A Transactional Model of Peircean Semiotic

Um Modelo Transacional de Semiótica Peirciana

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Deny motion, if it seems proper to do so; only then deny the process of determination of one cognition by another. Say that instants and lines are fictions; only say, also, that states of cognition and judgments are fictions. The point here insisted on is not this or that logical solution of the difficulty, but merely that cognition arises by a process of beginning, as any other change comes to pass. (C. S. Peirce. "Questions Concerning Certain Capacities Claimed for Men." [CP 5.263])

Abstract: Within the Peircean semiotic tradition, the distinction between process and discrete stage sets up an interesting problem, since, as with any distinction between a continuum and elements which comprise it, a Peircean perspective must confront the issue of how the transformation is made between the seamless procedural flow (semiosis) and the isolated stages (triads) which comprise it.

There are four concepts in Peircean semiotics where this issue is especially exposed: two conceptions of the dynamic object, translation, and the percept. This paper consists of two parts: the first reviews these concepts and the questions they present for reconciling triad and continuum; the second part offers a Peircean model that seeks to reconcile the paradoxes.

Keywords: Continuum**.** Triad. Sign. Semiosis. Object of the sign. Translation. Percept.

Resumo: *Na tradição semiótica peirciana, a distinção entre processo e estágios discretos põe um problema interessante, já que, como com qualquer distinção entre um* continuum *e os elementos que o compõem, uma perspectiva peirciana deve confrontar a questão de como é feita a transformação entre o fluxo procedural sem costuras (semiose) e os estágios isolados (tríades) que o perfazem.*

Há quatro conceitos na semiótica peirciana nos quais essa questão está especialmente exposta: duas concepções do objeto dinâmico, tradução e o percepto. Este artigo tem duas partes: a primeira revisa esses conceitos e as questões apresentam para reconciliar tríade e continuum; *a segunda parte apresenta um modelo peirciano que busca reconciliar os paradoxos.*

Palavras-chave: *Continuum. Tríade. Signo. Semiose. Objeto do signo. Tradução. Percepto.*

Part One: Triad and Process in the Peircean Sign

> *At what stage does the pre-interpreted begin to be interpreted, and how does the pre-interpreted function as a way in which interpretation is constrained?* (Carl R. Hausman. Draft copy of "Dynamic Objects and Percepts")

The Peircean conception of a triadic set of relations has proven to be fertile ground for semiotics. Although formulated in different ways throughout his life, Peirce's concept of a sign always emphasized the requisite triadicity of relations:

> A sign, or representamen, is something which stands to somebody for something in some respect or capacity. It addresses somebody, that is, creates in the mind of that person an equivalent sign, or perhaps a more developed sign. That sign which it creates I call the interpretant of the first sign. [1897] [CP 2.228]

> Now a sign is something, A, which denotes some fact or object, B, to some interpretant thought, C. [1903] [CP 1.346]

> A Sign is a Cognizable that, on the one hand, is so determined by something other than itself, called its Object, while, on the other hand, it so determines some actual or potential Mind, the determination whereof I term the Interpretant created by the Sign, that that Interpreting Mind is therein determined mediately by the Object. [undated letter-1904?][CP 8.177]

Yet how does this triadic function relate to the apparent seamless flow of semiosis which involves not only the immediate triadic relation, but also those antecedant and consequent to it? The instability of the part/continuum paradox is especially pronounced in four Peircean concepts that deal with interiority/exteriority concerning the triad: the dynamic object (in its strong and weak sense), the translation function, and Peirce's notion of percept. In the sections below, I would like to describe these four concepts and then show how they present difficulties in understanding the connection between triad and on-going semiosis.

The Dynamic Object

The object of a sign, as it is represented for a given interpretant within the triadic relation of which the sign is a part, is the immediate object, not to be confused with the dynamic object. "But it is necessary to distinguish the Immediate Object, or the Object as the Sign represents it, from the Dynamical Object, or really efficient but not immediately present Object" [CP 8.343]. The dynamic object acts as a constraining condition upon the sign. It has an effect on the triad (is efficient), but is not present in the triad (not immediate).

The dynamic object presents a challenge because by being *not* immediate, it is positioned somewhere else than within the triadic relations that make up the fundamental unit of semiosis. Something is external to any specific triadic relation, yet operates upon it. What is the nature of this operation, this forcefulness? If it is itself to be of a semiotic nature, then why is it considered to be external to the triadic relation?

The "Strong" Dynamic Object

It's important to distinguish two conceptions: what might be called a stronger and a weaker sense of dynamic object. The strong version of the dynamic object is illustrated by John Deely in *Basics of Semiotics.* gives the example of a boy who finds what he figures to be a rock [DEELY, p. 96-7]. Later a paleontologost determines that it is the 75 million year old fossilized bone of a dinosaur. A similar example is given by Carl Hausman: Two fellows in a field see something in a distant meadow. One says "look at that bush". The other says "No, that is no bush, it is a sheep". They walk nearer and they agree that they both have been mistaken: they determine it to be a rock. /Sheep/ and /bush/ were both immediate objects, but /the thing that they call rock/ is the constraining dynamic object that ultimately guides them to agreement.

In these examples, one has the sense of an *external discrete thing* guiding the eventual development of interpretation. These dynamic objects not only constrain those things that can be signs to represent them, but ultimately they lead to interpretations that converge upon agreement because the reality "out there" awaits revelation. The rock *was* that which we have come to call a rock and the fellows eventually came to see it for what it was all along; the dinosaur bone was from a dinosaur and was waiting to be correctly identified as such, for someone to see its "true nature". In its strong sense, the dynamic object is the vehicle for discovering the "already true nature of things". It is a Realist's position: the strong dynamic object is an entity possessing its own physical being independent of interpretation yet constraining and guiding comprehension on a path toward its truthful revelation.

The "Weak" Dynamic Object

However, there is a more moderate way of thinking about the dynamic object, one in which it not be something "waiting to be realized" [Deely, pg 35]. In this second view, the dynamic object is not "a thing out there", but rather the conditions constraining the sign-object nexus, whatever the nature of those conditions may happen to be.

Consider that for a given interpreter in a particular situation, only a limited number of things can succeed in being signs for a particular object. If my intent is to have you halt, and if you are English speaking, I might say the word "stop", or "hold it right there, buddy". Or, I might hold out my hand palm first, or produce a life size cardboard cut-out of a traffic cop, whistle in mouth, white gloved hand raised. There are many possible choices, but blowing my nose or saying "pass on", are signs that are not likely to work. The constraining condition here is coming from the signifying system that is in place, the symbolic network that has been agreed upon within the culture.[1] Moreover, it is not limited to symbolic systems: the weak dynamic object also functions in the case of

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[1] The conception of the Weak Dynamic Object might also be compared to Structuralist semiology where the connection between signifier and signified is constrained by the entire system of signs of which they are a part.

indexes and iconic relations as well. It is simply the limitations imposed upon the sign by the object the sign acts as a vehicle to convey.

Or, to take another example, an American commutes to work in Seattle and happens upon an intersection for which there is no traffic marking. Perhaps at some future date the Seattle traffic authority passes a law stating the absence of any specific traffic marking at an intersection shall be interpreted as a sign to stop. But for today's commuter, the object /stop/ will not be successfully communicated by the absence of a traffic marker. Since there is a limited set of signs that can refer to a particular object in any situation, the sign is constrained within the situation, by the object.

Within the domain of the weak dynamic object, the collection of possible signs, although limited in any *specific* situation, is not limited *in principle* when considered from the point of view of the ever-possible, removed from an actual situational occurrence. One might, for instance, form a club in which all the members agree that the action of blowing one's nose *is* a sign to stop. In such a case, much as in case of some future Seattle traffic authority, a law arises which alters the set of possible signs for an object. So for the weak dynamic object, even if the range of possible signs for object x is potentially limitless, on any actual given day the set of possible functioning signs for object x is highly constrained.

Whether in its strong or weak sense, the dynamic object introduces necessary aspects to semiosis that are exterior to an immediate triad. Given that exteriority, both strong and weak forms of dynamic object call into question the mechanism by which one goes *into* the triad from *outside* the triad. How do these inclusionary and exclusionary rules work? Boundaries to the triad are being constructed – how can these boundaries be bridged?

Translation

Semiosis attains its characteristic flow through the capability of one interpretant to become a sign for a subsequent interpretation. David Savan, pg 48] has called this function *translation* and provided this explanation: "Any sign is an interpretant if 1) it instantiates a general habit (or rule) of transforming an antecedant sign into a consequent sign, and 2) signifies its object through some antecedent sign of that object" [Savan pg 48].

You might say translation is how daisies become a daisy chain. It transforms one kind of element into another kind of element, instituting a chain of linked triads. By that means, semiosis re-establishes continuum from the very stages that interrupt the continuum.

While it points to the conditions necessary for an antecedent interpretant to be transformed into a consequent sign, the passage quoted above does not address what is involved *in the act* of transformation or how it is possible to move from antecedent to consequent. So while translation provides the mechanism for bridging the space between one triad and another subsequent triad, and melds the stages into a flowing process, one still must ask what happens *between* something acting as sign and something acting as interpretant. As in the case of the dynamic object(s) it will be incumbent to explain how something can make this transformative move.

The Peircean Percept

The last area in which the issue of process and triad come into uneasy contact is in the notion of the Peicean percept. For Peirce, a percept was something that was pre-cognitive, pre-conscious, and pre-semiotic:

> ...just as Achilles does not have to make the series of distinct endeavors which he is represented as making [in Xeno's paradox of interval/continuum], so this process of forming the perceptual judgment, because it is sub-conscious and so not amenable to logical criticism, does not have to make separate acts of inference, but performs its act in one continuous process. [CP 5.181]

Indeed, working from the conceptions of the 19th century, to say something was pre-conscious or pre-cognitive was equivalent to saying they were pre-semiotic because perception was not considered to be an action of thought. Rather, it was something a priori, given to (literally "for bringing in") the higher faculties of cognition. This idea of perception needs to be amended in light of today's understanding of pre-conscious mental activity.

It is noteworthy that Peirce did not consider perception to be a simple concept. It is now realized that all the senses are not only interactive at very low pre-cognitive levels, but that from physical contact with the world to our highly conscious awareness, there are various kinds of decision-making and interpretation [eg: Minsky, Dennett, Edelman & Tononi]. It is remarkable that in 1904, without benefit of a century of development of the idea of percept, Peirce was already attempting to break perception into smaller increments of cognition. What he confronts in his discussion of the percept is another of these problematic areas separating stage from continuum. Somehow, in a world where cognition is clearly fully semiotic and triadic, one must make the leap from a dyadic function to a fully triadic one. Perception would seem to be dyadic – a simple unreasoning function of nerve cells. But Peirce intuits that there must be some way that perception is delivered to cognition, some incremental way of introducing full scale triadicity from the brute dyadic contact with the world.

Peirce's solution is suggest something called a perceptual judgment which represents the liminal edge of semiosis.[2] Perceptual judgment is an interpretant-cum-sign–a "ready-made" [CP 7.630] – that is the starting point for fully cognitive semiosis.

The judgment itself is given to consciousness through something he calls a "percipuum": the felt quality of experience. Yet, for Peirce, percept seems to consist of more than mere judgment. It seems to require elements of memory and suggestions of anticipation.

> It is a difficult question whether the serial principle permits us to draw sharp lines of demarcation between the percept and the near anticipation, or say the antecept, and between the percept and the recent memory (may I be permitted to call this the ponecept, a distant and dubious memory being perhaps quite another thing?), or whether the percept is at once but an extreme case of an

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antecept and an extreme case of a ponecept. Or rather, – I beg the reader's pardon for my awkwardness of statement, – the precise question is not about percept, antecept, and ponecept, but about percipuum, *antecipuum*, and *ponecipuum*, the direct and uncontrollable interpretations of percept, antecept, and ponecept. [CP 7.648, italics Peirce's]

His discomfort palpable in the passage, he reengages the dyadic/triadic issue with the new concepts of antecipuum and ponecipuum, concluding, five paragraphs later, that these aspects (perhaps including percept?) can be seen as triadic functions:

In fact, we are thus brought close to the doctrine of Synechism, which is that elements of Thirdness cannot entirely be escaped. The present moment will be a lapse of time, highly confrontitial, when looked at as a whole, seeming absolutely so, but when regarded closely, seen not to be absolutely so, its earlier parts being somewhat of the nature of memory, a little vague, and its later parts somewhat of the nature of anticipation, a little generalized. [CP 7.653]

The present moment, as presented in the percipuum, is never discrete; there is the suggestion that the elements which comprise it may also yield smaller units, that "time has no ultimate parts, or instants" (CP 7.653) (that is, absolute parts) but always has elements of anticipation and memory.

In his attempt to understand the most basic quale of experience – the percipuum – Peirce is introducing the possibility of nesting of smaller elements. If he decides the the percept to be merely dyadic he would have no need to account for it semiotically, but he suggests it may well have triadic components and he is using the mnemonic *ponecept* and the anticipatory *antecept* to stitch together the percept and the perceptual judgment.

I find the above quoted passages in Peirce to be stunningly prescient of work in cognitive studies a centurey later. I also think these passages can be distinguished from much of his writings by their searching and somewhat uncertain character. There is, in these passages, a suggested alternative conception of the triad and its relation to continuum, one which I shall build on in presenting the second part of this paper.

But to point out the difficulties in his analysis of percept as it stands: There is a proliferating list of new concepts/terms which threaten to sink his model under the very weight of their numbers. Are these new entities fundamentally different than the familiar semiotic functives of signs, objects, and interpretants? Are ponecipua kinds of percipua or kinds of percepts? If these new entities are triads the dyadic/triadic interface problem is merely pushed back to a deeper unspecified level. It becomes unclear how such a complex semiotic structure – one that comes close to incorporating quasi-triadic elements – can be a tool for clarifying the discourse. Furthermore, even as their semiotic status remains ambiguous, ponecept, antecept, percipuum remain infinitely regressive. Ultimately, are they really different than memory and anticipation? Intent and worldview? Shouldn't a semiotic model be primarily providing the tools to critique such concepts as memory, anticipation, intent, and worldview rather than the other way around?

Summary of the Problem So Far Recounted

Despite many issues of interest within the notions mentioned here, each of which could easily become the subject an essay much longer than the present one, the salient point for now is to note how these concepts destabilize the notion of a discrete triad, pushing the triad into a confrontation with continuum. In each of these aspects, triadicity is brought to some form of *edge*, a limit, some border that cannot be crossed without losing the nature of a distinct triadic relation.

The tension evident in the notions of the dynamic object (considered in its strong or weak version), translation, and percept call for a re-interpretation of the general triadic model of semiosis. For each case, a model must explain what is happening when a triad encounters something that would seem to be non-triadic. In the case of the strong dynamic object, the non-triadic element threatens to reside in a semiotically untouchable place; in the case of the weak dynamic object, the non-triadic element is a set of conditions which constrain the triad in some way, which conditions remain semiotically unspecified; in the case of translation, there is an action of transformation which points to the possibility of flow but leaves the transformation itself unexplained; finally, in the case of the percept, the move from dyad to triad is attempted through intermediary stages, but the semiotic status of those stages as triads, dyads, or some quasi-triad remains ambiguous. These problems suggest that it might be worthwhile to attempt a refinement of the standard model so that triad and flow might be reconciled in a concise and fundamental way.

Part Two: A Transactional Model

> *What is motion from one frame of reference could well be considered stasis from another frame of reference* […] *What might be transient from one view might be immutable from another view.* (Floyd Merrell. *Change through Signs of Body, Mind and Language.* Waveland Press, 2000. p. 25, 46)

What must a reformulated Peircean model do? The problem is to explain flow in terms of triad. First, it must explain the rules that permit the discrete triadic stages to become a flowing process. Second, it must take the basic Peircean triad to be fundamental and explain more complex structures in terms of triads. What this will inevitably entail is that flow/particle divisions must be explained interdeterminedly: flow accounted for in terms of stage and stage in terms of flow, both resolved within and by the concept of the triadic relation.

Edges of Semiosis: Status and Role-Based Boundaries

We have seen how the triad is challenged when it comes to an edge. One finds there are actually two different kinds of edges. The first kind of edge involves the transistion from non-semiotic events to semiotic events. An example is the strong dynamic object in which a purported existent lies outside direct experience and is constraining what the triad can do. This kind of edge may be referred to as a *status boundary*: a concept is

either within or outside the subject matter of semiotics. A second status boundary is that of the percept if it is thought to be dyadic. Peirce, in confronting the problem of percept was trying to decide where to "draw the status boundary line" between dyadic perception and triadic cognition.

The second kind of edge is exemplified by translation and the weak dynamic object. This kind of edge is a *role-based* boundary: something that is not a part of the triad is nevertheless performing the role of constraining or influencing the triad. Translation's role is to permit the static triad to be carried further, to become a "more developed sign". The weak dynamic object, is a role-based boundary as well, functioning as constraining conditions influencing the triad.

It is not requisite for a semiotic system to account for entities that lie outside the purview of semiotic. Therefore, status boundaries are not subjects for legitimate consideration in semiotic analysis. However, in the cases of the role-based boundaries, translation and the dynamic object in its weak sense, the interactions are semiotic. Here, the challenge is to account for how the actions they represent can be ultimately reduced to triads. The first step must be to clearly demarcate the state of triadicity as a discrete and static conception, thereby isolating it from those elements that may affect it or lie before it or beyond it.

The Semiotic Moment

What is the name for the triadic complex of sign/object/interpretant? It is peculiar that it is not named in Peircean semiotics. I have been calling it the triad. However, now that the objective is to effectively stress it as a state, its *lack* of action, sequence, time or flow, I propose calling it the *Moment* (which I will capitalize to indicate its use as a technical term). In introducing this term, I want to make it clear I am not introducing a new concept: the Moment is the triad.

The semiotic Moment is an instant, a chunk of process considered in temporal and provisional isolation from the continuum. It is a state, a stage.

The Moment is not of a measurable duration, or something that has existence other than as an artifact for analysis. It is the single instant held up, like a snapshot, for examination. Just as a snapshot artificially frames a section of the world's continuum, the Moment is an artifice – an extraction from the seamless flow of experience. And just as a particular snapshot is dependent upon the will of one holding the camera or the circumstances that give rise to the triggering of the shutter, so a given Moment is not completely arbitrary but ontologically constrained by being the product of something else, something that seems like a teleological impulse. Such constitutes the role-based boundaries, which will need to be accounted for soon.

The Moment as Integrated Unit

The Moment is an integrated unit: if any one of its three elements – sign, object, interpretant – is absent, the Moment ceases to exist. It is the sign/object/interpretant considered as a single configuration. The Moment functions as the primary, unitary, and

fundamental entity of semiotic analysis. It is primary in that there are no existant functions that are constituative of, and yet independent of, the Moment. The Moment is unitary in that the three elements of the triad do not exist apart from their mutual relationship as Moment. The Moment is fundamental in that while nothing is constituative of it, it is constituative of higher-level, complex semiotic functions. The wealth of Peircean analysis – the categorical sign types, the degrees of degeneracy, the taxonomies of relations – all may be handled within the framing device of Moments.

This is not really a revolutionary idea. As the Figure 1 shows, the Moment is simply the triad conceptualized in a certain way. However, I believe this conception permits a small advance over such formats as that shown in Figure 2 in which sign, object and interpretant are illustrated as separate nodes linked by triangular axes or that in Figure 3 in which the nodes are linked by means of a central meeting point (the *renvoi*) [eg: see DEELY; MERRELL]. Notice that the diagram of the Moment is a dot–the simplest visual form–and extracting any of its relational elements actually makes the diagram visually more complex (and "imperfect"). Therefore, this diagram reveals the necessary triadic configuration as the simplest semiotic unit.

The Moment is Immediate and Situational

The Moment is abstracted from the continuum. It is cut out from process, prescinded from it. As a stage, the Moment is, by definition, immediate. It is presence, "the considered present". The sign, object and interpretant of a given Moment are always immediate signs, objects and interpretants.

Neither those things that constrain the Moment nor the sequences that may arise from it are part of a given Moment. In other words, the Moment's edges, which must eventually be semiotically explained, are beyond the boundary of the Moment and not part of the Moment proper.

Time, motion and sequence may be referenced within a Moment (for instance when time is the object of a sign), but the Moment itself is always a static. The Moment is a present unit, even though the elements which make it up may "be about" sequence or time. Because it is static in both space and time, the Moment is situational, studied as an object *in situ*, so to speak. This dissociation from the flow of semiosis is essential in order to be able to use it as a tool for analysis. It would not be wrong to refer to the Moment as something artificial, a kind of a conceptual artifact, constructed to permit analysis. Even if one were to consider a fragment of experience to be a Moment, it is no less an artifice.

Allow me to pause here and offer an analogy of the Moment's relation to the flow of the continuum. Suppose you are asked to document a particular train car photographically. You walk around it taking pictures, then hop aboard the car and investigate it more closely. Perhaps the train pulls out of the station while you are aboard. To measure and describe the characteristics of the car, you ignore the fact that it happens to be traveling. Even though the purpose of the train car is to transport, the fact of the train's movement is irrelevant to describing the qualities of the car as an object.

Perhaps the photographer wishes to capture the train's motion and sets a slow shutter speed for his camera. The resulting photograph is blurred in a way that indicates

the motion of the subject of his picture, but the picture that shows motion is not itself moving. Now the photographer flips the picture to the ground and quickly snaps a shot of the picture as it falls. That second photograph is able to give information about the movement of the prior photograph (which continues to show a moving train), but from its own frame of reference is static. The Moment is analogous to a given photograph. Even if it be a shot "about" movement, the Moment, in its role permitting analysis, is a framed situation – locked into a single location.

Similarly, it is somewhat paradoxical that semiosis, the continuous process itself, cannot be apprehended directly *as* a semiotic Moment. Instead, the way in which time, sequence and movement may be understood is by becoming a sign, an object or interpretant. As such, they fall under mediation *within* a Moment without the Moment *itself* acquiring the attribute of change.

In introducing the idea of the Moment, I have stayed within the bounds of the triad. Beyond the edge of the Moment lie those aspects of semiosis that involve action and process in their role as constrainers, determiners, shapers of the Moment. I turn now to what these kinds of action are and how they may be accounted for.

Context and Selection

So far, I have made a clear distinction between those things that are within the Moment and those that, while perhaps influencing or constraining the Moment, are not properly to be considered a part of it. Now I shall discuss the ways those elements outside the boundary manage to influence the Moment.

Consider a role-based boundary such as the weak dynamic object. Recall the illustration of the traffic intersections in Seattle, where a rule or law could change the semiotic situation and affect the sign and its object. Even if a law was passed which stipulated that an unmarked intersection were to be considered a sign to stop, there is still a constraint imposed by the contents of the law and by what the law excludes. A green traffic signal, for instance, might act as a countervalant sign and signify /continue on/.

The salient point is that, in any particular situation, there is a set of possible signs capable of refering to a specific object. The sign that is in the Moment can be thought of as *a selection* from the set of available potential signs for that Moment's object. Indeed, each element – sign, object, interpretant – of a Moment may be considered to be a selection from a set of available potential sign-object-interpretant choices (Figure 4). A similar idea was put forth by Abraham Moles in the 1950s in terms of information theory. Moles' speaks of "reperoire" – a set of possible tokens – from which a particular token is chosen to become message. For Moles, a "message is a finite, ordered set of elements of perception, *drawn from a repertoire*, assembled in a structure" [MOLES, p. 19, emphasis mine]. Although Moles is more concerned in this passage with describing the syntactical elements of what he calls a message, the point of agreement is the idea that a conveyance of information requires some kind of selection from a set of available possibilities.

This repertoire of available potential choices comprises a *context* which supplies both potentiality and constraint for a realized unit within the Moment. As providers of the "raw material," so to speak, of the Moment's units, the contexts not only permit the

development of a particular Moment, but through the interaction of Moment and context, the sign is able to grow into a "more developed sign". In his monograph, David Savan takes special pains to remark on the importance of context for the development or extension of knowledge. After citing a passage from one of Peirce's letters to Lady Welby in which Peirce says that a sign is "something by knowing which we know something more", Savan goes on to say,

> The information specifically conveyed by the sign must, according to Peirce, be assigned to prior and independent information, as extending that prior information. This information has been acquired not through the sign, but collaterally, in some other way, perhaps through prior and different signs. We might call this prior information the *context* [Savan's emphasis] of the sign. [SAVAN, p. 25]

While framing the matter slightly differently, I think Savan's context and the idea of a repertoire of collateral information largely echo the point I am making.

However, I wish to distinguish, not one, but three contexts: a context for the sign, a context for the object, and a context for the interpretant (Figure 5). The sum of them form the over-arching collateral context for the Moment. Inasmuch as they are the sets of the available potential signs, objects, and interpretants respectively, these contexts act both as predispositions for the units and constraints upon them, simultaneously permitting and proscribing limits to the realized selections. It is perhaps necessary, and certainly important, to reiterate here that it is neither the contexts nor the selecting, but the *realized selections* that comprise the Moment.

But what is it "to select"? One can no longer avoid encountering action. Indeed, I have already discussed two kinds of action with the role-based entities: selection from a context and translation of an interpretant into a sign. Are there other types of action as the Moment encounters flow?

Transactions

Let us suppose you were selecting from a basket of pears. Your choice is constrained to pears, of course, but within that constraint you still have several factors to consider: the size pear you choose might depend on how hungry you are feeling; your knowledge of how pears feel or smell when they are ripe would guide your choice according to freshness; other factors such as symmetry or color might determine your choice, were, for example, the fruit to be part of a table centerpiece.

These are some of the contextual factors setting up your decision, but if you were to break the actual process of selection down to a finer grain, considered in more minute detail, there would be another series of judgments, interpretations, conclusions taking place in the selection process.

Taking one of those finer-scale decisions, imagine that you are very hungry but you also have high standards when it comes to pears, so that you must compromise between the largest (as your hunger demands) and the freshest (to meet your standards of quality) as you select. You might take up a very large pear, but note flaws, find a flawless smaller one, perhaps find a compromise pear that blends your requirements.

At a still finer level, as you examine the pears for quality, you are making use of the years of experience that you have had, let's say, in your father's pear orchard, and as

you feel the firmness or resiliency of each pear you are comparing that pear's qualities to the qualities that tell you what a perfect pear feels like to the touch.

Working still more finely, as your fingers press the sides of a pear, they are putting just enough pressure against the pears' skin to expose any flaws in its density without bruising the pear. Your fingers exert just the proper pressure on the pear because they are governed by your extensive pear-orchard experience, but also because they are experienced, as fingers, in squeezing: you know how to spread your fingers in a proper grasp, how to bend them evenly along the surface, and then, in several small rhythmic contractions squeeze each pear, each squeeze providing information about compliancy (on the down squeeze) and resiliency (on the rebound squeeze).

The example could be continued indefinitely. My point is to illustrate that any given decision requires a finer level of significant choices. In other words, the selection of the particular pear involves fine-level *nested* selections, and those require still finer nested selections. As decisions, each of these involves sign-object-interpretant units. Therefore, selection may be envisioned as a process that is comprised of Moments.

The apparent discrepancy between procedural action (motion, time, sequence) and stage is, in a sense, an artifact of the choice to view the matter at a particular degree of micro or macro inspection. These highly recursive, self referencing, and scalar aspects of semiotic – allowing an exchange across apparent edges – are not simply action (as opposed to stasis), but rather, they represent a kind of *transaction*.

Four Transactions

There are four ways these transactions can be accomplished (Figure 6). As each of these functions may be accounted for by scalar effects, they may be considered cousins, or perhaps different manifestations of the same underlying process. Nevertheless, because they have different roles to play in the movement from stage to semiosis, it is good to treat them individually. Already partially and separately introduced, the four transactions are: s*election* of units from contexts, *translation* of interpretant to sign, *nesting* of a group of semic moments to produce an element of a subsequent, larger scale Moment, and *sequencing* which is a particular kind of ordering of a nested group in such a way as to add the quality of narrative.

Selection is the decision to draw a particular sign from the repertoire of potential signs that could mediate for a particular object. Selection also occurs when a particular interpretation is made from a context of potential interpretations which could be made given a particular sign/object nexus. It is also possible to see selection as the decision to isolate a particular object from the set of potential objects. Selection is the mechanism by which a Moment is realized (in all three elements) given the context of possibles within which it is situated.

But perhaps you sense a problem here. We have stipulated that it is necessary that the Moment be the fundamental semiotic concept. Now I have explained how Moments come to be through the process of selection: doesn't that make selection somehow prior to, and therefore fundamental to, Moment? It doesn't: selection is defined in terms of Moment. In order to explain selection in terms of Moment, one merely shifts the "point of view" from the scale of the Moment defined by a selection to a finer degree of analysis. It is just as in the example of the choosing of pears. The choice, in as

much as it is a decision to select from the context, is made up of "smaller" Moments. In other words, selection is a semiosic chain of micro-Moments, each of which represent finer-scale selections to the meta- or macro- level Moment, and which micro-level is also a product of still finer grains of semiotic detail. It is a crystaline picture that is painted here. The structure of the crystal at one size is made up of smaller crystaline forms that are identical to the larger structure except they are at a smaller size.

Translation presents a similar pattern. An interpretant becomes a sign for more "fully developed" interpretant. At the finer levels, the former interpretant is in a sense probed and analyzed to discover in what ways it may be successfully employed as a sign representing a new object. That process of investigation, be it subconscious, unconscious, conceptual or perceptual, is comprised of a series of finer-grain semiotic activity. As Peirce said, "a sign is not a sign unless it translates itself into another sign in which it is more fully developed" [CP 5.594]. When Peirce uses terms such as "more fully developed" he is referring to what I am terming a change in scale.

Nesting is implied in the foregoing discussion: a chain of small-scale Moments comprise, or may be taken up, into a larger, meta-level Moment. Nesting is occurring in both selection and in translation, but to make this example less formalistic and more down-to-earth, consider that an example of nesting can occur in as simple a procedure as turning one's attention from, say, the music of Marin Marais to early Baroque French harpsichord music (of which Marin Marais was one practitioner). Early Baroque harpsichord music contains, nested within it, the music of Marin Marais as well as Couperin and others. Within the element "early French Baroque harpsichord music" – whether that element be a sign, an object, or an interpretant – there is nested these ingredients (as well as a host of others). But it is important to remember that such a shift in attention is a shift in Moments. Going from nested component to the clustered whole is not accomplished within a Moment but distinguishes two Moments of different scale. Selection and translation are operating to make these moves possible.

Sequence, the final type of transaction, is a particular version of nesting. As in general nesting, one encounters a set of entities being included in, and comprising, a larger entity. But in sequence, there is the added aspect that the set of smaller units are structured in some rule-bound way. Whereas in nesting proper there is merely a collection of Moments comprising a larger meta-Moment, in sequence the collection of smaller Moments are arranged. The most conspicuous sequential transaction produces our sensation of time. But there are others: mathematical sequences, geometric sequences, syllogistic sequences. Sequence makes narrative possible. Again, at the finer levels of sequence, one finds the familiar interpretations and triadic activity. Sequence is made up of nested finer-grained Moments upon which a rule is acting that arranges the sequence in a linear manner. Then the entire sequence gets taken up as an element of a larger-scale Moment: as sign, as object, or as interpretant.

The transactions allow signs to become fluid, active, developmental and evolutionary. Through selection, elements of a Moment are realized from the set of potentials comprising the context. Translation permits one interpretant to become a sign for a subsequent Moment. Nesting is the inclusion of any number of Moments into an element (sign, object, or interpretant) of another Moment which affords the ability of semiosis to "grow". Sequence is similar to nesting, or perhaps a type of nesting, in which the multiple Moments are ordered according to some principle or rule and which allows for the perception of time, movement, and narrative.

Conclusion

The transactional model I have proposed is simply a reformulation of the standard triadic Peircean semiotic conception with a view toward simplicity of parts. Its virtue is a very simple fundamental principle, represented by the Moment and its requisite familiar elements of sign/object/interpretant. This integrated whole is situated within a contextual environment; it is the interaction of the Moment with the context that permits flow, process, continuum. The interaction, in turn, is accounted for by re-referencing the concept of the Moment, but at a finer, constitutive, scale.

Perhaps the major vice of the proposed model is that it cannot account for status boundaries, especially the move from dyadicity to traidicity. Unlike Peirce's attempts to move through stages of quasi-triadicity progressing from percept to cognition, the transactionist approach makes no such distinction. Percept is seen as triadic, essentially the constructivist position of which Floyd Merrell speaks when he says, "There is no realization or perception without interpretation, no innocent looking without hegemonic expectations that such-and-such will be the case, no seeing without presuppositions" [MERRELL, p. 47]. As a result, the model presents an endlessly regressive series of nested triadic Moments. Like the Hindu story of creation in which the earth is carried on the back of an elephant, and that elephant on the back of another elephant, and that one on the back of another, when asked what is underneath the last elephant, the transactionist model, like the Hindu, is forced to reply, "It's elephants all the way down".

Whether this proves to be a flagrant or fatal flaw depends largely, in my view, on how the model is employed. Ultimately, I do not believe there is a single model for semiotics or the world, but in proper Pragmatist fashion, look to the ability of such models to engage and inform one's perspective of the everyday, and to predict the someday. I suspect the model may have its greatest utility in those areas of semiotics that deal with visual communication, as visual configurations have much in common with the kind of recursive, self-referencing, growth attributes that are inherent in the transactions. But it remains to build the necessary latticework between the abstractions of the fundamental model and the concrete applications such a foundation may afford. That will be a challenging but worthwhile test.

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Figures:

Figures 1, 2 and 3:
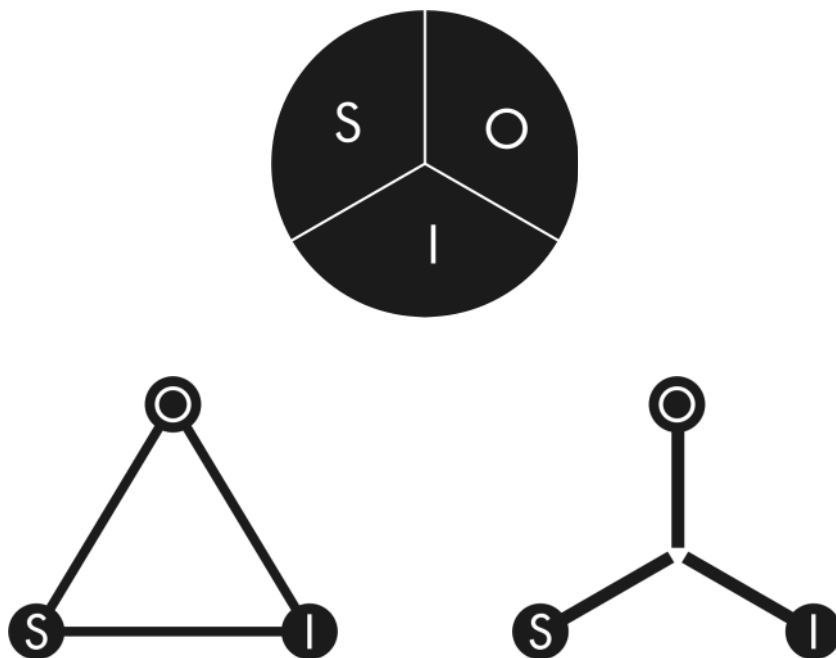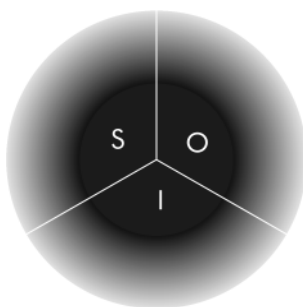
The Moment and two other models of the triad

Figure 4:
The Moment Within Contexts

Figure 5:
The Elements and Their Contexts