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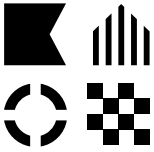
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Illustrating Semiosis: A Pragmatic Turn to Peircean Semiotic Theory for Illustrators

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[Ilustração / Illustration]

Keywords

Illustration, Visual Communication, Semiosis, Pragmatism, Peirce, Sign-action, and Semiotics.

Abstract

The pragmatic semiotic theory of Charles Sanders Peirce has a lot of practical benefits for enhancing visual communication in illustrations. His triadic theory of Semiosis focuses on the dynamic inter-relationships between the concept to be communicated, how it is represented through a semiotic sign, and how this affects the success of how the concept is eventually interpreted. Peirce's pragmatic semiotic theory uses complex language, and although Peirce is embraced in some design disciplines, the language that defines Semiosis (or sign-action) is problematic beyond academia. This paper is an attempt to address this by providing illustrators with a basic introduction to how Semiosis can help to enhance the success of the visual communication in their illustrations. This is done by translating Peircean terminology into illustrator-centric language and providing an example of how the Semiosis is implemented in an illustration. Within the limits of a short paper, illustrators can begin to understand how the triadic nature of concept/representation/interpretation can benefit them during their ideation and sketching phase to author effective images. In doing this, this paper will mostly discuss iconic, indexical, and symbolic semiotic representation within pragmatic semiotic signs of the intended concept to be communicated in an illustration. This paper's aim is to enact a pragmatic turn in illustrators, in which Semiosis theory becomes more integrated within their practical work, by providing a more illustrator-centric dissemination of Peirce's semiotic theory.

1. Introduction

An illustrator's skill in contextualising and interpreting textual content into images that visually communicate a desired concept is crucial. Within the ideation and sketching phase of their creative process, to author such an image involves selecting an effective visual language. This paper aims to help illustrators to begin to improve the clarity of their illustration's visual communication by introducing to them the basics of the pragmatic semiotic theory of C.S. Peirce's Semiosis [1]. Pragmatic semiotics, with its active focus on a dynamic sign-action in a semiotic sign between the concept, its representation, and its interpretation, has already had positive impacts and been embraced within other design disciplines, such as interaction design [2].

This paper will introduce and contextualise the benefits of utilising Peirce's theory of Semiosis to illustrators, to help them craft effective visual language. It will first outline some basic theory examining how

Semiosis influences the representation of concepts, to ultimately lead a ‘reader’ to the successful interpretation of the illustration. It will conclude through the use of an illustrated example, with some guidance on how illustrators can immediately begin to apply Semiosis directly within their ideation and sketching phase.

2. Semiosis - Basic Theory for Illustrators

The shaping and selecting of the most apt visual language in an image is of major importance to illustrators. Whether they realise it when crafting this visual language, they are semiotically crafting the most suitable form of visual communication. For this visual language to be effective it is mediated through a socially constructed visual grammar [3] within a specific socio-cultural context that the ‘reader’ is familiar with, otherwise they will not understand what they are looking at, successfully interpret the intended meaning from the illustrations.

So, the structuring of an illustrator’s visual language creates many semiotic signs (whether intentionally or not), which “can only be understood through their relationship to cultural patterns of making meaning.” [4]. These semiotic signs that an illustration contains must therefore connect with the ‘reader’s pre-existing socio-cultural knowledge if it is to lead to a successful interpretation of the illustration’s visually communicated meaning.

This can be seen as a visual flow between how the illustrator’s chosen representation of the concept affects the illustration’s intended interpretation of the concept being visually communicated. Semiotic signs utilised within this visual flow helps the ‘reader’ to make connections to understand the illustration’s intended represented meaning. In Pragmatic semiotics Peirce calls this the determination flow, [5] where the action of a semiotic sign is an active triangulation between the concept, its representation and its interpretation (see Fig. 1). This sign-action is called Semiosis by Peirce.

To explain how Semiosis works Munday provides a useful metaphor for sign-action that uses an opaque box, which is labelled, and contains an unseen object:

“The first thing that is noticed (*the representational form*) is the box and label; this prompts the realization that something is inside the box (*the concept*). (...) We only know about (*the concept*) from noticing the label and the box and then ‘reading the label’ (*the interpretation*) and forming a mental picture of (*the concept*) in our mind. Therefore, the hidden (*concept*) of a sign is only brought to realization through the interaction of (*the representational form, the concept and how its interpreted*)” [6].

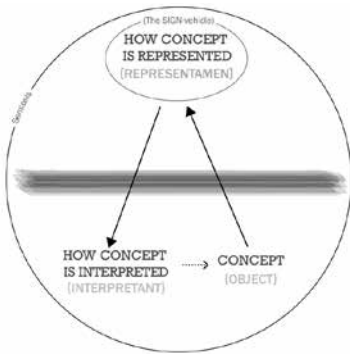


Fig. 1. In a semiotic sign, Semiosis uses a determination flow between three elements.

Semiosis' determination flow is an interrelationship between three elements working together in a triadic sign-action that focuses on: [7]

1. How a semiotic sign's representational form presents the sign to its intended audience (*Peirce names this the Representamen*)
2. The concept the sign is communicating (*Peirce names this the Object*)
3. How the sign is interpreted (*Peirce names this the Interpretant*).

In the following sections Semiosis will be explained in illustrator-centric language, to demonstrate how this pragmatic theory can be used by illustrators to enhance the visual communication in their illustrations.

3. The Basics of Peirce's Semiosis

Semiosis theory offers a practical semiotic framework to all those engaged in practice-based visual communication, especially illustrators. Its application into illustration practice, during an illustrators' ideation and sketching phase, allows them to adjust the level of visual communication within their illustrations. But obviously when developing his Semiosis theory, Peirce never considered its application beyond the theoretical. His complex terminology is problematic for any layperson, so in this paper his terms will be translated into more illustrator-centric terminology. The examples he uses to explain semiotics signs also needs contextualising too. Before we explore how illustrators can use Semiosis in practical terms, it's important to review the theory of Semiosis to contextualise it to illustration practice.

Semiosis is a pragmatic form of semiotic theory created by the American philosopher Charles Sanders Peirce, which he developed in the USA at the beginning of the 20th century. Peirce, one of the three founders of the philosophy of Pragmatism states that, "our knowledge is acquired and shared with others in the forms of signs" [8]. This is a form of interpretive communication, where in a process of meaning-making a semiotic sign stands in some respect for a concept in the mind of its intended audience [9].

Semiosis is a formalised system [10] of sign-action rising from simple to complex, comprising of a triadic interrelationship between how the semiotic sign is represented "the user of the sign and the external reality - the Object - referred to by the Sign" [11]. This triangulation involves a 'reader's interpretation of a semiotic sign in its actual communication. Peirce used the following terms to explain his triadic structure, and each class was further defined from a simple to complex level of semiotic sign-action. The text in italics next to each subclass briefly translates each theoretical term into more accessible illustrator-centric language [12]:

The concept being communicated in a semiotic sign:

The Object (has three subclasses, from low to high...)

- Iconic - *suggests qualities shared with concept*
- Indexical - *points to the concept*
- Symbolic - *a general and agreed substitute for the concept*

The representation of the concept in a semiotic sign:

The Representamen (has three subclasses, from low to high...)

- Qualisign - *a quality used as representation*
- Sinsign - *a one-off representation*
- Legisign - *a general representation*

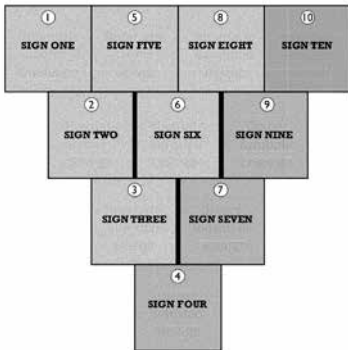
The interpretation of the representation of the concept in a semiotic sign:

The Interpretant (has three subclasses, from low to high...)

- Rhematic - *a suggested interpretation*
- Dicent - *a possible interpretation*
- Argument - *the agreed interpretation*

In 1905, from the interrelationships between levels of a concept, its representation and interpretation Peirce defined a list of ten semiotic signs [13] that semiotically regulated the level of communication from mere resemblance (low) to the general (high) (see Fig. 2).

In Semiosis, for a semiotic sign to function it operates across three



states. Firstly, for a semiotic sign to begin communicating its intended concept it needs to be recognised. Secondly, once recognised as a sign its coded concept begins to be defined. Thirdly, for an act of interpretation to happen there must be a mediation between identifying it is a sign and the what it is representing. As a triadic sign, all three states must be active, and they build on each other. Peirce calls these states Firstness, Secondness, and

Fig. 2. Peirce classified ten forms of semiotic sign. From an illustrator's point of view each sign, from the simplest (1) to the most complex sign (10), offers many ways to enhance the level of visually communication within an illustration.

Thirdness [14]. Interpretation of a sign's meaning (Thirdness) cannot be made without understanding the representation used (Secondness). But this representation must be first understood (Firstness) that it connotes a particular message or concept - that it is a semiotic sign to be interpreted [15]. Illustrators can frame this triadic model as a sense of a sophisticated level of visual communication incrementally developing from basic principles evolving into more complexity. This is the logic behind Peirce's ten semiotic sign classes (see Fig.2).

This paper cannot explain these signs in detail within its limited word count, so it will provide instead a useful illustrators' beginner guide on how a pragmatic semiotic sign in Semiosis communicates from the simple to the complex. To contextualise and explain this for illustrators this paper, using an illustrated example, will now focus mostly on iconic, indexical, and symbolic² visual communication.

² Peirce actually defines the Object's three subclasses as an *icon*, an *index* and a *symbol*. But since Peirce's day the terms *icon* and *symbol* have unfortunately adopted other meanings, especially from within design disciplines. So, in this paper the adjective terms of *iconic*, *indexical* and *symbolic* will be used instead of Peirce's originals to avoid becoming muddled with competing alternative definitions of *icon* and *symbol*.

Fig. 3. This illustration of a carrier pigeon was commissioned by a British local governmental authority. It was part of a campaign to illustrate the idea of various forms of communication channels available for the local population to contact the authority. This illustration utilises semiotic signs that are constructed iconically, indexically and symbolically to visually communicate the intended message which will be discussed in the next three sections.



4. Iconic Representation

A semiotic sign utilises visual properties and qualities to communicate its intended meaning. For the concept to be understood it first needs to be recognised. It then requires a second thing to communicate it. The concept needs to be semiotically represented within any

visual communication as a semiotic sign for the concept to be interpreted. Finally, how the concept is represented in a semiotic sign must make sense to its intended audience for the intended meaning to be interpreted. This is where the third pragmatic semiotic state completes the sign-action. As without a successful interpretation of what the sign means, any illustration's visual communication will fail. The concept (the Object, in Peircean terms) has three subclasses, from simple to complex, which facilitate how its representation will be understood by its intended audience, so the concept can be successfully interpreted. The first of these subclasses of the concept that informs its semiotic representation is iconic.

Peirce describes iconic representation as one-dimensional (monadic) as it is the lowest level the 'reader' can perceive a semiotic sign. As a basic semiotic sign, it can only begin to function if it resembles something a 'reader' already recognises [16], a shared recognisable resemblance in the mind of a 'reader' to the communicated concept. Iconic representation uses shared qualities that help trigger in the subconscious mind of the 'reader' that it's a semiotic sign, which is trying to communicate a concept [17]. Iconically it does this by triggering a feeling or a quality (such as a particular colour) in the 'reader's' mind through parallel resemblance of that concept. By utilising the qualities and relationality from one familiar thing to the intended concept, the semiotic sign pragmatically emerges [18] once an *iconic* resemblance is identified by the 'reader'.

To explain Semiosis and iconic representation in a visual communication context, the carrier pigeon illustration in Fig.3 will be used to explore the theory. The illustration has a number of iconic representations nested in it to first attract the attention of a 'reader' to interpret the illustration's meaning. The bird shape is iconic as it indicates to the 'reader' the type of animal it is. The blue background suggests 'sky' and the white shapes suggest 'clouds,' and when they are put together they suggest the bird shape is flying. The idea of flying is further suggested by iconic air force shapes that suggest flying jacket, flying boots, a flying helmet, and goggles. Iconically the carrier pigeon concept is semiotically communicated by the addition of the shapes and colours that suggest a mail bag. As can be seen from Fig. 3. an illustrator through using iconic representations can control how am

intended audience will interpret the semiotic sign in their illustrations to interpret its intended meaning [concept]. Now we have explored the iconic representation we will move up to the next level of pragmatic semiotic communication and examine indexical representation.

5. Indexical Representation

Indexical representation is the second subclass of a concept as a semiotic sign, where it has a clearer existential connection [19] back to the original concept. An indexical representation does not assert anything other than a statement of ‘THERE!’ as it “takes hold of our eyes, as it were, and forcibly directs them to a particular Object [concept], and there it stops.” [20]. This direct existential connection ‘points’ from the sign to the concept, just as an index finger can point to something in the real world.

Within the higher subclasses of the concept, the lower level of iconic representation is nested within indexical and symbolic semiotic signs. Just like a Russian Doll, the nesting of multiple iconic representations within a more complex semiotic sign provides an assemblage of familiar qualities, which operate together at an immediate level to help a ‘reader’ to successfully interpret the concept. In this way iconicity becomes the basic building blocks of pragmatic semiotic signs.

To contextualise indexical representation within illustration, and how iconic representation is nested within it, we will return to the carrier pigeon example in Fig. 3. The carrier pigeon is itself indexical as it references an existent type of bird that is used for human communication purposes. Even though it is stylised in the illustration, its iconic elements that create the character of the pigeon draw attention to two things: (A) it’s a carrier pigeon [iconic mail sack], (B) it is dressed up as a 1940s Royal Air Force (RAF) pilot [iconic pilot uniform and RAF wing markings]. This combination of iconic elements that together formed the character of the bird indexically references both popular culture and an existent type of bird. The character of the carrier pigeon also indexically makes a reference to a popular 1970’s Hanna-Barbera cartoon carrier pigeon adversary of Dick Dastardly, while pastiching an iconic RAF pilot, to add an element of British humour for its intended audience, while visually communicating the concepts of ‘flying’ and ‘communication channel.’

So, from the indexical representation of the combined iconic elements to a carrier pigeon, the next section will now discuss the concept’s highest subclass of symbolic representation.

6. Symbolic Representation

This penultimate section will discuss the highest subclass of semiotically representing a concept in the mind of a ‘reader.’ The symbolic representation of a concept means that it is a general semiotic sign, where its interpretation by its target audience arises from a general agreement of meaning [21]. In visual communication, this means that a symbolic semiotic representation either has to be learnt within a social-cultural context

(such as learning the meaning of street signs for a driving test); or else the concept is already known in advance of its interpretation (such as knowing that a flag symbolises a single country).

Just as indexical representations have iconic representations nested within them, symbolic representations also nest both indexical and iconic representations to function [22]. Within the pragmatic semiotic theory of Peirce's Semiosis, symbolic representation's sign-action performs at a higher semiotic level where its interpretation is reliant on a generally agreed set of meanings that are already known within the social-cultural context that the intended 'reader' is situated. So, to understand this within a visual communication framework it will be useful to return one final time to the carrier pigeon illustration in Fig. 3.

The illustration was one part of a commission by a British local governmental authority to emphasise its multiple communication channels open to its residents. Each illustration in the commission provided the residents with a general suggestion of communication channels rather than specific technological examples, as these were detailed in the text of the brochure that was distributed around the region to the local residents.

So rather than denote one specific form of communication in each illustration, the set of illustrations connoted the overall idea of communicating. To do this all the illustrations employed symbolic semiotic representation to subtly suggest general concepts of communication channels. The example of the carrier pigeon illustration relied on a general understanding in the target population: (A) everyone knew of carrier pigeons (indexical), (B) different British age groups would see something that resonated with them (older people the iconic RAF imagery; younger people the cartoon reference).

The illustration in this case used Semiosis to build its visual language up semiotically, using a range of simple to complex semiotic signs nested within the illustration. This was mostly done at the ideation sketching phase, with iconic colours then added (i.e. leather brown, pigeon grey, etc.) at final artwork stage. Every shape used in the illustration was selected through considering its target audience's existing knowledge, to semiotically lead them to interpret the intended symbolic meaning. The carrier pigeon didn't just denote a carrier pigeon (indexical), the carrier pigeon connoted a communication channel (symbolic).

This paper will now conclude as to how illustrators can look to embedding more Semiosis into their ideation and sketching phase, to enhance visual communication of an illustration's concept.

7. Conclusion

This paper's intent was to introduce Peirce's pragmatic semiotic theory of Semiosis to illustrators. It has provided a basic overview of how Semiosis is not only relevant to illustration practice, but also how it is a natural ally to enhance the ideation of illustrations to enhance its visual communication of its communicated meaning. The application of Semiosis structures the effectiveness of how the illustration represents its intended concept,

so that the concept is visually communicated as clearly as possible to facilitate a successful interpretation.

Semiosis' triadic framework of concept/representation/interpretation (selecting which of the 10 sign classes would be more relevant to the task) can frame the visual communication semiotically, as to whether the concept needs to be immediately understood (i.e. simply), existentially understood (i.e. specifically), or generally understood (i.e. generally). Where possible, Peirce's theoretically complex terminology has been translated into more relevant illustrator-centric language. Some semioticians may find this problematic, and may pedantically argue as to the suitability of the terms concept, or iconic, indexical or symbolic. This paper is written for the non-semiotician, for the illustrator who is a practitioner.

Obviously one illustrated example to explain the basics of Semiosis to illustrators is limiting, and Peirce's 10 semiotic signs have not been fully explored. Nor does this paper attempt to explain Semiosis' complexity in full. That is left to future papers and books. What is important to take from this paper is that if an illustrators' visual language is constructed using the pragmatic framework of Semiosis, they can adjust the level of representation of the illustration's concept to visually communicate the concept to its intended audience.

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