: we cannot see our own act of seeing, touch our own touching. What Figure 1a illustrates is that this underlying opposition between the subjective seat of perception “in here” and the objective realm “out there” is reflected in the external objects themselves, in the diametrical opposition we ordinarily encounter between their concealed and exposed surfaces. Opposing sides of objects cannot be viewed at once.

Turning now to Figure 1b, inspection readily discloses that both of the perspectives shown in Figure 1a are encompassed in the body of the Necker cube. This creates visual ambiguity. You may be perceiving the cube from the point of view in which it seems to be hovering above your line of vision when suddenly a spontaneous shift occurs and you see it as if it lay below. Two disparate perspectives surely are experienced in the course of gazing at the cube and this disparity reflects the continuing distinction between opposing sides. But the cube’s reversing perspectives *overlap* one another in space, are internally related, completely interdependent (think of what would happen to one perspective if the other were erased).

Relevant to the Necker-cube relationship of interdependently reversing perspectives is a comment by Merleau-Ponty in his final work, *The Visible and the Invisible*:

[I]f the hidden face of the cube radiates forth somewhere as well as does the face I have under my eyes, and coexists with it, and if I who see the cube [I, the “invisible” subject] also belong to the visible, I am visible from elsewhere, and if I and the cube are together caught up in one same “element” (should we say of the seer, or of the visible?), this cohesion, this visibility by principle, prevails over every momentary discordance. (1968, 140)

Merleau-Ponty’s best-known example of Necker-cube-like reversibility appears elsewhere in the same volume. Near the beginning of the chapter titled “The Intertwining—the Chiasm,” he illustrates the interchange of subject and object as a “veritable touching of the touch, when my right hand touches my left hand while it is palpating the things, where the ‘touching subject’ passes over to the rank of the touched, descends into the things” (1968, 133–134). What we have here is a free reversibility of subject and object wherein, one moment, my left hand plays the role of subject, fingering an object, say, the keyboard of this computer; while, in the next moment, my left hand itself becomes object to the “subjectivity” of my right hand. And this reciprocal relation is not limited to the senses, to touching or seeing. According to Merleau-Ponty, “As there is a reversibility of the seeing and the visible...so also there is a reversibility of speech and what it signifies” (1968, 154). This means that the speaking and thinking subject—no less than the sensing subject—is an embodied participant in the earthly transactions of the phenomenological lifeworld, not just a detached *cogito*.

Nevertheless, Merleau-Ponty imposes a significant limitation on the interrelatedness of subject and object:

[W]e spoke summarily of a reversibility of the seeing and the visible, of the touching and the touched. It is time to emphasize that it is a reversibility always imminent and never realized in fact. My left hand is always on the verge of touching my right hand touching the things, but I never reach coincidence; the coincidence eclipses at the moment of realization, and one of two things always occurs: either my right hand really passes over to the rank of the touched [becomes an object], but then its hold on the world is interrupted [it is no longer a subject]; or it retains its hold on the world [remains a subject], but then I do not really touch *it*—my right hand touching; I palpate with my left hand only its outer covering. (1968, 147–148)

In other words, while what was subject can be known as object a moment later, I cannot know subjectivity as such. The subject is still the one who does the knowing, while the object remains that which is known.

Apparently then, the intimate reciprocity of subject and object, their thoroughgoing entwinement, does not add up to a literal fusion, at least not in terms of what humans can

experience. To be sure, on Merleau-Ponty's account, subject and object are consanguineously tied to one another; they participate fully in the same order of Being. With little difficulty, subject can become object and vice versa, and this cube-like reversibility attests to the blood-bond inwardly uniting them. Yet "the hinge between them, solid, unshakeable,...[remains] irremediably hidden from me" (1968, 148). So, according to Merleau-Ponty, the boundary dividing subject and object holds firm in my experience of them; in passing from one to the other, necessarily, there is a break in my awareness, and this gap attests to their mutual exclusion from each other. Merleau-Ponty does go on to say that "this hiatus between my right hand touched and my right hand touching...is not an ontological void, a non-being: it is spanned by the total being of my body, and by that of the world" (148). Still, while there may not be an ontological void, the presumably "irremediable" *epistemological* void he posits would be quite enough to forever prevent the *realization* of full-fledged subject-object intertwining.

The phenomenal character of the shift from right hand touching to right hand touched, from subject to object, inside to outside, is depicted with iconic precision in the Necker-cube shift in perspective wherein each face that had appeared as an inner surface now presents itself as an outer surface, and vice versa. And if we view the cube in our customary way of viewing things, the limitation imposed by Merleau-Pontian reversibility is certainly supported: "the hinge between [perspectives], solid, unshakeable,...[remains] irremediably hidden." But the fact is that we can go a step further in our perception of the cube. Instead of allowing our glance to merely oscillate from one perspective to the other, we actually can break this visual habit and view both perspectives of the cube at once.

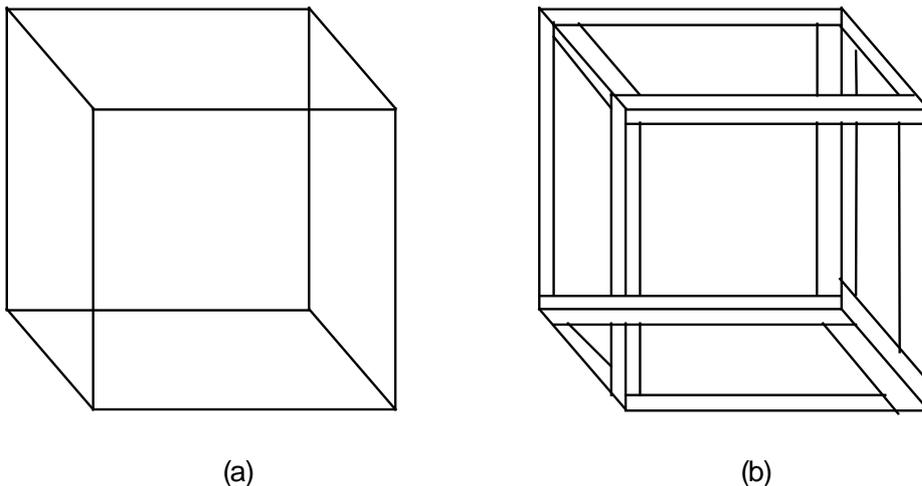


Figure 2. Bare Necker cube (a) and cube with volume (b)

In Figure 2b, I've added some volume to the Necker cube, fleshed it out a bit. This modification should make it easier for you to see what I am talking about. When the cube's perspectives are integrated as I am suggesting, there is an uncanny sense of self-penetration; the cube appears to do the impossible, to go *through* itself. Here—at least symbolically—the division of inside and out, of subject and object, is surmounted in the creation of an experiential structure whose opposing perspectives are simultaneously given.

But the word “simultaneous” may not exactly fit. I am proposing that we can apprehend the cube in such a way that its differing viewpoints overlap in time as well as in space. But what we actually experience when this happens is not simultaneity in the ordinary sense of static juxtaposition. We do not encounter opposing perspectives with the same immediacy as figures appearing side by side in space, figures that coexist in an instant of time simply common to them (as do the words printed on this page, for example). If the coincidence of the cube's perspectives were limited to that, Merleau-Ponty certainly would be right to say that such opposites could “never reach coincidence.” But there is indeed a coincidence in the integrative way of viewing the cube, for perspectives are not related in simple temporal succession (first one, then the other) any more than in spatial simultaneity. If opposing faces are not immediately co-present, neither do they disclose themselves merely *seriatim*, in the externally mediated fashion of linear sequence. Instead the relation is one of *internal* mediation, of the *mutual permeation* of opposites. Perspectives are grasped as penetrating each other in a manner that blends space and time so completely that they are no longer recognizable in their familiar, categorically dichotomized forms. You can see this most readily in viewing Figure 2b. When you pick up on the odd sense of self-penetration of this allegedly “impossible” figure, you experience its two modalities neither simply at once, nor one simply followed by the other, as in the ordinary, temporally broken manner of perception; rather, you apprehend the dynamic merging and separating of perspectives.¹

Nevertheless, the Necker cube does have its limitations as an iconic sign-vehicle that could give full expression to Being. For, while the merging of subject and object is indeed effectively *symbolized* by the merging of inside and outside suggested in the integrative way of viewing the cube, the concrete fact is that the cube itself appears as but an object cast before our detached gaze. The subjectivity of he or she who views the cube is not tangibly implicated in the subject-object merger that is depicted.

¹ Was not Merleau-Ponty himself actually trying to articulate this dialectic of mediation and immediacy when he spoke of “self-mediation” (*médiation par soi*) in “Interrogation and Dialectic,” a chapter of *The Visible and the Invisible* that precedes “The Intertwining—the Chiasm”? If so, in the relevant passages I have cited from the latter, Merleau-Ponty does not seem as closely in contact with this dialectic. Here he appears to favor mediation in a one-sided way.

Underlying this disjunction is the factor of *dimension*. The basic cube (figs. 1b and 2a) is a one-dimensional line drawing embedded in two-dimensional space (the flat surface of the page). Therefore, though the perception of the cube simulates our experience with solid entities in three-dimensional space, the cube as such is certainly no solid. In our three-dimensional context, when the cube is taken literally rather than symbolically, it is thus just an object I reflect upon, one that appears before me, a being that is circumscribed, closed into itself, closed off from the inwardness of this three-dimensional subjectivity that does the reflecting. So the transpermeation of subject and object characteristic of Being cannot fully be delivered by a dimensionally inadequate sign-vehicle like the Necker cube. Is it possible that, if a higher-dimensional version of the cube were available, we would be able to go further?

I suggest the answer is yes. I propose that we could go beyond a merely abstract and objectifying signification of Being if a solid, full-fleshed, three-dimensional counterpart of the cube were accessible to us as our sign. This paradoxical semiotic body could be read in such a way that while standing before us, it would also stand *within* us. It would present itself to us from the inner core of itself and we would recognize that core as our own. That is to say, the three-dimensional object serving as our sign and the dimension constituting our subjectivity would be utterly open to one another, would permeate each other in an unobstructed, boundless exchange. Thus, whereas we do not “lose our objectivity” in perspectively integrating the one-dimensional cube, whereas the integrated viewing of this object does not encompass our own subjective viewing process, the perspectival integration of a three-dimensional body would be different. Now integration of what is “out there” would be achieved through a process that would carry us back to what lies “in here,” to our ownmost lived subjectivity, that is—to the sub-objectivity of Being.

The semiotic experience I am adumbrating should be something like the intimate encounter I described earlier, my immersion in the vivid images of my childhood picture book. But there is a crucial difference. Now, as a reflective adult, I would not simply be fused with the sign but consciously separated from it as well, a fusion without *confusion*. To gain further insight into the three-dimensional body of paradox that would serve as our sign, let us follow Merleau-Ponty’s second clue for effectively signifying the paradox of Being.

3.2 *Topology*²

In a preliminary working note for *The Visible and the Invisible* written in October 1959, Merleau-Ponty instructed himself as follows:

² In a different context, a discussion of topology is featured in my previous contribution to *Cosmos and History* (2013). Presently, I go into the matter in greater detail.

Take topological space as a model of being. The Euclidean space is the model for [idealized] perspectival being [and is consistent]...with the classical ontology....The topological space, on the contrary... [gives] the image of a being that...is at the same time older than everything and 'of the first day' (Hegel)...[Topological space] is encountered not only at the level of the physical world, but again it is constitutive of life, and finally it founds the *wild* principle of Logos — — It is this wild or brute being that intervenes at all levels to overcome the problems of the classical ontology. (1968, 210–11)

With these ideas, Merleau-Ponty was exploring the possibility that the problem of Being might best be approached by going beyond the Euclidean geometry that frames classical ontology and considering instead the mathematical discipline of topology. Conventionally defined, topology is the branch of mathematics that concerns itself with the properties of geometric figures that stay the same when the figures are stretched or deformed. Through topology, a much wider range of geometric phenomena can be studied than when limited to the postulates of Euclid. Indeed, two topological forms in particular suggest higher-dimensional versions of the Necker cube. To examine the first of these, we begin with a comparison (Rosen 2006, 2008, 2014).

A cylindrical ring (fig. 3a) is constructed by cutting out a narrow strip of paper and joining the ends. The surface of Moebius (fig. 3b) is produced simply by giving one end of such a strip a half twist (through an angle of 180°) before linking it with the other.

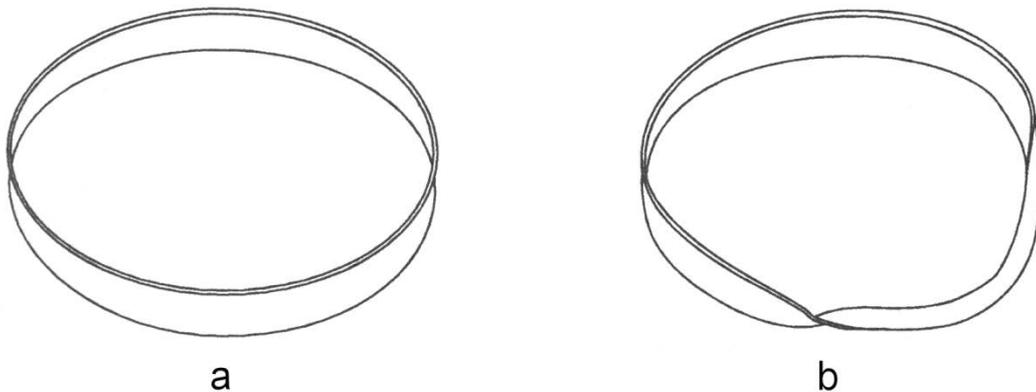


Figure 3. Cylindrical ring (a) and Moebius strip (b)

The cylindrical ring possesses the conventionally expected property of two-sidedness: at any point along its surface, two distinct sides can be identified. Now, in the Moebius case, it is true that if you place your index finger anywhere on the surface, you will be able to put your thumb on a corresponding point on the opposite side. The Moebius strip does have two sides, like the cylinder. But this only holds for the local cross-section of the strip defined by

thumb and forefinger. Taking the full length of the strip into account, we discover that points on opposite sides are intimately connected—they can be thought of as twisting or dissolving into each other, as being bound up internally. Accordingly, mathematicians define such pairs of points as *single* points, and the two sides of the Moebius strip as but *one* side. If the Moebius property of one-sidedness is difficult to imagine in the abstract, it is very easy to demonstrate. Starting on one side of the strip, draw a continuous line along its whole length. Upon returning to your point of departure, you will discover that your ink mark has covered *both* sides of the surface—something that would not happen with a line drawn on the two-sided ring.

It is important to recognize that the surface of Moebius is not one-sided in the homogeneous sense of a single side of the cylindrical ring. It is one-sided in a paradoxical sense, one-sided and also two-sided, for the local distinction between sides is not simply negated with expansion to the Moebius as a whole. In coming to interpenetrate each other, the sides do not merely lose their distinct identities. Moebius oneness is essentially similar to the oneness of the perspectively fused Necker cube. There is inside and there is outside. The two are different. Yet they also are one and the same.

The relationship between the Moebius surface and the Necker cube can be understood as analogous to that between a sculpture and a painting (respectively). The two art forms are both external representations of inner dimensions of experience (thoughts, intuitions, feelings). But the sculpture, by making significant use of three spatial dimensions instead of two, can express the subject-matter more concretely, flesh it out through the tactile sense as well as the visual. In like manner, since the Moebius strip is a two-dimensional surface embedded in three-dimensional space, it can signify the paradoxical union of opposites more concretely than can the lines of the schematic cube, limited as they are to a two-dimensional medium of expression.

Nevertheless, while the higher-dimensional Moebius model delivers one-sidedness more tangibly than does the cube, it *is* but a model, a representation of Being's subject-object paradox that implicitly objectifies it, when what is needed is a full-fledged embodiment of Being that directly incorporates the inner depths of subjectivity. What would be required for the latter? Not a two-dimensional body enclosed as mere object in three-dimensional space, but a body that is itself three-dimensional.

There exists a higher-dimensional counterpart of the Moebius surface. By way of introduction, consider a key feature of the Moebius: its *asymmetry*. Unlike the cylindrical ring, the Moebius strip has a definite orientation in space; it can be produced either in a left- or right-handed form (depending on the direction in which it is twisted). If left- and right-oriented Moebius strips were stretched out and glued together edge to edge, a topological

structure called a *Klein bottle* (fig. 4) would result (named after the German mathematician, Felix Klein).

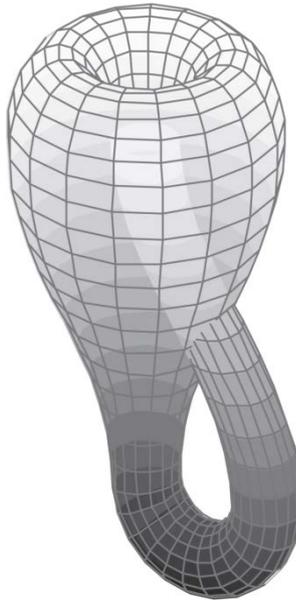


Figure 4. Klein bottle (courtesy of Tttrung, Wikipedia.org)

The Klein bottle has the same property of asymmetric one-sidedness as the two-dimensional Moebius surface, but embodies an added dimension (see Rosen 1994, 2004, 2006, 2008). Mathematicians tell us that we cannot really produce a proper physical model of this curious bottle. That is, left- and right-facing Moebius bands cannot be superimposed on each other in three-dimensional space without *tearing* the surfaces. I am going to suggest that this inability to successfully objectify the Klein bottle in three-dimensional Cartesian space actually derives from the fact that the bottle calls into play the *ontological* dimension.

There is a different but mathematically equivalent way to describe the making of a Klein bottle that, for our purposes, will be instructive. Once again a comparison is called for.

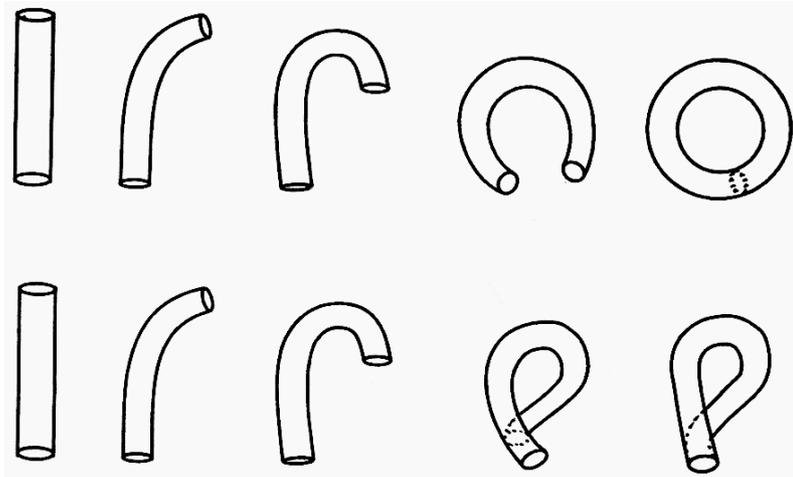


Figure 5. Construction of torus (upper row) and Klein bottle (lower row)

Both rows of Figure 5 depict the progressive closing of a tubular surface that initially is open. In the upper row, the end circles of the tube are joined in the conventional way, brought together through the three-dimensional space outside the body of the tube to produce a doughnut-shaped form technically known as a *torus* (a higher-order analogue of the cylindrical ring). By contrast, the end circles in the lower row are superimposed from *inside* the body of the tube, an operation requiring the tube to pass *through* itself. This results in the formation of the Klein bottle. Indeed, if the structure so produced were cut in half, the halves would be Moebius bands of opposite handedness. But in three-dimensional space, no structure can penetrate itself without cutting a hole in its surface, an act that would render the model topologically imperfect. So, from a second standpoint, we see that the construction of a Klein bottle cannot effectively be carried out when one is limited to the three Cartesian dimensions that frame our experience of external (objective) reality.

Mathematicians are aware that a form that penetrates itself in a given number of dimensions can be produced without cutting a hole if an *added* dimension is available. The point is nicely illustrated by mathematician Rudolf Rucker (1977). He asks us to imagine a species of “flatlanders” attempting to assemble a Moebius strip. Rucker shows that, since the “physical” (externally experienced) reality of these creatures would be limited to *two* dimensions, when they would try to make an actual model of the Moebius, they would be forced to cut a hole in it. Of course, no such problem of the Moebius intersecting itself arises for us human beings, who have full access to three external dimensions. What is problematic for us is the making of the Klein bottle, requiring as it would a fourth dimension. Try as we might, we find no such dimension “out there” in which to execute this operation. I suggest

that the "fourth dimension" needed to complete the formation of the Klein bottle engages the *inner* dimension of human being. It is not just another arena for reflection, one that stretches before us as does classical space; rather, it is folded within us, entailing the pre-reflective depths of our subjectivity. The critical distinction between conventional and phenomenological interpretations of the Klein bottle hinges on their different ways of dealing with the "fourth dimension." And this reflects a different understanding of space and dimension in general.

3.3. *Conventional and Phenomenological Approaches to Kleinian Dimension*

In his essay "Eye and Mind," Merleau-Ponty emphasizes the "absolute positivity" of traditional Cartesian space (1964, 173). For Descartes, space simply is *there*; possessing no folds or nuances, it is the utterly explicit openness, the sheer positive extension that constitutes the field of strictly external relations wherein unambiguous measurements can be made. Merleau-Ponty speaks of,

this space without hiding places which in each of its points is only what it is....Space is in-itself; rather, it is the in-itself *par excellence*. Its definition is *to be* in itself. Every point of space is and is thought to be right where it is—one here, another there; space is the evidence of the "where.".... *Space* remains absolutely in itself, everywhere equal to itself, homogeneous; its dimensions, for example, are interchangeable. (1964, 173)

Merleau-Ponty concludes that, for Descartes, space is a purely "positive being, outside all points of view, beyond all latency and all depth, having no true thickness" (1964, 174). Or we can say that, in the Cartesian tradition, a space or dimension is essentially regarded as a *continuum*: an infinitely dense extension composed of point-elements that themselves are entirely *unextended*, devoid of inner structure, thus possessing no gradations of depth; no shading, texture, or nuance; no contrasts or distinctions of any sort.³ A condition of "total exposure" prevails for the point-elements of the continuum, since these elements, having no interior recesses, must be said to exist solely "on the outside." All that can be said of the relations among such eviscerated beings is what Heidegger said: the points of classical space are "outside-of-one-another" (1927/1962, 481).

If space is classically conceived as "absolute positivity," so too are the objects embedded in this space. As Merleau-Ponty put it, "Orientation, polarity, envelopment are, in space, derived phenomena inextricably bound to my presence" (1964, 173). That is to say, our

³ While the underlying continuity of space continues to be tacitly presupposed in contemporary mathematical analysis, it is true that, with the nineteenth-century challenge to classical space, certain forms of space were conceived as discontinuous (e.g. Cantor space). However, I have demonstrated elsewhere that such discontinuous "spaces" in fact are but mathematical *objects* implicitly embedded in the continuous spaces necessary for their analysis. See my distinction between objectified space and epistemological space, in Rosen 2008, 21–22, 65, and 122.

experience of the *negative* aspects of objects—their hidden faces, their unseen inner recesses—is a mere artifact of our perceptual limitations as beings who can view the world only from our finite perspectives. But the objects themselves, embedded as they are in a spatial context constituting full-fledged positivity, must, at least in principle, be fully open to observation, measurement, and analysis, since the space that contains them affords them no “hiding places.”

What of the *subject*? Whereas classical space is constituted by sheer positive extension and the objects extended therein are likewise strictly positive beings, the Cartesian subject is utterly *negative*, nowhere to be found within the spatial continuum. This is made clear in Merleau-Ponty’s reflection on Sartre’s *Being and Nothingness*, where Merleau-Ponty associates classical being with the *en soi*, the pure positivity of the object, and nothingness with the *pour soi*, the total negativity of the subject. Thus, on the classical outlook, “I conceive of myself as negativity and the world as positivity” (Merleau-Ponty 1968, 52). The specific role played by space in this splitting of subject and object is to lock the object into the continuum and lock the subject out.

In the standard mathematical analysis of the Klein bottle, the division of subject and object is maintained. Here, the fact that we cannot assemble a proper model of the bottle in three-dimensional space is not seen as an obstacle. The modern mathematician does not limit him- or herself to the concrete reality of space but feels free to invoke any number of higher dimensions. Notice though, that in summoning into being these extra dimensions, the mathematician is extrapolating from the classically known three-dimensionality of the concrete world. This procedure of dimensional proliferation is an act of abstraction that presupposes that the nature of dimensionality itself is left unchanged. In the case of the Klein bottle, the “fourth dimension” required to complete its formation remains an extensive continuum, though this “higher space” is acknowledged as but a formal construct; the Klein bottle per se is regarded as an abstract mathematical object simply contained in this hyperspace (whereas the torus and Moebius strip are relatively concrete mathematical objects in that tangibly perceptible models of them may be successfully fashioned in three dimensions). We see here how the conventional analysis of the Klein bottle unwaveringly adheres to the classical formulation of objects in space. Moreover, whether a mathematical object must be approached through hyperdimensional abstraction or it is concretizable, the mathematician’s attention is always directed outward toward an object, toward that which is cast before his or her subjectivity. In this tradition, subjectivity is taken as the detached position from which all objects are viewed (or, better perhaps, from which all is viewed as object) but never is subjectivity *as such* opened to view. Thus the posture of contemporary mathematics is faithfully aligned with that of Descartes in whatever topic it may be addressing. Always, there is the mathematical object (a geometric form or algebraic

function), the continuous space in which the object is contained, and the seldom-acknowledged uncontained subjectivity of the mathematician who is carrying out the analysis.

Now, in his phenomenological study of topology, the mathematician Stephen Barr advised that we should not be intimidated by the “higher mathematician....We must not be put off because he is interested only in the higher abstractions: we have an equal right to be interested in the tangible” (1964, 20). The tangible fact about the Klein bottle that is glossed over in the higher abstractions of modern mathematics is its *hole*. Because the standard approach has always presupposed extensive continuity, it cannot come to terms with the inherent *discontinuity* of the Klein bottle created by its self-intersection. Therefore, all too quickly, “higher” mathematics circumvents this concrete hole by an act of abstraction in which the Klein bottle is treated as a properly closed object embedded in a hyper-dimensional continuum. Also implicit in the mainstream approach is the detached subjectivity of the mathematician before whom the object is cast. I suggest that, by staying *with* the hole, we may bring into question the classical intuition of object-in-space-before-subject.

Let us look more closely at the hole in the Klein bottle. This loss in continuity is *necessary*. One certainly could make a hole in the Moebius strip, torus, or any other object in three-dimensional space, but such discontinuities would not be necessary inasmuch as these objects could be properly assembled in space *without* rupturing them. It is clear that whether such objects are cut open or left intact, the closure of the space containing them will not be brought into question; in rendering these objects discontinuous, we do not affect the assumption that the space in which they are embedded is simply continuous. With the Klein bottle it is different. Its discontinuity does speak to the supposed continuity of three-dimensional space itself, for the necessity of the hole in the bottle indicates that space is unable to contain the bottle the way ordinary objects appear containable. We know that if the Kleinian “object” is properly to be closed, assembled *without* a hole, an “added dimension” is required. Thus, for the Klein bottle to be accommodated, the three-dimensional continuum must in some way be opened up, its continuity opened to challenge. Of course, we could attempt to sidestep the challenge, to skip over the hole by a continuity-maintaining act of abstraction, as in the standard mathematical analysis of the Klein bottle. Assuming we do not employ this stratagem, what conclusion are we led to regarding the “higher” dimension that is required for the completion of the Klein bottle? If it is not an extensive continuum, what sort of dimension is it? I suggest it is what Merleau-Ponty called the *depth dimension*.

Eschewing the superficial account of depth given in the Cartesian tradition (it is merely the dimension added to height and width to make up the third dimension of classical space),

Merleau-Ponty begins his own account of dimensionality by exploring the paradoxical interplay of the visible and invisible, of identity and difference, that is characteristic of true depth:

The enigma consists in the fact that I see things, each one in its place, precisely because they eclipse one another, and that they are rivals before my sight precisely because each one is in its own place. Their exteriority is known in their envelopment and their mutual dependence in their autonomy. Once depth is understood in this way, we can no longer call it a third dimension. In the first place, if it were a dimension, it would be the *first* one; there are forms and definite planes only if it is stipulated how far from me their different parts are. But a *first* dimension that contains all the others is no longer a dimension, at least in the ordinary sense of a *certain relationship* according to which we make measurements. Depth thus understood is, rather, the experience of the reversibility of dimensions, of a global “locality”—everything in the same place at the same time, a locality from which height, width, and depth [the classical dimensions] are abstracted. (1964, 180)

Speaking in the same vein, Merleau-Ponty characterizes depth as “a single dimensionality, a polymorphous Being,” from which the Cartesian dimensions of linear extension derive, and “which justifies all [Cartesian dimensions] without being fully expressed by any” (1964, 174). The dimension of depth is “both natal space and matrix of every other existing space” (1964, 176).

Merleau-Ponty goes on to observe that primal dimensionality must be understood as *self-containing*. This is illustrated through a discussion of contemporary art, and, in particular, the work of Paul Cézanne: “Cézanne knows already what cubism will repeat: that the external form, the envelope, is secondary and derived, that it is not that which causes a thing to take form, that this shell of space must be shattered, this fruit bowl broken” (1964, 180). In breaking the “shell,” one disrupts the classical representation of objects in space. Merleau-Ponty asks:

[W]hat is there to paint, then? Cubes, spheres, and cones...? Pure forms which have the solidity of what could be defined by an internal law of construction...? Cézanne made an experiment of this kind in his middle period. He opted for the solid, for space—and came to find that inside this space, a box or container too large for them, the things began to move, color against color; they began to modulate in instability. Thus we must seek space and its content *as* together. (1964, 180)

The work of Cézanne is Merleau-Ponty’s primary example of the exploration of depth as originary dimension. The foregoing passage describes Cézanne’s discovery that primal dimensionality is not space taken in *abstraction* from its content but is the *unbroken flow* from container to content. It is in this sense of the internal mediation of container and content that Cézanne’s depth dimension is *self-containing*.

Merleau-Ponty also makes it clear that the primal dimension engages embodied subjectivity: the dimension of depth “goes toward things from, as starting point, this body to which I myself am fastened” (1964, 173). In commenting that, “there are forms and definite planes only if it is stipulated how far from *me* their different parts are” (180; italics mine), Merleau-Ponty is conveying the same idea. A little later, he goes further:

The painter’s vision is not a view upon the *outside*, a merely “physical-optical” relation with the world. The world no longer stands before him through representation; rather, it is the painter to whom the things of the world give birth by a sort of concentration or coming-to-itself of the visible. Ultimately the painting relates to nothing at all among experienced things unless it is first of all “autofigurative.”....The spectacle is first of all a spectacle of itself before it is a spectacle of something outside of it. (1964, 181)

In this passage, the painting of which Merleau-Ponty speaks, in drawing upon the originary dimension of depth, draws in upon itself. Painting of this kind is not merely a signification of objects but a concrete *self*-signification that surpasses the division of object and subject.

In sum, the phenomenological dimension of depth as described by Merleau-Ponty is (1) the “first” dimension, in that it is the source of the Cartesian dimensions, which are idealizations of it; it is (2) a self-containing dimension, not merely a container for contents that are taken as separate from it; and it is (3) a dimension that blends subject and object concretely, rather than serving as a static staging platform for objectifications carried out by a detached subject. In realizing depth, we surpass the concept of space as but an inert container and come to understand it as an aspect of an indivisible cycle of action in which the “contained” and “uncontained”—object and subject—are integrally incorporated. And when the depth dimension is elucidated topologically, it proves to be a *Kleinian* dimension.

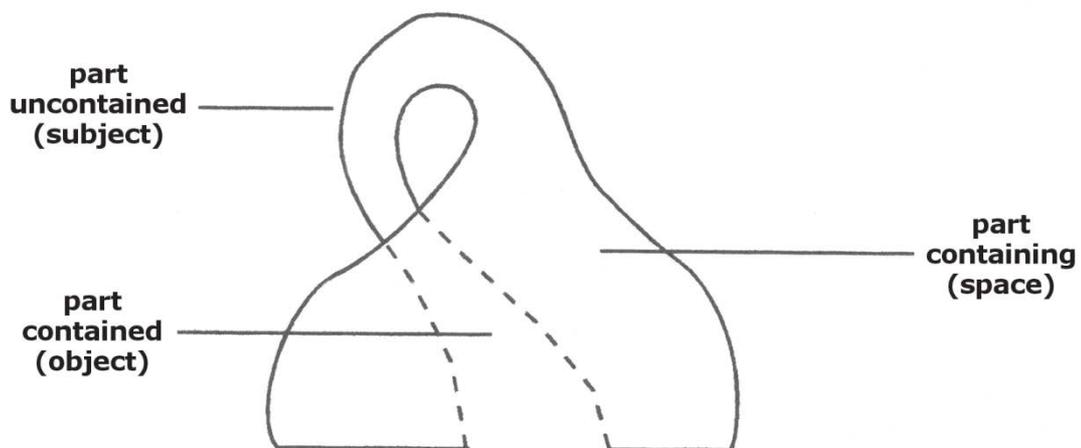


Figure 6. Parts of the Klein bottle (after Ryan 1993, 98)

Figure 6 is my adaptation of communications theorist Paul Ryan's (1993, 98) linear schemata for the Klein bottle. According to Ryan, the three basic features of the Klein bottle are "part contained," "part uncontained," and "part containing." We see here how the part contained opens out (at the bottom of the figure) to form the perimeter of the container, and how this, in turn, passes over into the uncontained aspect (in the upper portion of fig. 6). The three parts of this structure thus flow into one another in a single, self-containing movement. Symbolized here in two dimensions is the process by which the three-dimensional object of the lifeworld, in the act of containing itself, is fluidly transformed into the subject. This blueprint for phenomenological interrelatedness gives us a graphic indication of how the mutually exclusive categories of classical thinking are surpassed by a threefold relation of mutual inclusion. It is this relation that is expressed in the primal dimension of depth.

4. KLEINIAN DEPTH AND ONTOLOGICAL SELF-SIGNIFICATION

To be sure, our work with the Klein bottle is no exercise in "pure mathematics" in which a mathematical object is signified by a definition or an algebraic formula. For us, the Klein bottle is not merely a signified object; it is a *signifier*, one that paradoxically signifies itself. Or, in the language of Peirce (1931–1936, 2.230), the Klein bottle is a "Sign of itself" (see Paul Ryan's 1993 exploration of the relationship between Peirce's "Sign of itself" and the Klein bottle). It is the *dimensionality* of this enigmatic Sign that must now be given full iconic expression for an effective signification of Being.

In associating the dimension of depth with "both natal space and matrix of every other existing space," in characterizing it as a "polymorphous Being," Merleau-Ponty makes it clear that true depth is an *ontological* dimension. And the Klein bottle, as the topological embodiment of depth, is an ontological signifier. Of course, this merely *alphabetic* description of the Klein bottle will not suffice. The one-dimensional, arbitrarily agreed on typographic marks that make up the sign-vehicles of the text you are reading can hardly do justice to the higher and deeper dimensionality of Kleinian Being per se. We have seen that the conventional written text can do no more than objectify Being and render it an abstraction. What is required to avoid objectification is a sign-vehicle capable of encompassing in depth the three-dimensional reality of the signifying subject, and thus signifying Being by signifying—not some objectified other, but *itself*. Figures 4, 5, and 6 do surpass alphabetic expression, giving iconic renditions of the Klein bottle. But these two-dimensional images still lack the necessary dimensionality. They fail to achieve Kleinian self-signification because the Kleinian container engages *three* objective dimensions and realizes concrete self-reference via the "fourth" dimension—the dimension encompassing our lived subjectivity. In this ontological text then, a three-dimensional Kleinian signifier must be provided that opens the way to the phenomenological blending of subject and object.

One method for achieving an in-text 3-D effect is the production of an *anaglyph*, a composite photograph made up of two superimposed images shot in contrasting colors. This approach could be taken with the Klein bottle, but the picture would have to be viewed with special glasses whose lenses are of corresponding colors. Beyond the fact that the anaglyph would necessitate special viewing equipment, there is a deeper issue. Granting that such a Kleinian signifier would suggest three-dimensionality, how effectively would it open itself to the “fourth” dimension?

The anaglyphic Kleinian signifier comes ready-made, in the sense that no conscious perceptual adjustment is demanded of the viewer for an effective reading of the image. This way of presenting the Klein bottle is conducive to continuing to view it as something “out there,” detached from the viewer’s subjectivity. Bearing in mind the need to enlist the “fourth dimension” for the full-fledged realization of the ontological Kleinian text, let me describe a different way of producing a 3-D Kleinian signifier, one that may be better suited to Kleinian self-signification.

Three-dimensional perception can be simulated by a stereoscopic technique that does not require special glasses or any other optical equipment. For a simple example of this, let’s return to the Necker cube (figs. 1b and 2). We can in fact construct the cube stereoscopically.

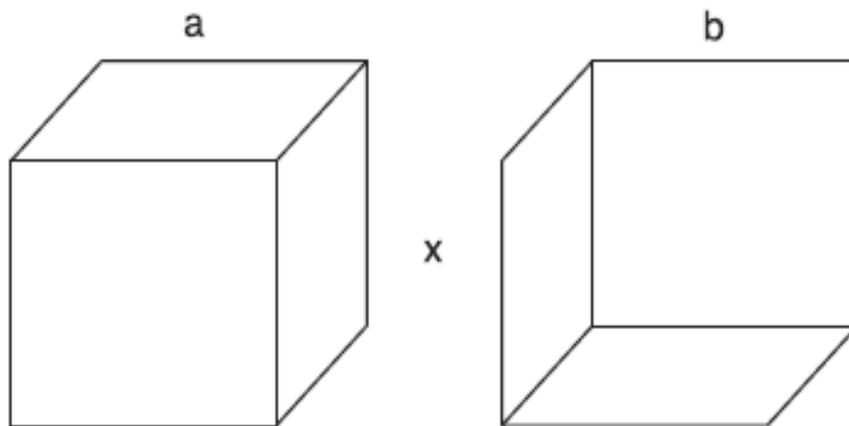


Figure 7. Stereoscopic construction of Necker cube

Figure 7 parses the cube into its component perspectives. Instead of focusing on either perspective alone, direct your view to the “X” marked halfway between the perspectives and relax your eyes, allowing them to lose focus and cross. After a while, a third image should appear between the ones printed on the page. The new image fuses original perspectives, a

fact you will be able to confirm by observing that the labels “a” and “b” have become superimposed. The image you have created stereoscopically is of course the Necker cube. In this stereogram, disparate images of the cube merge to yield an experience of three-dimensionality in which the cube seems to float off the page. Working with the cube in this manner should make it easier to work against the habitual tendency to fixate on just one of its perspectives, since you are now able to gain a proprioceptive sense of how both perspectives are integrally involved in the optical process by which the cube is produced. The term *proprioception* derives from physiology, where it signifies an organism’s sensitivity to activity in its own muscles, joints, and tendons. More generally, to engage in proprioception (from the Latin *proprius*, “one’s own”) is to draw back in upon oneself. In proprioceiving your eyes, in becoming inwardly aware of their muscular activity as they generate the cube stereoscopically, you surpass the experience of the cube as but a ready-made object out in space, thereby heralding the *sub-objective* dimension.

While the one-dimensional (line-drawn) cube projects an image of three-dimensional reality, the higher-dimensional Klein bottle of course embodies that reality more fully. It is possible to construct a stereogram of the Klein bottle (fig. 8).

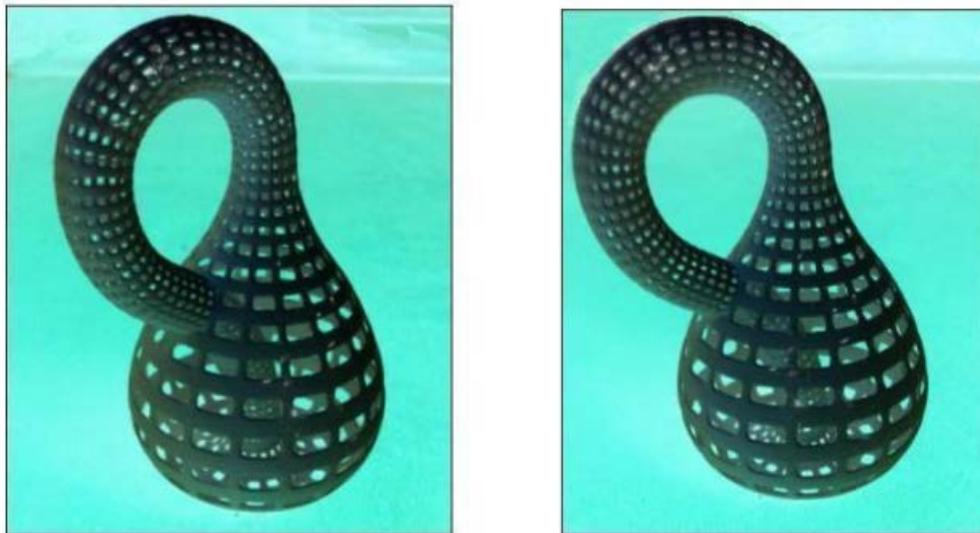


Figure 8. Stereogram of Klein bottle⁴

⁴ This stereogram of the Klein bottle is employed in a different context in *Dreams, Death, Rebirth* (Rosen 2014).

Once again, instead of focusing on either image of the figure alone, bring your attention to a point midway between the two images, relax your eyes, and allow them to cross. As with the cube, a third image will appear between the two that are printed, and this fusion of printed images renders the Klein bottle three-dimensional. Like the stereoscopic exercise with the Necker cube, the stereo-viewing of the Klein bottle entails a proprioception of the eyes in which your attention draws back in on your own optical activity as you bring into view a paradoxical structure that also reenters itself. In viewing this Kleinian signifier, what needs to be apprehended is its self-containing quality: the Klein bottle contains itself in such a way that it is at once both container and contained. Since the subject is also implicated in this self-containment (see fig. 6), if the Cartesian gap between subject and object is to be bridged, the property of self-containment is what must be digested as you continue to contain *yourself* by proprioceiving the action of your eyes. Of course, you can enact such proprioception in viewing *any* object, but an ordinary object will appear simply closed into itself, thus closed off from your subjectivity; the subject-object split will therefore be maintained. In proprioceiving your eyes as they gaze at the Klein bottle, it should be different. Because of its unique opening into the “fourth dimension”—the dimension of depth—the Klein bottle should be able to receive into its midst the proprioceptive subjectivity with which you view it. In this way, the optical proprioception you engage in while viewing the Kleinian stereogram should become intimately entangled with the Klein bottle’s extra-dimensional return to itself. It turns out, however, that this stereoscopic practice alone does not take us far enough toward realizing our intention of surpassing the dualism of subject and object and entering the sub-objective ontological dimension.

Though I may engage in proprioceiving my eyes as I view the Kleinian stereogram and may register the Klein bottle’s paradoxical self-containment, on a concrete perceptual level, I continue to experience the bottle as something “out there,” an object in space cast before my still-detached subjectivity. Why is this so? It is because the subjectivity in question, that which needs to be proprioceived, goes deeper than the action of my eyes. It is not just the eyes that must be attended to but the “I” that lies behind them. This is in keeping with the fact that the signification of Being entails more than a perceptual process. The process is primarily *cognitive*, for it is the *cogito* or thinking subject who must undertake ontological self-signification. So the backward movement required has to go beyond the perceiving eyes to the conceptualizing “I”; this ego or core subjectivity cannot just proprioceptively *view* the Kleinian sign-vehicle but must proprioceptively *read* it, engaging with it cognitively. The upshot is this: as long as the abstract “I” currently presiding over this Kleinian text remains unacknowledged and unproprioceived, whatever I experience with my eyes will be experienced as but an object in space cast before my detached subjectivity, and the Cartesian gap will persist. Since the proprioception of Being can only be realized concretely in the text

via a proprioception of *this* being, that of the author, as a first step let me remove my cloak of anonymity and introduce myself.

The text you are reading comes not from some deus ex machina but from a flesh-and-blood person who has labored long and wrestled much with it: Steven Rosen (fig.9).



Figure 9. Steven Rosen

The messy and turbulent interior struggles of the writer are part of the roiling subtext from which the text bubbles up. So Steven cannot simply be bypassed, either through an idealist rendering of Being that would transcend him, or through an act of post-structuralist abstraction that would subtract the individual writer from the writing process. This is surely not to say that a self-signifying ontological text could be *limited* to the self or being of the particular author, since what phenomenological ontology seeks is concretely universal Being. But to reach phenomenology's goal of palpably embodying Being, the body must be made real with the existentiality of *this* body, that of he who now writes. So it seems I must put my body where my words are, enacting in the process a dialectic of the particular and the

universal, of being and Being. With this in mind, let me inquire further into what it means for me to be present in the text in an embodied way.

I am here, in my apartment in Vancouver, present at this keyboard, working on this text. At the moment, it is 3:59 p.m. on October 7, 2014. Do I truly and fully stand present with this acknowledgment? Consider the posture that is implicitly assumed in this way of regarding “Steven Rosen.” He is viewed as a particular person situated in a particular place at a particular moment in chronological time. Does this not *objectify* him? This manner of presenting him is in fact but a *re*-presentation. Steven is signified as an object cast before a subject that itself remains anonymous. For, in this alleged self-signification, Steven actually has divided himself into *subject qua object*—a certain person who can be defined in terms of certain objectifiable characteristics—and *subject qua subject*—a still elusive anonymity. How then can we say that the author truly stands present here and now? Objectifying himself in this way, the “here” and “now” that he signifies is actually *elsewhere and otherwhen* relative to a resituated here and now, an originating presence whose locus is the new anonymity established by the split. In rendering Steven an object, the here and now is displaced to the nameless subject qua *subject*.

It is certainly true that ontological self-signification cannot be realized as long as the author writes in an anonymous fashion. The person behind these words does have to make his presence felt. Only by dropping his cloak of anonymity and addressing the question of Being in a more *personal* way can he approach Being. But a more complete approach to Being requires a fuller presencing, and this, in turn, means that the forward thrust by which Steven objectifies himself must be drawn back in.

This is far easier said than done, of course. Although the author of this text may wish to counteract his self-objectification by proprioceiving his pre-objective bodily source, he is confronted with the compelling sense that the body behind these words is only that of the objectified being, *Steven Rosen*. In typing these abstract words, no doubt I can gain a measure of bodily awareness simply by bringing my attention to my hands and fingers as they touch the keyboard. The proprioceptive sense I thus obtain of the working of my muscles is readily achievable. But there is one thing I normally do not proprioceive, namely, the “*I*” *itself*—“that unique touch that governs the whole tactile life of my body as a unit, that *I think* that must be able to accompany all our experiences” (Merleau-Ponty 1968, 145). Proprioception of the “*I think*” is akin to what physicist/philosopher David Bohm called “*proprioceptive thought*” (1994, 229), which he viewed as a meditative act wherein “consciousness . . . [becomes] aware of its own implicate activity, in which its content originates” (232). Years earlier, the social psychiatrist Trigant Burrow spoke similarly of the need for human beings to gain proprioceptive awareness of the “*I*”-*persona*, the kernel of cognitive identity rooted in the brain and responsible for humankind’s divisive linguistic activity (see Galt 1995). What I

am proposing here is that proprioceiving the “I” is the appropriate way to work with the Klein bottle, and that such a meditation is what the self-containing Klein bottle requires and invites. In thinking this Kleinian text, we must think proprioceptively, think our own thinking. In the process of doing this, we surpass Steven’s finite particular body and gain access to the generic thinking body, only to discover that here it is *Being* that thinks itself.

It is thus in conjunction with the proprioception of the “I” that the Kleinian sign must be read. Having made myself present in the text, once again I am proprioceptively apprehending the stereoscopic Kleinian sign-vehicle (fig. 8). In so doing, I bring my awareness to the muscular activity in my eyes and, behind them, to the “I” that seems to lie in the center of my head—“that central vision that joins the scattered visions,” as Merleau-Ponty put it (1968, 145). Proceeding with this semiotic meditation, I open myself to the “fourth dimension,” the dimension of ontological depth. As I so read Kleinian Being along with the proprioception of *this* being, this “I,” the dialectic of being and Being is enacted. In the semiosis taking place, the act of Kleinian signification—far from objectifying Being by signifying it as an other, calls Being forth to engage in a *self*-signification that encompasses subject and object in its paradoxical embrace.

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BIBLIOGRAPHY

- Barr, Stephen. 1964. *Experiments in Topology*. New York: Dover.
- Bohm, David. 1994. “The Bohm/Rosen Correspondence.” In *Science, Paradox, and the Moebius Principle*, edited by Steven M. Rosen, 223–58. Albany, NY: State University of New York Press.
- Galt, Alfreda. 1995. “Trigant Burrow and the Laboratory of the ‘I.’” *The Humanistic Psychologist* 23: 19–39.
- Gare, Arran. 2011. “From Kant to Schelling to Process Metaphysics: On the Way to Ecological Civilization.” *Cosmos and History* 7 (2): 26–69.
- Goody, Jack and Ian Watt. 1963. “The Consequences of Literacy.” *Comparative Studies in Society and History* 5 (3): 304–345.
- Heidegger, Martin. 1927/1962. *Being and Time*, translated by John Macquarrie and Edward Robinson. New York: Harper & Row.

-
- . 1964/1977. “The End of Philosophy and the Task of Thinking.” In *Martin Heidegger: Basic Writings*, edited by David F. Krell, 373–92. New York: Harper & Row.
- Merleau-Ponty, Maurice. 1962. *Phenomenology of Perception*, translated by Colin Smith. London: Routledge and Kegan Paul.
- . 1964. “Eye and Mind.” In *The Primacy of Perception*, edited by James M. Edie, 159–90. Evanston, IL: Northwestern University Press.
- . 1968. *The Visible and the Invisible*, translated by Alphonso Lingis. Evanston, IL: Northwestern University Press.
- Peirce, C.S. 1931–1966. *Collected Papers* (8 vols.), edited by Charles Hartshorne, Paul Weiss, and A. W. Burkes. Cambridge, MA: Harvard University Press.
- Rosen, Steven M. 1994. *Science, Paradox, and the Moebius Principle*. Albany, NY: State University of New York Press.
- . 2004. *Dimensions of Apeiron*. Amsterdam: Editions Rodopi.
- . 2006. *Topologies of the Flesh*. Athens, OH: Ohio University Press.
- . 2008. *The Self-Evolving Cosmos*. Hackensack, NJ: World Scientific Publishing.
- . 2014. *Dreams, Death, Rebirth*. Asheville, NC: Chiron Publications.
- Rucker, Rudolph. 1977. *Geometry, Relativity, and the Fourth Dimension*. New York: Dover.
- Ryan, Paul. 1993. *Video Mind/Earth Mind*. New York: Peter Lang.
- Sartre, Jean-Paul. 1943/1956. *Being and Nothingness: An Essay on Phenomenological Ontology*, translated by Hazel E. Barnes. New York: Philosophical Library.
- Shlain, Leonard. 1998. *The Alphabet Versus the Goddess*. New York: Viking.