Images, diagrams, and narratives: Charles S. Peirce’s epistemological theory of mental diagrams

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Abstract

Charles S. Peirce’s epistemological theory of mental diagrams forms the theoretical basis of his attempt to analyze diagrammatic reasoning. Two examples, one from science and another from art, are examined to test the scope of this theory. While the first example shows how scientific diagrams form part of translation processes, similar processes are demonstrated in how paintings are received. The article attempts to connect Peirce and A. J. Greimas’s theory of narrative. Relating the two proves useful in allowing Peirce’s theory of the connection between the three normative sciences (Logic, Ethics, and Esthetics) to be discussed on a new basis.

Keywords: Charles S. Peirce; Algirdas J. Greimas; narrative; diagrammatic reasoning; mental diagrams; epistemology

When considering Peirce’s theory of diagrammatic reasoning, one thinks in the first instance of his method of representing logical inferences through existential graphs. In recent years, this aspect of his philosophy has begun once more to receive the attention it deserves (e.g., Roberts 1973; Keeler 1995; Shin 2002; Dau 2006). In this case, however, we wish to take a different path and address his theory that our thought processes operate with the help of “mental diagrams” (MS 404, EP 2: 10; cf. Peirce 1997: 215–216). After all, “it is by icons only that we really reason, and abstract statements are valueless in reasoning except so far as they aid us to construct diagrams” (CP 4.127; cf. CP 2.278). We shall use two different examples to examine in what way they may confirm Peirce’s theory of diagrammatic reasoning; whether his theory helps us to better understand these examples, but also whether the examples oblige us, with the assistance of A. J. Greimas, but entirely in accordance with Peirce’s epistemology, to go beyond Peirce himself.
Our aim is to place diagrammatic reasoning in a wider context in order to take account of epistemological fields that are rarely considered in discussions of Peirce’s existential graphs: on the one hand, the cognitive process in the natural sciences that operates with numerous sign systems and, on the other hand, the use of paintings as historical arguments in debates concerning the interpretation of history.

1. Translating images into diagrams: Photosynthesis

Peirce used the language of chemical formulas as a paradigmatic model for his concept of reasoning (CP 3.469–3.471, 1.289, 7.221–7.222). The ability of chemical analysis to translate perceptible qualities into diagrammatic representations, which depict relations and the transformation of relations, led him to view it as a model for successful scientific explanation of phenomena. And since every perception is already necessarily dependent upon signs, the chemical analysis of perceptible qualities also showed him how the meaning of each sign is interpreted through a different sign and thereby receives a further definition, so that the knowledge of the signified object itself undergoes progressive change (CP 1.339, 2.303, 2.94, 5.284).

Reason connects signs in order to formulate propositions, and connects propositions in order to use these as premises and conclusions for the formulation of arguments. In the course of doing so, however, reason subjects these relations to a critical test, since “reasoning tends to correct itself, and the more so the more wisely its plan is laid. Nay, it not only corrects its conclusions, it even corrects its premises” (Peirce 1992: 165; cf. NEM 4: 314–315). Thus, reasoning is the art of cultivating habits of thought regarding how a sign should be related to another sign according to certain rules. Yet with the help of doubt, reasoning also develops the ability to be self-critical. It is precisely this which may be usefully studied in the context of textbooks, in which prospective scientists must first learn the meaning of new signs (Arnold 2004). What do they learn here? According to Peirce: translations for future time. Because the rational meaning of every proposition is a translation of the proposition of which it is the meaning, one must still learn to choose from among the possible translations:

of the myriads of forms into which a proposition may be translated, what is that one which is to be called its very meaning? It is . . . that form in which the proposition becomes applicable to human conduct, not in these or those special circumstances, nor when one entertains this or that special design, but that form which is most directly applicable to self-control under every situation, and to every purpose. This is why he [the pragmaticist] locates the meaning in future time; for future conduct is the only conduct that is subject to self-control. (CP 5.427; cf. NEM 4: 10; Pape 2002: 223–232)
In other words: scientific learning always consists in learning which translations are scientifically correct, in order to be prepared for all future instances in later practice. “There is no exception . . . to the law that every thought-sign is translated or interpreted in a subsequent one, unless it be that all thought comes to an abrupt and final end in death” (CP 5.284, cf. 4.127).

Diagrammatic reasoning in chemical analysis demonstrates the process by which this “translation for future time” operates: how one must learn to relate signs through habituation and thereby simultaneously to gain distance from the special circumstances. Although the representational conventions of chemistry have developed further since the nineteenth century, with Kekulés’ structural theory of molecules structural formulas, which represent the internal structure of the molecule in diagrammatic form in order to provide an explanation of its chemical behavior, became conclusively established in chemistry during Peirce’s lifetime (Weininger 1998; Brook 1992: 241–269). Thus, within biology, chemical analysis and its equations play a major role in understanding metabolic processes in living organisms, such as photosynthesis. To depict this process in biology, it is necessary to use images, diagrams, and chemical equations that are elucidated by legends and an accompanying text. In figure 1, two photographs, one from a light-optical microscope and one from an electron microscope, are shown together with a graphic diagram of a chloroplast. The image shown by the light-optical microscope is shown again in magnified form in the diagram, and the image shown in the diagram is depicted in the same size in the image obtained by the electron microscope. This is the beginning of a series of “translations”: In figure 2, the diagram of the chloroplast is employed once again to analyze a section of this image in a further diagram. From this, a further section showing the chlorophyll molecules embedded in the membrane is represented as a structural formula, in order to represent its chemical components and their different functions in photosynthesis. The accompanying text not only describes the process but also represents photosynthesis in the form of chemical equations (for example, as \(6\text{CO}_2 + 12\text{H}_2\text{O} + \text{Light Energy} \rightarrow \text{C}_6\text{H}_{12}\text{O}_6 + 6\text{O}_2 + 6\text{H}_2\text{O}\)).

The textbook-style translation of images into diagrams and chemical formulas allow us to retrace processes of semiosis step by step, an act of scientific research that is completed more quickly and with fewer aids in automatized fashion by experienced scientists. In this, textbooks vary little in principle from the representational practices of scientific articles to which they aim to introduce the student. For this reason, this example shows us how the act of reasoning must involve a transition from images to diagrams and finally to metaphors, when it is concerned with analyzing and understanding a phenomenon (MS 478, EP 2: 274; CP 2.277). In this context, in figure 1, the transition from an image to a diagram appears to be a smooth one, since the electron microscope obtains images that are deliberately rastered using contrasts in such a way that
they may already be read as diagrams. Conversely, however, the diagram of the chloroplast is depicted so vividly in visual terms that it almost appears as an (idealized) reproduction. Meanwhile, figure 2 shows in the transition from the diagram of the chloroplast to the representation of the membrane and the chemical formula how diagrams at different levels are able continually to depict new relations, through which an object such as photosynthesis is defined.

Peirce may have been thinking of this type of representation of scientific analysis of an object when he developed his model of cognition as semiosis. According to this model, every image, every diagram, and every chemical formula as a sign possesses an “immediate Object,” which it represents. Nonetheless, the actual epistemological object, photosynthesis, that is to be captured is not identical to any of these immediate objects: it reveals itself neither in one of the photographs, nor in one of the diagrams of the structure of the chloroplast, nor in a chemical formula. For none of these representational forms is able on its own to depict photosynthesis: only the ordered translation of all these sign systems one into another can incrementally create the epistemological

Figure 1. The location of photosynthesis in a plant (Campbell and Reece 2002: 178)
object that science hopes to identify and which is described by Peirce as a “dynamical Object” (CP 8.183; EP 2: 477; cf. Short 2007: 191–196).

It would of course be possible to view a photograph or a diagram in isolation, but in this case it would depict something else. As Francoise Bastide noted, to show the meaning of photographs, they are often included in a series of figures in scientific publications, since “the isolated figure takes on a meaning only in an external system of comparison” (Bastide 1990: 197; cf. Lynch 1990). One may use the same images in isolation, ignoring their relations to each other: the picture would still be the same, but the visualized subject would have changed. In the same way, chemical formulas alone are unable to depict photosynthesis, since the internal structure of the plant cell has a decisive influence upon the development of the chemical processes: The membranes in the chloroplast determine which chemical elements come into contact with one another and are able to react; that is, how the process develops. Similar to the way in which the chemist must determine in the laboratory which elements are to be combined in which order in the test-tube, the chemical procedure of photosynthesis cannot be understood without knowledge of the chloroplast’s structure.

While structural formulas describe the structure of the elements and their bonds, the chemical equations represent the transformation of an initial state into a final state; that is, they show how the restructuring of the atoms through chemical reactions creates new elements. If one knows the structure of a chemical compound and which permutations of this structure are allowed, then one is able to analyze how this substance can be produced and in which substances
it is dissolvable under certain conditions. This specific chemical knowledge about dynamic relations is added to the photographs and the diagrams of the chloroplast. While photographs depict the spatial colors and shapes of their object, the chemical formula adds the dimension of time and change, adding possible futures and pasts. Knowing the structure means knowing out of which the substance probably emerged and into which it will probably dissolve. This temporal aspect of the language of chemical formulas is important. We shall return to it when we pose the question of whether an equivalent to this temporal transformation exists in everyday reasoning and whether one can — analogous to chemistry — also represent and interpret it as mental diagrams, with which thinking is capable of comprehending reality as a process.

This example makes one thing clear: pure icons and pure diagrams exist only in the realm of theory. In every real example, different forms of representation combine as “mixed signs,” because “[i]n all reasoning, we have to use a mixture of likenesses, indices, and symbols. We cannot dispense with any of them” (MS 404, EP 2: 10). Because of this, Peirce also proved in his work *A Syllabus of certain Topics of Logic* (1903; see Peirce 1983) that the simple proposition necessarily consists of the relation of an indexical sign (the subject) and an iconic sign (the predicate) (MS 478; cf. Peirce 1997: Third Lecture). Only the combination of these different forms of representation can create a cognition that relates to an object. This is valid for photographs and paintings and also for the structural diagrams employed in chemistry (Schummer 1996). However, apart from their other qualities, the diagrammatic features of signs must be observed by reason in order to discern for instance the analogies and differences between the structures of different molecules. This is true for the procedures of the chemist: “Chemical similarity between two substances is analyzed in terms of sameness and difference in structural parts of the two corresponding formulas” (Schummer 1998: 151).

Peirce’s general observation is relevant here: “reasoning consists in the observation of an icon” (MS 595, EP 2: 26) or more precisely, in the observation of the diagrammatic features of “mental signs,” which Peirce therefore — while disregarding their other modes of signification — also terms simply “mental diagrams” (MS 404, EP 2: 10). Hence, an observation is the foundation for the operation of reason and central significance is conferred upon perception together with esthetics, as the basis for both other normative sciences: Esthetics “is evidently the basic normative science upon which as a foundation the doctrine of ethics must be reared to be surmounted in its turn by the doctrine of logic” (Peirce 1997: 119). The question of how these three normative sciences are related to one another shall continue to be the subject of our inquiry. For the moment, it suffices that we take this first example as a paradigm for the Peircean theory of cognition: how we learn to translate signs into signs and how reason thereby achieves knowledge through the observation of the
diagrammatic features of signs. We should thus retain this example as a mental model when considering the following example.

2. **Reading paintings diagrammatically: The Death of Marat (1793)**

Jacques-Louis David’s painting *The Death of Marat* shows the French revolutionary Jean-Pierre Marat lying in his bathtub, in which he was stabbed to death by the Royalist Charlotte Corday. At this time, the painter David was also the artistic director of the French Revolution. As an elected member of the national assembly, he had been both commissioned to paint the murdered Marat and also tasked with preparing the body for laying-out in Marat’s home and organising the funeral. Later, on the very day in October 1793 on which Marie Antoinette was guillotined, a long procession to view David’s painting took place, honoring Marat as a friend of the people (*ami du people*) and a martyr of the revolution (see Busch 1993: 80–91).

One might think that an historical painting, such as this by David, would constitute an “image” in the Peircean sense. Where else apart from in a painting might one find a depiction of objects on the sole basis of the similarities between the colors and forms of the painting with those of the persons and things depicted? Yet this is not the case. The process of cognition here also requires moving through the different levels of representation, which we saw in the first example divided into photographs, diagrams, and chemical formulas. The only difference is that this example does not concern several representational forms on one paper but rather a series of interpretants that translate one

![Figure 3. Jacques-Louis David, The Death of Marat, 1793, Musées Royaux des Beaux-Arts, Brussels](image-url)
and the same painting into different levels of meaning, so that finally more than
the depiction of a male corpse lying in water may be perceived. The painting
does not merely depict an event but rather forms an integral part of a political
argument.

In contrast to our daily experience, nothing in an historical painting is there
by mere chance. Every detail that is depicted has been deliberately selected for
inclusion by the painter. Whatever might in reality be a mere chance becomes
at the moment of being included in the painting a significant element of that
which is represented. However, it is not only the fact that individual elements
of an event are included by the painter in his picture but also the way in which
these are composed on the two-dimensional surface of the canvas to form a
whole that confer new meanings upon them. The picture itself creates relation­ships between the elements depicted that generally did not exist before they
were depicted on the canvas.

On one hand, David presents the objects and Marat’s physical form in a re­alistic fashion; that is, their depiction fulfils the criteria for an “image” accord­ing to Peirce. Nonetheless, the observer must also take account of the relations
within the picture to capture the meaning of the painting itself: thus, the picture
frame produces a center and a periphery, a left and a right, an up and a down.
The position of an object in relation to all other objects is thus relevant for the
meaning of the painting. On one hand, Marat’s body lies sunken, leaving the
center of the picture empty, as if he had fallen out of the center. On the other
hand, David’s composition places the crown of Marat’s head and the tip of his
nose exactly in line with the horizontal mid-axis, just as he positions the point
at which the forefinger of the right hand touches the quill pen exactly on the
vertical mid-axis. Horizontal and vertical lines dominate the construction of
the picture, anchoring Marat’s body geometrically within the frame that, even
in death, appears to be part of a higher order of things.

Furthermore, the position of the quill and the knife lying on the floor are also
related to one another in a diagrammatic way: even the form of the two objects
is similar, and when we consider the position of the knife and that of the quill,
we perceive that both are placed at an identical angle to the horizontal (the
knife) and the vertical (the quill) axes created by the frame. This creates a rela­tionship between the knife as the weapon of the murdereress and the quill pen as
the weapon of the political journalist. Up and down also appear to have a
meaning: light falls upon his figure from above, as though God wishes to pro­tect him, while the deadly knife lies right at the bottom edge of the painting on
the floor. Furthermore, the quill pen — contrary to all realistic possibilities —
is still upright and higher than the knife. Even after his death, Marat’s pen still
appears victorious. Meanwhile, the pleading letter from the murdereress in
Marat’s left hand has not yet sunk to the level of the table: This is intended to
remind the observer of Marat’s noble disposition, which led him to receive
Charlotte Corday with the aim of helping her; equally, the letter points to the perfidy of the woman who had appealed in the letter to Marat’s sense of justice only to assassinate him at their meeting. Furthermore, Marat holds fast to the letter in death, just as he clearly held fast to his principles to the very end.

However, the spatial relations between the depicted objects are also employed in another sense by David, in order to confer another layer of meaning to that which is depicted. The arm hanging down, the head turned to one side and the way in which Marat’s body is supported by the bathtub itself together compose a pattern that recalls Michelangelo’s famous Pieta: Marat is held by the bathtub as Jesus’ body removed from the cross is held in the arms of Mary. Marat the revolutionary appears in his life and death to be the secular successor to Christ, while the traitorous Charlotte Corday turns into a second Judas.

To be able to read the portrait of Marat as a metaphor — that is, to discover the formal similarities between the representation of the French revolutionary and the crucified Christ — the observer must free himself from an interpretation of the painting as a mere “image,” the mode of representation which primarily utilizes the similarity between the colors and forms on the canvas and the colors and forms of the depicted objects. The observer has to consider the relations between the constituent parts of the picture as well as assigning meaning to the different positions on the pictorial surface; that is, he also has to interpret the surface of the picture as a type of diagram. Just as on a map, the position of a particular point has a meaning, so the positions of a head and a knife on a canvas add additional meaning to the depicted objects. It is only once these diagrammatic features have been recognized that similarities with other pictures become clear, allowing one to perceive in the representation of one picture the metaphorical allusion to other pictures or works of art. In the terminology of Peirce, the painting that is read at first as an “image” and then as a “diagram” thereafter becomes a “metaphor”: The painting does not change, but is translated step-by-step by the observer into other interpretants.

This technique involving the metaphorical allusion to other works of art is widespread in European art. It has its traditional origins in Christian art and Biblical exegesis. It is known as “typological” interpretation and meaning-making. Typology is first of all a Christian form of biblical interpretation based on the assumption that there are anticipations of the New Testament in the events described in the Old Testament. However, writers and painters such as David learned early on to include this technique in their work independently from its theological origins (Mohnhaupt 2000; Kemp 1994). Typology adds new meanings to the events represented. It not only constitutes relations between different art works, but more importantly, it actually connects different narratives, here connecting the narrative of Marat’s assassination with the biblical narrative of Christ’s crucifixion.
3. Diagramming narratives: How can a revolution be defined?

What is and what represents the actual object of a painting? In the first example, the object represented was the process of photosynthesis and in David’s painting it is what Peirce defined as the real presence of general principles in the world. Indeed, Peirce’s words read almost like a commentary for this painting when he explains: “that the ideas ‘justice’ and ‘truth’ are, notwithstanding the iniquity of the world, the mightiest of the forces that move it. Generality is, indeed, an indispensable ingredient of reality” (CP 5.431). After all, David has no interest in merely depicting Marat’s dead body, the bathtub or the blood-stained knife on the floor. He wishes to depict the political-historical drama of a person who fought and died for his ideas. Just as biology relies on chemical equations to represent the process of photosynthesis, so David requires narrative as a representational form to depict the power of ideas behind the French Revolution.

But what exactly does the narrative do here? David must characterize Marat in general terms by “defining” Marat as a person for the observer. In this, “character,” which determines individual actions, as reason is something that is general (CP 1.615; EP 2: 255). All true definitions refer, according to Peirce, to a “purpose.” In order, to define the “scientist” for example, Peirce referred to the scientist’s “desire to learn the truth,” since: “Science consists in actually drawing the bow upon truth, with intentness in the eye, with energy in the arm” (CP 1.235). In similar fashion, David’s picture defines the revolutionary, as the letter in Marat’s left hand shows, through his desire to help the people obtain their rights. Implicitly, this desire also defines “revolution” itself and the entire “natural class” of the “revolutionaries.” As the National Assembly had commissioned the painting from David, Marat is thus presented as the official representative of the French Revolution, whose aims are also those of the National Assembly and which the people taking part in the procession have to adopt as their own.

Nonetheless, the pictorial characterization of a person can only occur with the help of a number of indices (such as the letter, revealing his last actions before the murder, or the quill-pen, a reference to the writer’s fight for the rights of the people) and through the use of traditional forms of depiction that create a metaphorical relationship with the depiction of other figures through whom the person is to be characterized. All of these are nothing more than aids: circumstantial evidence. The actual classification of Marat as a revolutionary hero and martyr can only be completed by the observer on the basis of the historical narrative accompanying each history painting, a necessary part of the semiotic process required to turn the depiction into a depiction of an historical event. It is the narrative only that composes the depicted indices in the painting to form a whole, which gives them their meaning as indices. After all,
who would know who this man named Marat was, if the narrative of his life and death were not to accompany his depiction?

What is a narrative? Peirce himself did not develop a theory for this, although a number of recurrent themes in his texts appear to implicitly refer to the need for such a theory. Probably the most interesting contribution to understanding narratives as mental diagrams comes from another school: from Algirdas J. Greimas, whose actantial theory promoted a form of diagrammatization of narrative (figure 4; Greimas 1983, 1987: 106–120). Although this takes us beyond Peirce, we nonetheless find here important reference points to his theory of mind. For Greimas as well, the mind thinks using mental diagrams. For reasons of space, we will limit ourselves here to the description of Greimas’ actantial theory, even though he attempted to capture other characteristics of narrative in diagrams and formulas (cf. Budniakiewicz 1992; Kim 2002).

Greimas’ semantic theory of meaning attempted to describe the semantic conditions common to each individual narrative using a relational model, composed of the relationships between six actants. In relation to our example, this means: Marat (Subject) is given a task coming from a Sender; that is, either from the National Assembly or from God or from an abstract idea, for which he assumes responsibility, such as the concept of “natural laws” or “justice.” The task consists of the struggle for a just society, for the rights of the people (Object of value). That is, the Subject acquires via the Sender a desire for an absent Object, and this desire manifests itself as a “quest” (Budniakiewicz 1992: 82–87). The way in which the Subject attempts to attain the Object forms the content of the narrative. The relationship between the Object and those who stand to gain from it, in this case the people or the petitioner at his bathroom door (Receiver), provides the explanation for the Object’s value. However, because Marat fights for the rights of the people, all enemies of the people are necessarily against him (Opponents), just as all friends of the people are his potential supporters (Helpers).

Thus, the Sender is not that which satisfies the desire of the Subject by giving him the Object. On the contrary, the Sender produces the desire the Subject feels for an absent Object and confers upon him an unfulfilled sense of longing,
a purpose. This is precisely the force that moves the hero to act and to which all other aspects of the narrative are ultimately related. The value judgments within the narrative follow from the hero’s purpose. Where there are several heroes whose purposes conflict with one another, multiperspectivity ensues, allowing numerous contradictory value judgments within the narrative. The Subject’s task is to attain the Object through his or her actions, a task for which the Subject may, as in the case of Marat, pay the ultimate price.

Greimas himself initially described the actant structure as dyadic (Greimas 1983), yet Peirce could easily have shown him that it actually consists of triadic relations. There are always two actants who are placed in relation to one another concerning the will of a third. For Peirce, the standard example of a triadic relation that cannot be reduced to dyadic relationships was always the sentence “A gives B to C,” the structure of which formulation is identical to that of the actant relationship “The Sender gives the Subject an Object (of value), that is, a purpose” or “The Subject obtains the Object for the Receiver” (cf. CP 1.363, 1.421, 5.469). However, Helper and Opponent also define themselves solely in relation to the Subject and its Object (of value). From this, the actant structure of the narrative may also be broken down into four triads:

1. Sender → Subject → Object
2. Subject → Object → Receiver
3. Subject → Object ← Opponent
4. Subject → Object ← Helper

As communicated via these four triads, three further triadic relationships between the six actants are established that are, however, only derivative. Thus, with Peirce, it must be stated that the relations of the actantial theory consist of relations of “genuine Thirdness” (cf. CP 1.537, 1.473) that combine to form a relation of a higher order (cf. CP 1.564–1.565, 5.469). Greimas later “relegated” Helper and Opponent from the status of independent “actants” to that of mere “actantial roles” (Greimas 1987: 112); however, if they are indeed important elements of a triadic relation, it should be possible to find good arguments against such a demotion.

4. The soul and its ideas: Logic, ethics, and esthetics

Telling a story means bringing words together in a particular, narrative form that can be observed and judged by reason according to its correct form. Reason may however also compare this form with other narratives and place them in metaphorical relation to one another. As with chemical formulas, narratives show to reason a before and an after, as well as the particular transformation of
the one into the other state: In narratives, it is the plot, that is, the “turn around”
of the story (peripeteia), that distinguishes the initial state from the final state
and simultaneously establishes and explains the transition. Charlotte Corday
approached Marat as a supplicant; that is, as an actantial Receiver, in order
thereafter — at the moment of truth — to reveal herself as an Opponent. The
narrative thus depicts the genesis of the murder by representing this as the final
outcome of a developmental process. The actantial structure forms the basis for
this explanatory model.

Peirce would certainly have appreciated the diagrammatic character of the
narrative. After all, he himself had drawn attention to the fact that not only vi-

dual but also acoustic sign systems can produce diagrammatic representations
of reality:

Such a diagram has got to be either auditory or visual, the parts being separated in the
one case in time, in the other in space. . . . Such a method of forming a diagram is called
algebra. All speech is but such an algebra, the repeated signs being the words, which
have relations by virtue of the meanings associated with them. (CP 3.418; cf. Baltzer
1994: 100–102)

In other words, both the temporal distance between individual words in spoken
language, whose relations are defined by prepositions and verbs, and also the
spatial distance between the written words on the page depict relations be-
tween objects in a diagrammatic fashion (for the diagrammatic characteristics
of “writing systems,” see Harris 1995). In this sense, everyday language is
similar to algebraic equations (CP 2.279). What is valid concerning the words
of a language in general must also be valid for narratives as parts of the
language.

What Greimas analyzed as a relationship between Sender and Subject within
his actantial theory, was also a perennial concern of Peirce. This relationship
can thus be best characterized using Peirce’s own words: “I receive and trans-
mitt ideal influence, of which I am a vehicle” (CP 1.212). The narrative itself is
able to depict this “ideal influence” and to present Marat purely as the “vehicle”
of the ideas of the French Revolution.

Greimas and Peirce agree that one may not interpret “ideas” psychologically
but rather semiotically as independent entities to which one relates oneself.
Thus, contrary to the widely-held view that an idea “has to inhere in a soul,”
Peirce maintains: “the idea does not belong to the soul; it is the soul that be-
longs to the idea” (CP 1.216). This separation of the subject from its ideas is a
prerequisite for allowing the relationship between them to be depicted dia-
grammatically. Indeed, a subject that subscribes to an idea must create a mental
diagram of its relation to the general idea before it is able to conceive of its own
Last but not least, it is the narrative’s actantial structure that completes the ethical division of phenomena into good and evil that Peirce saw as of central importance. Ethical judgments appear through this narrative structure, which the mind creates as mental diagram, as if they are perceivable in the phenomena itself. Thus, it seems that, completely in accordance with Peirce’s “maxim of pragmatism,” we are immediately forced by the phenomena to adopt an ethical position ourselves. For the world of phenomena, to which the observer also belongs, is divided into Helpers and Opponents on the basis of the Subject-Object-Relation. Each person must decide which group they feel themselves to belong to. Just as one feels, as the observer of the Death of Marat, involuntarily moved to see Marat either as a tragic hero and martyr or to distance oneself from the picture and dismiss it as propaganda for a brutal revolutionary. The actantial structure allows the connection of Peirce’s three normative sciences Logic, ethics, and esthetics, which investigate “the universal and necessary laws of the relation of Phenomena to Ends, that is . . . to Truth, Right, and Beauty” (Peirce 1997: 208), with one another in narratives. The relational structure of the actants may certainly be counted among these universal laws. In any case, the connection between the three normative sciences claimed by Peirce should be discussed anew on this basis (cf. Hookway 1985: 58–77; Short 2007: 136–150).

The question of how best to commit the mental diagrams to paper remains. When one considers the complexity of Peirce’s approach on one hand and the entirely different approach of Greimas on the other, one has to ask whether only partial aspects may ever be captured graphically in diagrammatic form. It seems the human intellect can conceive of more complex relations in thought than the human eye can comprehend on paper.

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