There are very few instances of the use of the term “metaphor” in the writings of C. S. Peirce. Consequently, it is reasonable to ask for justification for a paper attempting to understand the import of “metaphor” for Peirce. My defense is twofold. First, there has been a growing interest among contemporary philosophers concerning the nature and function of metaphor. Much philosophical treatment of the topic has been undertaken within the framework of semiotics, specifically in its appearance as a problem for semantics and most recently for pragmatics. Certainly, metaphors are instances of signs in the broad sense in which Peirce understood the concept of “sign.” And since Peirce is one of the founders of the study of signs and symbols, it is at least of historical interest to investigate Peirce’s view of metaphor. This is particularly so since metaphor has been seriously ignored in the secondary literature on Peirce. Secondly, the two primary technical uses of the term “metaphor” in Peirce’s semiotics are somewhat mysterious:

Every symbol is, in its origin, either an image of the idea signified, or a reminiscence of some individual occurrence, person or thing, connected with its meaning or is a metaphor. (2.222, 1903)

Those hypoicons which partake of simple qualities, or First Firstnesses, are images; those which represent the relations, mainly dyadic, or so regarded, of the parts of one thing by analogous relations in their own parts, are diagrams; those which represent the representative character of a representamen by representing a parallelism in something else, are metaphors. (2.277, c. 1902)

Although Peirce places metaphors under icons together with images and analogies or diagrams, he never explicitly tells us what they are or what their role is. Metaphor might appear to be a catch-all for those
things Peirce's system cannot handle. This investigation, then, will attempt to remove some of the veils from the mystery and to show that Peirce at least hinted at a concept of metaphor in which metaphor could play a role in the architectonic he wanted to construct.

Aside from the paucity of instances of "metaphor" in Peirce's work, there are two general difficulties involved in this study. On the one hand, there are so many strands in Peirce's thought that it is easy to begin any study with conflicting fundamental views of his intentions. Was Peirce a realist or an idealist, logician or metaphysician, agnostic or theist, scientist or philosopher? Yet Peirce did attempt to draw many of these opposites together and though inconsistencies do exist, if one reads carefully and comprehensively, he finds both growth and coherent direction in Peirce's work. Thus, we face the difficulty of fitting his brief remarks about metaphor into a system that is not explicit.

This is linked to our second problem: the temptation to argue from isolated instances in Peirce's work. Because of Peirce's variety, it is easy to find some evidence for various points of view. However, in arguing from isolated cases we are unable to obtain any clear direction for Peirce's thought. It is important, therefore, to emphasize that Peirce's thought grows, and that his earlier arguments must be seen in the light of his later arguments, and the later ones in light of the earlier. It is the matrix of all views which best provides an insight into Peirce's idea of metaphor.

To begin, then, I shall briefly present my interpretation of Peirce's conception of metaphor. I shall then attempt to show how I arrived at this interpretation on the basis of the varied hints found in Peirce's writings. It is obvious that since there are few explicit clues, speculation about what Peirce might have said had he proposed and developed an hypothesis about metaphor is unavoidable. However, I shall try to remain consistent with Peirce's work, even if I squeeze more from his arguments than they were meant to yield. My only method, due to the nature of the problem, is to immerse myself in the work and then to surface with an abductive gestalt.

I hope to show several things in this paper. First, I want to argue that Peirce's semiotic system has a place for two levels of metaphor:
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creative and conventionalized. Creative metaphors are iconic and, therefore, the ground of conventionalized metaphors. My contention is that this view makes sense both of Peirce's use of metaphor within his semiotics and of his ideas concerning the growth of symbols. Secondly, I want to show how metaphors, for Peirce, are distinct from analogies: in the growth of thought analogies are effective primarily for science and metaphors primarily (not exclusively) for art. This distinction, I believe, helps to explain Peirce's omission of a fuller discussion of metaphor. Let me begin, then, with my account of Peirce's conception of metaphor.

I
Metaphor

Metaphors, for Peirce, are iconic signs. Moreover, they are in some way different from analogies, for Peirce clearly distinguishes the two, as we saw, at 2.277. If anything, the comparison here suggests that analogies are a special case of metaphor in which the resembling character is univocal rather than equivocal. That is, in an analogy there are three things: the two relata and the identical form which they share. Thus, for example, an accurate road map shares a form with some particular territory. Or, a fullback is like a truck in having an ability to run over things. When Peirce argues for the dyadicness of analogy at 2.277, he does so on the ground that two things are alike in one respect. In a metaphor, however, there seem to be four things: the two relata and the different quality sets of each. When Peirce holds metaphors to be thirds, he suggests the presence of a third thing which ties together the quality sets of the relata. But he does not tell us what this third thing is. Unfortunately, there is not enough to go on in this one instance; it is suggestive but not conclusive.

Still, Peirce is at least clear in subsuming metaphors, together with images and analogies or diagrams, under the class of icons. However, he also maintains that icons, qua icons, are not signs but pure firsts or possibilities. Therefore, metaphors are hypoicons rather than pure icons; that is, they fall under the class of iconic signs. "An iconic sign," as Joseph Ransdell aptly puts it, "is anything whatever which does or
can function as a sign in virtue of its embodiment of some icon proper." Metaphors, then, because they are articulated and do carry some meaning, are no less symbolic in a fundamental sense than any other sign; rather, a metaphor is a symbol whose iconicity dominates. As Peirce argues: "One sign frequently involves all three modes of representation; and if the iconic element is altogether predominant in a sign, it will answer most purposes to call it an icon" (MS 491, p. 3). Thus metaphors may be both indexical and symbolic, but these functions are overshadowed. What, then, is the nature of a metaphor's iconic representation?

Here, I think, lies the most difficult point to establish as a result of Peirce's brevity. There are hints, but no explicit discussion of the topic. For an inroad into the problem let us look at an insightful article on Peirce's aesthetics by C. M. Smith, in which he briefly takes up the issue of how Peircean metaphors might work. Smith's discussion lends itself to two conflicting interpretations. In examining these, I shall lead into my own understanding of Peirce's conception of the function of metaphor. On the one hand, Smith appears to conflate Peirce's conceptions of metaphor and analogy by grounding both on isomorphic relations. Understood in another way, however, his argument suggests a crucial difference between the two. The first of these interpretations I want to reject and the second I want to accept as Peirce's view of metaphor.

Smith begins by attempting to explain Peirce's distinction between diagrams or analogies and metaphors at 2.277. He restates Peirce's claim that an analogy is a similarity between two objects (signs) in the qualitative structure of their parts. This, he says, accounts for the dyadicness of an analogy. A map and its corresponding territory are two relata sharing a common formal structure. A metaphor, on the other hand, is distinguished by its thirdness insofar as there is "one quality mediating between two others," as, for example, "tension" might be said to mark the relationship of two colors." But a true metaphor, according to Smith, exists only when such a triad is paralleled by a qualitative relationship in some other medium. Thus, a Peircean metaphor must always be a parallel between a pair of qualitative relations, each of which is a third.
Later, in discussing a portrait, Smith argues as follows: "Finally, it may be noted how the qualities of lines and brush-strokes combine to create an effect of crudeness which can be taken to stand for, or be paralleled by, a lack of refinement in the character portrayed. The painting would have become a metaphor." In this example Smith makes the lines and brush-strokes resemble the portrayed character through the quality of crudeness. It is on this ground that he holds it to be a metaphor.

From this description and example we might argue, on the one hand, that Smith has reduced Peircean metaphors to the status of analogy. This follows if we understand Smith to be saying that there is a quality, crudeness, which the lines and brush-strokes share univocally with the portrayed character. On this view, the parts of the painting are isomorphic with the traits of the portrayed; that is, the lines are like the character in respect of crudeness. In this case, the important relation for metaphor is simply the dyadic relation of analogy. Smith’s argument, understood in this way, is merely a special case of Ransdell’s broader claim that all iconic representations “have a formal identity” or are “isomorphic” with some object.

However, Smith may not be arguing for the univocity of “crudeness” (or “tension” in the earlier example) at all; that is, his use of “crudeness” in the example may itself be metaphorical. This view, I think, makes better sense of both Smith and Peirce. First, it accounts for the distinction both make between analogy and metaphor. Secondly, it accounts for the claim that a metaphor’s parallelism is “in something else” or in some “other medium.” That is, the parallelism of a metaphor, in being between “other” mediums, is between things which are not, or cannot be, isomorphically related. Therefore, they must create their own similarity or identity. On this reading, Smith can be seen as rejecting those claims for iconic representation which implicitly reduce Peircean metaphor to analogy by arguing that all iconic representation is isomorphic in nature. Since it is this understanding of Smith I wish to uphold as the correct understanding of Peirce, and since Smith does not develop his view, let me pick up my own argument at this point.

To see how metaphors might be different from diagrammatic anal-
logies for Peirce, let us begin with some examples. "The golf ball smiles," can be said to hold an isomorphism, if the golf ball (object) has a slash in it whose form is that of a smile. So, with "swan dive;" the dive shares the form of a swan with wings extended. These are analogies. However, "the field smiles," unless the field has a curved furrow in it, does not clearly show an isomorphism between the qualities of the field and the qualities of a smile. Peirce, indeed, since for him all icons are likenesses, would need to argue that a similarity exists between a metaphorical term and its icon, but he never precisely tells us what or, perhaps more importantly, where it is. He only suggests that it is not the same as in the case of analogy and this suggests that the similarity is peculiar. Although there may be both self- and other-representation in a metaphor, these are not based on an implicit isomorphism.

We need, then, to find another ground for the representation of metaphorical icons. And in doing so we must be careful where we look for the needed likeness; in analogies we look between the two analogues, but it does follow that in metaphors we must look between the terms or constituents. In MS 491, Peirce maintains that an icon's "representative force depends solely upon characters which it possesses materialiter and which it might equally possess though its object had no existence." Now, the material implications of a picture, map or analogue are clear as image and diagram or analogy; in their representative function they exhibit or possess what they represent as iconic. However, the materiality of a metaphor is not clear. It is unlikely that we mean that "smile" represents something in the referent of "field" in virtue of its lettering (that is, as a token), for not only are the two different but what similarity there is cannot possibly clear "the field smiles" from the charge of nonsensicalness. But can we mean that the phenomenon of smiling has qualities found in some field? In one sense, as I will try to explain, the answer is, yes, but not in the sense that the qualities were already there or that they are describable apart from the metaphor.

I suggest that the materiality of the metaphor ("the field smiles" or "the smiling field") is a feeling, a first, a pure icon which its creator perceives. The iconicity of the metaphor lies neither in field nor in smile, but in the unity of the two: a third thing which they somehow
constitute. Thus, the ground of a metaphor is an “isosensism” between a metaphor and its icon which is created by its author. Moreover, what resemblance obtains between the constituents of a metaphor is created in the articulation of the metaphor. Unlike analogical isomorphisms, metaphorical resemblances are not traceable to antecedent links. Indeed, as Peirce maintains, it is the poet who is interested in what is antecedentless and spontaneous: “the diversities are usually of small use to us scientists, and attract the attention of poets mainly . . .” (6.100, 1902). Therefore, a metaphor, like an image or an analogy, is what it represents — but not because of an antecedent identity or similarity, not as a reminiscence, but in virtue of a similarity which it creates. In this way metaphors are made distinct from other icons while they maintain the necessary condition of iconic representation. The upshots of this thesis are several, particularly as regards the relation of the constituents (field and smile) to each other and to the metaphor as a whole. These I will try to develop below. But first more needs to be said about what it is that is created in the isosensism.

The suggestion that the materiality of a creative metaphor is its “feel” is consistent with another of Peirce’s claims. In discussing self-signifying symbols Peirce describes the feeling of *déjà vu*; what happens in *déjà vu* is that we have a feeling which is autonomous while we feel as if it is a resemblance to something antecedent (MS 517). In other words, a feeling arises which feels appropriate but has no object to which it is appropriate. Thus it is self-representing: it signifies its own created icon and refers, if at all, to its own created referent. This is relevant to creative metaphors so far as Peirce claims that iconicity is most emphasized in a symbol which signifies “what it does” and therefore signifies “itself alone” (MS 517, p. 67). In our example, then, “the field smiles” is an iconic sign grounded in itself as pure icon (as pre-articulated feeling); that is, it is appropriate to itself — there is no antecedent form or quality which it imitates. This view of metaphor provides at least one medium for the self-signifying iconicity which Peirce describes. Therefore, whereas in an analogy the constituent terms are related by a single quality or finite set of qualities, in a metaphor they are related only by a similarity which they create in their conjunction. This will be clearer if we look at Peirce’s view of the growth of symbols.
II
Metaphor and Growth

Let us for the moment accept the above claims for Peirce's notion of metaphor, while examining his claims concerning the growth of symbols. If my guess is reasonable, it should make sense of the place Peirce gives to metaphor, qua icon, in the growth of symbols. Moreover, in doing so it should also make clearer both the distinction between the two levels of metaphor which I suggested above and the relationship between analogy and metaphor. And finally, it should illuminate the inner relation of a metaphor's constituent terms as well as the outer life of a metaphor taken as a whole. These are the considerations to keep in mind.

As we saw at the outset, Peirce, at 2.222, maintains that at least some symbols begin as metaphors. In fact, his hunches lead him to propose that if "a logician had to construct a language de novo," he would need certain indexical prepositions, but beyond these he could "manage with metaphors" (2.290, n. 1). Peirce is not arguing merely for the spontaneity of pure iconicity but also for the efficacy of iconic signs themselves, for symbols can originate, he claims, out of "mixed signs partaking of the nature of icons and symbols" (2.302). However, out of the triad of iconic signs (images, analogies, and metaphors) Peirce describes the growth function only of the first two. Images, he holds become symbols by conventionally standing for what they look like, as with hieroglyphics (see 2.280 and MS 1228). Analogies function in another way, as I will show; and from this function we can make a guess at how metaphors might operate in the growth of symbols.

One way thought grows, according to Peirce, is by discovery; indeed, Peirce spends much effort in trying to work out a logic of discovery in his notion of abduction. We discover new things in the world and new ways of looking at the world. In both cases, he holds that symbols of and about discoveries ought to demonstrate their relevance; they ought (though often they in fact do not) to explain themselves. Thus, for example, Peirce uses the symbols "abduction" and "retroduction" for his new logical method because their conventional meanings share a common character with the process itself: that is, the quality of "lead-
ing back from.” So, “this thought process is abduction” as a leading analogy (when its iconicity is emphasized) is to some extent self-explanatory, so far as the process itself is a reasoning from a conclusion to hypothetical premises. One example of linguistic analogy which Peirce uses is that of coal power and horse power. We can talk of coal in terms of horse power, Peirce says, insofar as “coal stands for horse power because it has the property of working like horses” (MS 124). In this way, analogies break the conventions of symbols by following new evidence and hypotheses, but they do so in the interest of precision. The precision comes from the emphasis on an isomorphic link between the constituents involved; for example, between the work of horses and the work of coal. Thus, in Peirce’s system analogies play an important role in the growth of symbols as those symbols change to keep step with discoveries and hypotheses. As Peirce argues, the “utility of likenesses to mathematicians consists in their suggesting in a very precise way, new aspects of supposed states of things . . .” (2.281, see also MS 610). Or again, “in science, a diagram or analogue of the observed fact leads on to a further analogy” (1.367). Analogies, then, in the interest of scientific precision, allow symbols to take new meanings and referents only insofar as there is an identifiable isomorphism.

Metaphors, on the other hand, seem to lack such precision. They create new symbols which are vague. To see how they work, we must begin with our earlier notion of iconic self-reference. At the outset, a creative metaphor, because it is like déjá vu, has no resembling antecedent and resembles itself alone. The feeling of “the field smiles” when it is articulated as a metaphor is not to be found in the conventional meanings of either “smile” or “field.” If the conventional meanings were at stake, the metaphor as a whole would be nonsense, for fields do not smile. And if the feeling could be reduced to an isomorphism (even an occult one), the metaphor would be an analogy.

We are left, then, in an odd situation. We have a metaphor which is acknowledged as being more than nonsense, but which lacks the precision of conventional reference or of a univocal shared quality. To attack the riddle, we must first make a move, as I suggested above, that is not necessary in iconic images and analogies. Images, as iconic signs, naturally stand alone as singles. Analogies too may stand alone;
that is, we do not alter the basic identity of “horse power” if we take it out of its analogical context — the only loss is quantitative inasmuch as “horse power” loses its relation to one referent. However, if we take ‘smile’ out of “the field smiles,” it loses not only the referent it has in the metaphor, but the entirety of its new iconic feel. It slides back into its conventionality with absolutely no notion of where it had been. The upshot is that in a creative metaphor the constituent terms cannot be separated out — “smile” is dependent on “field” for the very articulation of the feeling it is. Therefore, in talking about the meanings of metaphors and how they help symbols grow, we must look at the metaphor as a whole. For “smile” alone does not lead us by any isomorphism to “field” as “horse power” leads us to “coal power.” It is the opposite case of Peirce’s claim that “‘Let Kax denote a gas furnace,’ is a symbol which is creating another within itself’ (MS 132, CE 497). In the case of the creative metaphor, a new symbol (with iconicity emphasized) is being created by the two symbols within it.11

The two terms in a creative metaphor, however, do not lose their conventionality entirely; some atmosphere of symbolicity remains. Rather, their conventionality is somehow twisted to complete or articulate the metaphoric feeling. Therefore, unlike a literal composition of terms, a metaphor is a new symbol, and its terms are not made more precise by an interchange of predicates. That is, “field” is not made more precise by adding “smile” to it, nor is “smile” more precise in the addition of “field.” Instead, the new symbol evolving from the two together is precise in articulating or completing the feeling, but logically it is vague because feelings are vague.

Now this vagueness is appropriate for a creative metaphor for several reasons. First, as just suggested, feelings are vague because they are firsts and are therefore preanalytical. Indeed, the fact that we emphasize the firstness of metaphors as iconic signs suggests at least the possibility of an inherent vagueness.12 Secondly, because the new symbol contains traces of two conventional systems of meaning whose limits have been overstepped, it has as yet established no guiding limits of its own (cf. 6.197). Lastly, since we are viewing this as one way for symbols to be born, to originate, a creative metaphor must be vague. All spontaneity which is the source of creation is vague at first. This
is an upshot of Peirce’s view of evolution. Thus, for example, “the evolution of forms begins, or at any rate, has for an early stage of it, a vague potentiality . . .” (6.196).

Creative metaphors, then, as firsts, as originative symbols, are vague. As potential firsts of conventionalized symbols, they “play in knowledge a part iconized by that played in evolution according to the Darwinian theory, by fortuitous variations in reproduction” (MS 599, pp. 42–43). But how is their inherent vagueness couched? We must recall that we are talking about symbols whose iconicity is emphasized; thus, some indexicality and symbolicity remains. Metaphors have some reference and meaning. To see how a metaphor can be an iconic source of future meaning which can grow within limits, we must look somewhat more carefully at these unemphasized aspects of metaphors.

Indexicality, for Peirce, is a necessary condition for meaning and therefore for symbolicity. However, there appears (as with fortuitous variation) to be nothing in the world which a creative metaphor can point to. How, then, can it be indexical? Peirce answers: “But the imaginary constructions of the mathematician, and even dreams, so far approximate to reality as to have a certain degree of fixity, in consequence of which they can be recognized and identified as individuals” (2.305). The new symbol must create its own referent, its own individual; therefore, its indexicality, though not fully fixed, is not lacking.13

It is in this non-fixed indexicality, I think, that the inherent vague- ness of a creative metaphor appears. The referent which a metaphor creates is not fully closed – it is an open individual. In a bit of a twisted sense we might even see this open individual as a single continuum which, for Peirce, can also be a referent; for it is single in being a new symbol and it is potentially continuous in its non-fixity (see 2.306). A metaphor, then, as an iconic index points us to an individual which is open to further development while at the same time restricted in certain directions.

It follows from the non-fixity of the indexical function of a meta phor that its symbolic function is also not fixed. For, Peirce main tains that the “depth” or meaning of a symbol is controlled by its “breadth” or reference (MS 517, p. 19). Now, in a symbol with mul-
tiple referents, the depth is controlled by these. However, in a creative metaphor, the depth is initially controlled by the internal breadth of its single referent. And since this breadth is not fully fixed, neither is its consequent depth. Therefore, at first, a metaphor's meaning is vague in its non-fixity.

Assuming the above suggestion shows how metaphors give birth to symbols, I will venture a guess at how a symbol's life unfolds. In general, for Peirce, a symbol becomes symbolic by taking on habits of meaning; it conventionalizes its meaning and becomes a symbolic sign out of an iconic beginning. Now, according to our thesis, at the outset we cannot specify comprehensively the meaning of "the field smiles." At best, the metaphor points us to the referent which it creates. From this referent, we can select certain qualities which appear fitting: for example, "the field smiles" means "a farmer is happy" or "it rained last night after a three month drought." We select certain parts of the open referent and conventionalize them. The more they are conventionalized, the more symbolic they are in Peircean terms. This, then, finally gives us our second level of metaphor: the new level is merely what is commonly called a frozen or dormant metaphor. Certain parts of the referent are simply crystallized by an interpreter and conventionalized by habitual use. Thus, for example, we are no longer surprised when we hear, "the child is bright." This, though once fresh and vague, has grown conventional and developed a precise meaning which we accept at face value.

Not only, however, does a metaphor itself grow to symbolicity, but its terms, if we take them out again, have had their conventions altered by association with the metaphor and its referent. Thus, for example, "bright" is now synonymous with "intelligent" in some cases. And so on for a host of other examples. Because of this alteration of the terms, some frozen metaphors, interestingly, are analogies; or, put the other way around, some analogies arise out of metaphors. For example, someone may once have uttered "that man is a fox" metaphorically. However, out of the created referent someone selected the following: "that man is a fox" means "that man is sly like a fox." In this way an isomorphism, a univocal link, is established between the constituents "fox" and "man" which fills the metaphor as frozen, as
an analogy, but which does not exhaust its metaphorical capacity as creative.

To sum up: both the metaphor itself and its constituents are affected by growth. The terms add new twists to their conventions and the metaphor, as a new symbol, has its vagueness or openness vanish into, or at least toward, precision. However, the symbol does not lose its iconicity entirely, but becomes more symbolic. A new symbol can continue to grow, for only one aspect of its referent is conventionalized at a time; there are more that may yet be brought forth. Thus, a symbol can move back and forth between an emphasis on iconicity and an emphasis on symbolicity.

If analogy and metaphor play roles in the growth of symbols, it follows, since thought is semiotic, that each plays a role in the growth of thought in general as well. Analogy functions primarily, for Peirce, in the area of scientific discovery; it provides a relatively precise way for thought to move ahead. Metaphor, on the other hand, has its role in artistic creativity as a way of bringing new things into the world. And the reason Peirce deals with the former more than with the latter is that, for most of his career, he is interested primarily in science.14

Peirce everywhere admits that he is more interested in science than art, in logic than literature, in thought than feeling. This is not necessarily because he lacks a genuine interest in art, but because he feels more competent in science than in art. Of aesthetics Peirce says, "like most logicians, I have pondered that subject far too little" (2.197). The upshot is that Peirce emphasizes discovery rather than creativity. Therefore, when he looks at hypoicons, Peirce accents the isomorphic ones: geometrical diagrams, algebraic formulas, and frozen metaphors have a certain precision in their univocity of a shared form or quality. Because of their precision, analogies can make rational appeals and work in research and argumentation.

Creative metaphors, on the other hand, are of no clear use to Peirce in his scientific and logical endeavors. They may be isosensic, but feelings, for Peirce, are notoriously vague — they are imprecise. Moreover, metaphors, so far as they are creative, are spontaneities or diversities. And as we saw earlier, it is the artist not the scientist who is interested in the diversities. Peirce even goes so far as to claim that
literature is essentially an exercise in circumlocution (MS 573).

The important thing, however, is that Peirce does acknowledge the universe of art and aesthetics. Shortly before the turn of the century, Peirce makes something of an aesthetic shift: he begins to argue for the importance of aesthetics in philosophy.15 Logic itself is given a dependency on aesthetic ideals. As early as 1864 Peirce realized that "logic does not consider how an object or idea may be presented; eyesight, that is to say, and inspiration are both beyond the province of logic" (MS 94, CE 163). But it is not until later that, in spite of his disclaimers of ability in aesthetics, Peirce emphasizes what is "beyond the province of logic." It seems no coincidence, then, that the first technical uses of "metaphor" as a type of iconic sign occur circa 1902 and 1903.

In connection with this turn in Peirce’s thought, there is perhaps a certain niche where creative metaphors, together with works of art as creative images, come under the activity of artistic or aesthetic abduction. Peirce spent years developing the role of abduction in science, but gives only hints at its role in art. For example, in "Evolutionary Love" Peirce describes how an individual creates: "It is not by dealing out cold justice to the circle of my ideas that I can make them grow, but by cherishing and tending them as I would the flowers in my garden" (6.289). Moreover, of artists Peirce says: "They seem to reason little and very simply. It is truly surprising how accurate their judgments are when they are not warped; but there seems to be nothing but their usual good feeling to prevent their being warped" (MS 604, p. 1). Feeling and loving attendance, then, appear to be the grounds of artistic abduction — a creative metaphor is an insistent feeling allowed to articulate itself as something new in the world.

Creative metaphors, then, may have an agential source in the Peircean system. A poet has a feeling which he contemplates and which is adequate to itself in futuro. He lets the insistence of the feeling under his attention create the new resemblance, so that "the field smiles" makes aesthetic sense and is satisfactory (see MS 404, p. 36). The poet is at once led on by and creative of the metaphor he will use. With creative metaphors, the poet expresses artistic hypotheses: unlike the scientist, he uses feeling, not thought, as his guide. There is, I think, a good
bit more to be said and done in examining artistic abduction, but this is not the place. Its import here is merely as a possible Peircean explanation of how metaphors might fit in Peirce's overall view. It gives us a beginning in an area of rhetoric which Peirce himself never fully entered; for rhetoric has three modes where the "leading division of the first mode would be into a rhetoric of fine arts, where the matter is of feeling mainly" (MS 774, p. 13).

This is a guess at what Peirce might have done with creative metaphors had he clearly recognized them. I am inclined to think that they must play a role in his semiotic system if it is to evolve with the world as he suggests. I have outlined a possible role for metaphors in the growth of symbols and in the growth of thought itself. There are further hints to be found in Peirce's discussions of creation as agapastic evolution. Nevertheless, since Peirce tends to avoid talking about poetry and the existence of creative metaphors, I can only argue from hunches; I have suggested a great deal without giving the necessary depth. Indeed, Peirce's emphasis on the precision of logic is almost unyielding. Still, he sees in poetry and in all art another way of approaching the world; he simply feels incompetent to deal with it. Thus, in 1903 he felt pressed to defend his own poetic sympathies against his contemporary logicians and scientists: "Bad poetry is false, I grant; but nothing is truer than true poetry. And let me tell the scientific men that artists are much finer and more accurate observers than they are, except of the special minutiae that the scientific man is looking for" (1.315).

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NOTES


2. Peirce's use of "analogy" in the instances I am concerned with is not that of the Scholastics; rather, he uses it to indicate a diagram, as when a
map is an analogue of a certain territory. Of course, a diagram may be linguistic or abstract as well, as in the cases of mathematical formulae and some analogies proper.

5. Ibid., p. 27.
6. Ransdell, p. 56.
8. This view coincides with the interaction theory of metaphor as developed by Max Black and others. See Black, "Metaphor," in *Models and Metaphors* (Ithaca, N. Y.: Cornell Univ. Press, 1962).
9. This again suggests the creative aspect of the interaction theory.
10. For a Peircean example, see 3.470.
11. In 1906 in a discussion of logic and existential graphs Peirce argues against this possibility. For the composition of two terms, he maintains, does not create a third, but rather is an interchange of determinations. In the same paper he argues that all icons are reducible to antecedent forms in their objects. My only defense is that his concern in this paper is with logic and precision and not with poetry; and in the interest of clarity, he avoids mention of the vaguer side of thought. See 4.530-4.572.
12. An analogy of discovery, despite its effort toward precision, has a vagueness or openness of its own. However, its open meaning comes not from the lack of stable conventionality or lack of an isomorphism, but either from the vagueness of the hypothesis it stands for or from the uncertainty concerning the new evidence it represents. In other words, it is as precise as it can be, but it is still necessarily vague.
13. The idea of a referent of a creative metaphor is borrowed wholly from Carl Hausman's manuscript, "Metaphors, Referents, and Individuality," forthcoming in *Journal of Aesthetics and Art Criticism*.
14. It is difficult to separate creativity and discovery entirely and Peirce does not do so. Rather, he argues for creativity in science while giving it less emphasis than in art. The distinction by emphasis, then, is convenient here.