Semiotics and Semiosics:the Terminological Connotations and Conceptual Relations

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ABSTRACT. The exploration of relations between semiotics and semiosics is a very new scope from terminological connotation and conceptual relation involving sign, its object, interepretant, "the action of signs" (semiosis). This article is to card the definitions of the terms in semiotics so as to clarify the relations of semiotics, semiosis, semiosic, and semiosics from the perspectives of term connotation and conception relations. On the foundation of analysis the definition and connotation of semiotics and semiosis given by Charles Sanders Peirce and Charles Morris, the author discovered that semiosics is indeed a part of semiotics in terms of Morris's three dimensions of semiotics, which is the products of trajectories of sign action. The distinction and the correlated relation between semiotics and semiosics are, therefore, drawn a conclusion as semiosis includes the three aspects of semiosic and semiotic properties, semiosic activities and its products, and semiosic products. Semiotics, however, explores the connotation between semiotics and semiosis as well as the "subject" defining problem of semiosis and semiosics. The clarification of connotation of terms and conceptual relations establish the terminological and ideological foundation to develop the theories and applications of semiotics.

KEYWORDS: Semiotics, Semiosis, Semiosics, Syntactics, Semantics, Pragmatics

1. Introduction

Signs are existed in the world as the first appearance of human beings. From the beginning of the human existence, signs are always around us in various fields of our daily life. However, the history of systematic and scientific researching on signs of everything is much shorter than the existence of human being. In a real sense, signs study as a separate subject originates American philosopher Charles Sanders Peirce (1839-1914) at the late 19th. century. Semiotics as the scientific study of signs possesses many definitions being given from different perspectives. Essentially, to define semiotics is firstly to know signs and their various relations, which is also the crux reason of being appeared every kinds of definitions of semiotics for the different consideration and understanding as well as research from different angles and visions.

Though the semiotic research being developed to this day has made great success, a wide spectrum of opinions on the research concerning appellation of branch disciplines of signs, semiotics, semiosics is still highly disputable. The necessity of interpretation, analysis, and distinguishing the connotation and conceptual relations of relevant terms is specifically urgent so as to lay a terminological and ideological foundation for the application and development of semiotic theories.

In regarding to the semiotics and semiosics, the analysis and distinction of the connotations and definitions of the two terms are considered firstly to explore so as to probe the true essence of semiotics and semiosics as well as their relations and differences. Therefore, the signs and their relations as the crux in semiotic study may be regarded as the research objects to be analyzed from aspects of the origin and development trajectories in the history of subjects.

2. Semiotics

Semiotics derives from Greek and is firstly used by in English prior to 1676 by Henry Stubbe (1632-1676) (spelt semeiotics) in a very precise sense to denote the branch of medical science relating to the interpretation of signs. John Locke (1632 –1704) used the term sem(e)iotike in book four, chapter 21 of *An Essay Concerning Human Understanding* (1690). In the 19th. century, Charles Sanders Peirce (1839-1914) defined what he termed "semiotic", followed Peirce, Charles W. Morris (1901-1979) used the term "semiotic" and extended the

discipline beyond human communication to animal learning and use of signals.

2.1 Origin and Development of Semiotics

The origin of semiotics may be traced back to the pre-history of semiotics. Early precursors of semiotics include Plato (c.428-348BCE) whose Cratylus ponders the origin of language, in which Socrates debates whether the relation between the form and meaning of a word is conventional or natural and Aristotle (384-322 BCE) who considers nouns in his Poetics and On Interprtation. The word "semiotics" comes from the Greek root, seme, as in semiotikos, an interpreter of signs (Paul Cobley & Litza Jansz 1999: 4). Semiotics as a discipline is simply the analysis of signs or the study of the functioning of sign systems. The idea that sign systems are of great consequence is easy to grasp; yet the recognition of the need to study sign systems is very much a modern phenomenon. One of the most notable debates on signs in the Ancient world took place between the Stoics and the Epicureans around 300 BCE in Athens. The crux of the matter concerned the difference between "natural signs" of freely occurring throughout the nature and "conventional signs" referring to those designed precisely for the purpose of communication. For the Stoic especially, the quintessential sign was what we know as the medical symptom. The symptom remained the model sign for the Classical era. The major foundation for the Western interrogation of signs was laid in the Middle Ages with the teachings of St. Augustine (354-430) who developed the theory of signa data-conventional signs ((Paul Cobley & Litza Jansz 1999: 5). Contrary to Classical commentators, he promoted such signs as the proper objects of philosophical scrutiny. He also served to narrow the focus of sign study by pronouncing on the way in which words seem to be the correlates of "mental words", which subsequently has a serious impact on sign study such as the English Fanciscan, William of Ockham (c.1285-1349) exacerbated this version of the sign((Paul Cobley & Litza Jansz 1999: 6-7). This, in turn, underpinned the work of John Locke in his Essay Concerning Human Understanding (1690).

This conception of signs provided the foundation for western semiotics, pointing people away from natural signs and towards conventional signs as the proper signs to study. Although these figures in European philosophy are in some senses proto-semioticians, it is not until the 20th. century that a full-blown semiotic awareness appears, under the auspices of two founding fathers Ferdinand de Saussure (1857-1913) and Charles Sanders Peirce (1839-1914).

Saussure is one of the founding fathers of semiotics. His term for the field is "semiology" of French origin while the term "semiotics" preferred by Peirce is American English one. The former came to the United States under the influence of Saussure's linguistic analytical procedures, while the latter traveled to Europe and has become the preferred form today. Instead of focusing his theory on the origins of language and its historical aspects, Saussure concentrated on the patterns and functions of language itself. He believed that the relationship that exists between the signifier and the signified is purely arbitrary and analytical. His "sign, signifier, signified, referent" scheme forms the core of the field. Equally crucial but often overlooked or misapplied is the dimension of the syntagmatic and paradigmatic axes of linguistic description. Saussure's semiology focuses on dyadic notion.

Peirce is the other founding fathers of semiotics. His term for the field is "semiotic" which is originally used as "semieotics" of American philosophical origin. Peirce's semiotic has the foundation of logics and philosophy from the influence of Immanuel Kant (1724-1804). Peirce's semiotic is philosophical study of signs, not only limited in linguistics, artificial, symbolic, etc., involving sign, object, and interpretant; icon, index, and symbol; the firstness, the secondness, and the thirdness of an irreducible triadic relation. Semiotics includes the study of signs and sign processes, indication, designation, likeness, analogy, allegory, metonymy, metaphor, symbolism, signification, and communication. Therefore, semiotic studies is the study of sign process (semiosis), involving every forms of activity, conduct, or the process of signs moving trajectories, including the dynamic process of production of meaning. A sign is anything that communicates a meaning, but the sign itself does not generate meaning, the interpreter of the sign endows it with meaning. The meaning can be intentional such as a word uttered with a specific meaning (intentional Sign Lies), or unintentional, such as a symptom being a sign of a particular medical condition. Unlike linguistics, semiotics also studies non-linguistic sign systems.

2.2 Peirce's Semeiotic and Morris Semiotics

Peirce used "semeiotic" to refer to "semiotic" originally. Later, he changed to apply "semiotic" without the suffix of "-s" showing the nature of subject. It is not until the 20th. century that a full-blown research on semiotics is prevailing under the influence of Charles S. Peirce. Peircean semiotic and Morris's semiotics have the common foundation on sign theory of sign action in the dynamic behavioral process, both of their semiotics

have the base of pramaticism (*effect*) and their signifying processes refer to the semiosis or sign processes, semiosic activities. In fact, Morris's semiotics is correspondent much with Peirce's semiotics on many aspects, especially on the terminological perspective of triadic relation of sign, object, and interpretant; the interpretation of sign into three dimentions of icon, index, and symbol; the semiosis, signification, and the pragmatics.

2.2.1 Peirce's Concept of Semiotics

Peirce's concept of Semiotics as the 'science of signs', and the pragmatic notion of *meaning* as the 'action of signs' (semiosis), have had a deep impact in philosophy, psychology, theoretical biology, and cognitive sciences. First and foremost, Peirce's semiotics is grounded on a list of categories -Firstness, Secondness, Thirdness - which corresponds to a logic system of hierarchically organized classes of relations (Houser et.al. 1997). This system makes up the formal foundation of his philosophy (Parker 1998) and of his model of semiotic action (Murphey 1993: 303–306). In brief, the categories can be defined as: (1) *Firstness*: what is such as it is, without reference to anything else; (2) *Secondness*: what is such as it is, in relation with something else, but without relation with any third entity; (3) *Thirdness*: what is such as it is, insofar as it is capable of bringing a second entity into relation with a first one in the same way that it brings itself into relation with the first and the second entities.

"The First is that whose being is simply in itself, not referring to anything nor lying behind anything. The Second is that which is what it is by force of something to which it is second. The Third is that which is what it is owing to things between which it mediates and which it brings into relation to each other". (*EP* 1:248; *CP* 1.356-357)

2.2.2 The Peircean Sign

Peirce defined semiosis as an irreducible triadic relation between a Sign, its Object (the object, act or event with which it inter-relates) and its Interpretant (that which is becoming interpreted through its interaction with its interpreter) (*CP* 2.171, *CP* 2.274). That is, according to Peirce, any description of semiosis involves a relation constituted by three irreducibly connected terms, which are its minimal constitutive elements (*MS* 318:81; *CP* 2.242). In other words, any semiosis is driven by the three connected terms, in which process would be generated the new semiosic activities that forms the semiosics. In Peirce's words:

My definition of a sign is: A Sign is a Cognizable that, on the one hand, is so determined (i.e., specialized, bestimmt) by something other than itself, called its Object, while, on the other hand, it so determines some actual or potential Mind, the determination whereof I term the Interpretant created by the Sign, that that Interpreting Mind is therein determined mediately by the Object. (CP8.177; emphasis in the original)

Peirce conceives a 'Sign' or 'Representamen' as a 'First' which signifies its object in *a genuine triadic relation* with a 'Second', called its 'Object', which is in the process of 'determining a Third', called its 'Interpretant', which assumes the same triadic relation with another Object in a subsequent dynamic sign process (CP 2.274). The triadic relation between Sign, Object and Interpretant is regarded by Peirce as irreducible, in the sense that it is not decomposable into any simpler relation. Thus, the term 'sign' was used by Peirce to designate the irreducible triadic process between Sign, Object and Interpretant as well as to refer to the first term of the triad. The triadic relation of the three terms in action of signs may be the trajectory or process of sign act or behavior being termed as semiosis. The triadic process of sign making and sign taking is just that: process.

2.2.3 The Sign Process

Interpretant in the triadic relation of the three terms is regarded not only as the signification or symbol but also a new sign in the subsequent turn of sign signifying process. In other words, an interpretant is both the third term of a given triadic relation and the first term (sign) of a subsequent triadic relation (Savan 1986: 134), which forms another new semiosis. This is reason why semiosis cannot be regarded as isolated triad. On the contrary, a sign process (semiosis) is formed by the three triadic relations of terms in semiotic, under the given text, an interpretant being generated in the ex-semiosis may be considered as a new sign in the next semiosis, the other interpretant is appeared in the next semiosis... and begin the whole cycle all over again. The semiosis is therefore formed as countless ones into a semiosis web involving numerous triadic relations of *Signs, Objects, and Interpretants* in dynamic processes. The physical world action may also be driven by such dynamic processes which may produce energy to promote the continuous movement and development of the whole material world, for the signs are existed everywhere in the globe.

Consequently, one of the most remarkable characteristics of Peirce's theory of signs is its dynamical nature. The complex circular relation of *Signs, Objects, and Interpretants* is the focal factor of a dynamical process

(Hausman 1993: 72). It was quite natural that Peirce conceived semiosis as basically a process in which triads are systematically linked to one another so as to form a web. Sign processes are inter-relatedly extended within the spatiotemporal dimension, so that something physical has to instantiate or realize them. This means that signs cannot act unless they are spatiotemporally realized. Semiosis may, therefore, be understood as a multidimensional signal space.

2.2.4 Peirce's Pragmatics

Peirce further classified his sign conception into icon, index, and symbol, which signifies the tree relations of its possible object. Index is the easiest conception to be understood as the signs that indicate their objects in a causal manner. Smoke is an index of fire and a symptom is an index of a disease. The meaning of index lies in denotation as the primary quality of an index is to draw attention to its object by getting the interpreter to focus on the object. Index is apparently easy for being understood, as "the index asserts nothing; it only says 'There!' It takes hold of our eyes, as it were, and forcibly directs them to a particular object, and there it stops...so are the letters on a geometrical diagram, and the subscript numbers which in algebra distinguish one value from another without saying what those values are."(3.361)

However, index needs to be interpreted and represented something significantly, symbols as the third sign in the three relations plays the role to stand for or indicates something else. A symbol is a sign "because it is used and understood as such" (*CP*. 2.307) It has what Peirce calls pragmatic meaning, i.e. it has purpose of the person using it. Knowing how interpreters habitually interpret a sign, the utter can use the signs to cause a specific effect in the interpreter. According to Peirce's theory of signs, the meaning of a symbol is thus based on social conventions. This does not mean, however, that meaning is fixed or static. Pragmatic meaning to Peirce is dynamic as it continues to evolve over time. As a sign sparks a subsequent sign (an interpretant) in the mind of the interpreter, and since an interpreter is itself a sign, an infinite chain of interpretation, development is begun and circulated with much more signification in the process of sign action which is later discussed as the semiosis and the products and activities being generated in the infinite chain of semiosis are called semiosics that may be regarded as one of the branch of sign theory or semiotics.

Although the relation between index and symbol can stand for something else (object), Peirce goes further in his analysis, showing that by themselves these two relations are insufficient for reasoning. In order to reason, we need a third type of relation, which appears in the form of logical diagrams and sensorial images (mostly visual). These diagrams and images Peirce calls icons:

With these two kinds of signs alone (symbols and indices) any proposition can be expressed; but it cannot be reasoned upon, for reasoning consists in the observation that where certain relations subsist certain others are found, and it accordingly requires the exhibition of the relations reasoned within an icon. (3.363)

Icon is a sign that show their objects through similarity or resemblance. A painting is an icon of the object it depicts, and a map is an icon of a particular place. The meaning of icons lies primarily in their connotation as the qualities or attributes of the icon resembles the qualities or attributes of the object it refers to.

2.3 Morris's Pragmatics

Morris's paradigm of knowledge and experience is, according to him, reductionist: the only knowable objects are spatio-temporal. Morris states his position explicitly: the semiotics developed in *Signs, Language and Behavior* (Morris 1971: 75–398) does not take Peirce as its point of departure. It is based on the quite behavioristic theories of George H. Mead (1863–1931). Later, says Morris, he studied more seriously "Peirce, Ogden and Richards, Russell and Carnap, and still later, Tolman and Hull" (Morris 1971: 445). Tolman and Hull are behaviorists; Russell and Carnap can be classified as logical empiricists with an atomistic tendency.

Morris was convinced that he was faithful to Peirce. When Dewey accused him of misrepresenting Peirce's thought, in particular by substituting the interpreter for the interpretant, Morris replied Dewy that he did not understand the connection established by Peirce between the concepts of 'interpreter'and 'interpretant'. Dewey considered the sign-interpretant relation as a relation in a sign system prescinding from the sign-interpretation relation and, therefore, from the role of the interpreter (an organism for Morris) when something functions as a sign. There is no sign without an interpretant or an interpreter, for the interpretant is the *effect* of a sign on an interpreter. Indeed, given that the interpreter does not subsist as such if not as a modification ensuing from the *effect* of a sign in an open chain of interpretants, the interpreter is also an interpretant and, therefore, a sign. The correspondence between man and sign, interpreter and interpretant is actually a dynamic semiosis.

2.4 Definition of Semiosis

The term was introduced by Charles Sanders Peirce (1839–1914) to describe a process that interprets signs as referring to their objects, as described in his theory of sign relations, or semiotics.

by 'semiosis' I mean ... an action or influence which is, or involves, a cooperation of three subjects, such as a sign, its object, and its interpretant, this trirelative influence not being in any way resolvable into actions between pairs... my definition confers on anything that so acts the title of a 'sign'. (*CP* 5.484).

Semiosis, or sign process, is any form of activity, conduct, or process that involves signs, including the production of meaning. A sign is anything that communicates a meaning that is not the sign itself, to the interpreter of the sign. The meaning can be intentional such as a word uttered with a specific meaning, or unintentional, such as a symptom being a sign of a particular medical condition. Signs can communicate through any of the senses, visual, auditory, tactile, olfactory, or taste. Therefore, semiosis is a technical term and the noun pertaining to the process of meaning - through signs - being made. So the former is the subject or discipline of study, the latter is a technical term for meaning generation. Semiosis was a term used by Charles Peirce to describe how multiple Interpretants can be implied and triggered off by a single Representamen and Object. One sign leads to another which leads to another in a potentially endless chain of signification. This was what he termed 'infinite semiosis' a concept Umberto Eco later critiqued in *The Limits to Interpretation*.

2.5 Semiotics and Semiosis

Semiotics is the study of signs, sign systems and meaning. It is a doctrine, body of knowledge and multidisciplinary perspective incorporating the thinking and theory fragments of many different thinkers. In Peirce's conception, "semiotic, that is, the doctrine of the essential nature and fundamental varieties of possible semiosis; and I find the field too vast, the labor too great, for a first-comer" (EP. 2:413). Peirce's semiosis, or "action of signs", is an irreducibly triadic process, comprising a relation between a sign, its object, and its explicit or implicit interpretant (CP. 5. 473). Peirce particularly focuses on the way that the interpretant is produced, and thus what is involved in understanding, or goal-oriented interpretation of a sign. Similarly, Morris defined semiosis as "a sign-process, that is, a process in which something is a sign to some organism" (Morris 1946: 253). These definitions of semiosis imply it a technical term and the noun pertaining to the process of meaning - through signs - being made. So semiotics is the subject or discipline of study, while semiosis is a technical term for meaning generation.

Therefore, semiosis may be regarded as one branch of semiotics as semiotics is the study of sign processes, or "action of signs", i.e., semiosis with reference to innate capacity that underlies the comprehension and production of signs. Thus, semiosis is an activity of the brain that controls the production and comprehension of signs, from simple physiological signals to highly complex symbols (Danesi 2000:204). Since semiotics deals with the relations of sign, object, and interpretant, which is a dynamic process involving the trajectories of sign actions in infinite ways, semiosis, as the process of signs signifying, is closely related to semiotics as one of its parts. As nouns the difference between semiosis and semiotics is that semiosis is (semiotics) any form of activity, conduct, or process that involves signs, including the production of meaning while semiotics is the study of signs and symbols, especially as means of language or communication.

Actually, to know what semiotics is depends on the understanding what signs are. However, the definitions of signs are various so that no authoritative version of definition has been given. Semiotics is regarded as a "subject" based on the conceptions and theories proposed by Peirce, the definition of semiotics is, therefore, depended on the contemporary ones based on Peirce conceptions.

Peirce defined signs to signify others in unlimited recursive ways, and then otherness signifies other objects which cover all the things with the function of signifying. Peirce established a premise for signs signifying with the integration of intelligent consciousness into the signifying sequence. In other words, the premise is human consciousness as the sign existence and activities. In addition, Peirce ever claimed that "To say, therefore, that thought cannot happen in an instant, but requires a time, is but another way of saying that every thought must be interpreted in another, or that all thought is in signs." (Peirce 1868), implying the conception of "the intangible signs being used to support the development of thinking in human brains".

Therefore, Semiotics proposed by Peirce is "the quasi-necessary, or formal, doctrine of signs", i.e., covering "the characters of all signs used by a "scientific" intelligence, that is to say, by an intelligence capable of learning by experience" (*CP*.2.227), "the research on the basic essential properties of possible variables in semiosis" (*CP*.5.484), which is actually the philosophical and logical research from perspectives of signs and semiosis. As stated above, Peirce's semiotics is the study of "everything of a sign" (Eco, 1976), "a general study

of all types of signs and its aspects" (Føllesdal, 1997:449), and lay particular emphasis on any knowable semiosis and its possible variants. In other words, Peirce focuses on the semiotic description and the analysis on the structure of semiosis, but the any material base of generating such type of semiosis; or, in any cases, semiosis can be observed in many aspects of the intracellular, plants, material world, animal communication, and the typical human communication. (Querioz&Merrell 2009:131) Therefore, the semiotic definition of Peirce is the general semiotic theory. Based on this general type of research, the conclusion of "quasi-necessary" essential properties of semiotics could be drawn.

The American philosopher Morris revised Peirce's definition of semiotics under the influence of Peirce's semiotic conception. "Semiotic has for its goal a general theory of signs in all their forms and manifestations, whether in animals or men, whether normal or pathological, whether linguistic or nonlinguistic, whether personal or social" (Morris 1964:1) In 1938, Morris regarded semiotics as "a science makes use of special signs to state facts about signs; it is a language to talk about signs" on the foundation of exploring the semiotic scientificity.(Morris 1938/1949:8), and divided semiotics (subdivision of pure semiotics and descriptive semiotics) into three branches of syntactics, semantics, and pragmatics from the perspectives of linguistic semiotics. "Syntactics, as the study of the syntactical relations of signs to one another in abstraction from the relations of signs to objects or to interprters, is the best developed of all the branches of semiotics" (Morris 1938/1949:13); "Semantics deals with the relation of signs to their designate and so to the objects which they may or do denote" (Morris 1938/1949: 21); "The term 'pragmatics' has obviously been coined with reference to the term 'pragmatism'... By 'pragmatics' is designated the science of the relation of signs to their interpreters." (Morris 1938/1939: 29-30). In terms of logics, Morris's three branches of semiotics based on verbal signs is actually the three ones in linguistic semiotics, but not semiotic three branches. Firstly, the objects of semiotics is "every forms and representations of signs", on the contrary, syntactics, semantics and pragmatics only take the verbal signs as the analytical subjects, which actually narrows the scope of research subjects; Secondly, these three branches are not proper for the analysis of signifying relations of other signs except for verbal signs. Therefore, the three dimensions of semiotics can only be regarded as those of linguistic semiotics.

Morris considered the problems that the default subject was unclear or missing in the semiosic definition, then revised the definition of semiosis as "The process in which something functions as a sign may be called semiosis." "Semiosis is accordingly a mediated- taking-account-of" (Morris 1938/1949:3-4) Then, he further revised the definition as semiosis is the process of signs signifying, i.e., the process of an object being used to signify the sign of an organism (Morris 1971:366). He argued that "this process, in a tradition which goes back to the Greeks, has commonly been regarded as involving three or four factors: that which acts as a sign, that which the origin refers to, and that effect on some interpreter in virtue of which the thing in question is a sign to that interpreter. These three components in semiosis may be called, respectively, the sign vehicle, the designatum, and the interpretant; the interpreter may be included as a fourth factor (Morris 1938/1949:3). Then, Morris divided semiosis into the three dimensions of syntactics, semantics, and pragmatics, and defined as well as interpreted from the aspects of linguistics.

In the light of the definition of semiosis, the analysis of the three dimensions and the four factors, although Pelc accepted the conceptions of Morris, he still held the reservations to them. Firstly, a sign interpreter may be an experiential organism, but a living and breathing organism and an organ; Secondly, the syntax, semantics, and pragmatics in semiosis are the properties of semiosis as well as the attributes of semiotics. (Pelc 2000:426-427). Therefore, Pelc distinguished the three properties of semiosis of syntactics, semantics, and pragmatics from the three ones as the properties in semiotics.

Actually, signs are everything in the human world with the function of signifying, which involves everything and being existed everywhere; semiotics is the study of every signs with the signifying function in the human world, i.e., semiotics research on the human sign activities, and therefore, semiosis is the process of signifying of human sign activities involving the tangible and intangible signs. Tangible signs are verbal and non-verbal signs, verbal signs include dialects, vernaculars, slangs, slang, jargons, argots, sign languages, writings, and the signs that can be used as texts such as leetspeak; non-verbal signs are morse codes, traffic signals, expressions, eyes, body languages, emoticons, etc. Intangible signs are the ones that cannot be seen and touched, which are used to carry the thought operation of human brain. Consequently, from Morris to Pelc, the former scholars ignored the definitions of signs of Peirce and Morris, and equaled semiosis with semiotics from the perspectives of the three branches, research fields, three properties and relations. As is known, syntax, semantics and pragmatics are the human discourses of language signs which possesses such properties and relations so as to narrow the signified and applicable scopes of signs, semiotics, and semiosis. Signs are the ways for human being to expressing, semiotics is a study on the signification of human signs, while semiosis is just one of parts in semiotics, researching on the process of sign significations. The relation and covering scopes cannot be mixed up. Semiotics as a science of study researches on the every signs in the human world to signify the tangible and

intangible signs in every forms, the three dimensions of syntax, semantics, and pragmatics are the typical properties in human discourses levels, which is used to analyze every signs in the world lacks the scientific outlook and base to do the fully rational analysis and interpretation.

The distinction between semiosis, or sign process, and semiotics, or the science or knowledge of semiosis, should go together with a corresponding terminological distinction between the various meanings of the words 'syntactic', 'semantic', and 'pragmatic'.

3. Three dimensions of semiosis

In terms of the three correlations of the triadic relation of semiosis, a number of other dyadic relations may be abstracted for study (Morris 1938:6) Semiosis, according to Morris, is classified into syntactical, semantical and pragmatical levels which respectively refers to the relations of signs to another signs, to object and to interpreters; the relation of signs to their designate, and the relations of signs to their users.

Morris (1938c) divided semiotics into the three branches of syntactics, semantics, and pragmatics. Morris's trichotomy is related to Peirce's, who distinguished between speculative grammar, critical logic (previously dialectic) and methodeutic (previously rhetoric) (cf. CP 1.191ff and 2.93). In conclusion, semiotics may consist of three subdisciplines: 'speculative grammar', which gives us a physiognomy of forms, a classification of the function and form of all signs; 'critic', the study of the classification and validity of arguments (divided into three parts: the logic of abduction, induction and deduction); and 'methodeutic', the study of methods for attaining truth. (Petrilli 2004, 297) Pragmatism may be considered as the practical consequences of the response from an interpretant, which is a methodeutic theory in Peirce's sense. In Morris's view, syntactics syntactics could employ the methods and results of Logical Positivism, while semantics and pragmatics those of Empiricism and Pragmatism, respectively. On the whole, Morris's trichotomy is fundamentally the result of two main influences: logico-empiricism and behaviorism, on the one hand, and the pragmatic philosophy of Mead and Peirce, on the other (cf. Morris 1971). In Morris's description syntactics, semantics, and pragmatics, the three branches of semiotic correspond respectively to the three dimensions of semiosis, the syntactical, the semantical and the pragmatical. Distinction between semiotic and semiosis in Foundations Morris states that, 'semiotic as a science makes use of special signs to state facts about signs; it is a language to talk about signs' (Morris 1971[1938]: 23). In this sense, one of the primary tasks Morris set himself was to establish a sign system to talk about signs. Morris was aware that pragmatics should not be separated from semiotics, nor therefore the pragmatical dimension of semiosis from the syntactical and semantical dimensions. Indeed, Morris always focused on the semantical dimension of semiosis. For example, the sign-vehicle (object) that functions a s sign, relates to a designatum and eventually a denotatum. This relation concerns the semantical dimension of semiosis. However, Morris preferred to focusing on the relations of semantical dimension, which does not mean he prescinds from the other two dimensions of semiosis as the sign is also the relation to an interpreter, which in response to the sign produces an interpretant. This is the pragmatical dimension of semiosis. Moreover, the sign must necessarily relate to other sign-vehicles, this being the syntactical dimension of semiosis. The sign involves all three dimensions of semiosis always. According to Morris's formulation of 1946 (1971[1946]: 365), pragmatics studies the effects of signs; semantics studies the significations of signs; syntactics studies the way in which signs are combined to form compound signs. The three dimensions are related to each other to form a web of semiosis, each time there is semiosis and, therefore, a sign, all three dimensions are involved and are the object of semiotics.

3.1 Syntactics

Posner concluded three aspects of syntactics which are all indeed present in Morris 1938c. His division of syntactics is indeed correspondent with Morris's three dimensions of semiotics. Syntactics₁, study of formal aspects of signs, is equated with syntactics of Morris; Syntactics₂, study of relations of signs, is equated with semantics; syntactics₃, study of how signs of various classes are combined to form complex signs, has the similar conception of pragmatics. Morris's conception of syntactics is "the study of the syntactical relations of signs to one another in abstraction from the relations of signs to objects or to interpreters" (Morris 1938:13).

Morris's concept of syntactics as well as the notion of syntax is connected with semantics and pragmatics, which is different from Chomsky's syntactic equated with syntax, as in Carnap, and separated from semantics and pragmatics. Given that the three dimensions of semiosis (syntactical, semantical, and pragmatical) are inseparable, the interpretant engendered by an utterance or any verbal sign whatever is not only an identification interpretant. It is also an 'answering comprehension interpretant' which has a special focus on the pragmatical dimension of signs. Without the interpretant of answering comprehension, it is difficult or even impossible to

recognize the sign at the level of phonemic or graphemic configuration, morphological and syntactic structure, as well as semantic content.

3.2 Semantics

Morris's contribution to sign theory in relation to the issue of the referent lays much influence on semantic dimension. He defined that "semantics deals with the relation of signs to their designate and so to the objects which they may or do denote". (Morris 1938:21) Morris's distinction between designatum and denotatum can solve the unclear referent and its misunderstandings easily. Where what is referred to actually exist as referred to the object of reference is a denotatum', says Morris (1971[1938]: 20). Susan Petrilli (2004:303) quoted the signifying of unicorn to show the relations between denotatum and the referent under two given contexts. On the one hand, unicorn, as being existed sign in the world of mythology, has a denotatum. On the other hand, unicorn, as a sign not being existed in the zoo or the material world, does not have a denotatum. 'It thus becomes clear that, while every sign has a designatum, not every sign has a denotatum' (1971[1938]: 20). By using Morris's distinction between designatum and denotatum misunderstandings in regard to the referent can in fact be avoided.

Referent (object), interpretant, and interpreted (representamen, sign vehicle) are, therefore, three different functions carried out by the sign. A referent is an implicit part of an interpretive route that explicit part (interpretant) refers to. It is impossible to explicit all the interpretants of a sign as they are infinite in number referring to Peirce's infinite semiosis. Every sign has a referent (implicit interpretant) just as it has meaning (explicit interpretant). Meanings without a referent do not exist. Consequently, the referent, or object of reference, is a component of semiosis means that the referent is not external to sign reality, even if as a 'dynamical object' it is external to a current semiosis. It is not possible to refer to something without this something becoming part of an interpretive route, i.e., without it being an implicit interpretant or interpreted. Referents are not external to the network of signs (Petrilli, 2004:305).

The referent is a denotatum if it exists in the sense of 'exist' as referred to by the sign; it is a designatum if it does not pertain in the sense of 'exist' as referred to by the sign. The sign always has a referent, in certain cases only as a designatum, in others also as a denotatum, as not every sign refers to something that actually exists in the terms referred to.

3.3 Pragmatics

According to Morris, although 'pragmatics' derives specifically from 'pragmatism', as a specifically semiotic term it receives a new signification.

The term 'pragmatics' has obviously been coined with reference to the term 'pragmatism'. It is a plausible view that the permanent significance of pragmatism lies in the fact that it has directed attention more closely to the relation of signs to their users than had previously been done and has assessed more profoundly than ever before the relevance of this relation in understanding intellectual activities. The term 'pragmatics' helps to signalize the significance of the achievements of Peirce, James, Dewey, and Mead within the field of semiotic. At the same time, 'pragmatics' as a specifically semiotic term must receive its own formulation. By 'pragmatics' is designated the science of the relation of signs to their interpreters. 'Pragmatics' must then be distinguished from 'pragmatism', and 'pragmatical' from 'pragmatic'. (1971[1938]: 43)

Morris defined pragmatics as the study of the relations of sign vehicles to interpreters or more simply as 'the relations of signs to their users' (1938c). Unlike Rudolf Carnap (1891-1970) (1939) who restricted the field of pragmatics to verbal signs only to include nonlinguistic signs much later (1955), Morris's conception of pragmatics concerns both verbal and nonverbal signs. John L. Austin (1962) and John Searle (1969) also limited their interest in the pragmatical dimension to verbal signs. The distinction of pragmatics in Speech Act Theory and Peircean or Morrisian semiotics is that the former fails to consider two factors in the pragmatic dimension of meaning which must not be neglected: interpretation and alterity. In other words, speech act theory does not account for the interpretant of answering comprehension. This is a consequence of the fact that the concept of verbal sign (in Austin and Searle) lacks a semiotic foundation.

As stated, Morris defines pragmatics as the study of the relation of signs (sign vehicles, representamina) to interpreters or sign users. With respect to Peirce's sign trichotomy, this definition seems to be external to signs dealing with the relations between sign users and signs. On the contrary, the pragmatical relation belongs to the sign trichotomic relation as a pivotal condition of semiosis, which is, in Morris's words, the 'action of sign'. There is no sign without an interpretant and consequently an interpreter, for the interpretant is the effect of a sign

on an interpreter.

Semiosis in its wholeness comprises both of interpreter and interpretant, sign or sign vehicle, signifification, context, etc. Stressing the interpretant rather than interpreter, pragmatics concerns not only the interpretant acting as "identification interpretant" which merely identify the interpreted, but responds and takes a stand toward it. This is what we have called the 'interpretant of answering comprehension' which, unlike the identification interpretant, is specific to a sign interpreting its implied actual sense. Sign interpretation in terms of answering comprehension is interpretive trajectories in semiosis. Therefore, the interpretant in pragmatics is dynamic and flexible with the forms of ensuing signs in another subsequent signifying process, in which another new interpretant may be generated by the different interpretations from the different sign users (interpreters).

4. Semiosic and Semiosics

Many scholars lay emphasis on the study of semiosic aspect with the continuous development and exploration on semiotics. Semiosic and semiosics are derived from the term "semiosis". Semiosic is used as adjective to signify the semiosis, for example, signifying the signal referential activities in semiosis is called semiosic activities; Semiosics is the term coined by Pelc in his article titled with "Semiosis, Semiosics and Semiotics" in 2000, signifying the sign activities in verbal semiosis from the three dimensions of syntax, semantics and pragmatics, i.e., "the syntactic₀ relations of some word are its syntactic₀ properties, while the pragmatic₀ relations are its pragmatic₀ relations. The totality of semiosic properties or semiosic relations of word may be designated the semiosics of this word. If I were to inquire about the semiosics of word, then, in keeping with the above terminological convention, I would expect to be informed about its structure, about the syntactic structures it may correctly occur in, and about its meaning, what it designates and denotes, what it expresses, and about the kinds of reactions it generates."(Pelc 2000:427)

Rationally, Pelc proposed the semiosics on the foundation of language signs, specifically with the reference to human utterances, which is a research system of sign properties and relations in the light of three dimensions of syntactics, semantics and pragmatics in semiosis of signs. In terms of content focuses and emphatic aspects, semiosics research may be classified into the applied one that semiotic theories are used to analyze syntax, semantics, and pragmatics in linguistics. In other words, the research adopted the linguistic semiotic route, but referred to the signs in general as the subjects in semiotic research. Even if it belongs to the semiotic research, it may be classified into the research from the linguistic dimension of semiosis in semiotics, as an aspect of verbal signs in semiosis. Therefore, it may be taken as the incomplete semiotic study for not covering all the signifying activities (non-verbal signs in the tangible signs and intangible signs) except for human utterances. In regarding to the broad sense of translation of sign transformation, semiosis is involved in every steps from thinking to writing and the thinking activities triggered from written words, from verbal signs to non-verbal signs and vice versa, from verbal signs to the comprehensive sign texts of verbal signs and non-verbal signs, from the non-verbal signs to the comprehensive sign texts of verbal signs and non-verbal signs, etc., which are regarded as the transformative activities between tangible and intangible signs, involving the semiosis. On the contrary, Pelc's proposal of semiosics refers to one aspect of verbal signs, which cannot be fully applied into every types of transformation between tangible and intangible signs. Therefore, on the foundation of Morris's semiosis and Pelc's semiosics, the researches on translation or signs transformation can only be limited in the narrow sense of linguistic aspect.

5. Conclusion

Semiosis includes the three aspects of semiosic and semiotic properties, semiosic activities and its products, and semiosic products. Semiotics, however, explores the connotation between semiotics and semiosis as well as the "subject" defining problem of semiosis and semiosics.

According to Peirce's definition of semiosis and Morris's revised definition of semiosis, Jerzy Pelc pointed that Peirce had ignored the role and function of human in the semiosis, and vaguely proposed that the triadic relation cannot be irreducible to the dyadic relation, which reveals the important role of interpreters in Morris's revised definition of semiosis, but excessively enlarge the signifying scope of signs and semiosis as well as ignore the limit of organism. In other words, an organ cannot play the role of interpreter and its secretion cannot be regarded as a sign. In regarding to the property of semiosis, based on the three semiotic branches of syntactics, semantics, and pragmatics proposed by Morris and Canarp, Pelc pointed out syntax, semantic, pragmatic relations are respectively the property of syntactics, semantics, and pragmatics. The totalization of the semiosic relations or the properties of semiosis is therefore known as semiosics, i.e. the semiosics of a sign is defined as the totalization of the properties of semiosis. In referring to semiosis and its products, Pelc regarded semiosis as

semiotic activities which in some cases may produce signs, selected semiosic properties or semiosic relations and the occasional semiosics, i.e., the totality of semiosic properties and semiosic relations so as to further explore creation of signs, communication of signs, and processing of signs. As regards the semiosic products, Pelc thought that semiosics of signs (the triadic semiosic properties of syntax, semantics, and pragmatics of signs) is the semiosic products, i.e., the direct products of semiosis.

As for the understanding of semiotics, Pelc pointed clearly that one entry of semiotics is to set up the research object as semiosis and semiosics related with signs, and affirms that a sign possesses simultaneously the three triadic properties of syntax, semantics, and pragmatics (semiosic signs). On the foundation of semiotic science outlook of Morris and linguistic science outlook of Canarp, Pelc pointed that semiotics is a science of signs and the divergent ascription of knowledge of semiosis and semiotic discourses research. In regarding to the problem of science of semiosis and semiosics, Pelc argued that signs produce activities and create scientific conception terms which successively are changed into semiosic products, of which the process is regarded as the exclusive activities of science, according to the definition of science being given by the Poland philosopher and logist, Ajdukierwicz (1890-1963). The semiosic expression belongs to a science category, and semiosis itself needs the scientific methods to be analyzed, semiosis is, thus, regarded as scientific activities. What's more, the interpretation and reasoning of semiotics are the necessities of scientific demonstration, then, which should be classified into the scientific category.

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