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### The Derivation of ‚Semiotics‘ through the History of the Discipline\*

There is no question that ‚semiotic(s)‘, as well as ‚semiology‘ and other congeners, contains a base semanteme represented by *σημ.* Sebeok (1971, included in Sebeok 1976: 47–58) has already illustrated all its facets reflecting polyglottic and polychronous variants. There are, nevertheless, several lexicological aspects that need not only to be clarified but also to be re-examined within the framework of the history of semiotics, the safest way to insure philological objectivity. My re-evaluation of the derivation for the term in question stems from the circulation of some recent literature on the subject. Let us briefly review, thus, the current situation which is most probably puzzling to many a classical scholar.

In a flyer entitled “Semiotics [:] Foundations in the Forms of Communication” and distributed<sup>1</sup> at the first Conference of the Semiotic Society of America, Atlanta, Georgia, September 22–24, 1976, I have noticed under “Definition of Semiotics,” the following: “The word semiotics is derived from the Greek *semeiotikos*, meaning ‘observant of signs’.” Also, on page 11 of the *Chronicle of Higher Education*, March 10, 1975, Malcolm G. Scully has reported an interview with Brown University’s Professor Robert Scholes where he stated: “The word [semiotics] comes from the Greek *semeiotikos*, meaning ‘observant of signs’.” And, finally, Sebeok (1976:47–48) has stated: “In any event, the Greek doctrine of signification, with strong medical overtones (in special reference to Galen), acquired the designation *semeiotiké*, from *sēma*, ‘sign’, *sēmeiōtikos* ‘observant of signs’.”<sup>2</sup> But Sebeok 1976 is the final version of Sebeok 1971, thus this latter explanation for ‘semiotics’ as being derived from “*semeiotikos* ‘observant of signs’” is apparently the initial source for the dissemination of this rather debatable assumption.

No matter what the source, however, one still has to explain not only for English, but also for Greek, how “the designation *semeiotiké* [is derived] from *sēma*,” or even from “*sēmeiōtikos* ‘observant of signs’.” In the former case, any analysis would not lead us beyond proto-Indo-European; in the latter, by assuming “*sēmeiōtikos*” as the source for *σημειωτική*, the lexical process of derivation is rather obscure as well as historically unattested. Semantically the problem becomes difficult since ‘semiotics’ is obviously more than the science that ‘observes’ signs.

Thus, it is more challenging to begin with the main term ‘*σημειωτική*’ and trace its development along the history of semiotics, especially since we seem to take for granted that this term existed in antiquity.

To bluntly present my case, I first state that there is no extant literature, or indirect evidence of it, that accounts for either the presence of “*σημειωτική*” in antiquity or for the alleged derivation of the term from “*sēmeiōtikos*.” There are only two historical bases for *σημειωτική*: one is purely philological, and the other is directly connected with the history of the discipline. The latter is Locke 1690:361: “The third branch [of the sciences] may be called *σημειωτική* ..,” not “*σημειωτική*” as reported by Russell 1939:405–406, and by Sebeok 1976:48. In this case, ‘semiotic’ (and all its later vari-

ants) would not be a derivation but a direct transliteration, as it might have been for German through Lambert 1764, whose second volume is entitled *Semiotik oder Lehre von der Bezeichnung der Gedanken und Dinge. Phänomenologie oder Lehre von dem Schein*. The former basis is the *Thesaurus Graecae linguae* (Stephanus 1572). But before interrelating the two sources mentioned above, it is important to prove some aspects of the history of semiotics. In particular, the history of the term 'semiotics' in English, and in other Western languages as well, suggests a different development which should be analyzed within the Graeco-Roman tradition and, specifically, at the philosophical and philological levels where 'semiotics' had its strongest foundation.

First of all, although there were "strong medical overtones" in ancient Greek literature involving semiotic matters, these overtones reflected later developments. In fact, medicine was utilizing a branch of applied semiotics, viz. symptomatology in Galenus' work, that betrays late applications in which, terminologically and etymologically speaking, the field is already seven centuries old in Galenus' time (cf. Romeo, "Heraclitus and the Foundations of Semiotics," forthcoming). This tradition is still alive in Italian medicine as in *Panorama di Scienze e Lettere*, 20 (1976), 114:53: "La semeiotica è la chiave della clinica ... La semeiotica dunque è *branca fondamentale della medicina* [*italics mine*]."

In terms of the history of the discipline, then, the point of departure must be Locke 1690:361 where we have the term *in Greek* within a printed work whose authorship is not questioned. This is history. The problem is how may we explain the appearance of "σημωτικῆ" in Locke's *Essay*.

My own experience in this matter, alternating between the history of the discipline and the techniques of philology, has led me, through a series of false hopes and wrong assumptions, to a tentative conclusion which is now presented, with the hope that someone may care to challenge it. First, however, one has to accept the following historical data:

1. Locke 1690:361 introduces the term "σημωτικῆ" (not *σημειωτικῆ*) into the discipline (note also "Σημωτικῆ" in the "Contents," third line from the bottom).
2. Peirce 1931-1958:V:335 takes Locke's term etymologically for granted and shows no apparent concern about the presence or the absence of the term in Greek texts before Locke 1690.
3. Contrary to assertions made by Read 1948:85, saying that neither *semiotic* nor *semeiotic* had appeared in print during Peirce's lifetime (cf. Sebeok 1976:50), it suffices to consult Whitney 1897:VII:5485-5496 to dispel that notion. Moreover, it would help to read, in Whitney 1897, also the "List of Collaborators" on page iii of Volume I in order to acquire a knowledge of recorded history. (Cf. Sebeok 1977:27-28, which reached me in February 1977, after I had connected Peirce to Whitney independently in the Fall of 1975.)
4. Morris 1946:285 refers only to 'semiotic' going "back to the Greek medical tradition which considered semiotic, embracing diagnosis, and prognosis by signs, as one of the three divisions of medicine." Cf. Morris 1938:1-3.
5. Sebeok 1975:181-182 reflects Morris 1946:285 but quotes, *in Latin*, not in Greek, Galenus 1865:690: "[Semeiotice]... in praeteritum cognitionem, in praesentium inspectionem et futurorum providentiam." It is significant that, although Sebeok

1976: 181–182 does not include the term “semeiotice” openly, in Sebeok 1976: 125 the term in question does appear fully (“Semeiotice in tres partes dirimitur...”), again from Galenus above.

The aforementioned facts, leaving aside the various congeners that are tied, directly or not, with the recorded presence of “σημειωτική” in Stephanus 1572, indicate that, in the last three centuries of inquiry in matters semiotic, every path leads back to Locke 1690. This is especially so since a reading of Galenus 1965:XIV:689–690 (“Partes medicinae principis sunt physiologia ... et pharmaciam”) clearly shows that Galenus never employed ‘σημειωτική’. He only wrote, pages 689–690: “...καὶ τὸ σημειωτικὸν ..., τοῦ σημειωτικοῦ..., τὸ δὲ σημειωτικὸν..., διαιρέται δὲ καὶ τὸ σημειωτικὸν...,” i.e., he employed, in addition to “σημείωσις”, translated also ‘semeiotice’ in the same chapter, the Greek term corresponding to Latin *notatorius* (not Scapula’s “*notarius*”) ‘observant of signs’. This has little to do with the Greek doctrine of signs for which we can get a glimpse through Philodemus among others (see De Lacy and De Lacy 1941 for the ‘American’ *vernissage* of Philodemus’ work). The elusive term ‘σημειωτική’ never appears in Galenus’ *Opera omnia*. It is also puzzling, if not amusing, that *semeiotice* appears – besides in Chapter VIII – only two more times, in Latin, throughout the entire *corpus* but with two different forms. On page 693 of Volume XIV, one reads “... quae autem pars medicinae semeiotice dicitur...” corresponding to “ὃ δὲ σημειωτικὸν μέρος τῆς ἰατρικῆς...”, but, on page 633 of Volume XVIII/2, the most startling sentence reads: “Ut quam primum diagnosticam artis partem, quam *semeioticam* [italics mine, indeed!] recentiores vocitant, therapeuticam recte medicinam factoris priorem didicisse necesse est...” corresponding to “ὅσον εὐθέως τὸ διαγνωστικὸν μέρος τῆς τέχνης, ὃ καλοῦσιν οἱ νεώτεροι σημειωτικὸν...” Notice here that “*semeioticam*” appears without the first mora of the Greek diphthong. The fact that it is in the accusative case may even imply the psychological or graphic existence of a nominative ‘*semeiotica*’ (not “*semeiotice*” as it does appear in other instances).

My supposition is supported by the fact that, in Galenus’ *Index verborum* (Vol. XX), nowhere is “*semeiotice*” listed. Only “*semeiotice*” is entered, a rather misleading reference for hasty readers of indices. Finally, the corresponding Greek term for “*semeioticam*” (not entered either in the index) is still “σημειωτικὸν.” However, on page 694 of Volume XIV, Chapter VIII, I find the genitive of ‘σημείωσις’ (“σημείωσης”) twice, not the genitive of ‘σημειωτικός’, since Galenus describes *σημείωσις*, i.e., a ‘semiotic’ process, not the branch of medicine:

ὁμοίως δὲ καὶ τὰ κατὰ χειρουργίαν καὶ τὰ  
 δὲ φαρμάκων θεραπευόμενα, ὅτε ἄνευ  
 σημείωσης συντελεῖται καὶ τὰ ἐπ’ αὐτῶν  
 ὁμοίως δεῖται τῆς προγνωστικῆς σημείωσης  
 πρὸς τὸ εἰδέναι...

In Latin, this was rendered as:

Pari modo medicina, quae manu medetur, tum  
 illa, quae medicamentis auxiliatur, sine  
*indiciorum observatione* [italics mine] non  
 absolvitur quippe *praesagia* [italics mine]  
 eodem modum desiderant ....

More importantly, in the same Chapter VIII of Volume XIV, pages 690–695 (“An medicinae divisio in quinque partes necessaria sit”), one notices both “σημειωτικόν” and “σημειώσεως” (twice), which proves the difference between the *ars* and what Peirce 1931–1958:V:332 (Par. 484) calls “the action of almost any kind of sign.” Wide is the gamut of interpretations found among Latin translators, especially in Galenus’ *Definitiones medicae* (Volume XIX, Chapter CLXIV, page 394), “Σημείωσις ἐστὶν εἶδος σημείου ἢ διὰ σημείον ἢ διὰ σημείον κατάληψις. ἢ σημείωσις σημείον ἐστὶ τὸ τῶος [sic] ἀδήλου δηλωτικόν,” rendered as ‘*significatio* [italics mine] est signi idea vel est per signa perceptio. Vel *notatio* [italics mine] est signum quod rem minus patentem quampiam declarat’, where Galenus makes a difference between “σημειώσεως” [sic] ‘significatio’ and “σημείωσις” ‘notatio’.<sup>3</sup>

Galenus is, thus, out of the question. The problem remains: how did Locke get hold of “σημωτικῆ?” Sebeok 1976:48, originally Sebeok 1971, in trying to unravel the Lockean mystery, declares:

Specialists like Aaron (1955:309) find Locke’s use of *semeiotike* [sic] for that part of philosophy which is logic rather perplexing, because the Gassendists seemingly made no use of the term, and because there is no evidence, either, that Locke, who was a physician by profession, came across the word in his medical studies and converted it to his own uses; (he certainly does not explicitly connect it with symptomatology). Russell (1939) [volume 48, not „64” as indicated by Sebeok 1976:240], however, has convincingly argued that Locke adapted *semeiotike* [sic] from neither logical nor medical writings, but from writings on Greek music. His immediate source was probably John Wallis’ 1682 edition of Ptolemy’s *Harmonics*; (although Russell does not mention this, the fact that the word does not occur in Locke’s first draft of the *Essay*, in 1671, strengthens his argument). Wallis, Locke’s friend and former mathematics professor in Oxford, appears, in turn, to attribute the term *semeiotike* [sic] as the art of musical notation, to Marcus Meibomius, with two references to the latter’s *Antiquae musicae auctores septem* (1652).

It is relevant to point out that, as illustrated in the quotation above, the whole probing was confined to logical, medical, and even musical writings; and no attempt was made to analyze the philological and lexicographic aspects of the problem, for both concordances and dictionaries reflect not only the cultural currency of the times but also the intellectual atmosphere. After all, how could one quote Galenus’ “semeiotic” without reali-

zing that the Latin version was published much before later speculations from logic to music? Indeed, the oldest *Latin* edition is Galenus 1490.

A rather tortuous path took me to Hippocrates' *Prognostic*, the first step in pure deception through Scapula. Firstly, in spite of my usual *odi et amo* association with Scapula (I have the 1637 London edition in my own library), I made a preliminary check along lexicographic lines. My heart jumped for joy when, in Scapula 1637:1456, I read:

Σημειωτικὸς, notarius [sic]. Et ἡ σημειωτικὴ,  
pars medicinae signorum omnium differentias &  
vires expendens: praecipuè autem eorum quibus  
per morbos & praeterita investigantur & prae-  
sentia cognoscuntur, ac futura praevidentur.  
Hippocr. in Prognost.

Since, a long time ago, I learned not to trust indirect sources, I rushed to *Hippocrates* (ed. Jones 1923–31). After all, Locke was a physician, even a surgeon! There would be no problem, then, in supposing a *correspondence* between them.

My joy, unfortunately, was of short duration, because, after reading and rereading not only Hippocrates' *Prognostic*, but all of *Hippocrates* in the Loeb Classical Library (and double-checking in the famous Littré edition), nowhere does the term 'σημειωτικὴ' appear in Hippocrates' works.<sup>4</sup> How could, then, Scapula 1637 make such a misleading statement in spite of his pirating the *Thesaurus Graecae linguae*?<sup>5</sup> After immediately checking there, in the dozen columns, for anything derived from *σημ-*, I became more puzzled when, in confessing a *mea culpa* to Scapula, I read in the *Thesaurus*, VIII:192:

Σημειωτικὸς, ἡ, ὄν, Notatorius [Porphyr.  
Abst. 2, 49, p. 191: Ἰστωρ γὰρ πολλῶν ὄ-  
ντων φιλόσοφος καὶ σημειωτικὸς.] Σημειω-  
τικὴ, Pars est Medicinae, signorum omnium  
differentias et vires expendens, ad quam  
tum omnium signorum contemplatio pertinet,  
tum eorum maxime, quibus per morbos et  
praeterita investigantur et praesentia cog-  
noscuntur, atque futura praevidentur, sicut  
ab Hippocr. proditum est initio libri  
Προγνωστικῶν. [Et Galeno vol. 2, p. 365.  
Aretaei De Signis tard. pass. liber inscri-  
bitur χρονίων παθῶν σημειωτικὸν βιβλίον Β'.  
L. Dind.]

The disappointment I received was counterbalanced by the finding of some by-products of interest to historians in general (and historians of linguistics, in particular). Firstly, I was happy to read "Notatorius", which can account for the proper understanding, in Renaissance times, of the original Greek as 'observant of signs', contrary to Scapula's "Notarius" (an obvious case of graphic haplology; "Notarius", unfortunately, has entered texts and dictionaries after Scapula's pirated edition of the *Thesaurus*!).<sup>6</sup> Secondly, there I was, once more confronted with the fact that Hippocrates showed no 'σημειωτικὴ', in spite of the *Thesaurus*' traditional authority. Once more I checked every possible source between Hippocrates and Galenus (the results will

appear in another paper) and after Galenus until Locke. I found instances of every possible 'classical' congener, yes, but, in place of 'σημειωτική', I always encountered "σημείωσις" (in various cases and numbers such as "σημειώσεις") and "σημειωτικός." Again, 'σημειωτική' was nowhere to be found.<sup>7</sup> I had no recourse but that of returning to Locke. The whole research seemed to be rather Delphian. I understand, now, some of the problems with which Sebeok 1971 must have had to cope.

My research on Locke, luckily, was alleviated by Harrison and Laslett 1965, which was indeed a labor of pure love.<sup>8</sup> Knowing that Locke was a physician before becoming a philosopher, I was curious to find out which books he might have consulted before and after embarking upon his *Essay*. This was made easy because of his peculiar way of classifying his private library, including dates of purchase of most books. In his collection, indeed, Locke included Hippocrates, namely the following, as listed by Harrison and Laslett 1965: 154–155:

1457. Aphorismi. Ex recognitione A. Vorstii  
(Gr. & Lat.) 24<sup>o</sup>, Lugd. Batavorum,  
1628. [I omit other indications  
made by Locke for his own classifica-  
tion purposes.]
- 1457<sup>a</sup>. Aphorismi ... 16<sup>o</sup>, Lugduni, 1555.
- 1457<sup>b</sup>. Aphorismi Graecè, et Latinè ... Ple-  
racq ex interpretatione J. Heurnii  
... 12<sup>o</sup>, Lugduni Batavorum, 1627.
- 1457<sup>c</sup>. Coacae praenotiones ... Interprete &  
enarratore L. Dureto. (Gr. & Lat.)  
F<sup>o</sup>, Lutetiae Parisiorum, 1658.
- 1457<sup>d</sup>. Coacae praenotiones, Graecè & Latinè.  
Cum versione D.A. Foesii ... et  
notis J. Jonstoni, 12<sup>o</sup>, Amstelae-  
dami, 1660.
- 1457<sup>e</sup>. Opera omnia quae extant ... nunc  
denuo Latina interpretatione et  
annotationibus illustrata A. Foesio  
... authore ... Vol. 1. F<sup>o</sup>, Genevae,  
1657.

Manuale medicorum ... 1659.<sup>9</sup>

After rechecking all the works above, neither in *Aphorismi*, *Coacae praenotiones*, nor in *Prognostica* as part of his whole *opera* (or attributed to Hippocrates and his 'school'), can 'σημειωτική' be found. In the beginning of the *Prognostic*, as per reference source given by the *Thesaurus*, surely the term in question should appear, but in reality one can only read in II (Jones 1933:2:8): "... και μήπω οἶόν τε ἢ τοῖσιν ἄλλοισι σημείοισι συσσεκείρεσθαι..." , similarly to other sections as in the beginning of XVII (Jones 1933:2:34): "Τοὺς δὲ σὺμπαντας ἐμπόους γνώσκειν χρή τοῖσδε τοῖς σημείοισι." Thus, Hippocrates used only the term 'σημείον'.<sup>10</sup>

Returning to the original sources, I found myself back where I had started, having spent two years in desultory attempts to solve this challenging riddle which became more and more fascinating, even from a purely philological and bibliographical point

of view. Was the mystery of 'σημειωτική' a hoax or a dignified part of the history of semiotics? My own difficulty in research was compounded by the fact that I had to rely heavily on interlibrary loan sources during a period in which the University of Colorado Library was closed for remodeling — for the first time in a century. But a stroke of luck brought me closer to Locke, the bibliophile. Both he and I had something in common: we had Scapula, the culprit, at our fingertips. Actually, Locke had two editions, Scapula 1605 and 1663.<sup>11</sup> I have Scapula 1637. So, after going in circles for so long, I had no alternative than that of assuming a very simple thing: Locke, the physician, must have read Hippocrates in his younger days; but Locke, the philosopher, must have consulted Scapula in his later days.<sup>12</sup> Apparently, Locke did not have Galenus' edition of 1490, or any later one edited with a Latin translation containing *semeiotice* (as well as *semeioticam* and *semeiotice*)<sup>13</sup> for σημειωτική. Thus, one can presume that when Locke the philosopher was confronted with employing a term in philosophy, the medical concept of which he had acquired in his younger years, he doubtless borrowed the idea from Hippocrates' σημείων.<sup>14</sup> But on consulting Scapula he found, among the several variants, "σημειωτική." And, since Scapula refers to Hippocrates, as well as because Locke must have remembered all the various allotropes involving σημ-, he must have taken Scapula's term and reference (actually the *Thesaurus*' initial reference) for granted, without rechecking the original source. On the other hand, although Locke did not have Galenus in his library, it is also possible (but not probable) that Locke read Galenus' work containing the terms *semeiotice*, *semeioticam*, and *semeiotice*.

At my present stage of research, I personally prefer to believe that either Scapula overcame Locke (there was no *Thesaurus* in Locke's library, although this does not mean that he might not have had access to it), or Locke transliterated Galenus' "semeiotice" into Greek. No other solution now seems feasible until we locate further records evidencing that others may have used σημειωτική before the *Thesaurus Graecae linguae*. In other words, *the first time in history* that 'σημειωτική' appears as such is in the *Thesaurus*, then in Scapula, for lexicographic purposes, and in Locke for philosophical reasons as "σημωτική" which suggests an influence from "semeiotice" without the Greek diphthong. If it did appear anywhere for musical or medical reasons, so far we only have evidence for Latin *semeiotice* through Galenus 1490 and later editions, but the Greek term never appeared in print *before* the *Thesaurus*. It is, indeed, significant that neither Meibom 1652 nor Wallis 1682 was in Locke's library according to Harrison and Laslett 1965.

Thus, if there is any 'fault', it is not Locke's but the compilers' of the *Thesaurus* for the entries covering any derivation from σημ- including an unattested "σημειωτική" allegedly ascribed to Hippocrates. The problem still remains regarding how the compilers must have been influenced by *semeiotice*, a very probable term in existence during the Middle Ages since, in the first version into Latin, it did stand for "σημειωτικός" or even "σημείωσις." However, it is not difficult to assume that 'semiotics', as an *ars*, had linguistically undergone a process of analogical formation in Hippocrates' time, such as was the case for other *artes*, e.g. grammar (see Romeo, "A Note on Hippocrates' γραμματική"). According to the following charts, originally distributed at the Second Meeting of the University of Colorado Semiotic Circle in 1975, one can synthesize the correlation between Greek and Latin for most of the known *artes* in the Graeco-Roman intellectual world.

CHART A

| LATIN |             |                 |                |                |
|-------|-------------|-----------------|----------------|----------------|
| Type  | A 1         | A 2             | A 3            | A 4            |
| (1)   | ars nova    | ars notaria     | ars amandi     | ars armorum    |
| (2)   | ars antiqua | ars oratoria    | ars dictaminis | ars signorum   |
| (3)   | ars moderna | ars imperatoria | ars disserendi | ars litterarum |
| ...   | .....       | .....           | .....          | .....          |

CHART B

| LATIN ←----- GREEK |                                     |
|--------------------|-------------------------------------|
| Type               | B X                                 |
| (1)                | (ars) grammatica (τέχνη) γραμματική |
| (2)                | (ars) rhetorica (τέχνη) ρητορική    |
| (3)                | (ars) logica (τέχνη) λογική         |
| (4)                | (ars) metrica (τέχνη) μετρική       |
| (5)                | (ars) rhythmica (τέχνη) ρυθμική     |
| (6)                | (ars) gymnastica (τέχνη) γυμναστική |
| (7)                | (ars) magica (τέχνη) μαγική         |
| (8)                | (ars) poetica (τέχνη) ποιητική      |
| ...                | .....                               |
| (9)                | (ars) semeiotica (τέχνη) σημειωτική |

Type A, above, includes some of the normal forms with which Latin creates its own *artes*. In essence, Type A is generated according to the structure of the language through various subtypes where the noun is modified by either an adjective or another noun (or functionally so) in the genitive case. Type B is basically a calque from Greek where the noun is always qualified by an adjective which, in both Greek and Latin, becomes a substantive by itself by antonomasia through ellipsis. To the best of my knowledge, there is no systematic study containing a comprehensive analysis of the chronology, the documentation, and the formation of the *artes* in the Graeco-Roman world. But, once admitting the possibility of analogical formation generating 'semeiotice' in Latin, i.e., 'ars semeiotica',<sup>15</sup> the development of the term 'semiotics' in English and other Indo-European languages should not pose any problem. In English, however, since the term was first used by a writer in the Anglo-Saxon cultural world, there are certain aspects that need to be clarified, mostly because of Locke's influence which culminated in *The Century Dictionary*, the first major *American* lexicographic enterprise, requiring fifteen years of labor.<sup>16</sup>

To recapitulate, 'semeiotice' existed before "σημειωτική" appeared in the *Thesaurus* (and Scapula), and 'semiotice' existed before "σημιωτική" in Locke.<sup>17</sup> This easily led to 'semiotic(s)',<sup>18</sup> But still one has to explain why it took so long for English to accept 'semiotics' in preference to 'semiology' since the latter term existed actively in the English language not only before de Saussure's "*sémiologie*" but even before Locke's 'se-

miotics'.<sup>19</sup> In fact, as early as 1653, the term is attested in Sir Thomas Urquhart (or Urchard), who wrote a preface to a translation of Rabelais' work (cf. *The Century Dictionary*, VII: 5436), and, when Locke was only twenty-one years old, "semaeology" was "signifying our thoughts by gestures." It is significant, indeed, that in *The Century Dictionary*, 1897 (and dictionaries are mirrors of the historical periods in which they were published), under "semiology, semeiology" (VII: 5485–5486) the first meaning is "the logical theory of signs, of the conditions of their fulfilling their functions, of their chief kinds, etc." The second meaning is "the use of gestures to express thought." Only the third meaning is connected with 'symptomatology' and, logically enough, with 'semiotics' as a synonym for 'symptomatology'.

We also know, more importantly, that the 'logical' section of *The Century Dictionary* was compiled by Charles S. Peirce.<sup>20</sup> His definition of "semiotics" (different from "semiotic"), on the same page as that of "semiology", leaves no doubt as to Peirce's understanding of the Graeco-Roman tradition: "the doctrine or science of signs; the language of signs", as the first meaning.

The rest, dealing with twentieth century developments for 'semiotics', has been amply illustrated by Sebeok in several instances but especially in Sebeok 1975, reprinted in Sebeok 1971. As to the alleged difference between semiotics and semiology, regarding whether signs are intentional or not, the distinction is purely 'national' and leads nowhere.<sup>21</sup> Semiotics, i.e., general semiotics, is now one only discipline, be it called as such or semaeology, semiology, semeiology, semiosis, semeiosis, semiotic, and so forth. It must be derived from \*(τέχνη) σημειωτική ('ars semeiotica'), the doctrine of signs, which are at the center of every cognitive process. All other derivations are mere suppositions based on historical accidents.

Until new documentation is brought to light (be it in future excavations at Herculaneum or in Peirce's oenological notes), the only fact we have, based on historical records, is that 'σημειωτική' never existed before it was printed in the *Thesaurus Graecae linguae*. Scapula (or Galenus) might have given the source to Locke. And Locke, via Peirce, found his way across the Atlantic into *The Century Dictionary* before returning eastward into the pages of the *Oxford English Dictionary*. If there is any instance of σημειωτική in any manuscript still to be edited and published, let us hope that it will be made known to the scholarly world.<sup>22</sup> Meanwhile, we only know that the ancients used either "σημειωτικός" for the *ars* and "σημείωσις" for the action (or process) of σημείω in all their morphological variants. Thus, the term 'σημειωτική' and Locke's "σημιωτική" have been borrowed from classical philology, not from medical or musical sources in post-Renaissance times. Any other account for the introduction of 'semiotics' into the discipline must remain, at present, a matter of conjecture.

## Notes

\* This article was first outlined as a paper read at the Second Meeting of the University of Colorado Semiotic Circle held in the Fall of 1975, Woodbury 6, Boulder Campus. I am very grateful to the Graduate School of the University of Colorado for a Faculty Fellowship which allowed me to dedicate a small part of my research activities to semiotic matters. My deepest gratitude is also expressed to my colleagues, Dr. Hope Hamilton-Faria and Dr. Alette Hill, who helped me complete this paper through several critical comments at various stages of my draft. All infelicities, of course, are mine.

1. Apparently, the flyer was authored by Dr. Donald W. Thomas, a pioneer in education. Dr. Thomas, co-Chairman of Department of English, Brookline High School in Massachusetts, is in the process of completing several classroom textbooks for courses in semiotics already being given at the highschool level, where an exposure to semiotics should begin. *Ars semeiotica*, indeed, is at the foundation of *ars grammatica* and *ars polyglotta*.
2. Various versions of the originally drafted Sebeok 1971 "have appeared in other languages, to wit: Hebrew, Italian, Japanese, Polish, Portuguese, Romanian, and Russian." Reported by Sebeok 1976:47, note 1.
3. The 1965 reprint of the 1821–1833 edition is a faulty one in terms of pagination. In Volume XVIII/2, page 619 is followed by pages 460–473 instead of pages 620–633. Thus, pages 460–473 are bound twice (once in the wrong place), a rather annoying and misleading accident especially because it is on page 633 that the only Latin form ever in print, "semioticam", appears. It behooves us, thus, to go back at least to Kühn's Leipzig edition of 1821–1833.
4. In *Hippocrates* (1923–1931), there are countless instances of *σημεῖον* in all its cases and numbers throughout most of the works therein contained. In any case, no instance of *σημειωτικός* was found. The most frequent verb, nevertheless, is *σημαίνω* (in simple and compound forms) which W.H.S. Jones interprets freely according to his needs. It would be helpful if a new interpretation could be made by a philologist with the assistance of a seasoned physician, a historian of science, a semiotician, and a philosopher. As the English version now reads – in the Loeb Classical Library – it could surely stand some improvement.
5. Henricus Stephanus' *Thesaurus Graecae linguae* was first published in 1572. Joannes Scapula's pirated abridgement of the *Thesaurus* started in 1579 and generated several editions until the nineteenth century. But all lexica to date are still based on the original *Thesaurus* which, itself, had several editions. However, Locke could only have been exposed to the original edition, for only in the nineteenth century was a major change made through the *Editio nova auctior et emendatior*, London: 1815–1828 (8 volumes). I was able to consult only the Paris edition of 1831–1865 (*Thesaurus Graecae linguae ab Henrico Stephano constructus. Post editionem Anglicam novis additamentis auctum ordineque alphabetico tertio ediderunt*, C.B. Hase [et alii]), reprinted in Graz by Akademische Druck- u. Verlagsanstalt, 1954–1955.
6. Scapula must have confused *notatorius* with *notarius*. *Notarius*, however, in Greek was *σημειωγραφικός*, as entered in the *Thesaurus*, VIII:184.
7. As a by-product bonus of research, however, I was thrilled to find the term "γραμματικῆ" in Hippocrates. See Romeo, "A Note on Hippocrates' γραμματικῆ."
8. The life of Locke centered around his private library. As a matter of fact, he had almost an obsession for owning books, mostly basic and reference items. In a way, he was an anachronistic bibliophile; it was too late for anyone in the seventeenth century to own everything comprehensive, and too early to depend on a network of 'public' libraries. Thus, a knowledge of Locke's biography and library are of prime importance in the analysis of the elusive term under scrutiny.
9. The *Manuale medicorum* is actually Bicaissius 1659, containing Hippocrates' *Aphorismi*.
10. In the *Prognostic*, the term "σημεῖον" recurs dozens of times in almost all cases and numbers. Jones, the translator, interprets the term in various ways, from 'sign' to 'symptom' (mostly 'symptom'), though in Greek Hippocrates distinguishes specifically between "δημεῖον" 'sign' and "τεκμήριον" 'a sure sign' or 'evidence', as later adopted in logic where 'σημεῖον' is the opposite of positive 'τεκμήριον'.
11. Anyone who knows of Locke's peripatetic life, before he settled at Otes, can understand why he had two or more copies of several reference works. Cf. Harrison and Laslett 1965:4.
12. Both works were in Locke's library in Christ Church, Oxford, July 1681 (see Harrison and Laslett 1965:269, and cf. Sebeok 1976:48). Locke's original draft of the *Essay* was made in 1681 but Wallis' edition of Ptolomeus' *Harmonics* was 1682. A cursory examination of Wallis 1682 on a microfilm failed to show me any evidence of the term in question. The careful reading of Meibom 1652:66 casts some doubt on Russell 1939:405–406, or even on Wallis 1682: Appendix:286 for, on page 66 there begin "Marci Meibomii Notae in Alypium," clear evidence that the notes were written by Meibom to illustrate some passages of *Alypii introductio musica* which is Volume V of the seven *avctores*. In the next to the last paragraph, column one, page 66, one cannot read, however, the Greek term as understood by Wallis and Russell since the last two or three letters are unclear. But even if the term were "σημειωτικῆν", it had nevertheless existed for more than a century (see note 18 below).

13. 'Semiotics', with the monophthongized *ei*, would naturally be closer to Locke's "σημωτική" as a transliteration of Latin into Greek!
14. This confirms Peirce's 'evolutionary' usage of *σημείωσις* as the action of the sign. See, in fact, Peirce 1931–1958: V: section 473 where the Greek term appears first as "semeiosis," twice, on page 325. However, a few sections later, "semeiosis" is replaced by "semiosis" which is used seven times (four times in section 484, page 332; once in section 488, page 335; and once again in section 489, page 336, where it appears also in the plural ('semeioses')). In essence, Peirce seems to have tried a compromise by adopting first a Greek transliteration with an English bound morpheme, and later a full transliteration with a monophthongized form (cf. Sebeok 1976:48).
15. Semiotics (or semiotic, etc.) has entered our tradition in contraposition to a genetically analytic process such as *bio-logy*, *semio-logy*, and so forth. In essence, we have two processes for terms based on Greek: one by analysis within the Latin tradition, and another by ellipsis as in (*ars*) *semeiotica*. The second process was continued in Romance in much the same way as (*jecur*) *ficatum* yielding It. *fegato*, Fr. *foie*, Port. *figado*, Sp. *hígado*, etc. The analytic process, in theory, could go on forever if one considers types such as 'grammatology' > *grammatologia* < (*ars*) *grammat- (ica) + logía*, a rather hybrid formation (cf. Derrida 1967). See, in fact, the authoritative records of the *Oxford English Dictionary*, IX:434–435, clinging still to *σημειωτικός* but also assuming a \*(τέχνη) *σημειωτική*. Cf., also, the *Real Academia Española* 1956: 1188: "Semiótica (Del gr. *σημειωτική*, sobrentendiendo τέχνη, arte)," and Devoto 1967:386: "semeiōtica, dal gr. *sēmeiōtikḗ*, formaz[ione] sostantiv[ale] che presuppone una formula precedente *sēmeiōtikḗ* (téchnē) '(arte) diagnostica'." The aforementioned sources, among others, represent undoubtedly a pan-European thesis based on classical scholarship.
16. *The Century Dictionary* (bearing Copyrights 1889, 1895, 1896, and 1897), incidentally, was compiled under the editorial leadership of W.D. Whitney, and, thus, entries dealing with linguistics, philology, semiotics, semiology, logic, and related disciplines were subject to a closer scrutiny. For the copyright of *American* terms not originally present in the parent *Imperial Dictionary*, cf. Volume I, page ii. The first edition was published in 1891 (I myself own a 1897 edition). Cf. the *Oxford English Dictionary*, IX:435–436, for 'semeiotics' but remember that the *OED* was initiated *after* the publication of *The Century Dictionary*.
17. The *Thesaurus*, indeed, unmistakably reiterates its view under the entry for *σημείων* in Volume VIII, column 185: "Quanquam et imminentis morbi *σημεία* a Medicis tradantur, ut a Celso Signa longae valetudinis, indicia mortis, et quae notae in quoque morbi genere vel speme vel periculum ostendat: unde *σημειωτική* Medicinae quaedam pars dicta, ad quam *Πιρογνώστικῶν* libri Hippocratis pertinent." My reading of Celsus 1859 (since Locke had Celsus 1552 and 1567 in his library) has proved that Celsus never used *σημειωτική*, although often he says "quod Graeci vocant ..." for many terms. Celsus, whenever confronted with the concept of *σημεία*, employed "*signa*," "*notae*," "*indicia*," and so forth, especially in the second book (*De Signis*) of his *De medicina*.
18. Russell 1939 is unaware (and Sebeok 1976:48 along with him) that *σημειωτική* could not have come "from writings on Greek music" since the chronology of the documentation in print indicates that the term existed before Meibom's and Wallis' but did not appear in Alypius. In addition, Russell himself declares he does not know whether the term was introduced by Meibom (see note 12 above). It is, thus, obvious that Meibom, who must have read the term in either the *Thesaurus* or Scapula printed at least a century earlier, either reconstructed the Greek term by transliterating it from still earlier "*semeiotice*," or borrowed it from Stephanus 1572 (or Scapula 1579, 1605, 1637, 1652). Moreover, the reference adduced by Russell 1939:406, saying that "The medical term given in Liddell and Scott is *τό σημειωτικόν*," constitutes an explanation that needs no elaboration, for Russell apparently never heard of philological tools such as the *Thesaurus* and its tradition.
19. Cf. the rather puzzling statement in Jakobson 1970:5: "This science [semiotics], ... and programmed since the late 1860's by Charles Sanders Peirce and at the turn of the century by Ferdinand de Saussure under a somewhat modified label *l'italics mine* *sémiologie*...." The term 'sémiologie' in French, of course, had existed for at least a century. (Cf. the 1835 edition of *Dictionnaire de l'Académie Française* or the 1837 *Dictionnaire des Dictionnaires*, where, on page 1015, one finds both *sémiologie* and *sémiotique*, but see also page 1017, listing *semiotique*.) As to the role, or the non-role, of de Saussure in the history of 'semiotics', the matter will be treated in another study.

20. The official responsibilities assigned to Peirce were for "Logic; Metaphysics; Mathematics; Mechanics; Astronomy; Weights and Measures". See Whitney 1897:1:iii. Thus, when Charles Morris uses "semiotic" for 'semiotics', he merely employs what Peirce had already included in *The Century Dictionary* as an adjective since, only when spelled in the 'plural', the term was a noun. For the primary role played by Peirce in *The Century Dictionary*, cf. Ketner and Cook 1975: 75–78. Note, especially, Whitney 1897:1:xii: "In defining this common English vocabulary, important aid has been received from ... [ a long list of names]; and from many others who have helped at special points, or by criticism, particularly Prof. Charles S. Peirce and Prof. Josiah D. Whitney." On page xiv, Whitney's acknowledgements continue: "The definitions in physics have been written by ..., and in many special points, particularly those touching upon mathematical theory, by Prof. Charles S. Peirce." The whole page stresses Peirce's contributions, especially for the philosophical sciences: "The logical and metaphysical, and many psychological definitions have been written by Prof. Peirce."
21. In Italy, 'semeiotica' is still 'symptomatology' in medicine as can be seen through Ruggieri 1976, but cf. Viola 1933. This is true even when translating English into Italian as per American Heart Association 1976. For terms such as *semeiotica radiologica*, *semeiotica di laboratorio*, etc., see Schiassi 1936:XXXI:338–342. As for economics, in Italy the preferred term was *semiologia* (cf. Pantaleoni 1892 and Ottolenghi 1926 in Bachi 1936:XXXI:348–349). Of course, there is 'semeiotica' (cf. Eco 1975), though also *semeiotica* vs. *semiologia* as illustrated by Rossi-Landi 1968:53, no. 1 (2nd edition 1973), and Segre 1969:37–59 and 61–92. The situation is more or less the same in France as in Italy, although – except for French semioticists 'beyond literary criticism' – old timers still cling sentimentally to 'sémiologie' (cf., however, Deledalle 1976). The phenomenon, in essence, is European, if not a vestige of 'Roman Empire' disputatious tradition, antecedent to the 1962 Indiana Conference, which was the seed for the germination of the newly 'imperialistic' term 'semiotics' before it reached maturity throughout the globe (cf. Romeo 1970, but, for a complete history of the semiotic 'boom', see Sebeok 1976:171–176).
22. Fortunately, under the pioneering care of G. L. Bursill-Hall, the Friedrich Frommann Verlag will soon publish *A Census of Medieval Latin Grammatical Manuscripts*, a hopeful beginning for the benefit of future generations who may still find our elusive term buried somewhere in texts of the Middle Ages.

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# SEMIOSIS 6

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