Fundamental Signs and Significance-effects

A Semeiotic outline of Fundamental Signs, Significance-effects, Knowledge Profiling and their Use in Knowledge Organization and Branding

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Doctoral Dissertation

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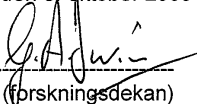
Doctoral Dissertation

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Doctoral Thesis 2009

Torkild Thellefsen

Science consists in actually drawing the bow upon truth
with intentness in the eye, with energy in the arm
(Charles S. Peirce, CP 2.235)

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Preface

> The idea does not belong
> to the soul; it is the soul
> that belongs to the idea.
> The soul does for the
> idea just what the
> cellulose does for the
> beauty of the rose; that is
> to say, it affords it
> opportunity. It is the
> court-sheriff, the arm of
> the law. (Charles S.
> Peirce CP 1.216)

Background

I have been studying semeiotic[1] since 1994, when my former supervisor at the Royal School of Librarianship, Professor Søren Brier, introduced me to selected writings of the American polyhistor Charles S. Peirce (1839-1914). It is hard to tell exactly why Peirce's thinking made so great an impression on me then – since, as I recall it, it was completely incomprehensible. But I believe one of the reasons was that many semioticians, primarily Peircean inspired, often find

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[1]I follow Max Fisch (1986) when choosing this particular way of spelling semeiotic. In his article "Peirce's General Theory of Signs", Fisch writes: "For...the art or science or doctrine or general theory of semiosises he uses semeiotic...To tell us how to pronounce his preferred form, he marks it sēmeio´tic (MS 318:52)...Both the spelling and the pronunciation should...be signs of etymology; that is, should make it evident that the derivation is from Greek". (Fisch 1986: 322). And Further "… the art or science or doctrine or general theory of semioses – he used semeiotic; much less often, semeiotics or semiotic; very rarely, semeotic; never semiotics. (ibid p. 322)

themselves in a kind of opposition to their own knowledge domains. This somewhat partisan-like and defensive lifestyle holds an appealing and attractive quality for me. Brier, himself, was at that time on collision course with the dominant information theories at the Royal School of Librarianship. His cybersemiotics was in contrast to the more well-established theories concerning knowledge domains and bibliometrics primarily argued by Professor Birger Hjørland and Professor Peter Ingwertsen, respectively. However, Brier insisted on a pragmatic semiotic and second order cybernetic based information theory[2], whereas other researchers did not see the need for this theory combination at all. Of course, such differences in scientific approaches caused many conflicts. As a student, I did not participate in these conflicts, but my sympathy was all along with Brier, since I believed and still do believe that knowledge and information are very complex concepts that need thorough examination.

My master thesis[3], written together with my brother Martin Thellefsen, was an attempt to compare Georg Lakoff's cognitive semantics with Peirce's semeiotic, in order to identify the complex sign nature of technical terms. This

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[2]In short, Cybersemiotics is a theory, which integrates cybernetic information theory with the semeiotic of C. S. Peirce but also integrates aspects of autopoietic system theory of social communication as it is defined by Niklas Luhmann. It also integrates cognitive semantics as defined by Georg Lakoff; all this in order to unify the living and cultural world with the non-living natural and technical world, which are the realms of information and computation. For further study of Cybersemiotics, see Søren Brier (2008): Cybersemiotics – why Information is not enough. Toronto: University of Toronto Press.
[3]Indexing, Cognitive Semantics and Pragmatic Semiotics – Prolegomena to a Pragmatic Semiotic Understanding of Indexing and the Design of a User-oriented Thesarus to the Journal *Cybernetics & Human Knowing*

thesis made up the theoretical foundation for my later PhD thesis, however, without the cognitive semantics which I later, in relation to technical terms, found unfit for use. Martin and I later translated the master thesis, rewrote it with Brier, and published it in the journal *Semiotica*[4].

After I became MLIS (master of library and information science), I worked as a librarian at the School of Occupational and Physical therapy (Occupational Therapy abbr. OT). There, I studied how OT teachers use their technical language. The study gave me important insight into how they understand their technical language, but also on their professional view of themselves. The study I conducted formed the basis for my later PhD study and can be read in my PhD thesis "Fagsprogssemiotik" (Semiotics of technical language) (2003). In Denmark, OT has had, and still has, a non-academic status, which made the study of their technical language even more important, since, according to Peirce, good thoughts require a good language (cf. CP 2.219). In "Fagsprogssemiotik", I introduced the concepts *fundamental sign*, *significance-effect* and *SKO-method* (SKO = Semiotic Knowledge Organization).

The fundamental sign – as the name suggests, is a sign of great importance. I defined it as the center of any knowledge domain, since it carries the epistemological basis of the knowledge domain. In short, I define a knowledge domain as a domain for some sort of social (often academic) activity which is delimited from its surrounding world by being affiliated with

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[4]Torkild Thellefsen, Søren Brier and Martin Thellefsen: (2003) "Indexing and significance-effect: A Peircian semiotic and cognitive semantic approach to the analysis of the problems of subject searching". In: *Semiotica* 144: 177-218.

special knowledge interests. In this way, knowledge always seems to be tied to purposes. Consequently, knowledge domains will always be determined in a certain direction. The determination is a vital necessity for the knowledge domain. Therefore, a knowledge domain can be viewed as a set of conditions that affects and maintains knowledge – the generally agreed upon meaning of concepts – in accordance with the goals of the knowledge domain. A knowledge domain can be viewed as a structure, built on and demarked by intersubjective interests centered and organized around a normative fundamental sign.

Consequently, the knowledge domain is an organization which exists and develops around a shared objective, and based on a sense of community it has developed a general understanding and thus a terminological or formal representation of its object of interest, which e.g. could be a classification system, a thesaurus or a nomenclature, etc.

The epistemological basis is the epistemological point of view of a given domain. It is how the dominant part of the knowledge domain understands its research object. There can be different viewpoints in a knowledge domain, but they will often be in conflict with each other. So, based on the uniqueness of knowledge domains, they have to be treated as unique if we are to make realistic representations of knowledge domains. By realistic I mean a representation that is as similar to the object represented as possible. Consequently, we must identify the knowledge domain's normative fundamental sign.

I also introduced the concept significance-effect, which is a special knowledge dependent interpretant. In "Fagsprogssemiotik", I defined it as the knowledge effect caused by a given sign in relation to the knowledge already in the interpreter in relation to technical terms. The interpreter reflects his knowledge level in the sign, so to speak. The more someone knows about a given sign, the more familiar the effect of the sign is. In this way, an x-ray communicates more professional knowledge to a doctor than to a layman. The concept semeiosis communicates more knowledge to a semeiotician than to a person without prior knowledge of semeiotic, and so on and so forth.

The significance-effect was primarily developed to say something about technical language. The reason for defining the significance-effect was to underline that knowledge is local and general, in the sense that it is anchored in a context, i.e. a knowledge domain, and is developed according to the goals of the particular knowledge domain, therefore being local. It is general since knowledge per se is general as communicable habits which are represented as signs. The fundamental sign is the center of a knowledge domain, and it contains, maintains and releases the significance-effect in relation to the knowledge in the knowledge domain.

Furthermore, I introduced the SKO-method, which is a pragmatic knowledge organization method designed to investigate and identify the fundamental sign of any community. The SKO-method was based on the pragmaticistic idea that the meaning of a concept is its conceivable consequences. So, the idea was to identify as many conceivable consequences of a concept in order to understand the meaning of the concept. If the actors

in the knowledge domain through analysis would agree on a certain significant consequence, the consequence would become a related concept to the fundamental sign. The consequences of the fundamental sign and the significance-effect point to another way of understanding how knowledge is organized in a knowledge domain than the more statistic methods used in Library and Information Science (abbr. LIS). However, I do not reject statistic methods, but they must be anchored in a semeiotic understanding of knowledge; they cannot stand alone. When I studied the technical language of OT, I found it to be immature and not ready for a more strict language. The study provided me, though, with insight in technical language as signs, and how concepts organize and communicate knowledge. What later made me change the SKO-method and the definition of the fundamental sign was that even if occupational therapists lacked academic status, and they were immature in their use of technical language, they were very much aware of being occupational therapists. They all shared a feeling of belonging to OT. They shared values, and they had a feeling of ours, of sharing the feeling of being occupational therapists and belonging to OT. Hence, what keeps a community together is not so much the technical language as it is the emotional experience of belonging to a community which endows the single member with identity and meaning.

Peirce's theory of semeiotic is my theoretical fundament. Therefore, I will try in the following to describe how and why I have been so attracted to this theory.

Metaphysical attraction – reasons for my choice of theory

My reasons for using Peirce's semeiotic instead of other semiotic or non-semiotic theories are that no other theories seem to grasp the dynamical, evolutionary aspects of knowledge in the same way as Peirce. Also, in order to develop my concepts, I need a theory that is realistic – extremely scholastically realistic[5], since I - like Peirce - believe that it is the idea, based on its intrinsic qualities, its aesthetic good, that causes attraction and yields life to its advocators, rather than it is the advocators who yield life to the idea. "The idea does not belong to the soul; it is the soul that belongs to the idea" (CP. 1.216) At first – infected by nominalism - it may sound like nonsense; but I believe the claim to be true, I believe that the choosing is an attraction taking place on an iconic and aesthetical level. One gets attracted to an idea, because one in some way resembles the idea, and since one contains similar qualities

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[5]The scholastic realists do recognize that many descriptions of laws or logical forms are merely human constructs. However, the crucial point is the insistence that such description can sooner or later be distinguished from those which are objectively true (cf. Kelly Parker 1994, p 53.). In the article "Peirce's Semeiotic and Ontology", Kelly Parker remarks the following: "Peirce, the realist agrees with his nominalistic opponents in saying that our knowledge is a social construct which is subject to constant revision. He goes further, however, to assert that there is an objective "way things are" which would be fully revealed to us only at the end of infinite inquiry, and which is independent of what any number of people may think. This is Peirce's "extreme" logical realism in outline. It provides a definition of truth which makes it independent of any finite opinions. Peirce sees such a regulative ideal as necessary to logical thought, though logic cannot assure us that there is in fact any such truth to be attained (SS 73) (Parker 1994 p. 54). Consequently, Peirce accepts that there is a reality, which is real and true independent of what and how you and I may think or feel about it.

with the idea, one can reflect and see oneself in the idea, not necessarily based on visual similarity, but primarily on emotional similarity. This takes place on a level of firstness between qualities. The qualities are classed together and they indicate important relations among objects (cf. Murphey 1993 p 340).

Another reason for me to choose Peirce's semeiotic is that it involves an interesting theory about truth and reality. No other semiotic theory provides a theory of truth and reality which holds both reality and truth greater and above man, that man is a servant of truth, and that we ought to seek truth for the sake of truth in order to render the world more reasonable; that both the universe and man are signs, and thus in some way related in signs and mind, and because of that we can investigate the universe and in the long run get a glimpse of truth, and that we ought to be optimistic regarding the possibility of discovering truth. In the article "Some Consequences of four Incapacities" (1868), Peirce writes:

> There is nothing…to prevent our knowing outward things as they really are, and it is most likely that we do thus know them in numberless cases, although we can never be absolutely certain of doing so in any special case. (CP: 5.311)

In a way this quote is central to Peirce's metaphysical claims which regard truth and reality, as explained in the following four metaphysical claims.

(1) There is a reality, which is independent of how someone may interpret it (cf. CP 5.405); the logically possible, the hypothetical, that which

exists, i.e. that which causally reacts, and, finally, operative principles or regularities all have real being (cf. MS L387b, 00350).

(2) It is possible to gain true knowledge. We do not posses concepts regarding the unrecognizable, and truth is understood as a sign's correspondence to its object since "there must be an action of the object upon the sign to render the latter true" (CP 5.554). The recognition of truth depends on the affinity that exists between mind and reality; that which is real possesses a: "cognitionary character" (CP 5.503).

(3) Science will uncover truth in the theoretical long run. Like the good witness in the witness stand, science will tell the truth, the whole truth, and nothing but the truth (cf. Rescher 1978). Truth consists in the opinion that all who employ the scientific method will be able to reach an agreement upon if the investigation is carried far enough. However, as Peirce stresses in "Truth and Falsity and Error" (1902):

> There would not be any such thing as truth unless there were something which is as it is independently of how we may think it to be. That is the real". (CP 7.659)

This means that even if truth seems to be determined by the scientists, who carry out the scientific method, truth is only possible if there is a reality to which it corresponds, a reality that constrains truth. (CP 2.647-57, 658; cf. Rescher 1978; 20) According to Peirce, investigating truth is to investigate facts

(cf. Sheriff 1994: 56). In another quote from "New Elements" (c 1904), Peirce defines truth in the following way:

> The purpose of every sign is to express "fact," and by being joined with other signs, to approach as nearly as possible to determining an interpretant which would be the *perfect Truth*, the absolute Truth, and as such … would be the very Universe. Aristotle gropes for a conception of perfection or *entelechy*, which he never succeeds in making clear. We may adopt the word to mean the very fact, that is, the ideal sign which should be quite perfect, and so identical, - in such identity as a sign may have, with the very matter denoted united with the very form signified by it. The entelechy of the Universe of being, then, the Universe *qua* fact, will be that Universe in its aspect as a sign, the "Truth" of being. The "Truth," the fact that is not abstracted but complete, is the ultimate interpretant of every sign. (EP 2:304, c. 1904)

(4) Knowledge is fallible. In two untitled manuscripts, Peirce defines fallibilism in the following way:

> On the whole, then, we cannot in any way reach perfect certitude nor exactitude. We never can be absolutely sure of anything, nor can we with any probability ascertain the exact value of any measure or general ratio. (An Untitled Ms., CP 1.147-149, c. 1897)

... let me call your attention to the natural affinity of this principle to the doctrine of fallibilism. The principle of continuity is the idea of fallibilism objectified. For fallibilism is the doctrine that our knowledge is never absolute but always swims, as it were, in a continuum of uncertainty and of indeterminacy. Now the doctrine of continuity is that *all things* so swim in continua. (An Untitled Ms., CP 1.171, c. 1897)

Consequently, knowledge is not in any way static; it constantly develops and provokes our beliefs with doubts, doubt being the irritant of belief, as Peirce writes in "Fixation of belief" (1877):

The irritation of doubt is the only immediate motive for the struggle to attain belief. It is certainly best for us that our beliefs should be such as may truly guide our actions so as to satisfy our desires; and this reflection will make us reject every belief which does not seem to have been so formed as to insure this result. But it will only do so by creating a doubt in the place of that belief. With the doubt, therefore, the struggle begins, and with the cessation of doubt it ends (CP 5.370-376).

However, in order to secure a kind of stability (belief) upon which we can act, the repeated interpretation of signs creates habits and habits tend to grow by their own action "by the habit of taking habits itself" (CP 8.318). Moreover, this formation of habits as continuous interpretations removes the spontaneity (doubt) in the sign, which is the part in the sign that threatens to make it

unstable. This means that the infinite semeiosis of a sign tends to remove instability from the sign. In "What pragmatism is" (1905), Peirce makes the following description of the conceptual pair: doubt and belief:

> Belief is not a momentary mode of consciousness; it is a habit of mind essentially enduring for some time, and mostly (at least) unconscious; and like other habits, it is (until it meets with some surprise that begins its dissolution) perfectly self-satisfied. Doubt is of an altogether contrary genus. It is not a habit, but the privation of a habit. Now a privation of a habit, in order to be anything at all, must be a condition of erratic activity that in some way must get superseded by a habit (CP 5.417).

Of course, taking semeiosis to the extreme this would result in the complete triumph of law and absence of all spontaneity. (cf. CP 8.318) This, however, does not mean that signs cannot develop; it means that signs provide stability and that the meaning of signs does not change radically – at least in principle, of course depending on what kind of sign we address, as some signs are more constrained by habits than other signs.

These four metaphysical claims seem sympathetic to me, and combined with the fact that I simply believe Peirce to be right in these claims is what makes me use Peirce's semeiotic as my theoretical point of departure.

Another reason for my interest in Peirce is that I, during the last fifteen years, have been a passionate Bach listener. I have always felt that there was a strong emotional tie between Bach's music and Peirce's philosophy, which

made my interest in Peirce even stronger. The interpretants caused by Bach's music are able to activate similar ideas in Peirce's philosophy in my mind's bottomless lake of consciousness. I have always desired to write something about this relation, but it is difficult to pin down exactly what it is. However, I have developed the fundamental sign inspired by Bach's use of the fundamental bass notes in his Goldberg Variations. And in order to explain how to make ideas clear, and to see how ideas grow when they are nursed and taken care of, I often turn to Bach's Contrapunctus No. 1 from *Die Kunst der Fuge* (BWV 1080), played by the Canadian pianist Glenn Gould. In this fugue, the idea (fugue theme) is presented and slowly evolves, becoming thoroughly investigated, and when the idea's potential has been exhausted, the fugue is concluded - the whole fugue being the meaning of the fugue theme. It is a journey from rheme to argument. This fugue in particular seems to me to be Peirce's doctrine of pragmaticism put to music.

Another really interesting relation between Bach and Peirce seems to be the purity of their music and metaphysics, respectively. Peirce's metaphysics, his theory about agapasticism as evolutionary love, the love that transcends the individual, the love of humanity, of the universe, is a love that invests its surplus in something else so that it can grow and become beautiful. To Peirce, evolution by love is the creativity that makes the universe evolve, and this creative activity is also an inseparable attribute of God (cf. 6.506). As Robert Ayers puts it in his article "Peirce on miracles" (1980):

> …since God is love […] it follows that this creative activity is characterized by love. The very logic of love (agapé) means that it is universal in scope, extended to all. […] "Its ideal is that the whole world shall be united in the bond of a common love of God accomplished by each man loving his neighbor" (6.443) (p. 253).

The same kind of metaphysical love can be found in the music of Bach - it is pure, universal and aesthetical; it describes love that is painful, a love that is worth dying for – Jesus represents love and he dies for mankind, the ultimate sacrifice. It is art on a very high level, as are Peirce's metaphysics. An example of the metaphysical relation between the two can be exemplified in Bach's St. Matthew Passion, in an aria called "Aus Liebe will my Heiland sterben", (Of love will my savior die). The love of humanity demands a sacrifice. Jesus sacrifices himself for the community of man. To Peirce, the community is very important. He applies the concept "supreme-individual" to a person who must possess a sense of what the common good is, and who must be willing to let his interests merge with an infinite community of investigators, since he believes that the cooperative, rational activity will become widespread in the end (cf. Hookway 1997: 216). As Peirce stresses in the article "The Doctrine of Chances" (1878): "He who would not sacrifice his own soul to save the whole world, is, as it seems to me, illogical in all his inferences, collectively. Logic is rooted in the social principle" (CP 2.654). In Bach's passions the "supreme-individual", the one who sacrifices himself for the world is exemplified by

Jesus. In his review of "The Works of George Berkeley" (1871), Peirce underlined the importance of the community:

> The question whether the genus homo has any existence except as individuals, is the question whether there is anything of any more dignity, worth, and importance than individual happiness, individual aspirations, and individual life. Whether men really have anything in common, so that the community is to be considered as an end in itself (CP: 8.38).

Peirce's view on science and the community is indeed very religious as Gary Bedell stresses in his article "Has Peirce refuted egoism" (1980):

> Peirce closes with a description of three sentiments, which he maintains are indispensable requirements of logic: (1) an interest in an indefinite community, (2) recognition of the possibility of this interest being made supreme, and (3) hope in the unlimited continuance of intellectual activity. These sentiments seem very similar to the charity, faith and hope of the New Testament (p. 268).

My interest in the relation between Bach and Peirce is primarily in terms of semeiotic and esthetics. I am not religious in the same way as Peirce, but I am interested in Peirce's metaphysics, since I find it beautiful and poetic and, according to Peirce, nothing is truer than true poetry (cf. CP 1.315). Imagine if

Peirce is right that the universe really evolves through love - agape – it is indeed a wonderful and sympathetic thought.

Yet another reason for my interest in Peirce is one based more on reason than feelings (even though logic, according to Peirce, contains feelings), and this is that semeiotic seems to possess a vast potential of explanation no matter what subject area it is unfolded upon. As Peirce explained in a letter to Lady Welby, 23 December 1908:

> …it has never been in my power to study anything, - mathematics, ethics, metaphysics, gravitation, thermodynamics, optics, chemistry, comparative anatomy, astronomy, psychology, phonetics, economic, the history of science, whist, men and women, wine, metrology, except as a study of semeiotic (SS 32).

Like Peirce, I find that once you have been infected with semeiotic, it is hard not to see signs everywhere. Peirce holds that man's life is overall perfused by semeiosis; without signs man can neither perceive, feel, act and think (cf. CP 7.591; cf. Sørensen 2009). Concerning the latter, Peirce argues this case in his article "Questions Concerning Certain Faculties Claimed for Man" (1868):

> If we seek the light of external facts, the only cases of thought which we can find are of thought in signs. Plainly, no other thought can be evidenced by external facts. But we have seen that only by external facts can thought be known at all. The only thought, then, which can possibly

be cognized is thought in signs. But thought which cannot be cognized does not exist. All thought, therefore, must necessarily be in signs. (CP: 5.251).

Reasoning is only evidenced by external facts; the object of reasoning is external facts. External facts are mediated by aid of signs, thus all reasoning is in signs. What argument could falsify this? In "Vitenskab og Menneskebilde" (1978), Peter Skagestad writes:

…To be able to refute the thesis an opponent must be able to refer to at least one thought which does not have linguistic thought, but he would not be able to refer to any thought without putting it into words. All thoughts, which can be identified, confirm the thesis, and we are unable to identify any thoughts which could refute it. (Skagestad, 1978, 48-49; translated by Bent Sørensen & Torkild Thellefsen)

Signs can – rightfully – turn to man and say – as Peirce wrote in the article "Some Consequences of Four Incapacities" (1868): "You mean nothing which we have not taught you, and then only so far as you address some word as the interpretant of your thought." (CP: 5.313). Indeed, man does not only use the sign, the sign is identical to man in the same way as homo and man is identical (cf. Sørensen 2009). In the article "Consequences": Peirce argued in the following way:

It is that the…sign which man uses is the man himself. For, as the fact

that every thought is a sign, taken in conjunction with the fact that life is

a train of thought, proves that man is a sign; so, that every thought is an

external sign, proves that man is an external sign. That is to say, the man

and the external sign are identical, in the same sense in which the words

homo and man are identical. Thus my language is the sum total of

myself; for the man is the thought. (CP: 5.314)

Thus, the definition of man consists in the consistency of his reasoning and actions expressed as a semeiotic relation: "…consistency is the intellectual character of a thing; that is, is its expressing something." (CP: 5.315). However, semeiosis is not only limited to the world of man, also the entire organic world is filled with reasoning, as Peirce wrote in "Prolegomena to an Apology for Pragmaticism" (1906):

Thought is not necessarily connected with a brain. It appears in the work

of bees, of crystals, and throughout the purely physical world; and one

can no more deny that it is really there, than that the colors, the shapes,

etc., of objects are really there. Consistently adhere to that

unwarrantable denial, and you will be driven to some form of idealistic

nominalism akin to Fichte's. Not only is thought in the organic world, but

it develops there. But as there cannot be a General without Instances

embodying it, so there cannot be thought without Signs. We must here

give "Sign" a very wide sense, no doubt, but not too wide a sense to come within our definition. (CP: 4.551)

Indeed, the entire universe is perfused with signs. In "Issues of Pragmaticism (1905), Peirce stressed how:

the entire universe - not merely the universe of existents, but all that wider universe, embracing the universe of existents as a part, the universe which we are all accustomed to refer to as "the truth" -- that all this universe is perfused with signs, if it is not composed exclusively of signs. (CP: 5.448, n1)

Peirce took on a pan-semeiotic view of the universe; to him a sign is not a thing amongst something other, i.e. the universe does not consist of two exclusive things, signs and non-signs; there cannot be anything which in principle cannot be a sign (cf. Fisch 1986: 330; cf. Sørensen 2009). If we take a closer look at the universe, we will see that it in fact is one big sign, a tremendous argument, and thereby intelligible since an argument is, as Peirce wrote in the manuscript "Nomenclature and Divisions of Triadic relations, as far as they are determined" (c. 1903): "a sign of Law" (CP 2.310), i.e. "the law that the passage from all such premises to such conclusions tends to the truth" (CP 2.263). In the manuscript "Lectures on Pragmatism", Lecture IV (1903), Peirce wrote:

The Universe is a vast representamen... an argument...[The] total effect is beyond our ken; but we can appreciate in some measure the resultant Quality of parts of the whole -- which Qualities result from the combinations of elementary Qualities that belong to the premisses. (CP 5.119)

The intelligibleness of the universe is increased concurrently with evolution, which is a growth in the concrete reasonableness, as Peirce called it, i.e. the semeiotic order in the universe grows, or thirdness/the tendency to take habits in all its variations (cf. Esposito 1980: 167; cf. Sørensen 2009). Thus, as he described in the article "Pragmatic and Pragmatism (1903), Peirce's cosmology rested upon the metaphysical condition:

...the coalescence, the becoming continuous, the becoming governed by laws, the becoming instinct with general ideas, are but phases of one and the same process of the growth of reasonableness. (CP: 5.4)

Let me end this paragraph by quoting a passage from Peirce's article "Evolutionary love" (1898):

The agapastic development of thought is the adoption of certain mental tendencies, not altogether heedlessly, as in tychasm, nor quite blindly by the mere force of circumstances or of logic, as in anancasm, but by an immediate attraction for the idea itself, whose nature is divined before

the mind possesses it, by the power of sympathy, that is, by virtue of the continuity of mind (CP: 6.307).

These metaphysical claims described above are my reason to choose Peirce's semeiotic as the theoretical basis of the thesis. In the following, I will describe the demarcation of the thesis.

Demarcation of the thesis

Being "buried" in semeiotic I touch upon research fields like knowledge organization, branding, marketing, semiotics in general and of course semeiotic. This means that I may have ignored relevant, significant and important writings. However, choosing a given theory means to carve away other theories; naturally, this is also the case here. I am not anchored in LIS or in the field of marketing. I lack a lot of knowledge about both subject areas in order to take my starting point there; consequently, I do not thoroughly present and criticize theories from these subject areas.

Instead, this is a thesis which focuses solely on defining the concepts of the fundamental sign, the significance-effect, semeiotic constructivism and knowledge profiling from a pragmaticistic and semeiotic viewpoint, and to some extend show their usability within knowledge organization and branding. In fact, I feel exactly like the American semiotician Floyd Merrell, when he writes: "I'm neither here nor there, in all disciplines and in no discipline; I'm an academic bum, a nomad" (Merrel 2007 p. 2). I am a Peirce inspired semeiotician, and all my ideas have semeiotic as theoretical starting point; and

I do believe that semeiotic can make us wiser on both knowledge organization and branding, just to mention some of the areas I work with. I certainly know it has made me wiser.

But why introduce such concepts like the normative and sub-cognitive fundamental sign and the normative and sub-cognitive significance-effect? Are those concepts not only new labels on concepts that can be found already in Peirce's grandiose oeuvre? The normative fundamental sign is an argument embedded with a logical interpretant, but it cannot be reduced to these. It is a concept that is defined in relation to knowledge communication of technical terms in specialized or scientific knowledge domains. It is a special kind of interpretant caused by the level of knowledge within the single interpreter within a knowledge domain. It is also an effect which can be understood at a community level; an effect that is not tied to the subject, but is intersubjective. The same goes for the normative significance-effect. This is an effect which is narrowly tied to the normative fundamental sign, and it designates the interpretative distance – the distance in time between when an interpreter becomes exposed to a concept, and when he interprets it in relation to the normative fundamental sign. The better he knows the concept, the shorter is the interpretative distance.

The sub-cognitive fundamental sign is as a sign a symbol, or in terms of emotions it is a sentiment, a cluster of related emotions. It is embedded with an energetic and emotional interpretant, but it cannot be reduced to these. It is an interpretant closely defined in relation to the self-consciousness of the community, and as such it is not tied to any subject. The sub-cognitive

significance-effect is an effect narrowly tied to the sub-cognitive fundamental sign, and it designates the force of attraction caused by the sub-cognitive fundamental sign. The more someone resembles a sign, the stronger is the force of attraction from the sub-cognitive fundamental sign. So an answer to the question stated above is - no, these concepts are not old concepts with new names. They are concepts that occupy an unused place in semiotics, albeit deeply inspired by Peirce and rooted in semeiotic.

So, what can we learn from these concepts? The normative fundamental sign and the sub-cognitive fundamental sign are a pair of signs that can make us wiser on how communities are structured. The normative fundamental sign can tell us how knowledge domains structure their knowledge. The sub-cognitive fundamental sign can tell us how any community is organized around a governing idea. It is what is common in a community – it is the self-consciousness of a knowledge domain. Likewise, the normative significance-effect can tell us something about the actors' familiarity of concepts within a given knowledge domain; it can tell us about the interpretative time span between being exposed to a concept and it being interpreted. The sub-cognitive significance-effect can tell us something about how powerful the attraction between interpreter and certain values are. The more powerful the attraction is, the more values are shared, the less powerful the attraction is, the less values are shared. This can make us wiser about how communities are able to attract advocates through their sub-cognitive fundamental sign. It may enable us to understand branding in another perspective, and maybe it can

provide new branding methods. The latter is not within the scope of the thesis, but it is a possibility worth mentioning.

Semeiotic interpretation

There are several ways of interpreting Peirce's texts. My interpretation is by no means an exegetic interpretation, even though during the years reading Peirce scholars like Douglas Greenlee, David Savan, James J. Liszka, Thomas Short, four scholars, who have written monographies concerning Peirce's semeiotic, I have become more and more exegetic. I do not believe that my ideas and thoughts presented here are in conflict with Peirce – at least I hope not. I will rather say that I am inspired by Peirce. This gives me the freedom to take a starting point in quotes and passages which I find particularly intriguing, and from there investigate what consequences these thoughts may have on e.g. knowledge organization and branding, of course in respect to Peirce's philosophical claims. The Danish physicist and Peirce scholar Peder Voetmann Christiansen wrote somewhere that Peirce was capable of packing an incredible amount of knowledge into a short sentence, which meant that a whole article could be inspired by a single quote. I have been inspired by many quotes myself, but the development of my concepts is primarily inspired by the anatomy of the idea, which according to Peirce, consists of an intrinsic feeling, a power to affect other ideas and a tendency to bring other ideas along (cf. CP 6.135). Please note that the development of the ideas and clusters of ideas all takes place within a continuum, and also by way of his extreme scholastically realistic inspired claim concerning the idea's ability to attract, and in a way

create, its advocators. These two basic ideas are – in my opinion – very inspiring and are central in the development and the understanding of the ideas in the thesis. This is the main reason to why I do not import any structuralistic semiology into the thesis. Ferdinand de Saussure, Roland Barthes, Umberto Eco (at least before his realistic turn in the 1990s when he wrote "Kant e l'ornitorinco") are all nominalists, and in that way hard to interpret into Peirce's extreme scholastically realistic claims. So, I try to be in agreement with Peirce's theoretical and metaphysical starting point, but since I am inspired by the theories I also investigate how far I can get with them; yet, without being inconsistent in my use of Peirce. In my opinion, the concepts which dominate this thesis - the fundamental sign, the significance-effect, the knowledge profile and the less dominant semiotic constructivism (the latter being in no way related to social constructivism, but a pragmaticistic tool to make our ideas more clear) - were already potentially contained in Peirce's semeiotic before I stumbled over them.

Acknowledgments

First and foremost, I would like to thank my good friend and colleague Bent Sørensen for a formidable collaboration; without the aid of Bent, this thesis had not been possible. Bent possesses great knowledge about Peirce, and he has never been afraid of sharing it. Bent has introduced me to the most central works of important Peirce Scholars such as: Vincent Potter, Douglas Greenlee, Max Fisch, David Savan, Vincent Colapietro, Gerard Deledalle etc. Bent is a true idealist, whom I am very proud to know and collaborate with. Thanks to Søren

Aim of the thesis

As stated above, I do not take my starting point in LIS, but I strongly believe that the knowledge profile can make a difference within knowledge organization, since – as I will demonstrate in the thesis – the knowledge profile is able to catch the plasticity and flexibility of any knowledge domain. LIS is not my interest as such. Instead, my interest is to investigate how far I can stretch the concept of the fundamental sign, the significance effect and the knowledge profile. In my PhD thesis, the starting point was knowledge organization, and I

was in opposition to general knowledge organization theories within LIS, primarily those presented by Birger Hjørland, e.g. his theory of discourse. Within Library and Information Science, Knowledge organization is defined in the following way:

> The concept of KO [knowledge organization] is traditionally understood as the field within LIS that addresses systems for bibliographic representation. In Hjørlan (2007) KO is considered the field that is concerned with construction and evaluation of semantic tools for IR [information Retrieval]. Traditionally, KO is associated with practical operations as indexing, abstracting and classification of information sources. However, KO is a research area that includes a wide array of research interest, e.g. the theoretical basis of KO, the history of KO, terminological issues, domain studies, genre studies, the organization of sciences etc. We may therefore speak of two perspectives of KO, a narrow and a wide perspective. (M. Thellefsen 2009: unpublished PhD thesis)

Of course, the knowledge profile is anchored in KO in a wide perspective, since the narrow perspective has its focus on the bibliographic record, its structure, its function, and its parts; the classification system, and its structure of subject classes; the thesaurus, its structure, and its function in relation to the bibliographic record, etc. The narrow sense of KO is closely related to different

kinds of representation systems. (cf. M. Thellefsen 2009: same as above). The wide perspective is defined in the following way:

> The broader sense of KO is deeply interdisciplinary, covering, among other areas, linguistics and terminology, philosophy, semiotics, systems theory and sociology. The broader sense of KO is important, because it qualifies the understanding and further developments of KO in the narrow sense. It is the broader sense that provides us with reflections about the understanding and definitions of e.g. classes, concepts, subjects, and relationships used in the narrow sense (M. Thellefsen 2009: same as above).

But in my opinion Hjørland's theories do not take the sense of community as the fundamental sign into consideration, which I believe to be essential in order to conduct realistic knowledge organization. These theories primarily investigate the written word, which as we shall see later in the thesis, are related to Peirce's argument. These are normative, subject to self-criticism and thus self-control. The sub-cognitive fundamental sign as a symbol precedes the normative fundamental sign as an argument. Ignoring this they may miss important aspects about the domain in question. I am very critical towards theories which primarily investigate the use of written terminology in scientific papers in order to conduct knowledge organization. The knowledge of a knowledge domain, or a community and the sub-cognitive fundamental sign, often reside in verbal and non-verbal communication and cannot alone be

identified in documents. This means that such knowledge organization is not realistic and fails to organize knowledge according to how the knowledge really is organized in the knowledge domain in question. Here, even though I am still in opposition to LIS, my aim is to take my concepts into consideration again, and to develop them as general concepts that are not per se anchored in LIS, although relevant for the area, but rather in semeiotic in general. It is my aim to show how there exists two kinds of fundamental signs – *a normative fundamental sign* identifiable in knowledge domains and a *sub-cognitive fundamental sign* which precedes the normative fundamental sign and can be found in any community, and by community I mean whenever two or more signs are related in relation to a common ground and a common goal.

I believe these two concepts are highly relevant when it comes to performing knowledge organization, but maybe even more, when it comes to understanding how knowledge domains and communities in general are structured. The interrelation of the sub-cognitive fundamental sign and the normative ditto is very important to be aware of when dealing with knowledge domains which do not have a stringent terminology, but still have a sub-cognitive fundamental sign. No other concept or theory is – as far as I know - able to grasp and describe the conceptual and emotional structure of a knowledge domain or community.

It is also my aim to show how the significance-effect, like the fundamental sign, exists as both a *normative significance-effect* related to special knowledge communication of technical concepts, and as a *sub-cognitive significance-effect* based on emotional similarity, where similarity is

to be understood in Peircean terms. Similarity is not alone based on our visual faculty; it is also based on our other senses, and most importantly our feelings and emotions. Hence, I can be attracted by an idea if I sense (both consciously and unconsciously) that the idea is able to transport me to a certain desirable emotional state. The sub-cognitive significance-effect is narrowly related to the sub-cognitive fundamental sign, and the sub-cognitive significance-effect is based on the pre-knowledge or pre-emotional experience with the fundamental sign. The more someone "knows" about a fundamental sign, the shorter is the interpretative distance. Consequently, the more someone knows about the fundamental sign, the more force of attraction the fundamental sign exerts upon the interpreter. The concept is very important since it can tell us something about how people interpret signs both cognitively and sub-cognitively. The normative significance-effect is a sign of how knowledge within a knowledge domain is interpreted both individually and as a community. The sub-cognitive significance-effect is a sign of how emotions exert a force of attraction upon the interpreter, which can be very useful within marketing primarily when it comes to the mental effects commercials and brands exert upon interpreters.

The SKO-method was the first version of a pragmaticistically inspired knowledge organization method. However, it had some operational problems, primarily related to the difficulty of clarifying concepts. In order to solve these problems, I have developed the knowledge profile, a method designed to identify the normative fundamental sign of knowledge domains. In the thesis I will present the knowledge profile and exemplify its usability. The knowledge

profile is important since it can be operated in many different ways. 1. As a tool to identify the fundamental sign in any knowledge domain. In chapter 3 I will present and discuss the knowledge profile of MARKK as an example. 2. As a tool to knowledge manage ones own scientific concepts. I will present the knowledge profile of the normative fundamental sign as an example. 3. As a tool to knowledge profile scientific and philosophical concepts. I will use the knowledge profile of Peirce's concept of esthetics as an example. The knowledge profile seems to me to be a strong pragmaticistically based method to knowledge organization, which respects the plasticity of concepts and thus knowledge domains.

Semeiotic constructivism is a pragmaticistic method inspired by Peirce's ethics of terminology. It is a method designed to make e.g. researchers and students more conceptually aware. Is it possible to combine this concept from the field of e.g. biology with this concept from the field of e.g. linguistics? If I place bio as a prefix before semiotics, I get biosemiotics - what does this mean? It is a method, which can be used to make us more conceptually aware and to make our ideas more clear.

These definitions lead me to the following description of the thesis research questions. I designate my work as a *semeiotic of knowledge organization in a somewhat wide meaning of the concept*. A somewhat wide meaning means that it is not restricted to LIS research in keywords or representational theory of documents or thesauri construction etc. It builds upon and is inspired by the semeiotic of Peirce. It understands development of

signs as a process of knowledge organization. Here, the focus is on branding, emotions and scientific knowledge.

Therefore, the aim of the thesis is to present the concepts: *the fundamental sign*, *the significance-effect*, *semeiotic constructivism* and *the knowledge profile,* and to suggest some relations between them. The main questions I pursue, and which this thesis hopefully will give answers to, are:

Is it possible to define and describe the above mentioned concepts, which have their theoretical starting point in the semeiotic of Peirce? And is it possible to outline a use of these concepts?

Some technical points
Before we proceed with the theoretical basis of the thesis, there are a couple of technical point I need to address.

Peirce's works are cited in compliance with the commens web site[6] and their use of abbreviations:

Abbreviation	Description
CP followed by volume and paragraph number.	Collected Papers of Charles S. Peirce (1931-58). 8 vols. Ed. By C. Hartshorne and P. Weiss (vols. 1-6), and A. Burks (vols. 7-8). Cambridge, MA: Harvard

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[6] www.helsinki.fi/science/commens/aboutcommens.html

	University Press. The eight volumes of Collected Papers were for a long time the basic source for Peirce studies, and are still widely used by scholars. The Collected Papers include important writings, but many texts have been confusingly cut up and rearranged by the editors, following a thematic rather than a chronological method.
EP followed by volume and page number.	The Essential Peirce. Selected Philosophical Writings. Vol. 1 (1867-1893), edited by Nathan Houser & Christian Kloesel, 1992, vol. 2 (1893-1913), edited by the Peirce Edition Project, 1998. Bloomington and Indianapolis: Indiana University Press. A chronological collection edited by the Peirce Edition Project. Recommended for those who want a compact but representative selection of Peirce's writings, covering his whole career. The second volume of the Essential Peirce is also of particular interest for Peirce

	scholars, as it includes a number of key texts unavailable elsewhere. The emphasis in the Essential Peirce is on Peirce's philosophy; mathematical, logical, and scientific texts are not included in this collection.
NEM followed by volume and page number	*The New Elements of Mathematics*, by Charles S. Peirce. Four volumes in five books. Edited by Carolyn Eisele (1976). The Hague: Mouton Publishers. A useful collection that focuses on Peirce's mathematical works. Volume I: Arithmetic, Volume II: Algebra and Geometry, Vol III/1 and III/2: Mathematical Miscellanea, Vol IV: Mathematical Philosophy. Of the four volumes, Volume IV is particularly important from a philosophical point of view. It also includes several texts of semiotic interest. Insufficient documentation.
W followed by volume and page number.	The Writings of Charles S. Peirce. 6 vols. to date. Vol. 1, edited by Max Fisch et at., vol. 2, edited by Edward C. Moore et al., vols. 3-5, edited by Christian Kloesel et

	al., vol. 6, edited by the Peirce Edition Project. Bloomington: Indiana University Press, 1980-2000.
	A new, critical, and thorough collection of Peirce's writings edited by the Peirce Edition Project. This chronologically organized edition is planned to consist of 30 volumes in total. Upon completion, it will be the definitive source for Peirce studies.
SS followed by page number.	Semiotic and Significs: The Correspondence Between Charles S. Peirce and Victoria Lady Welby. Ed. by Charles S. Hardwick & J. Cook (1977) Bloomington: Indiana University Press.
	An important collection of Peirce's correspondence with the English linguist Victoria Lady Welby between 1903 and 1911. The collection is of particular interest for Peirce studies as it displays many important phases in the development of Peirce's later semeiotic, and includes material unavailable

The thesis is an extended synthesis of many of my past articles, the most important listed below:

Torkild Thellefsen (2002). Semiotic Knowledge Organization: theory and method development. *Semiotica* vol. 142, 71-90.

Torkild Thellefsen, Søren Brier & Martin Thellefsen (2003). Indexing and significance-effect: A Peircian semiotic and cognitive semantic approach to the analysis of the problems of subject searching. *Semiotica* vol. 144: 177-218.

Torkild Thellefsen (2003). Semiotics of Terminology: A semiotic Knowledge Profile. *SEED journal*, Vol. 3 no. 2. URL:

http://www.library.utoronto.ca/see/pages/SEED_Journal.html

Torkild Thellefsen & Christian Jantzen (2004). What Relations Are: A Case Study on Conceptual Relations, Displacement of Meaning and Knowledge Profiling. *Sign Systems Studies* vol. 31.1, 109-133.

Torkild Thellefsen (2004). Knowledge Profiling: the Basis for Knowledge Organization. *Library Trends* 144 (1/4), 507-514.

Torkild Thellefsen & Martin Thellefsen (2004). Pragmatic Semiotics and Knowledge Organization. *Knowledge Organization* 31(3), 177-187.

Thellefsen, Torkild (2004). Charles S. Peirce's Ethics of Terminology revisited. *Semiotica* vol. 151, 65-74.

Torkild Thellefsen (2004). The Fundamental sign. *Semiotica* vol. 149, 245-259.

Torkild Thellefsen: (2005). The revised Fundamental Sign. *Semiotica* vol. 155, 51-63.

Torkild Thellefsen, Bent Sørensen, Mikael Vetner & Christian Andersen (2006). Negotiating the meaning of artefacts: Branding in a semeiotic Perspective. *Semiotica* vol. 162, 371-383.

Torkild Thellefsen, Bent Sørensen & Christian Andersen (2006). Significance-effect, semeiotic and brands. *Cybernetics and Human Knowing*. Vol. 13, no. 3-4, 111-134.

Torkild Thellefsen, Bent Sørensen, Martin Thellefsen & Christian Andersen (2006). The formal conditions for the significance-effect. *Semiotica* vol. 158, p. 401-406.

Torkild Thellefsen, Bent Sørensen, Marcel Danesi & Christian Andersen (2007). A Semiotic Note on Branding. *Cybernetics & Human Knowing* vol. 14 no. 4, 57-68.

Torkild Thellefsen, Bent Sørensen & Christian Andersen (2008). Emotion and community in a semeiotic perspective. *Semiotica* vol. 172, 171–183.

Torkild Thellefsen & Bent Sørensen (2009). Seven short comments on branding and semeiotic. Semiotica vol. 174, p. 377–386.

Torkild Thellefsen, Bent Sørensen & Martin Thellefsen (2009). The Significance-effect – A Communicational Effect : Introducing the DynaCom. *Sign Systems Studies* – forthcoming.

Torkild Thellefsen, Bent Sørensen & Lisbeth Willemoes Sørensen (2009). Knowledge profiling the OT concept of occupation. *Semiotica* – forthcoming.

Torkild Thellefsen & Bent Sørensen (2009). Fundamental Signs & Significance Effects. *Semiotica* – forthcoming.

Torkild Thellefsen & Bent Sørensen (2009). Pragmatic Semiotics and Knowledge Management: Introducing the Knowledge Profile as a Tool for Knowledge Managing the Meaning of Scientific Concepts. *American Journal of Semiotics* 25 (1-2).

All of the papers represent steps toward the current state of the concept definitions presented here.

The structure of the thesis

Chapter 1. In this chapter I define the normative and sub-cognitive fundamental sign.

Chapter 2. In this chapter I define the normative and sub-cognitive significance-effect.

Chapter 3. In this chapter I define the knowledge profile and semeiotic constructivism. The chapter is rounded off with three case studies.

Chapter 4. In this chapter I discuss branding in relation to the previous chapters. This chapter is followed by a conclusion and a discussion of the further perspectives of the theories and methods presented here.

However, before we address chapter 1 and the fundamental signs, I need to develop a theoretical basis upon which my own concepts rest. This basis is the phaneroscopical categories, the three modes of consciousness and the sign classes related to the three categories.

Summary of the thesis conclusions

In the thesis, I argue and conclude that there exist two fundamental signs: the normative fundamental sign and the sub-cognitive fundamental sign. The normative fundamental sign is the epistemological center in every knowledge domain possessing a well defined terminology. All concepts in such knowledge domains with terminological consistency are understood in relation to the normative fundamental sign.

The sub-cognitive fundamental sign is the emotional center in every loosely defined community, e.g. a brand community. The sub-cognitive fundamental sign exerts attraction upon the members of the community through emotional similarity. It maintains and develops the community. To the two fundamental signs there are two corresponding significance-effects: the normative significance-effect and the sub-cognitive significance-effect. The former designates the interpretative distance between the concept and the correct interpretation – the shorter the distance is, the more forceful the normative significance-effect is. The interpreter reflects his knowledge level in the concept – the normative significance-effect depends on how much the interpreter "sees". The latter enables us to let us be attracted to a given sign, e.g. brands. The attraction takes place because the interpreter sees parts of

himself, or wishes to see parts of himself, in e.g. the brand – or simply desires the values in the brand. The attraction is based on a confluence on an iconic level.

In the thesis, two pragmaticistically inspired methods are presented: the knowledge profile and semeiotic constructivism. The knowledge profile is a tool developed to identify primarily the normative fundamental sign of a community. The knowledge profile is a pragmatic tool for knowledge organization; however, it is also a tool which can aid researchers and students to clarify their concepts, or simply to make their ideas become clearer. The knowledge profile is anchored in the concept *semiotic constructivism*, which is defined as a way of knowledge managing scientific concepts in a certain direction by applying e.g. semiotics with a telos, e.g. bio. Biosemiotics is semiotics, but not any kind of semiotics; it is a branch of semiotics, which investigates the origin of life in terms of signs. Sometimes the knowledge profile is designated the value profile. The value profile is based on the same method as the knowledge profile, but is used to identify and clarify a company's central values – by drawing the company's value profile. Value profiling builds on an assumption that certain values create certain emotional effects in the minds of a given consumer group. Therefore, it is important to be conscious about what emotional effects the values of the company cause in order to value manage the company.

The two versions of the fundamental sign and the significance-effect: the normative fundamental sign and the normative significance-effect, the sub-cognitive fundamental sign and the sub-cognitive significance-effect, seem

to make up a sketch of a theory of communication of meaning within communities and knowledge domains.

A detour to Peirce's phaneroscopic categories, the modes of consciousness and the sign trichotomies

In order to argue that the normative fundamental sign/normative significance-effect are related to medisense and the argument, and the sub-cognitive fundamental sign/sub-cognitive significance-effect are related to primisense/altersense and the legisign and symbol, respectively, we must take a detour to Peirce's phaneroscopic categories, modes of consciousness and the signs related to the categories since – as the Peirce scholar David Savan writes in his book, "An Introduction to C. S. Peirce's full System of Semeiotic" (1988):

> While Peirce's three categories play an important role in every aspect of his thought, they are absolutely vital to his semeiotic. Peirce's first published papers on the categories presented them simply as the most basic part of his theory of signs. Semeiotic in all its definitions, divisions, trichotomies, branchings, and combinations is entirely governed, according to Peirce, by categorical theory (p. 15).

I suppose this is part of what Vincent Colapietro refers to in his article "Notes for a Sketch of a Peircean Theory of the Unconscious" as Peirce's triadomania (cf. Colapietro 1995, p. 497); and Charles Hardwick writes in "Semiotic and

Significs" (1977), "his [Peirce] experiment to view everyting whatsoever *sub specie semiotica*" (p. 85-86). We also have to take a closer look at Peirce's general taxonomy of consciousness in order to understand the relation between the normative fundamental sign and the sub-cognitive fundamental sign and the normative significance-effect and the sub-cognitive significance-effect; clearly, they relate to different parts of consciousness. However, maybe Peirce's most powerful definition of consciousness surfaces in his metaphor "Consciousness as a bottomless lake", which I will dive into later in this section. In the following, I will take a closer look at the phaneroscopical categories in order to have the theoretical fundament of the thesis in place.

In "Adirondack Lectures" (1905), Peirce defines phaneroscopy in the following way:

> What I term phaneroscopy is that study which, supported by the direct observation of phanerons and generalizing its observations, signalizes several very broad classes of phanerons; describes the features of each; shows that although they are so inextricably mixed together that no one can be isolated, yet it is manifest that their characters are quite disparate; then proves, beyond question, that a certain very short list comprises all of these broadest categories of phanerons there are; and finally proceeds to the laborious and difficult task of enumerating the principal subdivisions of those categories. (CP 1.286)

Thus, phaneroscopy is the study of the phaneron (the phenomenon), by which Peirce meant: "The collective total of what is in any or any sense present to the mind, quite regardless of whether it corresponds to any real thing or not" (CP 1.284). However, not all elements in the phaneron are being studied, only the elements which are indecomposable (CP 1.288). These indecomposable elements exemplify the most basic universal categories (a short list: cf. Hausmann 1993: 10). According to Peirce, the numbers of categories are three and only three (CP 1.418; 1.292). He labels them firstness, secondness and thirdness (CP 1.421). By using firstness, secondness and thirdness, Peirce wishes to refer to different relational features, which solely depend upon the level of the study of the phaneron. Thus, it follows that the description of phanerons can only be from a study of structure (CP 1.288). Peirce described the categories as irreducible, yet depending upon each other (cf. Potter 1997: 14). As the names of the categories suggest, they define a hierarchy: the category of thirdness implies the category of secondness (and indirectly the category of firstness) and the category of secondness implies the category of firstness (CP 1.353). However, it is important to make it clear that the categories can be abstracted from each other in the following order: firstness can be abstracted from secondness, and firstness and secondness can be abstracted from thirdness (CP 1.353).

With affinity to the phaneroscopic categories, Peirce localised three modes of consciousness: *primisense*, *altersense* and *medisense* (cf. Bent Sørensen 2007, Vincent Colapietro 1995, Nathan Houser 1983). In an unnamed

manuscript (c. 1900), and a draft to a book "A Guess at the Riddle", (c. 1890) Peirce wrote:

> There are no other forms of consciousness except...Feeling, Altersense, and medisense. They form a sort of system. Feeling is the momentarily present contents of consciousness taken in its pristine simplicity, apart from anything else. It is consciousness in its first state, and might be called primisense. Altersense is the consciousness of a directly present other or second, withstanding us. Medisense is the consciousness of a thirdness, or medium between primisense and altersense leading from the former to the latter. It is the consciousness of a process of bringing to mind. (CP 7.551)

> ... the true categories of consciousness are: first, feeling, the consciousness which can be included with an instant of time, passive consciousness of quality, without recognition or analysis; second, consciousness of an interruption into the field of consciousness, a sense of resistance of an external fact or another something; third, synthetic consciousness, binding time together, sense of learning, thought. (CP 1.377)

The reason to place the modes of consciousness together with the phaneroscopic categories is to underline "that Peirce … maintains that human

consciousness exemplifies all three categories…" (Robert Lane 2009: 22, footnote 29).

Firstness or primisense is an experience of the monadic quality of an immediate feeling; this is a simple and non-compound quality, it is what it is in itself, by itself. It has no relation to the possibility of something else: it has no parts; it has no beginning, middle or end. In "The List of Categories: A Second Essay" (c. 1894), Peirce asked his reader to imagine the following example:

> Imagine me to make and in a slumberous condition to have, a vague, unobjectified, still less unsubjectified, sense of redness, or of salt taste, or of an ache, or of a grief or joy, or of a prolonged musical note. That would be, as nearly as possible, a purely monadic state of feeling. (CP: 1.303)

In the article "Peirce's General Taxonomy of Consciousness" (1983), Nathan Houser remarks the following about primisense:

> Peirce emphasized the difficulty of defining this element of consciousness; there is simply not much that can be said about it that does not entangle it with the other divisions of consciousness. "If I say it is what is present, I shall be asked what I mean by present, and must confess I mean nothing but feeling again" (946 [n.d.] 23 = n.p). It is like the "tinge or tone of feeling" that Peirce told James he was inclined to think was connected with living and being awake, a quality of feeling

that "we cannot attend to . . . for want of a background" (8.294 [oct. 3, 1904]) (p. 333).

Consequently, primisense as feeling is not consciousness, but part of consciousness, a sort of immediate consciousness, or a quality of immediate consciousness (cf. Houser 1983 p. 333).

Secondness or altersense is the two-sided consciousness concerning force and resistance; it is the clash between ego and non-ego; it is experience including the experience of resistance from the object world; where we get to know facts. The fact that a door is hard and heavy only occurs to us when we put our shoulder against the door trying to force it open. Peirce noticed in "Pragmatism, fragment 2" (c. 1910), how:

> Standing on the outside of a door that is slightly ajar, you put your hand upon the knob to open and enter it. You experience an unseen, silent resistance. You put your shoulder against the door and, gathering your forces, put forth a tremendous effort. Effort supposes resistance. Where there is no effort there is no resistance, where there is no resistance there is no effort either in this world or any of the worlds of possibility. (CP 1.320)

In a letter to William James (c. 1903), Peirce emphasized altersense in the following way, stressing the here- and newness of altersense:

This [altersense] is not a conception, nor is it a peculiar quality. It is an experience. It comes out most fully in the shock of reaction between ego and non-ego. It is there the double consciousness of effort and resistance. That is something which cannot properly be conceived. For to conceive it is to generalize it; and to generalize it is to miss altogether the hereness and nowness which is its essence. (CP 8.255)

Altersense is a sense of shock – a polar sense, so to speak (cf. Hauser 1983 p. 339). As a polar sense, it contains two elements, ego and non-ego, an internal world: the ego and an external world; the non-ego. These are the basic elements that make up self-consciousness. In "Peirce's General Taxonomy of Consciousness", Houser stresses that Peirce's concept of self-consciousness emanates from altersense:

The "self-consciousness" that we find in this mode of consciousness [altersense] is not a conception, not a cognized awareness of self, which can only come with thought, the third class of consciousness. Full-blown self-consciousness for Peirce is fundamentally inferential and, therefore, is of the nature of thirdness [medisense], but its origin is in secondness, namely, the experience of opposition or intrusion from the "outside." So we have a quasi-self-consciousness that is not cognized but is fundamentally an experience" (1983, p. 341)

In a letter to James (1904), Peirce describes self-consciousness – the class between ego and non-ego – the two-sided consciousness - in the following way:

> We separate the element under control from the element we cannot help; - although in this mode of consciousness there is no inseparable reflection that is done. We separate the past and the present. The past is the inner world, the present the outer world. Now, this joined with feeling (which it involves or requires) might be called consciousness and would be the world, were it not for the phenomena of error and ignorance, which forces us to reflect that there were two worlds in that two-sided consciousness. (CP 8.282)

To underline the status of self-consciousness, and its relation to the internal and external world, Houser (1983) gives the following interesting account of Peirce's concept of self-consciousness. Houser states that it is a somewhat loose rendering of Peirce's views (1983, footnote 23), nonetheless, I think it is very clear and interesting:

> Metaphorically, one might call consciousness a wave through a sea of mind. The crest of the wave would be the most vivid consciousness (wide-awake awareness), but whatever was moved would be brought into, though perhaps at the greatest depths, that consciousness. It is clear from this metaphor that the wave of consciousness is distinct from

the mind through which it moves, and it is doubtful that we would say that the wave possesses the mind. At most, consciousness would seem to be something like an operation on, or a concerted movement of, the sea of mind. So, perhaps, we must consider giving up the notion that we have distinct minds. But even if we do refrain from supposing that we have uniqueness of mind, we can at least claim uniqueness of ego. For the wave of consciousness is fundamentally a wave of secondness through mind, and any occurrence of secondness is unique. You cannot pass through the same sea of mind twice" (1983, p. 342-342)

In order to render the instances of experience intelligible, a third element of consciousness is necessary. This final element is medisense. Medisense is "the main process…of thought" (CP 7.276). Medisense is what it is from what it mediates between, what it brings into relation, which is primisense and altersense, or ego and non-ego, even though medisense cannot be reduced to this. Medisense makes the relation between primisense and altersense stable, general and thereby intelligible. Put in another way, medisense is an interpretation of the process in which primisense and altersense become related.

This third state of mind is entirely different from the other two. In the second there was only a sense of brute force; now there is a sense of government by a general rule. In reaction only two things are involved;

but in government there is a third thing which is a means to an end (404 [1893] 4 = n. p. cited from Houser 1983, p. 344)

In the before mentioned unnamed manuscript, Peirce wrote the following about medisense:

> The removal of sensation from the department of cognition, or Knowledge, leaves nothing remaining in that department except what are called Mediate Cognitions, that is, Knowledge through some third idea or process different from either the Knowing self or the Known object. For the sake of giving this Mediate Cognition, or rather the peculiar kind of element of consciousness it involves a single name, I will call it medisense, that is, the consciousness of a middle term, or process, by which something not-self is set up over against the consciousness. All consciousness of a process belongs to this medisense. (CP: 7.544)

In the table below, Peirce's categories are shown. The technical definition refers to the broader logical approach to the categories derived from his logic of relations or relatives (cf. Hausman, 1993 p. 109). Later on when Peirce mentions the categories: firstness, secondness and thirdness, it is either the phaneroscopic categories he means, or the constituents of consciousness. Concerning the former, the Peirce scholar Carl Hausmann writes:

In fact, some of the terminology and explanations of his [Peirce] terms that he is now using belong to the language that most pervades his phenomenological descriptions of the categories. Reaction, for instance, is critical in his account of the second category; the term *mediation* bridges logical and phenomenological descriptions of the third category; and Firstness, Secondness and Thirdness are preferred terms when he adopts his phenomenological approach. (Hausman 1993, p. 113).

Technical definition	Phaneroscopic Categories/Modes of consciousness	Semeiotic
Thirdness	Mediation/Medisense	Interpretant
Secondness	Sense of Reaction/Altersense	Object
Firstness	Quality of feeling/Primisense	Representamen

Regarding the latter, Peirce scholar Paul Innis writes:

The categories, Peirce claims, are the results of a "scientific and fundamental analysis of the constituents of consciousness" (CP 7.542) and specify the irreducible domains of qualities of feeling, experiences of reaction and effort, and processes of comprehension or mediation, all of which join together to make a total cognitive fact. (1994: 16)

So, having an idea of Peirce's theory of consciousness, it would also be appropriate to look at this concept of the unconscious, even though primisense, altersense and medisense making up consciousness also seem to make up and embrace the unconscious, and that the relation between the unconsciousness and the conscious is a relation defined by synechism, as the "consciousness as a bottomless lake" suggests. There are no demarcations between consciousness and the unconscious. However, Peirce scholar Vincent Colapietro seems to disagree in this view, thus he writes:

> While C. S. Peirce clearly acknowledged the reality of the unconscious, he himself did not explore in a systematic or sustained way this dimension of the mind. Nor did he draw upon his general theory of signs to illuminate, even in the sketchiest fashion, the particular range of phenomena customarily subsumed under the rubric of the unconscious. (Colapietro 1995, p. 482)

In the same article as cited above, Colapietro tries to draw a sketch of Peirce's theory of the unconsciouss. Indeed, Colapietro attempt is bold and very insightful, as he tries to establish a trichotomy for unconsciousness:

> [Firstness] …the unconscious … would be the mind in its irrepressible spontaneity, its ineliminable wantonness, and its inexhaustible fecundity as (above all) iconic resource and symbolic possibility. (ibid, p. 498)

> [Secondness] …the unconscious as other, as second, would be that which stands over against consciousness, its irrepressible spontaneity operating precisely as a disruptive force, as and anarchical impulse… Thus, the surreptitious tyranny of unacknowledged symbols and repressed narratives far better serves the hegemony of the unconscious. (ibid, p. 498)

> [Thirdness] …the moment we introduce symbols and narratives we have the unconscious as a phenomenon in which thirdness is predominant. In other words, we have the unconscious itself as that which mediates between our (pre)conscious agency and the shifting scenes of our various engagements. (ibid, p. 498)

However, I think Peirce himself already has given us a theory of how consciousness and the unconscious are related and interact without any clear demarcation lines, not in a triadic classification as we might have expected, but in an incredible strong and beautiful metaphor. In an untitled manuscript, Peirce explicates this metaphor three times, and I quote in length:

> I think of consciousness as a bottomless lake, whose waters seem transparent, yet into which we can clearly see but a little way. But in this water there are countless objects at different depths; and certain influences will give certain kinds of those objects an upward impulse

which may be intense enough and continue long enough to bring them into the upper visible layer. After the impulse ceases they commence to sink downwards. (CP 7.547)

Consciousness is like a bottomless lake in which ideas are suspended at different depths. Indeed, these ideas themselves constitute the very medium of consciousness itself. Percepts alone are uncovered by the medium. We must imagine that there is a continual fall of rain upon the lake; which images the constant inflow of percepts in experience. All ideas other than percepts are more or less deep, and we may conceive that there is a force of gravitation, so that the deeper ideas are, the more work will be required to bring them to the surface. (CP 7.553)

Consciousness is rather like a bottomless lake in which ideas are suspended, at different depths. Percepts alone are uncovered by the medium. The meaning of this metaphor is that those which [are] deeper are discernible only by a greater effort, and controlled only by much greater effort. These ideas suspended in the medium of consciousness, or rather themselves parts of the fluid, are attracted to one another by associational habits and dispositions, -- the former in association by contiguity, the latter in association by resemblance. An idea near the surface will attract an idea that is very deep only so slightly that the action must continue for some time before the latter is brought to a level of easy discernment. Meantime the former is sinking to dimmer

consciousness. There seems to be a factor like momentum, so that the idea originally dimmer becomes more vivid than the one which brought it up. In addition, the mind has but a finite area at each level; so that the bringing of a mass of ideas up inevitably involves the carrying of other ideas down. Still another factor seems to be a certain degree of buoyancy or association with whatever idea may be vivid, which belongs to those ideas that we call purposes, by virtue of which they are particularly apt to be brought up and held up near the surface by the inflowing percepts and thus to hold up any ideas with which they may be associated. The control which we exercise over our thoughts in reasoning consists in our purpose holding certain thoughts up where they may be scrutinized. The levels of easily controlled ideas are those that are so near the surface as to be strongly affected by present purposes. The aptness of this metaphor is very great. (7,554)

I think Peirce is right; the aptness of this metaphor is very great. He uses this metaphor to show how ideas are attracted to one another through association of contiguity and resemblance. If someone is exposed to a certain sign, this sign or percept is only recognized in so far an idea or ideas in the consciousness are able to recognize the sign. Now, if someone is exposed to a sign, which he seems to know, but has difficulty in placing, he will use a lot of mental energy to place the sign in relation to other signs sunken deep into the bottomless lake of ideas far back in his memory. As he uses the energy to interpret the sign, the sign slowly sinks deeper into the lake - if it sinks too

deep, his effort has been in vain. But the idea may be brought to the surface if more signs resembling the sunken idea appear. Signs or percepts may unleash a pressure upon the consciousness helping the person to remember.

Let me propose an example from my own world. Since I work at a psychiatric hospital, this metaphor strikes me as being very strong and useful here in order to understand different ways of conducting psychotherapy. Reaching down into the depths of someone's consciousness, bringing ideas back to the surface and confronting the patient with ideas causing dis-ease, is the very nature of psychotherapy. Psychotherapy is about implanting certain ideas in the near surface of the patient's consciousness. Ideas that the psychotherapist assumes – based on experience – bears resemblance with the cluster of ideas/habits suspended at a deep level of the lake. The ideas embedded in the consciousness may bring the cluster of ideas to start a buoyancy, slowly and steadily bringing the cluster of ideas towards the surface. This may take several sessions, since the idea embedded in the consciousness of the patient has to be reinforced in every session, as the cluster of ideas slowly moves up towards the surface, the idea placed in the surface of the lake tends to sink. Reading the metaphor, I come to think about how a music therapist is able to use music or sounds to enable a patient to come in touch with particular feelings. Here, the resemblance, the iconicity, is between a given emotion caused by the music, either heard via e.g. a cd-player or self-produced, and a given idea sunken deep into the unconscious. Of course, this is a very complex situation which might not end in success – far from it. The idea embedded in the consciousness of the patient may attract other ideas,

which again attract other ideas, which may obscure the idea sought. It may also – as it rises towards the surface – attract other ideas; ideas long forgotten, repressed etc. In every case the metaphor introduced by Peirce is very strong, and it gives us an understanding of the complexity of consciousness. It also shows how the machinery of mind works, "which can only transform knowledge, but never originate it, unless it be fed with facts of observation" (CP 5.392). The continual fall, or rain, or *raining percepts,* is identical to Peirce's first cotary sentence, "nihil est in intellectu quod non prius fuerit in sensu". There is nothing in the interpretant of a cognitive sign, which was not already in the perceptual judgement, i.e. meaning is incarnated.

> Nihil est in intellectu qoud non prius fuerit in sensu. I take this in a sense somewhat different from that which Aristotle intended. By intellectus, I understand the meaning of any representation in any kind of cognition, virtual, symbolic, or whatever it may be... As for the other term, in sense, that I take in the sense of a perceptual judgement, the starting point or first premiss of all critical and controlled thinking. (CP 5.181)

The bombardment of percepts is understood through the ideas floating in the bottomless lake. The judgement interprets and describes the bombardment of percepts to which the body becomes exposed in its dealings with the world, which means that any percept that falls into the lake will, as it hits the surface of the lake, be transformed into a perceptual judgement. However, percepts cause different interpretants; some and most of them will sink into and mix

with the water without ever being noticed, others may be so powerful that they have to be interpreted by ideas floating in different depths in the lake.

Having an idea of the modes of consciousness, we need to look at Peirce's doctrine of sign – his semeiotic primarily being the part of semeiotic which defines signs, which is his speculative grammar, the first sub order of semeiotic, which is the formal science that investigates the formal conditions for signs qua signs, that is, the essential nature of the sign, and furthermore the classification of signs (cf. Sørensen & Thellefsen 2005). Later in chapter 1, I also touch upon elements from the third sub order of semeiotic, methodeutic, which holds the basic conditions for communication and community, and of course Peirce's pragmaticism, which is also placed in methodeutics.

Semeiotic as a normative science depends upon phaneroscopy. Semeiotic gets its regulative principles from phaneroscopy. Peirce defines the relation between phaneroscopy and normative science in the following way:

> But before we can attack any normative science, any science which proposes to separate the sheep from the goats, it is plain that there must be a preliminary inquiry which shall justify the attempt to establish such dualism. This must be a science that does not draw any distinction of good and bad in any sense whatever, but just contemplates phenomena as they are, simply opens its eyes and describes what it sees; not what it sees in the real as distinguished from figment -- not regarding any such dichotomy -- but simply describing the object, as a phenomenon, and stating what it finds in all phenomena alike. This

science of Phenomenology…must be taken as the basis upon which normative science is to be erected, and accordingly must claim our first attention. (CP 5.37-39)

To make this relation even clearer, Peirce defines the sign in relation to the phaneroscopic categories:

A sign, or Representamen, is a First which stands in such a genuine triadic relation to a Second, called its Object, as to be capable of determining a Third, called its Interpretant. (Syllabus, CP 2.274 c. 1902)

So, it is hardly any surprise that each phaneroscopic category has a corresponding sign trichotomy which contains the characteristics of the category in question. In this way the firstness trichotomy consists of *qualisign*, *sinsign* and *legisign*, which all are signs of possibility and which all are signs qua signs. The secondness trichotomy consists of *icon*, *index* and *symbol*, which all are signs of fact, and are sign-object relations, and the thirdness trichotomy consists of *rheme*, *dicent sign* and *argument*, which are all signs of reason, and are sign-interpretant relations. In the article "One Trichotomy of Signs", Peirce describes them in the following way:

Signs are divisible by three trichotomies; first, according as the sign in itself is a mere quality, is an actual existent, or is a general law; secondly, according as the relation of the sign to its object consists in the sign's

having some character in itself, or in some existential relation to that object, or in its relation to an interpretant; thirdly, according as its Interpretant represents it as a sign of possibility or as a sign of fact or a sign of reason (CP 2.243).

According to Peirce the qualisign is defined as being a quality of a sign, as he writes in "A Syllabus of Certain Topics of Logic":

A Qualisign is any quality in so far as it is a sign. Since a quality is whatever it is positively in itself, a quality can only denote an object by virtue of some common ingredient or similarity; so that a Qualisign is necessarily an Icon. Further, since a quality is a mere logical possibility, it can only be interpreted as a sign of essence, that is, as a Rheme. (EP 2:294, 1903)

Prior to the manifestation of the sign, another sign must carry it. Since a quality is what it is - positive and within itself - a quality can only describe an object due to some kind of resemblance or a shared element. In other words, a qualisign has to be an icon, and when a quality is a logical possibility, the qualisign can only be interpreted as a sign of being, i.e. as a rheme. An example is the experience of the color red. The color red has to be carried by some thing or event. According to the American Peirce scholar James Liszka, if two or more signs carry the same qualities they are qualisemiotic:

Following Peirce, if the information in the sign shares the same quality as the information in its source, for example, the way in which a color photograph is red in the way in which the actual rose is, then the sign is qualisemiotic, the adjectival form of Peirce's notion of a qualisign (CP 2.244) (Liszka 2008: 26)

The sinsign is an actual thing or event as a sign. The sinsign exists only through its qualities; therefore it contains or carries several qualisigns. A red cloth is an example of a sinsign; the cloth carries the quality of red and can be interpreted. However, the interpretation of the red cloth is a rheme. Again from "A Syllabus of Certain Topics of Logic" (1903), Peirce writes:

A *Sinsign* … is an actual existent thing or event which is a sign. It can only be so through its qualities; so that it involves a qualisign, or rather, several qualisigns. But these qualisigns are of a peculiar kind and only form a sign through being actually embodied." (EP 2:291)

Liszka explains further:

If the information in the sign is carried by contiguity, for example, the way in which a horn blast over a loudspeaker may convey to listeners that an important message follows, then the sign is sinsemiotic (CP 2.245). (2008: 27)

Peirce defines the legisign as a law that is a sign. The lawfulness is defined and usually determined by men. That is why the legisign is a conventionalized sign. Each conventionalized sign is a legisign, but not necessarily the other way round. Peirce states that the legisign is a general type, and not a single particular object which one has to agree on as being a carrier of meaning (cf. CP 2.246). The concept fugue can be imagined as a legisign, but the moment the legisign is imagined or written (as I did when I wrote fugue above), the word exists only as a replica of the legisign. The replica written in bold letters is a sinsign. The sinsign is a sign of an actual thing or event. In this case, it expresses the legisign through the replica. The legisign can be understood as an underlying lawfulness which governs a perceptual habit. When the legisign is made explicit, as in the above example, it changes its sign character. In "One Trichotomy of Signs" (c. 1897), Peirce writes:

> A Legisign is a law that is a Sign. This law is usually established by men. Every conventional sign is a legisign [but not conversely]. It is not a single object, but a general type which, it has been agreed, shall be significant. Every legisign signifies through an instance of its application, which may be termed a Replica of it. Thus, the word "the" will usually occur from fifteen to twenty-five times on a page. It is in all these occurrences one and the same word, the same legisign. Each single instance of it is a replica. The Replica is a Sinsign. Thus, every Legisign requires Sinsigns. But these are not ordinary Sinsigns, such as are peculiar occurrences

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that are regarded as significant. Nor would the Replica be significant if it were not for the law which renders it so.

About the legisign, Peirce further explains:

> If the information in the sign is carried by means of a pattern or regularity apprehendable or discoverable by the sign agency, for example, the way in which a message may be sent by Morse code, then sign is legisemiotic (CP 2.246).

The second and perhaps the most well-known trichotomy consists of the representamen-object relations, or how secondness is expressed in the signs: icon, index and symbol. The icon is a sign, which in some way shares a resemblance with the object it represents. Common examples of iconic signs are photographs as they resemble the object (i.e. the model) they depict. The qualities of the icon resemble the qualities of the object, and through that resemblance a similar sense of feeling is evoked in the mind that perceives the relation as a resemblance. In "One Trichotomy of Signs" (c. 1897), Peirce writes:

> An Icon is a sign which refers to the Object that it denotes merely by virtue of characters of its own, and which it possesses, just the same, whether any such Object actually exists or not. It is true that unless there really is such an Object, the Icon does not act as a sign; but this has

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nothing to do with its character as a sign. Anything whatever, be it quality, existent individual, or law, is an Icon of anything, in so far as it is like that thing and used as a sign of it. (CP 2.247)

Index means reference (to something). This class is constituted of signs which have a causal relation to the objects they describe. The index refers to the object, which it describes by virtue of a relationship, in cases where the sign is caused by the object, as e.g. smoke is an index of fire. An indexical sign is thus a sign which represents its object by virtue of a direct reference to the object, like e.g. footsteps refer to the person who walks by. The result of a thermometer measuring the temperature would be an index of the air temperature. Peirce writes:

An Index is a sign which refers to the Object that it denotes by virtue of being really affected by that Object. It cannot, therefore, be a Qualisign, because qualities are whatever they are independently of anything else. In so far as the Index is affected by the Object, it necessarily has some Quality in common with the Object, and it is in respect to these that it refers to the Object. It does, therefore, involve a sort of Icon, although an Icon of a peculiar kind; and it is not the mere resemblance of its Object, even in these respects which makes it a sign, but it is the actual modification of it by the Object. (CP 2.248)

It is important to stress that the index is physically connected to the object. In a way, the pair of them makes up an organic pair, but the interpreter has no influence on the relation between the index and its object more than merely noticing the relation after it has been established.

Peirce writes that a Symbol is a sign that refers to its object, which it denotes by virtue of a law (cf. 2.249). Peirce clarifies this by stating that the law is an association of common ideas. It means that the symbol will be interpreted as pointing to the Object. Thus, the symbol is a sign which carries meaning solely by virtue of rules and conventions. A conventionalized sign means that there is an agreement among users on the meaning of the sign. Letters, words and numbers are such examples of symbolic signs. In "The Art of Reasoning" (1895), Peirce writes about the symbol:

> Any ordinary word, as "give," "bird," "marriage," is an example of a symbol. It is applicable to whatever may be found to realize the idea connected with the word; it does not, in itself, identify those things. It does not show us a bird, nor enact before our eyes a giving or a marriage, but supposes that we are able to imagine those things, and have associated the word with them (CP 2.298).

If we take a closer look at the Symbol, we will find out that it contains iconic and indexical features. The meaning of the symbol can be interpreted in its replica, yet no amount of replicae can exhaust the meaning of the symbol. The Symbol emanates from the icon and the index, and the interaction between

the symbol, index and icon roots the idea in the Symbol. Also, a symbol must also be a legisign.

The third sign trichotomy consists of rheme, dicent sign and argument, and describes the relation between the sign and the interpretant/thirdness. The rheme refers to possible objects. As examples of rhemes, one can mention nouns as they clearly refer to possible objects. The rheme represents possible existence. The dicent sign is a sign of actual existence. For that reason, a dicent sign cannot be an icon. The icon does not provide an opportunity of interpretation. In order to describe the case, to which it is interpreted as a reference, dicent signs must necessarily contain a rheme. An example of dicent signs could be sentences. The dicent sign represents actual existence.

The argument is a lawsign. The argument represents its object in its capacity as a sign. This means that something is being stated about the sign. An example of an argument could be passages of text, i.e. meaningful links of dicent signs. The argument is the most developed sign, and holds a special place in the sign trichotomies. In "Lectures of Pragmatism, lecture 4" (1903), Peirce writes:

> Now every symbol must have, organically attached to it, its Indices of Reactions and its Icons of Qualities; and such part as these reactions and these qualities play in an argument that, they of course, play in the universe -- that Universe being precisely an argument. [...] The Universe as an argument is necessarily a great work of art, a great poem -- for

every fine argument is a poem and a symphony -- just as every true poem is a sound argument. (CP 5.119)

The following table displays the signs in relation to the sign trichotomies.

Thirdness	Legisign	Symbol	Argument
Secondness	Sinsign	Index	Dicent Sign
Firstness	Qualisign	Icon	Rheme

Having described the theoretical basis, we can move on to chapter one – the fundamental sign. In this chapter, I define the fundamental sign in relation to many of the theoretical issues dealt with in this introduction.

Chapter 1 - The Fundamental Sign

> It is the instincts, the sentiments, that make the substance of the soul. Cognition is only its surface, its locus of contact with what is external to it (CP: 1.628).

Fundamental Signs

The aim of this chapter is to define and outline the *Fundamental Sign* into (i) a *normative fundamental sign*, which is a sign primarily addressing knowledge domains and thus technical language; and into (ii) a sub-cognitive fundamental sign, which is the emotional center in looser defined communities, e.g. brand communities. The sub-cognitive fundamental sign is a feeling of ours or a sense of community. Like the normative fundamental sign, the sub-cognitive fundamental sign is also normative, but at a different level than the normative fundamental sign. However, in both cases the fundamental sign is a sign of utmost importance.

The two fundamental signs are found at different depths in the community's bottomless lake. Please note that these concepts are defined in relation to a community - where the fundamental signs reside, they are defined in relation to a common and shared consciousness, thus a shared

memory. As Peirce writes in a Manuscript: "The Esprit de corps of a military company, a club, a university, a nation, is essentially of the same nature as the consciousness of a person" (MS 961a:87, 1891). Consequently, consciousness seems to function by the same principle whether we discuss a person or a community.

Whenever a person gets attracted to a community, it is because the idea of the community has such an effect upon the person that similar ideas rise towards the surface of his bottomless lake – ideas that the person feels sympathetic towards. In the following we shall take a closer look at the fundamental signs, starting with the normative fundamental sign.

The normative fundamental sign

In Johann Sebastian Bach's monumental work, "Die Goldberg Variationen[7]" (BWV[8] 988), eight important notes form the bass line or the fundament of the music. In "Das Bach-Lexikon" (2000), the theme of the variations is described in the following way:

> Die Goldberg-Variationen sind dabei nicht in erster Linie Variationen der "Aria", wie es der Titel nahelegen könnte, sondern Variationen über einer Basslinie, deren Gerüsttöne in jedem Satz erhalten bleiben. Ein

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[7]The full title of Die Goldberg Variationen is: "Clavier Übung bestehend in einer Aria mit verschiedenen Veraenderungen von Clavicembal mit 2 Manualen. Denen Liebhabern zur gemüths Ergetzung verfertiget von Johann Sebastian Bach königlich Pohlnischer u. Churfürstlich Saechsischer Hoff- Compositeur, Capellmeister, u. Directore Cori Musici in Leipzig". Das Bach Lexikon 2000, p. 228.
[8]Bach Werke Verzeignis.

besonderer Reiz besteht allerdings darin, dass das Bassthema nie ganz in seine Urform und auch nie unbegleitet erscheint, das „Thema" also selbst bereits die erste Variation ist (: 228)

Every variation, and there are 30 of them, is a variation of these eight bass notes; the bass notes never appear in their original form and are never unaccompanied. Even if they are very difficult to hear, and only appear in the score to the trained eyes, they are the glue that unifies the work.

Bach's use of such bass notes, which is common to the baroque composer[9], has inspired me to develop the fundamental sign. The fundamental sign is developed according to Peirce's semeiotic and holds the characteristics of a sign, an argument to be more specific. However, this only goes for the normative fundamental sign. It also holds the characteristics of the bass line shown above. It is basic for any community. It never appears unaccompanied, but only in representations. It is also hard to experience, but it is the glue that keeps any community together. And there can only be one dominant fundamental sign in a community. Is there more than one dominant fundamental sign, they will most surely rip the knowledge domain apart, and

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[9]In Das Bach-Lexicon it reads: "Die Basslinie basiert auf einem tradierten, von Henry Purcell, Francois Couperin, Johan Christoph Bach u.a. gebrauchtes standardisierten Improvisations-und Variationsmodell. (2000: 228)

maybe split the knowledge domain into two or even more domains or communities.

The fundamental sign is the epistemological center in any knowledge domain

The normative fundamental sign is a sign which in a knowledge domain is particularly meaningful, as it compresses a lot of information and communicates this information relatively to the knowledge level of the interpreter, and this meaningful sign lays constraints upon all related signs in the particular context. The fundamental sign dominates the related signs the same way as the bass notes dominate the horizontal and vertical lines of contra punctual music in the Bach example stated above.

It is the consequences of the normative fundamental sign that causes it to develop; a semeiosis that aims to reduce the knowledge potential of the normative fundamental sign and to strengthen the habit it represents. Moreover, the knowledge potential is indeed reduced whenever we learn a new consequence of the normative fundamental sign. This is the course of semeiosis: to reduce doubt and create belief.

In the following, I will shortly define the normative fundamental sign, and afterwards I will elaborate on these short definitions.

The normative fundamental sign is a concept that puts constrains upon all related concepts. All concepts in a knowledge domain with terminological consistency are understood in relation to the normative fundamental sign.

The normative fundamental sign is a habit of thought and functions as a logical interpretant, containing both an emotional and an energetic interpretant.

The normative fundamental sign is an argument and related to medisense.

The normative fundamental sign is conditioned by the existence of a sub-cognitive fundamental sign.
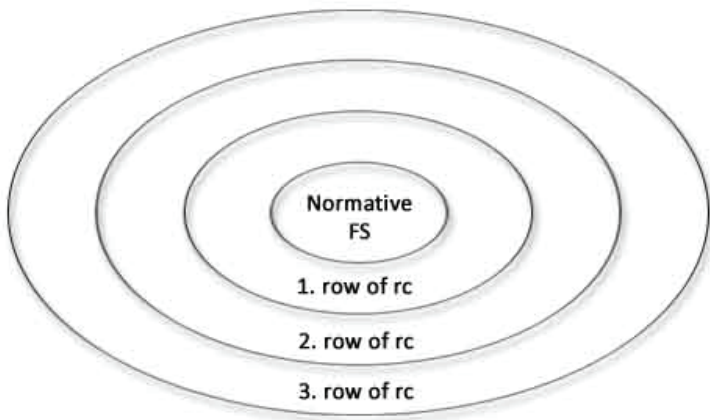
Figure 1. The figure aims to show how the normative fundamental sign is the center in a given knowledge domain. Around the normative fundamental sign, different rows of related concepts circulate.

The normative fundamental sign constrains the rows of related concepts, but the strength of the constraints seems to weaken as the interpretative distance between the normative fundamental sign and the related concepts is increased. It is important to notice that the interpretative distance between the normative fundamental sign and its related concepts is not stationary – on the contrary, as the related concepts are interpreted, they may change place between the rows. The normative fundamental sign could be thought of as a whirlpool which attracts other concepts and draws them to the center, embedding them with meaning. The closer the concepts are to the center of the whirlpool, the greater is the force of attraction from the fundamental sign.

The normative fundamental sign and its related concepts

In the above, I mentioned that an idea becomes fixated, and through semeiosis it may turn into a normative fundamental sign. But what does a normative fundamental sign contain? Being a sign of great importance for the terminological stable knowledge domain because of its fundamental status, it must consist and be built of more than merely the sign in itself, consisting of both the self-understanding in the knowledge domain but also as a defined concept. The normative fundamental sign becomes a normative fundamental sign in respect to all its related concepts. Therefore, a normative fundamental sign is a sign that has a large number of related concepts. Each related concept interprets aspects of the normative fundamental sign. At this analytical level, the relation between the related concept and the normative fundamental sign is in fact the same as between the immediate and the dynamical object, the

former being the idea cognized in a sign, the latter the object outside the sign, which only a final study can investigate thoroughly (cf. EP 2:495). The analytical level is stressed because the related concept also contains a knowledge potential, which constitutes its own dynamical object. The normative fundamental sign puts constraints upon the related concept, and forces the meaning of the related concept to be relative to the normative fundamental sign. The normative fundamental sign is a fixing point in a radial structure where all related concepts bring meaning to the normative fundamental sign. Moreover, in bringing meaning to the normative fundamental sign, it is the sum of the related concepts that creates the normative fundamental sign.

The normative fundamental sign as a logical interpretant

Touching upon the logical interpretant, we will take a short detour to Peirce's definition of the interpretant, to see what its function is, and what relations the logical interpretant enters into. In a fragment dated 1899, Peirce defines it in this way:

> A representation is that character of a thing by virtue of which, for the production of a certain mental effect, it may stand in place of another thing. The thing having this character I term a representamen, the mental effect, or thought, its interpretant, the thing for which it stands, its object." (A Fragment, CP 1.564; c. 1899)

Peirce understood the interpretant as carrying out "*the office of an interpreter who says that a foreigner says the same thing which he himself says*" (CP 1.553). Furthermore, he used the following example:

> …suppose we look up the word homme in a French dictionary; we shall find opposite to it the word man, which, so placed, represents homme as representing the same two-legged creature which man itself represents. By a further accumulation of instances, it would be found that every comparison requires, besides the related thing, the ground, and the correlate, also a mediating representation which represents the relate to be a representation of the same correlate which this mediating representation itself represents. Such a mediating representation may be termed an interpretant (CP 3.553)

The interpretant is, in itself, also a sign; a mediating entity. By the interpretant, the possibility of an infinite or continued semeiosis is made possible. Peirce wrote the following:

> A representation is something which produces another representation of the same object in this second or interpreting representatio the 1st representation is represented as representing a certain object. This 2nd representation must itself have an interpreting representation and so on ad infinitum so that, the whole process of representation never reaches a completion. (W 2:224)

The interpretant is part of an analogous relation to the sign's relation to the object; this causes a process in which the interpretant becomes a sign in a new semeiosis; a new semeiosis where the old sign and its object is the object of the new sign. This process is an infinite regress where signs emerge from other signs, from which still more signs emerge.

Based on the categories, Peirce classified the interpretants in several trichotomies (cf. Johansen 1993, 161 ff). In this case, the following trichotomy is the most important: 1. emotional interpretant, energetic interpretant, logical interpretant. According to Santaella Braga 1996, this trichotomy is a specification of the dynamic interpretant (cf. MS 339d: 446-447, Santaella Braga 1996: 148-49), which according to Peirce from "Prolegomena to an Apology for Pragmaticism" (1906), is: "the actual effect which the Sign, as a Sign, really determines" (CP 4.536). Peirce defines the emotional interpretant as the first proper significate effect of a sign – the significate effect is a feeling. Further effect will always involve an effort, which is an energetic interpretant. (cf. CP 5.475). The effort caused by the energetic interpretant may be a muscular one or a mental effort, the latter Peirce holds as the most usual one. (cf. CP 5.475). Now, the logical interpretant is simply the meaning of a concept, but since the meaning of a concept resides in its conceivable bearings, the logical interpretant is a *would-be* – its esse in future, as Peirce remarks in "Pragmatism" (1907):

To this may be added the consideration that it is not all signs that have logical interpretants, but only intellectual concepts and the like; and these are all either general or intimately connected with generals, as it seems to me. This shows that the species of future tense of the logical interpretant is that of the conditional mood, the "*would-be*" (CP 5.480-6).

The normative fundamental sign is embedded with a logical interpretant, it is the whole meaning of the mental concept, and its meaning resides in the future as a would-be, and it puts interpretative constraints upon any interpreter who tries to interpret it in the right way.

The normative fundamental sign is an argument and related to medisense

Being a logical interpretant, the normative fundamental sign is also an argument – a general one that has undergone a process from a mere idea that was nursed well and grew in generality as it brought other ideas along. It grew mentally bigger, and gradually it became a vigorous argument that was able to reflect and influence the self-understanding of the knowledge domain. About the argument, Peirce notes in "A Syllabus of Certain Topics of Logic" (1903), and "Prolegomena to an Apology for Pragmaticism" (1906):

An Argument is a sign whose interpretant represents its object as being an ulterior sign through a law, namely, the law that the passage from all such premisses to such conclusions tends to the truth. Manifestly, then,

its object must be general; that is, the Argument must be a Symbol. As a Symbol it must, further, be a Legisign. Its Replica is a Dicent Sinsign.(EP 2:296)

…is a Sign which has the Form of tending to act upon the Interpreter through his own self-control, representing a process of change in thoughts or signs, as if to induce this change in the Interpreter." (CP 4.538)

It follows from the fundamentality of the normative fundamental sign that it has a great importance in the knowledge domain both as the centre of the self-understanding in the knowledge domain and as the centre of the knowledge structure. Indeed, the normative fundamental sign is the central idea that places constraints upon all other concepts and terms in the knowledge domain, and all other concepts have to be understood in relation to the fundamental sign.

As an argument, the normative fundamental sign is related to medisense. It is governed by a general rule; consequently, it is what Peirce defines as a means to an end or a mediate cognition. Consequently, the knowledge structure of a knowledge domain must be found in the clear water of the community's bottomless lake near its surface.

I will return to the point: The fundamental sign is conditioned by the existence of a sub-cognitive fundamental sign when I define the sub-cognitive fundamental sign.

The sub-cognitive fundamental sign

The sub-cognitive fundamental sign is the emotional center of community, a feeling of ours. Now, why is it important to look at a sub-cognitive layer? In "Detached Ideas on Vitally Important Topics" (1898), Peirce writes: "It is the instincts, the sentiments, that make the substance of the soul. Cognition is only its surface, its locus of contact with what is external to it" (CP 1.628). This quotation suggests that it is in these deep waters of the bottomless lake that this sub-cognitive layer consisting of emotions and sentiments resides, which is decisive to cognition, and which are important to investigate if we are to understand cognition. The metaphor suggests that the clear water is only about a meter deep, the rest of the bottomless lake is not visible, and, as bottomless suggests, the lake has no bottom - it could in principle be infinite, and thus, the unconscious could be infinite. Let me briefly describe the sub-cognitive fundamental sign.

- The sub-cognitive fundamental sign is the emotional center in every loosely defined community.
- The sub-cognitive fundamental sign exerts attraction upon the members of the community through emotional similarity. It maintains and develops the community.
- The sub-cognitive fundamental sign is a habit of feeling and action.
- The sub-cognitive fundamental sign is a symbol containing legisigns.
- The sub-cognitive fundamental sign is a condition for the normative fundamental sign.

Now, in order to elaborate on these points, I will tentatively define the concepts *emotion*, *community* and *communication* in a Peircean sense; these concepts are important in order to understand the sub-cognitive fundamental sign and thus the normative ditto.

Some comments about emotions

However, before we address Peirce's definition of the emotion, it is worth mentioning that emotion as a concept has a long and stressful history. In the following, I will give a small account of emotion as a concept. It is by no means exhaustive, and it only serves the purpose of establishing a background for defining Peirce's definition of emotion. The short account is based on the psychologist Randolph Cornelius, who in 1996 wrote the book "The science of emotion", which today is considered a classic. According to Randolph Cornelius, four main theoretical traditions have dominated the research of emotions: The Darwinian perspective, which focuses on emotion in relation to evolution by natural selection (cf. Cornelius 1996 p. 11). The cornerstone in Darwin's account of emotion is that emotions evolved via natural expression and therefore have cross-culturally universal counterparts. In the Jamesian perspective, the cornerstone is that emotional experience is largely due to the experience of bodily changes, whereas in the cognitive perspective thought, and in particular cognitive appraisal of the environment, is an underlying causal explanation for emotional processes. Finally the social constructivist perspective emphasizes the importance of culture and context in

understanding what occurs in society. Cornelius writes that these perspectives are not mutually exclusive. Often researchers combine one or two or even three of the perspectives (cf. Cornelius 1996). To these four perspectives, Cornelius hesitantly adds a fifth: the neurophysiological perspective. Cornelius hesitates since the latter perspective, even though in rapid development, is transdisciplinary and is identifiable in all the other perspectives. Cornelius defines neurophysiology as a branch of psychology which investigates the function and structure of the brain in relation to specific physiological processes. (cf. Cornelius 1996). The four perspectives can be summed up in the following table cited from Cornelius (1996 p. 12):

Tradition	Key idea	Classic Work	Contemporary Research
Darwinian	Emotions have adaptive functions, are universal	Darwin (1872/1965)	Ekman et al. (1987)
Jamesian	Emotions = bodily responses	James (1884)	Levenson et al. (1990)
Cognitive	Emotions are based on apprasials	Arnold (1960a)	Smith and Lazarus (1993)
Social Constructivist	Emotions are social constructions, serve social purposes	Averill (1980a)	Smith and Kleinman (1989)

Even though Cornelius' book is from 1996, and I presume that the study into emotion has not been at a standstill, I presume that the above table is correct. However, I can easily imagine that the study into emotions via neurophysiology has become more and more dominant.

Neurophysiology is, like psychology, eclectic in its use of related scientific areas as it draws upon knowledge from neuroscience, philosophy (especially philosophy of mind), neurology, psychiatry, and computer science. Due to the eclectic nature of the field, it is very difficult to say that there is one dominant epistemology, e.g. positivism or behaviorism. Hence, it is difficult to let one, albeit outstanding, researcher represent the field. This would be as wrong as suggesting that Peirce was the only representative of semiotics, ignoring great elements of European based semiology, the works of Charles Morris etc.

However, it is not erroneous to mention the Portuguese researcher Antonio Damasio as one of the leading figures within the field of neuropsychology. Books such as "Looking for Spinoza: joy, sorrow, and the feeling brain" (2004), "Descartes' Error: Emotion, Reason, and the Human Brain" (1994) and "The Feeling of What Happens: Body and Emotion in the Making of Consciousness" (1999), to name a few, places Damasio as one the most important researchers within this area. In "The Symbolic Species" (1997), Terrence Deacon, anthropologist and semiotician, combines anthropological studies, semiotics and neuropsychology in his investigations of the development of the human language and language related brain dysfunctions,

i.e. the two types of aphasia and their impact on the cognitive apparatus. Hence, the field of semiotics is not a stranger to neuropsychology.

Within the field of commercials and neuropsychology, it is primarily the South African advertisement researcher Eric du Plessis who has focused on the use of emotional effects in commercials and brands (e.g. The Advertised Mind, 2005). Furthermore, the American researcher Joseph Ledoux has made intriguing research into the area of emotions in the book "The Emotional Mind: The mysterious Underpinning of Emotional Life (1998), this however, within a subarea of neuropsychology called "Cognitive Neuropsychology".

Whether the research of neuropsychology into emotions is groundbreaking or not, is not up to me to judge. Neuropsychology is primarily based on experimental research, and as du Plessis honestly states in "The Advertised Mind" (2005), it is a concept that is very difficult to define; however, he quotes Oatley and Jenkins (1995) for the following definition, which he believes is gaining acceptance:

An emotion is usually caused by a person consciously or unconsciously evaluating an event as relevant to a concern (a goal) that is important; the emotion is felt as positive when a concern is advanced and negative when a concern is impeded.

The core of an emotion is readiness to act and the prompting of plans; an emotion gives priority for one or a few kinds of action to which it gives a sense of urgency – so it can interrupt, or compete with,

alternative mental processes or actions. Different types of readiness create different outline relationships with others.

An emotion is usually experienced as a distinctive type of mental state, sometimes accompanied or followed by bodily changes, expressions, actions.

The major step forward for science is that a necessary condition for an emotion is the change in readiness for action. (: 83-84)

In many ways, this definition is not at odds with Peirce's ditto. To Peirce, as we shall see, it is important to stress that emotions are recognizable; can be communicated and valorised; that their natures are based on habits and thus are generals; that emotions unite past experience, the present, and future expectations. In short, that an emotion as a semeiotic phenomenon is a sign of the particular type of legisign, and the particular effect of an emotion is a sinsign representing certain qualities, which makes it possible to recognize the emotion as either a single emotion or a complex of emotions (by Peirce often called sentiments). Let us concentrate on the Peircean view of emotions.

A Peircean perspective on emotion

Peirce was convinced that emotion is a semeiotic phenomenon, i.e. a sign; therefore, he made a clear distinction between emotion and feeling. An emotion is not a feeling, since a feeling is what it is in itself and by itself. Feeling has no beginning, no middle and no ending; it is a mere possibility, while emotion is a semeiotic phenomenon since it is a representation of a

feeling or a complex of feelings. Due to the sign status of the emotion, it can be analysed within three coherent dimensions: a representamen, an object and an interpretant dimension.

Concerning the representamen, the emotion is a legisign. In the article "Peirce's Semiotic Theory of Emotion" (1981), Savan draws our attention to the following:

> Emotions do enter into the systematic explanation of behaviour. Further, emotions can be justified, shown to be inappropriate, disproportionately, strong or weak, and so on. It is clear, I think, that an emotion is a legisign. Like any legisign it exists through its instances or replicas. Each such replica is an iconic sinsign". (: 323)

It is important to stress that the emotion as a legisign is not an event which possesses quality. Instead, it exists through its instances in events, which have quality; however, it is not possible to reduce the emotion to the row of instances. A lot of things can for example make one happy, but these things cannot empty the potential of happiness. The emotion is a law which prescribes quality to a row of emotional events; these are replicae, which can be understood as signs of the type: iconic sinsigns. An emotion is not a mere here-and-nowness, it represents the past, related to memory, and it represents the future, related to expectation.
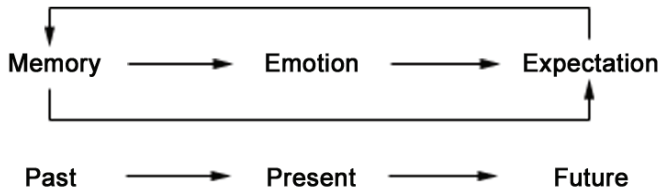
Figure 2. Emotion constitutes the foundation for integration of present, past and future based on memory. Emotion is a present evaluation of an experience, which, as a representation, is compared with earlier emotional evaluations of experience and, based on this grounding, structures of expectations are established. Hereby, emotion becomes basis for creation of motivation. In this way, the meaning of emotion always develops in a reciprocal relationship between past and future.

Regarding the object dimension, the emotion has two kinds of objects: an immediate object and a dynamical object. The immediate object is the object of a representation in a single semeiosis. In other words, this is the object regarded in relation to time and place, while the dynamical object is the object that affects the representamen to cause an interpretant. Let us consider the following example. A person has gone trout fishing; he gets a bite, and begins pulling in the line. While doing this, he begins seeing – faintly - the contours of a big trout, and he becomes happy. However, pulling the line in, it occurs to him that it is not a big trout caught on the fishing hook, it is an old rubber boot; in this case the rubber boot is the immediate object of the emotion, while the trout is the dynamical object of the emotion.

Regarding the interpretant dimension, this, firstly, involves the way in which the immediate interpretant of the emotion constitutes the preliminary steps creating an organised triadic sign from natural events in the nervous system. Secondly, it involves the way in which the dynamic interpretant breaks the self-perturbing process of the emotion, awakes it resistance, causing affect to occur. Thirdly, it involves the way in which the emotion, by aid of the final interpretant, becomes an object for evaluation (cf. Savan 1981).

Emotions are never value neutral, emotions are evaluations of experience. When an angler becomes happy thinking that he will soon land a big trout, it gives evidence to the fact that he valorises this event as being good. Emotions can be valorised due to the fact that emotions can be compared. Emotions can be compared due to the fact that they can be identified. Emotions can be identified due to the fact that they are generals. Thus, emotions are strongly attached to experience, which means that emotions unite memory.

Emotions have to be understood in order for past, present and future evaluations of experience to be meaningfully integrated in memory. In addition, emotions represent a basis on which expectations concerning future behavior/conduct can be evaluated. The emotion is a sign endowed with a final interpretant, which is a norm for evaluation of emotion, or this is a habit which makes the row of emotions move in a certain direction.

It is not so much the object itself, as it is the emotional effect the object causes in a mind, which is interesting. Of course, the object *is* interesting, though, since it is the object that sets off the effect in the mind of the

interpreter. Furthermore, it is the object that determines the direction of interpretation, and hereby the general scope of the emotion. Let me try to exemplify this description. Concerning values, it is not the conceptual value that is interesting, e.g. innovation, development, adaptability or other positive concepts, as they emerge in writing or other sign systems. It is the emotional effects in the interpreter which they cause in the act of communication that are interesting. Innovation as a positive value has a certain emotional effect on an interpreter. The emotional effect is partly determined by the utterer, who communicates the value, and partly by the interpreter's prior knowledge of the utterer. If the utterer is not known to be innovative, the use of innovation will presumably cause the interpreter to wonder, or cause negative emotions such as irritation or indifference. The emotional effect, the utterer's experience with a certain value, is based on prior acquaintance (experience) with the value and certain expectations. Experience is prior knowledge of the particular value and knowledge of the utterer, which claims and communicates the value, and the combination of these factors. Based on experience, the interpreter builds up expectations: next time the interpreter encounters the utterer and his use of a certain value, it will cause the same or similar emotional effects. And the negative emotional effect occurs when expectations are not met. Consequently, we have a breach of confidence. Expectations of a certain value have consequences for the motivation, and thereby in a broader sense for the conduct of the interpreter. Provided that the interpreter's present experience of a certain value is not in agreement with prior experience of the value, which the interpreter already has present in memory, it will be difficult to create a

positive motivation. This is the case because motivation in relation to a certain value is created on the premises of the emotion. Values should not be asserted; rather they should be made an object of negotiation between the utterer of the values and those on whom the values were intended to have an effect on[10]. Having this semeiotic definition of emotion fresh in memory, I will turn to the community, since I believe that a community is created and maintained through exchange of emotional effects, signs, which attract and create members of the community and in this process consolidate the community.

Let me sum this up by placing the Peircean perspective of emotion in the table above, suggested by Cornelius:

Tradition	Key idea	Classic Work	Contemporary Research
Darwinian	Emotions have adaptive functions, are universal	Darwin (1872/1965)	Ekman et al. (1987)
Jamesian	Emotions = bodily responses	James (1884)	Levenson et al. (1990)
Cognitive	Emotions are based on apprasials	Arnold (1960a)	Smith and Lazarus (1993)
Social	Emotions are social	Averill (1980a)	Smith and

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[10]I will return to the negotiation process between utterer and interpreter and the meaning of an artefact in chapter 4.

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Constructivist	constructions, serve social purposes		Kleinman (1989)
Peircean	An emotion is a semeiotic phenomenon, as a sign it is a legisign, and its replicae are iconic sinsigns, thus it is general and is an evaluation of experience	Savan (1981)	Still to come

Of course, Peirce would agree with Darwin that emotions have adaptive functions and are universal. He would also agree with James to some extent in saying that emotions equal bodily responses as emotional and energetic interpretants. However, as a general, the emotion is subject to self-criticism, and it is an evaluation of experience. Therefore, the reaction of an emotion is subject to cultivation of feeling, action and thinking. At first look, Peirce would seem to agree in the cognitive perspective that emotions are based on appraisals. However, based on appraisal, it should rather be the other way around. Appraisal is based on emotions. The cognitive perspective is in Cornelius' table rather nominalistic, which I seriously doubt Peirce would agree with. The same applies for the social constructivist perspective. I seriously

doubt that Peirce would agree with the viewpoint that emotions are social constructs; this is pure nominalism.

Communities as communication

A community is a semeiotic structure in the sense that a community is created, maintained and developed through ongoing exchanges of signs in accordance to a certain purpose. The exchange of signs takes place between the members of the community assembled around a governing and basic idea, i.e. a fundamental sign. In the following, we will take a closer look at the semeiotic process that creates a community.

In his book "A General Introduction to the semeiotic of Charles Sanders Peirce" (1996), Liszka mentions the concept "A sense of community". Although Peirce never directly used the expression "sense of community" in his writings, it can be deduced implicitly from the following excerpt:

> …whether the genus homo has any existence except as individuals, is the question whether there is anything of any more dignity, worth, and importance than individual happiness, individual aspirations, and individual life. Whether men really have anything in common, so that the community is to be considered as an end in itself (CP 8.38).

Peirce goes on to note, moreover, that "Esprit de corpse, national sentiment, sympathy, are no mere metaphors. None of us can fully realize what the minds of corporations are, anymore than one of my brain cells can know what the

whole brain is thinking" (CP 6.271). Peirce concludes that human beings are: "mere cells of the social organism" (CP 1.673). Peirce's notion of "community conscience" (CP 1.56), is, thus, construable as our notion of sense of community. Similarly, Liszka (1996: 91) notes that Peirce's notion is:

> simply *the sense of the community* of experience shared commonly between utterer and interpreter, sense understood in its broadest terms - the effect of a sign as would enable a person to say whether or not the sign was applicable to anything concerning which that person had sufficient acquaintance. (: 91)

Liszka equates the sense of community with Peirce's notions *commens*, which Peirce (1977: 196-197), defined as follows:

> There is the *Intentional* Interpretant, which is a determination of the mind of the utterer; the *Effectual* Interpretant, which is a determination of the mind of the interpreter; and the *Communicational* Interpretant, or say the *Cominterpretant*, which is a determination of that mind into which the minds of utterer and interpreter have to be fused in order that any communication should take place. This mind may be called the commens. It consists of all that is, and must be, well understood between utterer and interpreter, at the outset, in order that the sign in question should fulfill its function. (EP 2:478)

The idea of a "sense of community" is very interesting since it can refer to both a community sense and a sense of community (as a biological sense). The community sense refers to and develops in the single community, which means that the community sense is a local general. Local, since it exists and becomes meaningful in the single community, and general since it is mediated by signs, and thereby able to be communicated amongst the community members, and from the community to potential members outside the community. The sense of community is the general sense that enables us to enter into communities and, as a sense, it must be understood in relation to any of our senses, i.e. the ability of the brain to interpret messages from sensory cells so that these refer to the different sense modalities. But sense of community is – to Peirce – also one of the formal conditions in human communication. In this way, communities seem to be created and maintained through communicative actions. Liszka writes the following about communication in a semeiotic perspective:

> The cominterpretant is a determination of the commens, "it consists of all that is, and must be, well understood between utterer and interpreter at the outset, in order that the sign in question should fulfil its function" (LW 197). Generally speaking, one could argue, I think, that the commens is simply the sense of the community of experience shared commonly between utterer and interpreter, sense understood in its broadest terms: "the effect of a sign as would enable a person to say

whether or not the sign was applicable to anything concerning which that person had sufficient acquaintance" (LW 110) (Liszka 1996, p. 91)

Furthermore, Liszka writes the following about the subjects of communication, or what he names as sign agents:

Each communicating agency must be capable of at least the following […] (1) The agency must be capable of being determined by an object […]. An agency must be such that an object can establish in it something which can act like a sign of that object. (2) The correlative of this is the capability of the agency to represent the object in this regard. According to Peirce, the essential ingredient of the utterer is the function of standing for or representing the object (MS 318: 79). Simply put, when a person utters a word […] it acts in that respect as a sign in its capacity to represent the object which has determined that sign […]. (3) Each agency must be capable of […] having an interpretant established within it (cf. MS 318: 79-80) (ibid: 89-90).

According to Peirce, any act of communication depends on an utterer being capable of creating an intentional interpretant, a sign as medium, and an interpreter capable of creating an effectual interpretant. Since the community, which is created around a sub-fundamental sign is caused by communication; it also depends on these communicational conditions. Furthermore, the community members possess and share collateral experience, making them

capable of sign interpretation in a certain way in coherence with the community. Peirce describes the formal conditions for community, cited from Liszka (1996), in the following way:

   1. There must be an utterer and an interpreter.
   2. There must be something transmitted between utterer and interpreter.
   3. What is transmitted between utterer and interpreter must be something, which is capable of establishing common interpretants in both utterer and interpreter (p. 89).

If we elaborate on these conditions, we have:

1. An utterer, who has to be able to cause an intentional interpretant, and an interpreter, who has to be able to cause an effective interpretant.

2. There has to be something which is transmitted from utterer to interpreter. This something is signs.

3. What is transmitted must be able to cause interpretants in both utterer and interpreter, which is more or less similar. By this, the cominterpretant can appear. The condition for the cominterpretant to appear is a universe of discourse or common ground, which again is conditioned by collateral experience of the members. Collateral experience is an experience that is not mediated by the sign itself, but is an experience parallel to the sign; an experience that precedes the sign. Peirce wrote in a review of Lady Welby's: "What is meaning?" (1903):

All that part of the understanding of the Sign which the Interpreting Mind has needed collateral observation for is outside the Interpretant. I do not mean by "collateral observation" acquaintance with the system of signs. What is so gathered is not collateral. It is on the contrary the prerequisite for getting any idea signified by the sign. But by collateral observation, I mean previous acquaintance with what the sign denotes (CP 8.179).

Collateral experience or knowledge is prior knowledge necessary in order to interpret any sign or engage in any sign activity. Collateral experience is an experience that is not mediated by the sign itself, but is an experience parallel to the sign; an experience that precedes the sign (cf. Dines Johansen 1997: 78). If person A says "the Gunners are no. 1", to person B, person B must possess knowledge about who the gunners are, and what it implies that they are not. 1. If not, the sentence is meaningless to person B. As the Peirce Scholar Mats Bergman points out in his article "C. S. Peirce on Interpretation and Collateral Experience" (2002):

First of all, it is important to see that the experience in question need not be directly of the object in question; it is sufficient that the interpreter can make a connection between the object referred to and his or her collateral experience. […] The claim, thus, is merely that *some* experiential background is needed – it may be quite insignificant in itself,

but it must be able to serve as a starting-point for the specification of the object. (p. 8)

In the example stated above, it is necessary that person B is familiar with football, an English football club etc. If person B possesses some experiential background, this will serve as the starting point, as Bergman puts it. They need not know everything about the object, in order for the communication to take place.

However, the communication also has to take place within a shared contextual framework, which Peirce named a universe of discourse; concerning which Peirce wrote in "Dictionary of Philosophy and Psychology" (1902):

In every proposition the circumstances of its enunciation show that it refers to some collection of individuals or of possibilities, which cannot be adequately described, but can only be indicated as something familiar to both speaker and auditor. At one time it may be the physical universe, at another it may be the imaginary "world" of some play or novel, at another a range of possibilities. (CP 2.536)

This universe consists of three universes of experience defined by the ontological character of the objects located within them. The first universe is the universe of possibilities: "The first comprises all mere Ideas, those airy nothings to which the mind of poet, pure mathematician, or another might

give local habitation and a name within that mind" (CP 6.455). Its reality consists in its capability of being thought or instantiated, not in actually being thought or instantiated. The second universe is the universe of actuals. It is made up of brute facts and things whose reality consists in action and re-action. Finally, in the third universe, everything is located:

> … whose being consists in active power to establish connections between different objects, especially between objects in different Universes. Such is everything which is essentially a Sign - not the mere body of the Sign, which is not essentially such, but, so to speak, the Sign's Soul, which has its Being in its power of serving as intermediary between its Object and a Mind. Such, too, is a living consciousness, and such the life, the power of growth, of a plant. Such is a living constitution -- a daily newspaper, a great fortune, a social 'movement'" (CP 6.455).

In this universe, we find every form of regularity, law, habit, continuity and semeiosis; this universe mediates between the first two universes and, as such, it is the category of intelligibility – the real par excellence, therefore the most important.

It is important to notice that the intentional interpretant caused by the utterer does not necessarily have to be identical to the effectual interpretant caused in the interpreter. In the article "76 Definitions of The Sign by C. S. Peirce", the French Peirce Scholar and mathematician Robert Marty analyses the triadic turn of Peirce. In Peirce's early career, he promoted a distinct global

triadic understanding of the sign i.e. that the elements of the sign (representamen, object and interpretant) were linked together in an irreducible triadic relationship. Later on, Peirce distinctively changed his view and promoted an analytical triadic understanding of the sign, which refers to the determination of the sign through the object and the interpretant through the sign/object. This means that a complete symmetry between the sign (representamen) and the object is not a necessity. The representamen can represent certain aspects of the object. This is important, since we can hardly expect an interpreter to fully understand all intentions of the communication. However, the interpreter will presumably – based on own experiences – understand so much of it that he can act upon the communication. In this way, an element of probability is always involved in communication. Bergman points out:

> Another thing that should be noted is that in communication the object need not be wholly determinate. Peirce gives several examples of this, such as two Englishmen who meet on the train and begin to discuss Charles the Second (CP 5.448 n. 1 [1906]). The shared collateral experience of the travelers – the fact that they are English, for example – ensures that they are talking about the same object, although they may have quite different images of the king in their mind (their immediate objects). It is not necessary that the objects should be identical in every sense; the common reference is actually ensured by the fact that much is left vague (cf. EP 2:409 [1907]). (2002: 8)

This analysis can be summarized in the following semeiotic inspired communication model:
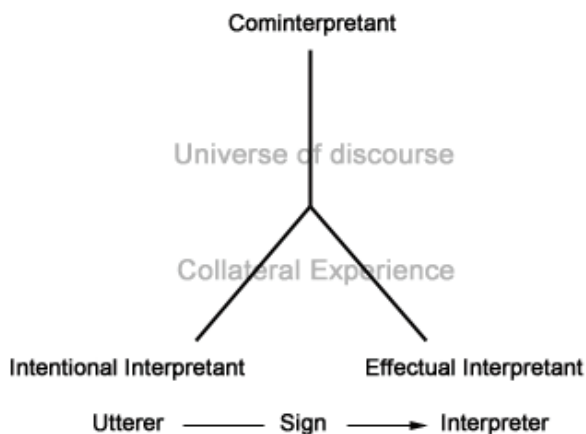
Figure 3. A semeiotic inspired communication model (DynaCom, developed by Torkild Thellefsen and Bent Sørensen).

The utterer communicates the sign to the interpreter and provides it with an intentional interpretant, since we assume that the sign is motivated. In order to interpret the sign, the sign must be able to cause an effect in the interpreter, i.e. an effectual interpretant. The success of the communication depends on the creation of a cominterpretant, i.e. an interpretant where the interpreter interprets the sign in agreement with the purpose of the communication.

In other words, the cominterpretant comes into existence whenever the symmetry between the intention of the utterer and the effect caused by the sign on the interpreter is at maximum. However, the occurrence of the cominterpretant depends on the sharing of collateral experience between utterer and interpreter and whether they are capable of interpreting the sign within the universe of discourse, that is, within the context in which the communication takes place.

After this detour to Peirce's view of communication, let us return to the sense of community and take a closer look at its function in the creation and maintenance of a community.

As an extreme scholastic realist, Peirce believed that it is the idea which creates it advocators. In "A detailed Classification of the Sciences" (1902), Peirce wrote that ideas have "a power of finding or creating their vehicles, and having found them, of conferring upon them the ability to transform the face of the earth" (CP 1.217). In this way, the idea becomes the central element in a natural class. By a natural class, Peirce meant "a class of which all the members owe their existence as members of the class to a common final cause" (CP 1.205). Furthermore, Peirce described the natural class as:

> Every class has its definition, which is an idea; but it is not every class where the existence, that is, the occurrence in the universe of its members is due to the active causality of the defining idea of the class. That circumstance makes the epithet natural particularly appropriate to the class (CP 1.214).

It is the sign that attracts the single individual, since the sign represents an iconic similarity which also is to be found in the individuals. This means that the individuals must be sympathetic towards the values communicated by the sign. I.e. the values of the sign already exist in the subjects. Thus, the force of attraction seems primarily to be found on an iconic level, i.e. on an emotional level.

The emotion as a legisign mediates between one or more qualisigns on the one side, and on the other side a sinsign. In this process, the legisign becomes a general sign. On those grounds, I conclude that the sign is able to awake certain emotions in the individuals, which subsequently exert a power of attraction on the individuals, and that this takes place on a symbolic level, i.e. on a level where emotions can be recognized, compared, valorised and mediated. However, this is only one side of the matter. The sign not only communicates to the single individual, we have to imagine that it communicates to many individuals, and that it is capable of attracting many individuals. If this is the case, these individuals may have something in common, namely the emotions and the effects, which the sign mediated values awake in the individuals. Thus, the values are only vehicles for the appearance of certain emotions. Based on this, the attraction is intersubjective. It is this influence and attraction between individuals caused by the sign which creates the community. The center of the community is the sub-cognitive fundamental sign – the emotional core of the community, which maintains the community through further strengthening of the values

communicated by the sub-cognitive fundamental sign and the emotional effects caused by this communication. I choose to understand the creation of communities through the positive attraction from sign to individual/group instead of defining the community negatively, where the community appears as a negative selection of what a given majority dislike.

Returning to the sense of community, it must be understood as a general sense, as a condition for the sense of community as the local sense. In other words, it precedes the local sense of community, and it is a sense equal to our other senses. The sense of community is a biological, conditional ability to enter into a vast variety of communicative communities. It is a perceptive ability to capture and interpret the sympathetic states of mind of other minds and allow oneself to be attracted thereof. Since man, according to Peirce, himself is a sign, man is able to attract other signs and be attracted to similar signs. Peirce posed the following rhetorical question in a manuscript (c. 1866/67):

> But are we shut up in a box of flesh and blood? When I communicate my thought and my sentiments to a friend with whom I am in full sympathy, so that my feelings pass into him and I am conscious of what he feels, do I not live in his brain as well as in my own -- most literally? (CP 7.591).

This is the general sense of community par excellence: The ability to share consciousness, the ability to share emotions. In short, the ability to

communicate, to mediate and to cause emotional effects in the interpreting minds, to attract and repel, to create communities.

Summing up, there are three conditions for community to be met in order for a community to be established: *The first condition* is that the given members of a community must be capable of sign-interpretative capacity to some degree; they must be able to utter and interpret signs. Consequently, they must be capable of causing interpretants. *The second condition* is that there must be some sort of connection or relation, of a communicative sort, between the sign users. The utterer and the interpreter must communicate on the same level, otherwise a cominterpretant cannot occur. This means that the interpreter must hold a genuine interest in the message communicated by the utterer. *The third condition* is that there must be some sense of community between the members, which is a feeling of "ours" (cf. Liszka 1996 p. 83). The sense of community is maintained by the ongoing sharing of values between the members. Liszka elaborates on these conditions:

> The first condition allows the possibility of the second, since signs enable us to transform objects or events into meanings, which in turn allow the possibility of something. Being shared and shared in a communicative fashion. The second condition allows for the possibility of the third, since identifying shared meanings as "ours" assumes that there is, first of all, something to be shared. (Liszka 1996 p. 83)

The sub-cognitive fundamental sign as a symbol containing a legisign

The sub-cognitive fundamental sign is not an argument. It is not as such subject to self-control only through the normative fundamental sign, it is not normative in the same sense as the normative fundamental sign; it is emotional and sub-cognitive. This sub-cognitive fundamental sign is a symbol containing legisigns. And in relation to the emotion, the sub-cognitive fundamental sign is in Peircean sense a sentiment – a closely knit web of related emotions. These two versions of the fundamental sign co-exist in a close relation, since the sub-cognitive fundamental sign precedes the normative fundamental sign – secondness precedes thirdness. Thus, the sub-cognitive fundamental sign can be abstracted from the normative fundamental sign. Consequently, the normative fundamental sign contains the sub-cognitive fundamental sign, which exists prior to the normative fundamental sign. Hence, the sub-cognitive fundamental sign is a condition for community as such and for the normative fundamental sign. Let me exemplify this. In relation to my research into the technical language of Danish OT, I concluded that the technical language of OT was so immature that it was impossible to draw their knowledge profile (see chapter 3, case 2). However, it was interesting that despite the lack of a stringent terminology, there was something that maintained the community and caused cohesion. They shared a feeling of ours in the community, a sub-cognitive fundamental sign. So, it seems that it is plausible to suggest that the sub-cognitive fundamental sign as the emotional center of community precedes the normative fundamental sign, that the sub-cognitive fundamental sign is a condition for the normative fundamental sign.

In the first case study in chapter 3, we have a different situation; here we have a postulated normative fundamental sign, without a sub-cognitive fundamental sign. This knowledge domain is in danger of a collapse, since the sub-cognitive fundamental sign is a condition for the normative fundamental sign.

The sub-cognitive fundamental sign related to primisense and altersense

Recalling the definition of primisense and altersense from the preface, primisense is the first part in consciousness: it is an experience of the monadic quality of an immediate feeling; this is a simple and non-compound quality, it is what it is in itself, by itself. It has no relation to the possibility of something else: it has no parts; it has no beginning, middle or ending. Relating this to the bottomless lake, primisense must be sunk deep into the lake, existing only as a potentiality, which, however, can be brought to action. As written in the preface, primisense as feeling is not consciousness, but part of consciousness, a sort of immediate consciousness, or a quality of immediate consciousness (cf. Houser 1983 p. 333). The sub-cognitive fundamental sign consists of primisense, however. It is an experience:

> It comes out most fully in the shock of reaction between ego and non-ego. It is there the double consciousness of effort and resistance. That is something which cannot properly be conceived. For to conceive it is to generalize it; and to generalize it is to miss altogether the hereness and nowness which is its essence (CP 8.255).

Figure 4 depicts the relation between the normative fundamental sign and the sub-cognitive fundamental sign.
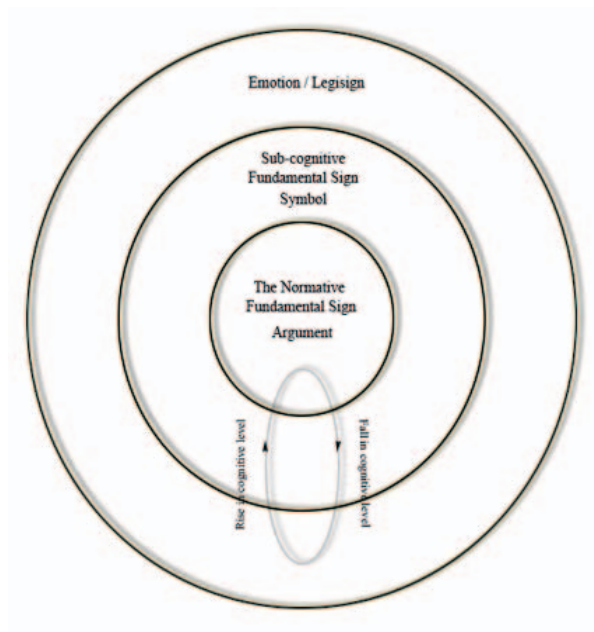
Figure 4. A graphic representation of the relationship between the sub-cognitive fundamental sign and the normative ditto.

The sub-cognitive fundamental sign containing and maintaining the community members' shared sense of community established by symbols, is created by emotions/legisigns. It is a condition for the creation of the normative fundamental sign. Thus, a well-defined knowledge domain must have a

normative fundamental sign, and thus a sub-cognitive fundamental sign. However, a more loosely defined community, e.g. a brand community, may only need a sub-cognitive fundamental sign in order to exist. Both types of communities include several emotions as legisigns, since these are conditional for both the sub-cognitive fundamental sign and the normative fundamental sign. From the emotion as a legisign, to the sub-cognitive fundamental sign as a symbol, to the normative fundamental sign as an argument, there is a rise in cognitive level. The inner circle is the smallest since cognition is only the surface of the soul (cf. CP 1.628). The fall in the cognitive level is due to the fact that every cognition seems to fall into a state of unawareness; it sinks into the bottomless lake, but can be brought back to the surface whenever bombarded with the right percepts, this being illustrated by the circle with arrows.

Summing up, two fundamental signs exist: a sub-cognitive fundamental sign which is symbolic. It is an emotional center of any community – a feeling of ours. It precedes the normative fundamental sign, which is an argument, and its meaning can be criticized and negotiated. Let me use the following table to sum up the fundamental signs:

The normative fundamental sign	The sub-cognitive fundamental sign
The normative fundamental sign is the epistemological center in every knowledge domain possessing a well defined terminology.	The sub-cognitive fundamental sign is the emotional center in every loosely defined community e.g. a brand community.
All concepts in a knowledge domain with	The sub-cognitive fundamental sign

terminological consistency are understood in relation to the normative fundamental sign.	exerts attraction upon the members of the community through emotional similarity. It maintains and develops the community.
The normative fundamental sign is related to medisense.	The sub-cognitive fundamental sign is related to primisense and altersense.
As a sign the normative fundamental sign is an argument containing symbols and legisigns.	As a sign the sub-cognitive fundamental sign is a symbol containing legisigns.
The normative fundamental sign depends upon the existence of a sub-cognitive fundamental sign.	The sub-cognitive fundamental sign is a condition for the normative fundamental sign.
The normative fundamental sign is placed in the clear waters of the bottomless lake of the community.	The sub-cognitive fundamental sign is placed in the murky waters of the bottomless lake of the community.

When defining the fundamental sign, I discovered a significance-effect caused by the concepts in question. The size of the effect was equal to the knowledge already contained within the interpreter. So in a way the interpreter reflected his own knowledge level in the concepts. I call this the normative significance-effect. This effect also seems to exist in relation to the sub-cognitive fundamental sign; here it is defined as the sub-cognitive significance-effect. The definitions of these two significance-effects are what chapter two will be about.

Chapter 2 – The Significance-effect

> There is one thing even more vital to science than intelligent methods; and that is, the sincere desire to find out the truth, whatever it may be. (CP 5.84)

The aim of this chapter is to outline the significance-effect as both the normative significance-effect and the sub-cognitive significance-effect, and to show how these significance-effects are related to the fundamental signs.

The normative significance-effect is an effect which is related to the normative fundamental sign, and hence to knowledge communication of technical terms within scientific knowledge domains. The sub-cognitive significance-effect is an effect related to the sub-cognitive fundamental sign – it is an effect depending upon its strength that can enable ideas deep down in the bottomless lake to be affected and brought into upward motion. For both significance-effects it holds true that they are effects, which are defined as the time span from the second an interpreter has been exposed to a sign to the interpreter has interpreted it. Consequently, the strength of the significance-effect depends upon the prior knowledge level or emotional experience of the interpreter. The more experience the interpreter has about a sign, the shorter

the interpretative distance is. The more the interpreter based on experience is able to recognize the feelings or emotions communicated by the sign, the shorter the interpretation distance is. Having this tentative definition in mind, let us take a closer look at the normative significance-effect.

The normative significance-effect designates the interpretative distance between a sign (a technical term) and the interpretant (correct interpretation of a technical term) – the shorter the distance is, the more powerful is the normative significance-effect. The interpreter reflects his level of knowledge in the sign – the normative significance-effect depends upon how much he "sees".

- The normative significance-effect depends upon the sub-cognitive significance-effect
- The normative significance-effect is related to medisense
- The normative significance-effect is related to the normative fundamental sign
- The normative significance-effect is related to the logical interpretant

The interpretative distance of the normative significance-effect

The normative significance-effect is an effect of significance or communication of meaning that occurs whenever some mind or minds become exposed to a technical concept. The basic idea of the normative significance-effect is that the more knowledge an interpreter possesses about a given concept, the more information the concept communicates to the interpreter. The background for the discovery of the normative significance-effect was the following rather

trivial row of observations: a concept such as *activity* stemming from the knowledge domain OT communicates more precise and structured knowledge to an occupational therapist than the same concept seems to communicate to someone outside the knowledge domain. The concept *semeiosis* communicates more precise and structured knowledge to a semeiotician than to someone without prior knowledge of semeiotic. An x-ray picture communicates more knowledge to a surgeon than to a layman. Consequently, it seems that concepts communicate knowledge (i) in accordance to the universe of discourse and (ii) in accordance to the collateral knowledge of the interpreter: the more knowledge the interpreter seems to have about a given concept, the greater effect in terms of knowledge communication the concept seems to have upon the interpreter. In this way, the knowledge level of the interpreter becomes reflected in the concept. The normative significance-effect is observed and described within technical languages within knowledge domains (Thellefsen 2002).

Consequently, it seems to be an undeniable fact that the more knowledge an interpreter possesses concerning a given concept, the shorter the interpretational distance is. This is the basic definition of the normative significance-effect (Thellefsen & Thellefsen 2004, Thellefsen, Sørensen & Andersen 2006).

The normative significance-effect is the effect of sign-mediated communication. And it is interesting for researchers in communication studies, because it proves that concepts communicate meaning in accordance with the existing knowledge level of the interpreter. The knowledge level is the

interpreter's amount of knowledge relevant to a given sign. It shows that all kinds of communication are dynamic; it shows e.g. that scientific communication creates symbolic structures – i.e. terminologies, taxonomies and standards - it shows that, within scientific terminologies, some concepts carry more weight, they are more significant, or they are of greater value than others simply because they include, communicate, and maintain basic values agreed on by a historical knowledge domain. These fundamental concepts form a conceptual structure that I refer to as the *fundamental sign* – or that which is common in a community, its sense of community, the sub-cognitive fundamental sign (Thellefsen 2002, 2004, 2005a). With the discovery of the normative significance-effect, it is possible to show that knowledge is organized in accordance with the normative fundamental sign of any knowledge domain.

The general formal conditions of the normative significance-effect

One of the main points of the significance-effect is that the knowledge level of the interpreter becomes reflected in the concept. It seems that signs are able to release and refer to a certain experienced memory in the interpreter. Within scientific knowledge domains, this experienced memory seems primarily to be logically and rationally based. Communicating the concept "semeiosis" to an interpreter within the knowledge domain of sign theories will probably cause an interpretant concerning the technical aspect of sign development, i.e. unlimited semeiosis as a sign development and sign interpretation. In other cases, e.g. within the fields of marketing and

commercials, signs may be strategically used to awaken certain emotional memories enabling us to relate to a given product, and the awakening of emotional memories might eventually persuade us to buy the given product. This kind of significance-effect is not based on rational persuasion, but rather on emotional considerations. If the sign does awaken emotional or rational effects in the interpreter, it must be because the interpreter shares qualities or values with the sign to such a degree that the interpreter is able to reflect himself in the sign, i.e. agree on the premises and conclusion of the argument, or be sympathetic about the values communicated by an utterer. Consequently, both the normative and the sub-cognitive significance-effect are tied to the individual as a kind of quasi-empathetic[11] experience, but the effect is by no means solely individual. Both the normative and the sub-cognitive significance-effect are developed within the scope of Peircean semeiotic; therefore it is rooted in the same scholastic realism. This means that any communication involves an utterer and an interpreter, and in order for the communication to be successful to some degree it must be general. If this is

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11 It is quasi-empathetic experience since the interpreter reflects himself in the sign because he is able to identify qualities in the sign, which he himself contains or desires to contain. He sees himself through the "eyes" of the sign, so to speak. He learns from the sign, and the sign learns from him As Peirce writes in the article "Some consequences of Four Incapacities" (1868): "But since man can think only by means of words or other external symbols, these might turn round and say: "You mean nothing which we have not taught you, and then only so far as you address some word as the interpretant of your thought." In fact, therefore, men and words reciprocally educate each other; each increase of a man's information involves and is involved by, a corresponding increase of a word's information". (CP. 5.313)

not the case, the utterer cannot communicate to an exterior world and not even to his future self; thus no intelligible communication can take place.

It is also possible to imagine a whole group of people, e.g. a user group, a group of brand users, or the inhabitants of a knowledge domain, becoming exposed to the same signs, i.e. a given brand or a given terminology, and experiencing nearly the same significance-effect. Here, the significance-effect is not tied to the individual, although it is the individual who experiences the significance-effect. Rather, it is tied to the characteristics of the group of people. In a scientific knowledge domain, the researchers share the same terminology; within a user group, the users share interest in e.g. a particular computer game and, amongst brand users, it is the emotional effects of the brand values which are shared and then maintain the group. Sharing of the effects of values creates a sense of community; such a sense of community may, if it is strong enough, evolve into a knowledge domain and, along this evolution, a certain use of language may arise, e.g. a terminology. So, it works both ways. The users maintain their object of interest, and the object maintains its user group; hence, a reciprocal relationship exists. Consequently, I believe that any community is created by communication, as I argued in chapter 1. Communication creates the community, and communication maintains and strengthens the community. Ultimately, it can also destroy the community if the group no longer shares the same set of values and/or sentiments.

Consequently, the significance-effect is the interpretative effect caused by a meaning intentionally communicated by an utterer to an interpreter

through mediation of a sign. In essence, the meaning communicated is similar to the meaning interpreted. This means that the interpreter must be able to interpret the message in the right way, or at least in nearly the right way, which is the way intended by the utterer. The conditions for the release of the normative significance-effect are the following:

- Communication has to take place inside a universe of discourse
- Utterer and interpreter must share collateral experiences
- The conditions for communication and community defined by Peirce must be met
- The cominterpretant must occur

The normative significance-effect depends upon the sub-cognitive significance-effect

As we saw with the three categories firstness, secondness and thirdness, thirdness depends on firstness and secondness. Medisense depends on primisense and altersense. The argument depends on rheme and dicent sign. The logical interpretant depends on the emotional interpretant and the energetic interpretant, etc. In the same way, the normative significance-effect depends on the sub-cognitive significance-effect. Therefore, a knowledge domain not consisting of a sub-cognitive fundamental sign, and therefore no sub-cognitive significance-effect, is not authentic, it has no genuine force of attraction whatsoever. This is the case with MARKK, and I will return to this in chapter 3.

The normative significance-effect is related to the normative fundamental sign

As an effect, it is related to the normative fundamental sign. A concept within a knowledge domain communicates knowledge in relation to this knowledge level. The more the interpreter knows about the concept, the shorter the interpretative distance. Both concepts are related to technical terms.

The normative significance-effect is related to the logical interpretant

As was the case with the normative fundamental sign, the normative significance-effect is also related to the logical interpretant. The normative significance-effect may be summarized in the following table:

The normative significance-effect
The normative significance-effect designates the interpretative distance between concept and the correct interpretation – the shorter the distance is, the more forceful the normative significance-effect is. The interpreter reflects his knowledge level in the concept – the normative significance-effect depends on how much the interpreter "sees".
The normative significance-effect depends on the sub-cognitive significance-effect.

> The normative significance-effect is related to the normative fundamental sign, and therefore it is related to thirdness, hence the logical interpretant and the argument.

Summing up: the normative significance-effect is a communication of technical knowledge, within a knowledge domain, where the communication depends on the interpreter's prior knowledge of the technical term.

The sub-cognitive significance-effect

I also designate the sub-cognitive significance-effect as quasi-empathy. It is quasi, since it is not restricted to empathy to humans alone, but empathy to all kinds of signs, but still empathy, since we identify ourselves with signs (ourselves being signs) which in some way resemble us, not only visually but also and mostly emotionally. Quasi-empathy is our ability to put ourselves in the place of a given sign and let the sign communicate its qualities through us. Quasi-empathy should be understood as the case where a given interpreter recognizes himself in the sign. When someone reflects himself in something, he often sees himself, or wishes to see himself or parts of himself, in the reflection. Often, one feels sympathetic towards something familiar that resembles oneself and gets attracted to it, i.e. a sign. Quasi-empathy is a habit of mind, we possess, that tends to search for similarities in signs, and which enables us to be attracted to similarities and to enter into sign communities.

In his famous Monist article "Evolutionary love" (1893), Peirce mentions three ways one can be attracted to an idea:

> First, it may affect a whole people or community in its collective personality, and be thence communicated to such individuals as are in powerfully sympathetic connection with the collective people, although they may be intellectually incapable of attaining the idea by their private understandings or even perhaps of consciously apprehending it. Second, it may affect a private person directly, yet so that he is only enabled to apprehend the idea, or to appreciate its attractiveness, by virtue of his sympathy with his neighbors, under the influence of a striking experience or development of thought. The conversion of St. Paul may be taken as an example of what is meant. Third, it may affect an individual, independently of his human affections, by virtue of an attraction it exercises upon his mind, even before he has comprehended it. (CP 5.307)

Especially, the latter attraction is interesting in respect to the sub-cognitive significance-effect, since it functions far down in the bottomless lake, where the visibility is very bad. However, the ideas making up our consciousness reacts to signs resembling ourselves. But it is important to stress that a community possesses a common consciousness, and here quasi-empathy is the glue which ties any community together. However, a basic condition for attraction is, as Peirce also mentions, *sympathy*. The attracted person feels

sympathetic towards the idea, and the element of sympathy enables the idea to attract the person.

The attraction as here- and newness seems to take place on an indexical level, i.e. since attraction is defined as secondness, as altersense, but it naturally involves an iconic level primisense, which is an aspect of consciousness.

The sign interpreter looks for, and reacts positively, towards signs which represents the values which he pursues, because he possesses or desires the same values, or parts of the same values, of the particular sign. The sign interpreter lets himself be represented in the sign, and the sign lets itself be represented in the sign interpreter. Summing up, the two definitions of the significance-effect:

The sub-cognitive significance-effect is a quasi-empathetic identification with a sign, where the interpreter is drawn to the sign since it in some way resembles the interpreter, who feels sympathetic towards the sign, maybe because he sees himself in the sign, or because he desires its values. Based on the attraction, he lets the sign communicate through him, and the sign lets him communicate through the sign, choosing him as a worthy advocator. The sharing of the sign values between community members enables the community to grow and strengthen the habit – the sub-cognitive fundamental sign.

Sub-cognitive significance-effect
The sub-cognitive significance-effect enables us to

let us be attracted to a given sign, e.g. brands. The attraction takes place because the interpreter sees parts of himself, or wishes to see parts of himself, in e.g. the brand – or simply desires values in the brand. The attraction is based on a confluence on an iconic level – the attraction in itself is rooted in secondness.
The sub-cognitive significance-effect is a condition for the normative significance-effect
The sub-cognitive significance-effect is connected to the sub-cognitive fundamental sign.
The sub-cognitive significance-effect is connected to the emotional and energetic interpretant.

Both definitions are based on the observation that the more familiar someone is with a sign, the shorter the interpretative distance is between sign and interpreter. In figure 5, I have placed the significance-effects in relation to the fundamental signs in order to illustrate their inherent relations.
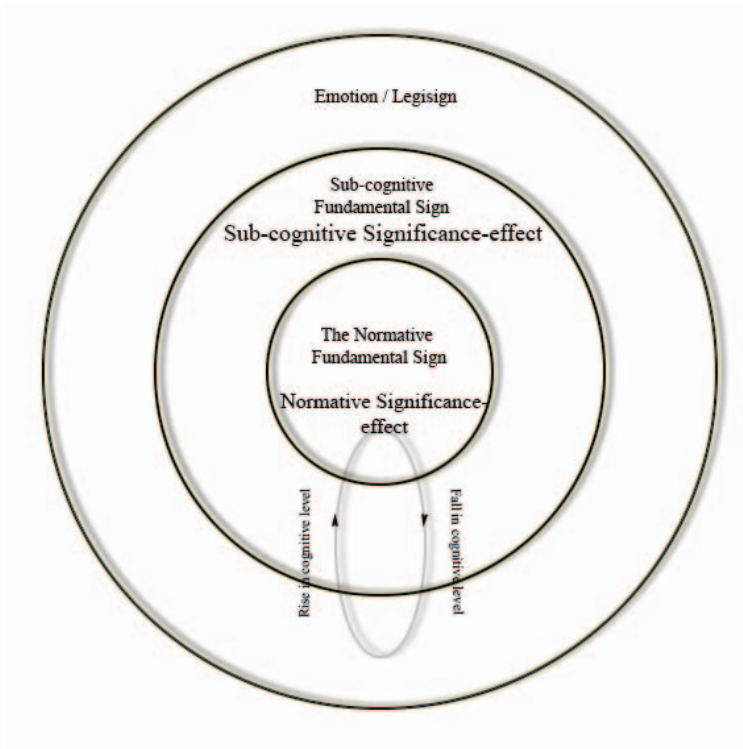
Figure 5. The figure shows how the sub-cognitive fundamental sign is related to the sub-cognitive significance-effect on a symbolic level, containing the emotional level made up of legisigns. It also shows that the normative fundamental sign is placed at the same level as the normative significance-effect, at the same level as the argument. Consequently the normative fundamental sign and the normative significance-effect contain the sub-cognitive ditto.

The inherent relations between the significance-effects, the fundamental signs, Peirce's basic categories and sign trichotomies are shown in figure 6 below.
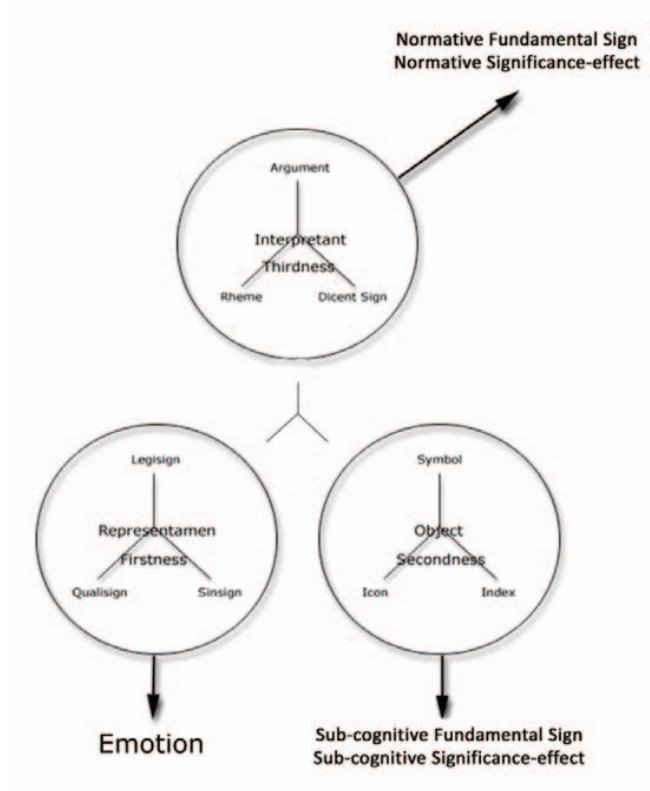
Figure 6. The figure shows how the sub-cognitive fundamental sign and the sub-cognitive significance-effect are related to the normative fundamental sign and the normative significance-effect. Firstness, secondness and thirdness can be replaced with primisense, altersense and medisense.

The existence of the normative fundamental sign and the normative significance-effect has been shown in Thellefsen & Jantzen 2004. It is important if we are to conduct knowledge organization within scientific discourse communities that we understand that knowledge is organized in accordance with a normative fundamental sign, which in many way resembles Peirce's idea of the logical interpretant. Also, that the normative significance-effect occurs where the interpreter is familiar with the concepts in question. This knowledge may be used to optimize communication within discourse communities. However, it is also important to accept that cognition only is the tip of the iceberg when dealing with knowledge organization. I have proved this in my studies of Danish OT. Danish OT does not have scientific status; therefore, it has no mature terminology. However, it was clear OT possessed a very strong feeling of ours – a sense of community, of belonging to the same community, as occupational therapists. It seems clear that the sense of community, the sub-cognitive fundamental sign precedes the normative fundamental sign, feelings or, more precisely, emotions and sentiments precede reasoning. I believe that the sub-cognitive fundamental sign is the emotional center of any community, and that it maintains and communicates emotional effects that the community members strive for. The sub-cognitive significance-effect is this emotional effect that happens when someone becomes attracted to a community.

The point of chapter 1 and 2 has been to render clear the definition of the fundamental signs and the significance-effects, and to show their mutual relationship. The strength of the normative significance-effect depends on how

much knowledge the interpreter holds about the fundamental sign; the shorter the interpretational distance, the more powerful the normative significance-effect. Another point has been to show the sub-cognitive fundamental sign as a center of community - that strong feeling which occurs whenever the feeling of belonging to something is experienced; the sub-cognitive significance-effect as the emotional force of attraction caused by the sub-cognitive fundamental sign. Another important point is that the sub-cognitive fundamental sign and the sub-cognitive significance-effect precede the normative fundamental sign and the normative significance-effect. Having established this theoretical framework, I will introduce and expound on a method primarily developed to identify the normative fundamental sign, but it can also be used to identify the sub-cognitive fundamental sign. This is what the next chapter is about.

Chapter 3 – The Knowledge Profile

> The elements of every concept enter into logical thought at the gate of perception and make their exit at the gate of purposive action; and whatever cannot show its passports at both those two gates is to be arrested as unauthorized by reason. (CP: 5.212)

The aim of the chapter is to develop and present the knowledge profile as a pragmaticistically inspired method to identify the normative fundamental sign of any knowledge domain. The method can also be used to clarify own concepts, the concepts of philosophers and scientists. The main idea is that epistemological choices have consequences on the object one investigates. In the following, I will describe how I was led onto the track of the knowledge profile. After having defined the knowledge profile, I will use three case studies to show the usability of the knowledge profile. I unfold it on the research group of MARKK, as I identify their normative fundamental sign, and I unfold it upon OT. Here, I suggest a possible normative fundamental sign, which could be the starting point for a scientific development of OT. Finally, I unfold it upon Peirce's concept of esthetics to show how it is possible to use the knowledge

profile to structure an academic article when dealing with complex philosophical concepts. After the case study, I will be defining the concept of semeiotic constructivism, which is a pragmaticistically inspired method that can be used to knowledge manage scientific concepts by implanting logical interpretants into them.

The SKO-method

The knowledge profile is a greater and better developed tool than its predecessor, the SKO-method, which had some problems primarily regarding usability. In the following I will shortly describe the SKO-method in order to provide an understanding of the basic mechanisms in it. Most of these mechanisms are also at work in the knowledge profile. The SKO-method was developed while I was conducting a research project at the School of OT in Aalborg. The following description of SKO stems from a research document I conducted at the end of the project[12].

The SKO-method is an explorative research method, which means that the leading members of the knowledge domain in question teach the librarian what to observe and how to understand the observed. The method was developed in opposition to the normal way of conducting knowledge organisation, which in many ways resembled the classical anthropological research (here somewhat caricatured), where the anthropologists (read

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[12] See Torkild Thellefsen (2002). Semiotic Knowledge Organization: theory and method development. *Semiotica* 142: 71-90.

librarian) travelled to a foreign country (read knowledge domain). Having experienced the foreign culture, the anthropologist sat down in a convenient place and wrote down what he saw (e.g. classified concepts and concept relations). After this fieldwork, he returned home to civilization, wrote and published e.g. a monograph or scientific paper containing his observations (e.g. drew up a thesaurus or a classification scheme). The method was valid (and used many times) until the natives (members of the knowledge domain) became able to read what the anthropologist (librarian) wrote. They could not recognize themselves in the descriptions. This point is very important in every task where outsiders have to produce a description of something which is not familiar to them. Without sharing collateral experience and universe of discourse with the knowledge domains in question, it is impossible to describe the knowledge domain, let alone understand what is going on and why it is going on.

Now, in order not to make the same mistake, I teamed up with an editorial group consisting of four occupational therapists who guided me within the OT knowledge domain and explained my observations and how I should understand them. These four occupational therapists were carefully selected by the management as someone who knew OT's epistemology, history and theoretical relations to other fields.

However, where does the explorative method start? Prior to the project start, I made a small empirical analysis. The goal of this analysis was to identify the most significant concepts within OT. I asked 25 teachers of OT to list the 25

most significant OT concepts[13]. Based on the results, I concluded that "activity" was the most significant concept. With this result in hand, I confronted several teachers of OT at the school of OT in Aalborg, Denmark, and asked if it was plausible to conclude that "activity" in fact was the most significant concept in OT. None of the asked OT teachers disagreed. And what was even more interesting, a lot of related concepts to "activity" were stated in the analysis, concepts like "daily activity" "activity of daily living", "activity dysfunction", "science of activity", etc. There were in fact so many related concepts to "activity" that I could make a plausible hypothesis about the fundamentality of "activity", which was not rejected by the OT teachers. This small empirical analysis, which was primarily used to extract hypotheses from, was the first step of the method. In other words, the entrance to the OT knowledge domain was the hypothesis of "activity" as a fundamental sign.

With this in mind, the project started with a thorough investigation of "activity" and all its related concepts. These related concepts were the concepts found in the empirical analysis and which had a semantic relation to "activity", i.e. "analysis of activity", "loss of activity", "activity dysfunction", etc. Here, the expertise of the editorial group was appropriate. Their task was to validate the related concepts and to search for even more related concepts. It was the goal to strive for an almost exhaustive description of "activity"' through identifying its related concepts.

Having done that, I estimated the number of related concepts to "activity" would get close to 100. Now, the conceptual structure of "activity"

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[13] The list can be seen in my PhD thesis "Fagsprogssemiotik" (2003)

and its related concepts was what I call the normative fundamental sign and its radial structure. This was the second step in the method.

The next step was to take a closer look at every related concept in the radial structure of "activity". When isolating a single related concept it must also consist of a core meaning and a lot of related concepts. Therefore, the third step in the method was to investigate all the related concepts (the first row of related concepts) of "activity" and identify and describe the related concepts of the related concepts (the second row of related concepts). Again, the editorial group was in charge of this work.

With the identification and description of "activity" as a normative fundamental sign, we had identified and described the first and second part of the radial structure of "activity".

Next followed the description of the third and fourth row of related concepts in the radial structure. One has to imagine the radial structure as an unfolding of a three dimensional web structure which expand in all directions as shown in figure 7.
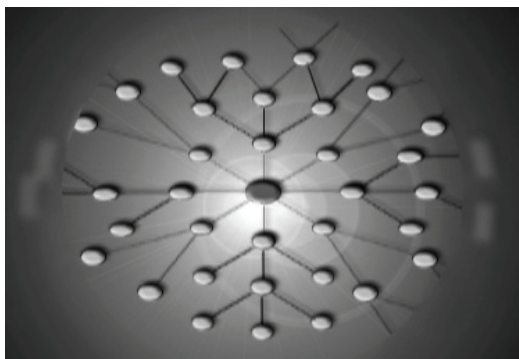
Figure 7. The normative fundamental sign in the middle receives its meaning from all its related concepts. However, when illuminating the normative fundamental sign as depicted in the figure, we get an idea of the expanding sign web that arises around the normative fundamental sign. This expansion is, however, three-dimensional because of the interrelation between the related concepts which cannot be shown in the figure. The normative fundamental sign is in the center of the sign structure.

However, when did we have to stop describing the many rows of related concepts? During the identification and description of the related concepts, we came to a point where the related concepts began to be identical to the prior related concepts. This means that a vast number of related concepts became redundant. When this happened, we stopped the description. In addition, when all material was collected it was the job of the editorial group to analyze the interrelations in the radial structure. One can imagine that some related concepts appeared in the description more often than others did, which indicated that this related concept could be a fundamental sign, even if we did not identify it in the empirical analysis. The OT knowledge domain primarily consisted of logica utens because, as a starting point, it was a domain of practice, which lacked scientific description and validation. Therefore, the fundamental sign, which definitely existed as a sub-cognitive fundamental sign, OT's sense of community, occurred in the identification and description process rather than in the empirical analysis prior to the project.

In the following, I will present the SKO-method step by step.

The SKO-method step by step

Step 1. An empirical analysis is performed to create a basis for a hypothesis. Having made a hypothesis, make sure to falsify or validate it with members of the knowledge domain. It is important to have a significant concept to start out with.

Step 2. An editorial group is established which has to have the expertise to provide guidance in the knowledge domain.

Step 3. Start with the one identified significant concept. Make sure to get a nearly complete description of this significant concept and the first row of related concepts. The editorial board can provide the related concepts, but also other members of the knowledge domain can provide related concepts. If it is a knowledge domain which is divided into both practical work (as the case with occupational therapists) and theoretical work, then make sure to have the practical side represented in the editorial board, to ensure a more thorough description of the field.

Step 4. Having analyzed the first row of related concepts it is time to validate identified concepts. This can be done by establishing a focus group consisting of members of the knowledge domain. When the editorial group is satisfied with the first row of related concepts, it is time to analyze the first row more thoroughly.

Step 5. The first row of concepts consisting of X numbers of related concepts. These related concepts also consist of various related concepts. As with the first row of related concepts, the same kind of work applies to the second row.

Having identified the second row (the related concepts to the first row) the process moves on.

Step 6. When the editorial board finds that the analysis has been carried far enough, the process of validating the related concepts begins. Imagine all the related concepts as a giant mind map with the fundamental sign in the center.

Step 7. The presentation of the project result depends upon the use. In the case of OT the aim was to create a virtual dictionary, which presented the result both as a virtual mind map structure where all related concepts would be presented in short abstracts, and as references to important literature. However, I would also present an ordinary alphabetic thesaurus; 100 years of searching through the alphabet in libraries can be hard to change.

Problems with the SKO-method

In many ways I think the SKO-method was an important development – to me in any case. Except from different philosophical starting points, mine being the scholastic realism of Peirce, and Eco's being structuralism and thus nominalism, it bore certain resemblances to Umberto Eco's notion of M. Quillian's "Q-model" [14], defined as:

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[14]The Q-model was developed by M. Quillian 1968. Eco writes the following about it. "Model Q…is based on a mass of nodes interconnected by various types…of links. For the meaning of every lexeme there has to exist…a node which has as its "patriarch" the term to be defined, here called a type. The definition of a type A foresees the employment, as its interpretants, of a series of other sign-vehicles which are included as tokens (and which in the model are other lexemes). The configuration of the meaning of the lexeme is given by the multiplicity of its links with various tokens, each of which, however, becomes in turn a type B, that is, the patriarch of a new

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…a sort of polydimensional network, equipped with topological properties, in which distances covered are abbreviated or elongated and each term acquires proximity with others by means of short-cuts and immediate contacts. (Eco, 1976 p. 124)

…this model anticipates the definition of every sign, thanks to the interconnection with the universe of all the other signs that functions as interpretants, each of these ready to become the sign interpreted by all others; the model in all its complexity, is based on a process of unlimited semiosis. From a sign which is taken as a type, it is possible to penetrate, from the center to the farthest periphery, the whole universe of cultural units. Each of which can in turn become the center and create infinite peripheries. (ibid, p. 122)

It seems that – despite its problems – SKO could be interpreted as a sort of operationalization of Eco's Q-model. The SKO-method also had an encyclopaedic aim. However, it is not clear if Eco had well-defined knowledge domains in mind when he further developed Quillian's Q-model. If it covers a whole culture, it may be impossible to operationalize.

The major problem of identifying the normative fundamental sign of OT, which SKO was unable to catch, even though it could create a hypothesis about

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configuration which includes as tokens many other lexemes, some of which were also tokens of type A, and which can include as token the same type A". (Eco 1976, p. 122)

the normative fundamental sign, is that OT does not have a normative fundamental sign. It does not have a stringent terminology, there is no consensus – of course there is *some*, since they can communicate and create cominterpretants – about the meaning of concepts and the internal relations of the concepts. It is important to agree on whether activity of daily living is subordinate to activity dysfunction, or the other way around. It order to have such conceptual discussions, there need to be some sort of scientific clearness of the conceptual meanings. Consequently, this lack of clearness was what made the project fail. However, the good thing about the project was that it made occupational therapists become conceptually aware; it made them think about the meaning of their concepts. It made them move from logica utens towards logica docens, nearer the surface of the bottomless lake of the community. The project ended in 2003, I have not followed the development of OT since, and consequently, I do not know the status of the development towards scientific status. With these problems at hand listed above, it seemed necessary to modify the SKO-method in a way so that it could identify the normative fundamental sign in a more deductive way.

The knowledge profile

In order to solve some of the problems with the SKO-method, I developed the knowledge profile. It was based on the following assumptions:

When drawing a profile of someone or something, the aim is to outline the most distinct features of the object so that the profile matches the object it represents in a way that makes us able to identify the relation between the

profile and the object. If the object is a profile of a head, the hair, the nose, the chin, the forehead, the glasses, etc. could be the most distinctive parts and therefore the most interesting parts to reconstruct. Figure 8, illustration A, exhibits the profile of a head. In illustration B, a reconstruction of the profile has been made.

Figure 8. Illustration A shows the profile of a person, and in illustration B this profile has been reconstructed. A profile has to share similarities with the object it represents. In this figure we can see the similarities between ill. A and ill. B. The distinctive features are the dominant nose, the recessive chin and the forehead. Based on these features it is possible to positively identify ill. B as representing ill. A. Another important point is that the contour (ill. B) cannot reveal all features of ill. A. The same must be assumed when dealing with knowledge domains. We must assume that we are able to identify the distinctive features of the knowledge domain and from there we reconstruct the knowledge structure. Indeed, we are able to do so when using the epistemological basis to draw our knowledge profile of a given knowledge domain.

Hence, the epistemological basis is the foundation of the knowledge profile of a knowledge domain.

To make a profile is to reconstruct the object on the basis of distinctive features. In semeiotic terms, the reconstruction (ill. B) is a symbolic representation of ill. A, containing strong iconic and indexical features. However, ill. A is a still picture of a profile of a living man. Its dynamic object exists and alters all the time, e.g. through aging, mimics, gestures, etc. However, ill. A is static and the reconstruction of the profile ill. B is also static. This is problematic as both the representation (ill. A), and the representation of the representation (ill. B), are static, and the object (the living person) is dynamic. The dynamic object might die, but still there would be an iconic and indexical connection between ill. A and B in the figure. These ill.s are forever connected, and the sign is independent of the dynamic object. Moreover, the sign in figure 8 is capable of creating its own dynamical object by referring to an idea of someone who could fill out the contour even though, for example, the person died.

It is a bit more different and difficult when dealing with scientific knowledge domains; we still have to identify the most distinctive features of the knowledge domain in order to draw a knowledge profile which is in accordance with the knowledge domain. The distinctive features of a knowledge domain constitute the domain's epistemological basis, and it is the consequences of this basis that have an impact upon the research object. These consequences can be identified in the way the research objects are understood, and the understanding then becomes fixated in the terminology.

Consequently, the epistemological basis of the knowledge domain means certain consequences for the research object, so that the epistemological basis is identifiable in the consequences, and these consequences are the understanding of the research object.

Furthermore, since the meaning of symbols seems to adjust to the knowledge need in the knowledge domain based on the use and experience of the concepts, we have a case where the epistemological basis can be identified in these consequences. Therefore, it follows that we have to look for a place or a foundation that places epistemological constraints upon the knowledge in the knowledge domain. This place is the knowledge profile of the knowledge domain. The epistemological basis constrains the way in which the knowledge domains understand their research objects. This epistemological basis also has a great influence upon how knowledge is organized, thus, this basis creates the knowledge profile. It is the epistemological basis that puts brackets around the research object, and it is the epistemological basis that causes consequences of viewing the research object from a certain scientific perspective. If I develop a concept based on semeiotic, the concept will contain the basic epistemological features of semeiotic, e.g. Peirce's metaphysical claims; I cannot just use semeiotic and ignore these claims. There has to be coherence in using scientific theories.

Consequently, when trying to make a representation of a given knowledge organization, the best place to start is to investigate the epistemological basis of the knowledge domain – this foundation is the normative fundamental sign of the knowledge domain. The basic premise is

the following: *When trying to identify a knowledge organization, and afterwards trying to represent it, the least we can ask for is that the representation truly represents the knowledge organization in the knowledge domain, and in respect of its knowledge structures. If this is impossible due to the character of the knowledge domain, then the least we can ask for is that the representation truly represents distinctive features of the knowledge domain, and by distinctive features I mean the essence of the knowledge domain.* Therefore, I do not think that either the structure of the classical thesaurus as we know it from LIS, nor the way LIS identifies knowledge[15] is capable of representing the true knowledge organization of a knowledge domain. On the contrary, the thesaurus structure is a non-realistic structure that is forced upon the domain, often by librarians or information specialists. In my opinion, the knowledge profile is a far better way of identifying the knowledge organization of a knowledge domain than the rigid and non-realistic thesaurus structure. Moreover, the knowledge profile can also be used to clarify the terminology of a certain research project; it is a method that helps to keep a research project on its terminological tracks. It is a method, which I imposed upon my students in order to keep their projects in accordance with their chosen epistemological basis. If someone chooses to study a problem from a hermeneutic angle, it has other consequences for the

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[15]Often, thesauri build upon bibliometric studies, which primarily build upon statistic terms, extracting methods that basically are non-intellectual. The empirical data used to construct thesauri are almost exclusively derived from documents disregarding the gross impact non-published knowledge and tacit knowledge has upon the knowledge structures in a knowledge domain.

research problem than using a phenomenological theory or a pragmatic one for that matter; these consequences have to be identified and dealt with, or else we end up in a situation which Peirce refers to as terminologically unethical behaviour.

By drawing a knowledge profile we are able to identify the epistemological basis of a knowledge domain, and we are capable of identifying the consequences of this epistemological basis. The consequences reside in the way the knowledge domain understands its research objects, and in the ways in which it develops concepts and theories. In the following, we shall take a closer look at how to draw a knowledge profile and at where we can use it.

Basically, the knowledge profile is about clarifying terminology. It is about removing redundant and misleading denotations in order to make the single concept or term appear as clear and precise as possible, following Peirce in this excellent metaphor:

> The elements of every concept enter into logical thought at the gate of perception and make their exit at the gate of purposive action; and whatever cannot show its passports at both those two gates is to be arrested as unauthorized by reason. (CP 5.212)

Indeed, it is necessary to make terminology clear in order to create a scientific terminology that is able to communicate knowledge in a precise way, as Peirce

also stresses in Ethics of Terminology" (1903): "… good language is important to good thought, merely; for it is of the essence of it. (CP 2.220)

There are several ways of using the knowledge profile; it can be used to clarify own developed concepts. It can also be used to identify the epistemological basis of knowledge domains, both small domains involving few researchers and vaster domains, both scientific and non-scientific. The essence of the knowledge profile is that every choice made results in consequences and these consequences are identifiable. Theoretically, this is anchored in Peirce's doctrine of pragmaticism, which Peirce in "Issues of Pragmaticism" (1905), defines as follows:

> Pragmaticism consists in holding that the purport of any concept is its conceived bearing upon our conduct. How, then, does the Past bear upon conduct? The answer is self-evident: whenever we set out to do anything, we "go upon," we base our conduct on facts already known, and for these we can only draw upon our memory. It is true that we may institute a new investigation for the purpose; but its discoveries will only become applicable to conduct after they have been made and reduced to a memorial maxim. In short, the Past is the storehouse of all our knowledge. (CP 5.460)

And further from the article "Pragmatism" (1905):

... pragmatism does not undertake to say in what the meanings of all signs consist, but merely to lay down a method of determining the meanings of intellectual concepts, that is, of those upon which reasonings may turn." (CP 5.8)

Furthermore, in an unsigned letter with the salutation, "Dear Signor Calderoni" (1905), Peirce writes:

Pragmaticism is simply the doctrine that the inductive method is the only essential to the ascertainment of the intellectual purport of any symbol. (CP 8.209)

Now, one of the aims of the doctrine of pragmaticism is to explore consequences of intellectual concepts. Any concept is anchored in the past, and that past constrains our understanding of future consequences of the concept, not in a deterministic way, but in a certain direction. Consequently, it is the consequences of intellectual action that grant us insight in any concepts' meaning. Let me in the following present the knowledge profile.

How to draw a knowledge profile
Then how can we use the knowledge profile? In the following, I will define the six step method.

First. Draw the knowledge profile of your concept, your project or your knowledge domain by identifying its epistemological basis, and by identifying the consequences of this epistemological basis. Use figure 9 as inspiration.
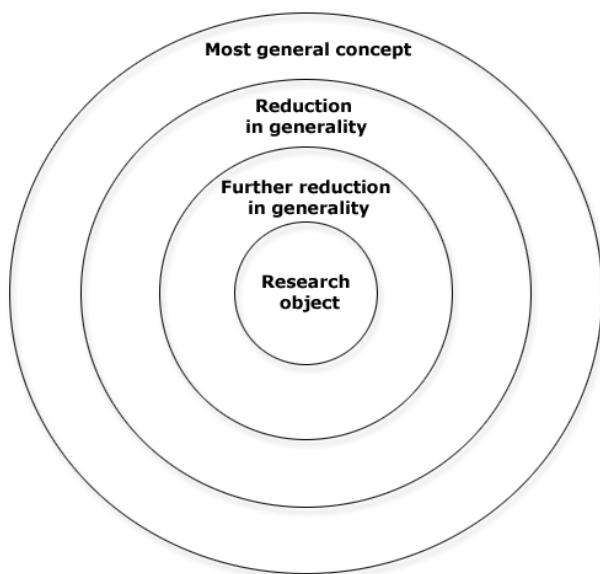
Figure 9. The diagrammatic knowledge profile.

Second. Start by writing the name of the research object (the concept, the problem, the knowledge domain) in the middle.

Third. Consider what theoretical basis will be unfolded upon the research object; find the most general state and write it in the outer circle. This is the most general mode of the theory.

Fourth. Consider how to clarify this general mode by prefixing or suffixing terms to the concept. This is the second circle.

Fifth. Consider whether the concept can be clarified even further, e.g. by using a sub theory that reduces the knowledge potential of the concept, or use another theory that may make the concept or project become more precise. This is the third circle.

Sixth. Consider whether the concept needs to be clarified even further, or if its consequences are ready to be identified.

The six steps correspond to the left side of figure 10, the epistemological basis of the research object. However, to draw a complete knowledge profile, we have to identify the consequences that occur when viewing the research object from a certain epistemological basis.
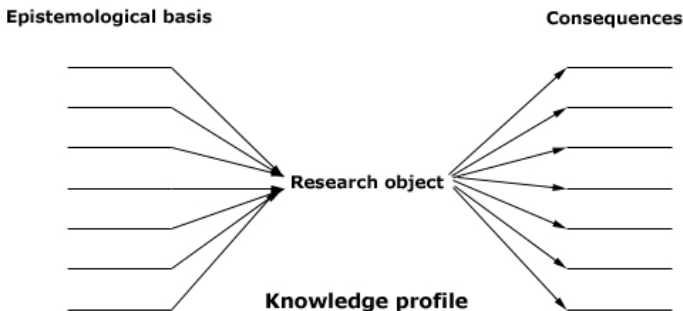
Figure 10. The knowledge profile. The figure functions as a general model for investigating the epistemological basis of a research object, and when this has been done, the next step is to outline the consequences of the epistemological basis in

order to maintain coherence between the epistemology and the way in which the research object is interpreted based on the basis of that epistemology. The knowledge profile helps to keep the project on terminological tracks.

This process enables us to clarify the meaning of the concept, the project or the terminology of a knowledge domain. It is only by identifying the knowledge profile of a knowledge domain that we are able to identify the knowledge organization.

Of course, the discovery of the normative fundamental sign has an important impact upon how we have to conduct knowledge organization. In fact, I do not believe that librarians and information specialists conduct knowledge organization at all, since the knowledge organization exists prior to any investigation. To assume that knowledge organizations do not exist before we organize the knowledge of any knowledge domain would be to dismiss reality. It would be much more precise to say that we identify knowledge organizations and, as a consequence of the identification, we try to make representations of the knowledge organizations. Here, both the knowledge profile and the normative fundamental sign become very important.

But knowledge profiling is not just a method to identify the given normative fundamental sign of a knowledge domain, it is also a method which can be used to knowledge manage the development of concepts by implanting a telos – or logical interpretant into the given concept or artefact.

As mentioned before, pragmaticism is concerned with investigating the meaning of intellectual signs, which are scientific concepts, based on the consequences of the given sign. This may imply that we also are able to

construct or create signs, and thereby control the reasonable consequences, and thereby control the development of meaning in a certain direction in the sign. Remember, Peirce would not deny that we construct knowledge, as Parker writes: "Peirce, the realist agrees with his nominalistic opponents in saying that our knowledge is a social construct which is subject to constant revision" (1994, p. 54). However, Peirce, as the scholastic realist he is, asserts that there is an objective reality, which would be fully revealed to us only at the end of infinite inquiry, and which is independent of what you and I may think or feel it to be. Semeiotic constructivism is about implanting a logical interpretant in a concept in order to navigate the meaning of the concept in a certain desirable direction. Whether or not the constructed concept is true or false is a case for the community and its inquiry to determine.

Peirce does stress that pragmaticism is not concerned with explaining the meanings of all signs; however, I would like to expand the definition of pragmaticism also to include signs like organisations. Thus, we may say that the meaning of the actions of an organisation also resides in the consequences of its actions, since the outcome of such an action of an organisation almost always is a product, either as an artefact or as an idea, carrying the unique qualities of a certain organisation. However, the meanings of such products reside in the identifiable consequences. Here, knowledge management becomes interesting, because if we are able to manage and control the consequences of a given product, concept, or a knowledge domain for that matter, we are able to control the development of meaning in the object. Naturally, it is very difficult to control the development of a product, since the

meaning of the product develops in the use and experience of the consumers, and the use can result in experiences substantially different from the organisation's intended use, and thereby experience, of the product (as argued in Thellefsen, Sørensen, Vetner & Andersen 2006). When the product leaves the assembly line, it leaves the control of the producer, so to speak.

When the mobile phone was introduced, no one could have imagined that it contained the potential for being the central part of a complete new youth society that has created its own habits and (text message) language, etc. No one could have imagined the impact the Internet has had and still has on our private and professional lives. In a semeiotic view, these knowledge producing and knowledge determining artefacts prove the realistic angle of the pragmaticistic doctrine true. Namely, when an idea (e.g. the idea of the mobile phone or the Internet) has been brought to life, it begins its own life; the idea contains a potential independent of the individual mind. It grows, as its knowledge potential is transformed into interpretative actions. But was the idea not embedded with a logical interpretant from the designers' hands to develop in a certain desired direction? Of course, but obviously the designers did not know the potential of the logical interpretant implanted in the mobile phone. This is indeed a tricky business, since the state of the logical interpretant resides in the future.

The knowledge potential can be understood as the energy of the idea. When the energy is transformed into action, the quantum of potentiality is reduced. However, the transformation of the potential slows down the development of the idea as the idea becomes constrained with habits.

Moreover, when the idea runs out of potential it either dies or is transformed into other ideas, widening the potential. This makes the direction of development very hard to predict; consequently, it is difficult to predict the future meaning of artefacts. Once the scientific idea or the product alters into a symbolic state, when it becomes constrained with habits, it is less vulnerable to its anarchistic potentiality. It is the aim of the symbolization process of the idea to remove potentiality that can disturb the intended use of the given idea or product. Consequently, when introducing an idea or a product to a given community, the basic work of knowledge profiling is to clarify the ideas or products in order to avoid misinterpretations of scientific ideas or misuse (from the producer's point of view) of products – this of course is vital. This task is considerably easier when developing scientific terminology, since scientific concepts does not as often as consumer artefacts fall victim to different whims of fashion.

However, as is the case with consumer artefacts, the development depends on the potential of these products. Some products may not have much potentiality, either because the potentiality of the products has been used, or simply because the artefacts have been defined in a way that leaves no room for development, e.g. it is very hard to use a toaster for anything else but to toast bread, though, of course, it can be used as a suicide device when thrown in a bath top.

Consequently, not all artefacts have the same amount of potentiality. This diversity also is the case when dealing with scientific concepts. Some scientific concepts are defined much more precisely than others. However, in

order to get more into depth with the development of ideas, we have to make a small detour to Peirce's hyperbolic philosophy, since it provides an excellent insight into the life of an idea, from the first hesitant iconic birth to the state of symbolicity that may predict the end of the product – in terms of semeiosis.

The hyperbolic development of ideas

Peirce's hyperbolic philosophy is very apt to describe the development of an idea, whether this idea is a scientific theory or an artefact. In an incomplete letter to "Mrs. Franklin," dated 1891 Aug 29, Peirce defines hyperbolicity in the following way:

> [The] theory is that the evolution of the world is hyperbolic, [it], proceeds from one state of things in the infinite past, to a different state of things in the infinite future. The state of things in the infinite past is chaos, […] the total absence of regularity. The state of things in the infinite future is […] the complete triumph of law and absence of all spontaneity. Between these, we have on our side a state of things in which there is some absolute spontaneity counter to all law, and some degree of conformity to law, which is constantly on the increase owing to the growth of habit. The tendency to form habits or tendency to generalize, is something which grows by its own action, by the habit of taking habits itself growing. (CP 8.318)

And further, from the article "Logic and Spiritualism (1905): […] Hyperbolic philosophy. Reason marches from premises to conclusion; nature has ideal end different from its origin." (CP 2.582) And even further from the same article:

> Hyperbolic philosophy has to assume for starting-point something free, as neither requiring explanation nor admitting derivation. The free is living; the immediately living is feeling. Feeling, then, is assumed as starting-point; but feeling uncoördinated, having its manifoldness implicit. For principle of progress or growth, something must be taken not in the starting-point, but which from infinitesimal beginning will strengthen itself continually. This can only be a principle of growth of principles, a tendency to generalization. Assume, then, that feeling tends to be associated with and assimilated to feeling, action under general formula or habit tending to replace the living freedom and inward intensity of feeling. This tendency to take habits will itself increase by habit. Habit tends to coordinate feelings, which are thus brought into the order of Time, into the order of Space. (CP 2.585)

The main points in these quotes are:

1. The general movement of evolution tends to move from spontaneity towards habit, and in this movement the object of evolution becomes constrained with habits reducing the amount of potentiality.

2. The general nature of evolution is the tendency of the meaning of a sign to become more and more habitual. 3. As a sign develops from qualisign to argument, it gradually loses potentiality, and at the same time it gains in generality.

Following Peirce, we can replace the state of spontaneity with iconicity and the habitual state with symbolicity. This is important, since any idea, whether we are discussing scientific theories or artefacts, starts from an iconic level and gradually develops (as the idea becomes used and known) into a symbol. So a particular use of an idea tends to manifest an interpretative habit in the idea.

The hyperbolic philosophy is, as far as I can see, an important part of Peircean metaphysics consisting of the movement from irregularity to generalization, as Peirce writes in the unfinished letter to Mrs. Franklin, (1891):

> A slight tendency to generalization had here and there lighted up and been quenched. Had reappeared, had strengthened itself. Like had begun to produce like. Then even pairs of unlike feelings had begun to have similars, and then these had begun to generalize. And thus relations of contiguity, that is connections other than similarities, had sprung up" (CP 8.318).

This form of semeiosis that Peirce describes above we may call a metasemeiosis, since it is a universal principle of evolution. However, what lies between these two distant and infinite points? Infinite billions of evolutionary

processes each evolving by the same principle of hyperbolicity. Moreover, because these infinite evolutionary processes share the same evolutionary principle, they all function as habit makers intending to remove or reducethe room for spontaneity and creating stable structures. This principle is the same whether we discuss sign processes in the universe, as Peirce does in his letter to Mrs. Franklin, or in nature or culture.

Consider an ordinary object - e.g. a baseball cap. Looking at the cap, the degree of interpretive freedom is very limited. We cannot just begin calling the cap 'lemonade' or 'lollipop'. If we did, it would not help us when wanting to buy a cap. When we refer to an object as a cap, then we have created another sign to represent the first sign (the object is in fact also a sign);, the sign in itself is capable of being anything from a lollipop to a baseball cap, since it has a meaning potential. It is the sign we bring to life that carries the meaning of the sign that holds limited interpretive freedom. This sign is created on the background of the culture we are part of. This culture interprets this specific sign to be a baseball cap, no more and no less. Consider the concept of *activity* stemming from OT. The sign in itself has a knowledge potential that is nearly unlimited but within the boundaries of OT, the knowledge potential is narrowed down, and the actualization of the knowledge potential - the creation of a new sign - holds much less interpretive freedom. Here, the symbol dictates how it is to be interpreted. In both examples (the cap and OT), the degree of interpretive freedom is small, which, according to the hyperbolic principle, is the result of a reduced potential of development. Symbols grow and habits unfold their interpretive powers, proliferating further

interpretations. This, however, is only true in cases where we have stable contexts – that is, a stable universe of discourse. In the case of the baseball cap, we are within a stable universe of discourse that interprets the sign as a baseball cap. In the case of activity in relation to OT, we also consider the universe of discourse to be stable. Therefore, the interpretive freedom is small. The more stable the universe of discourse gets, the less the room for spontaneity becomes. The universe of discourse occurs because habits produce habits, or as Peirce puts it, "*The tendency to take habits is something which grows by its own action, by the habit of taking habits itself growing."* (CP 8.318). However, this does not mean that signs cannot alter meaning during the course of evolution; it simply means that signs tend to create stable structures of meaning, and stability is the opposite of spontaneity – belief is the opposite of doubt. The creation of stable structures is a process that grows by its own action. Again, it is the movement from spontaneity towards regularity, based on the formation of habits. Consequently, when introducing the world to a new scientific idea or a new product, and being able to manage its knowledge, we have to reduce the element of spontaneity. In order to make this discussion less abstract, consider figure 11:

Timeline (the life of an idea)

Introduction of an idea

Iconic state   **Symbolic state**
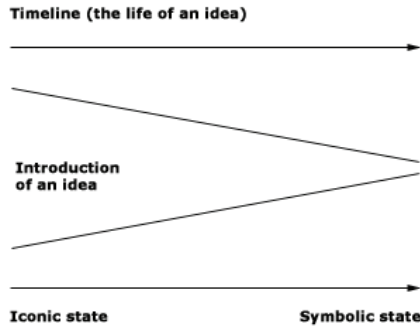
Figure 11. The life of an idea. The timeline of an idea is the movement from an iconic state into a symbolic state.

Figure 11 depicts the life of an idea. In the iconic state of the idea, that is, when the idea is introduced, it contains a vast amount of potentiality, and its development can take any direction. The oblique lines suggest the decrease in potentiality as the idea moves from an iconic state into a symbolic state. Furthermore, the oblique lines have to be understood as the use of the idea resulting in experiences that create the symbol. The core element in Peirce's pragmaticism is that the meaning of an idea is the sum of its conceivable bearings. The more we learn about an idea, the less potential the idea contains and the more symbolic the idea gets. However, the oblique lines never meet, leaving room for further development. Even the most ingrown habit contains an element of spontaneity, which enables the symbol to develop. In Thellefsen, Sørensen, Vetner and Andersen (2006), we discuss three cases of different artefacts: the automobile, the mobile phone, and electricity. Considering these cases in relation to the evolution of ideas in figure 11, it seems to be a fact that

the automobile and electricity have been symbolized, in that they only contain a small amount of potential to further development. In figure 11, they would be placed to the right (see figure 12 below):

Timeline (the life of an idea)

The automobile
electricity

Iconic state   Symbolic state
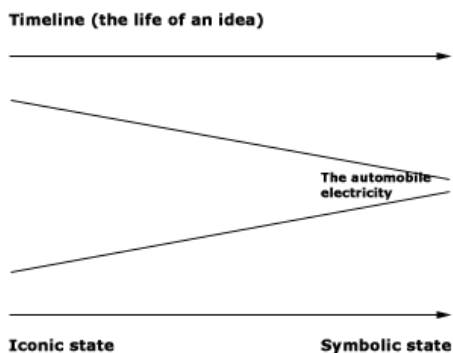
Figure 12. Examples of ideas that are at a symbolic state, containing only a small amount of potentiality.

The mobile phone is still at an iconic state moving towards a symbolic state, see figure 13.

Timeline (the life of an idea)

The mobile phone

Iconic state   **Symbolic state**
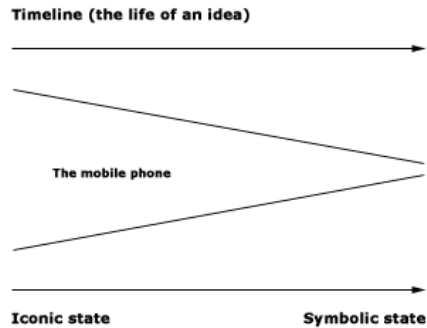
Figure 13. The mobile phone placed in its timeline. We are still learning the consequences of the mobile phone. We have probably only learned a small amount of the consequences of this particular artefact.

Returning to figure 11, it seems to be interesting when addressing scientific concepts. My hypothesis is that if we introduce a new scientific concept, and have made a thorough preliminary investigation, we are able to knowledge manage the concept in a certain direction. See figure 14:

Timeline (the life of an idea)

Scientific
concept

Iconic state   Symbolic state
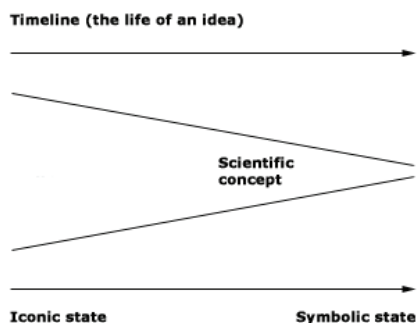
Figure 14. Introducing a scientific concept based on a thorough preliminary investigation.

If we do not apply the preliminary work, we may introduce the concept at this point in its timeline:

Timeline (the life of an idea)

Scientific
concept

Iconic state   Symbolic state
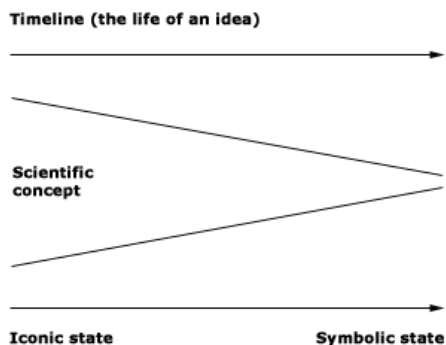
Figure 15. Introducing a scientific concept without having made a thorough preliminary investigation.

What is the difference one may ask? If we do not make a thorough preliminary investigation, which consists in in detail to clarify the concept, we may introduce a concept that is not fledged, and which may be misinterpreted and misused. However, if we in detail clarify our concept, we may be able to manage the development in the concept. And is this not what science is about, rendering concepts clear? Naturally, it can be necessary to introduce a concept containing a vast amount of potential; the point is that we have to be aware of the consequences of clarifying the concept, and the consequences of *not* clarifying the concept. In the first case we cannot manage the development of the concept. In the latter case we are able (to a certain degree) to manage the development of the concept. In the following, I will concentrate upon how to knowledge profile scientific ideas.

Knowledge profiling a scientific concept
The central case in the knowledge profile is to identify the core qualities of e.g. a scientific concept. The profile of a concept is the epistemological constraints that define the meaning of the concept. Such constraints can be understood as the habits that maintain the meaning of the concept. These habits occur in the use of the concept. Basically, when using the knowledge profile in knowledge management, we aim to create the constraining habits before the concept becomes exposed to the public. This can be done by adding prefixes or suffixes to the concept. However, before we get to this, we have to touch upon two important Peircean concepts: causa efficiency and causa finalis. In "Minute Logic (1903), Peirce defines these concepts in the following way:

Efficient causation…is a compulsion determined by the particular condition of things, and is a compulsion acting to make that situation begin to change in a perfectly determinate way; and what the general character of the result may be in no way concerns the efficient causation. For example, I shoot at an eagle on the wing; and since my purpose -- a special sort of final, or ideal, cause -- is to hit the bird, I do not shoot directly at it, but a little ahead of it, making allowance for the change of place by the time the bullet gets to that distance. So far, it is an affair of final causation. But after the bullet leaves the rifle, the affair is turned over to the stupid efficient causation, and should the eagle make a swoop in another direction, the bullet does not swerve in the least, efficient causation having no regard whatsoever for results, but simply obeying orders blindly. It is true that the force of the bullet conforms to a law; and the law is something general. But for that very reason the law is not a force. For force is compulsion; and compulsion is hic et nunc. It is either that or it is no compulsion. Law, without force to carry it out, would be a court without a sheriff; and all its dicta would be vaporings. Thus, the relation of law, as a cause, to the action of force, as its effect, is final, or ideal, causation, not efficient causation. The relation is somewhat similar to that of my pulling the hair trigger of my rifle, when the cartridge explodes with a force of its own, and off goes the bullet in blind obedience to perform the special instantaneous beginning of an act that it is, each instant, compelled to commence. It is a vehicle

of compulsion hic et nunc, receiving and transmitting it; while I receive and transmit ideal influence, of which I am a vehicle. (CP 1.212)

The "eagle"-example in this quote is very precise. Efficient causation is a causation of brute force hic et nunc, secondness that abides to the laws of nature. It is a so-called stupid causation (cf. CP 1.212). The force of the bullet as it is shot out of the riffle barrel is efficient causation, whereas final causation is a causation that evolves in a certain kind of direction. It is a causation that depends on reasoning; e.g. in order to shoot at the eagle and actually hit it, the hunter has to compensate for the speed and movement of the eagle. So, what has efficient and final causation to do with knowledge management? The short answer is: everything; the lengthier answer forces me to explain these modes of causation in relation to knowledge profiling. However, I can answer the question in this rather general way: When exposing the world to a new concept or a new product, making the necessary preliminary work, it is a situation of final causation, a lot of reasoning is taking place. Basically, the better the preparing work is done before a concept or a product is exposed in public, the greater the chance is to determine the development of the concept or product. If we were to introduce a new product to a market, first, we would investigate if there is a need for the product in the first place, second, we would investigate if there already were a related product on the market. The main point is that we have to make a thorough study whether or not the product stands a chance in the given market situation. The same is the case when introducing a new scientific concept. Here we also have to investigate

whether there already exists concepts that cover the knowledge in the new concept. If such concepts already exist, there may not be any real need for our "new" concepts; thus, we may not bring the concepts forth. Peirce made an ethics of terminology, which set up basic norms for developing scientific concepts. In my article "The Ethics of Terminology revisited" (2004), I added three new rules to Peirce's codex. These ten rules are the following:

First. To take pains to avoid following any recommendation of an arbitrary nature as to the use of philosophical terminology.

Second. To avoid using words and phrases of vernacular origin as technical terms of philosophy.

Third. To use the scholastic terms in their anglicised forms for philosophical conceptions, so far as they are strictly applicable; and never to use them in other than their proper senses.

Fourth. For ancient philosophical conceptions overlooked by the scholastics, to imitate, as well as I can, the ancient expression.

Fifth. For precise philosophical conceptions introduced into philosophy since the middle ages, to use the anglicised form of the original expression, if not positively unsuitable, but only in its precise original sense.

Sixth. For philosophical conceptions which vary by a hair's breadth from those for which suitable terms exist, to invent terms with a due regard for the usages of philosophical terminology and those of the English language but yet with a distinctly technical appearance. Before proposing a term, notation, or other symbol, to consider maturely whether it perfectly suits the conception and will

lend itself to every occasion, whether it interferes with any existing term, and whether it may not create an inconvenience by interfering with the expression of some conception that may hereafter be introduced into philosophy. Having once introduced a symbol, to consider myself almost as much bound by it as if it had been introduced by somebody else; and after others have accepted it, to consider myself more bound to it than anybody else.

Seventh. To regard it as needful to introduce new systems of expression when new connections of importance between conceptions come to be made out, or when such systems can, in any way, positively subserve the purposes of philosophical study.

Eight. When combining concepts, be careful to examine the epistemological basis of the concepts in order to ensure that the concepts are compatible.

Nine. Always be sure to use the most precise state of the concept, either as a concept combination, e.g. biosemiotics, or as a precision phrase in order to express the meaning of the concept or phrase.

Ten. Always return to selected concept combinations and be ready to clarify the meaning of the combination if the focus of the concept alters.

The point of having an ethics code for developing terminology is to ensure that scientific theories, which are the main product of science, gets a kind of moral copyright: we do not steal each other's scientific ideas and take credit for them. Instead, when we use other researchers' scientific ideas we quote the scientists, and by referring to a given researcher we build upon and add further to what Peirce calls the growth of the concrete reasonableness (cf. CP 5.3) in

our attempt to render the world a little more intelligible (cf. CP 1.615). In fact, Peirce's main motivation for developing the ethics of terminology was to mature philosophy so that it would reach the same degree in scientific status as the natural sciences. This never happened to philosophy, maybe because of the unwillingness of philosophers to share ideas, or because not all would agree with Peirce on the role of philosophy. Consequently, Peirce's struggle did not as such succeed - maybe because the task was and is a mission impossible. However, the ethics of terminology in its revised version offers a platform for developing scientific concepts that can easily be combined with how to knowledge manage scientific concepts. In the following, I will take a closer look at how to knowledge manage scientific concepts by implantation of telos into concepts.

Knowledge profiling a concept by implanting a telos

Consider the concept *semiotics*; this concept is very broad and abstract. It contains any kind of semiotics; both the Saussurian inspired sémiologie and the pragmatic semeiotics of Peirce, the semiotics of Charles Morris, etc. It is obvious that *semiotics* in this state is close to being useless. We have to narrow down its meaning to be able to manage the concept.
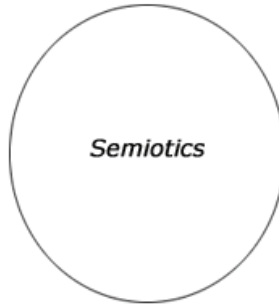
Figure 16. The idea of the figure is to show the knowledge potential of semiotics. Naturally, it is difficult to depict a knowledge potential of a concept, since the potential is only a mere positive possibility. However, consider the knowledge potential of semiotics to cover all kinds of semiotics, and this should provide an idea of how abstract this concept is.

In order to narrow down *semiotics* to a proper size we can handle, and where it becomes more precise, we may add a prefix or extra syllable to semiotics. In this case such a prefix or syllable could be bio, cyber, psycho, zoo, e, etc.
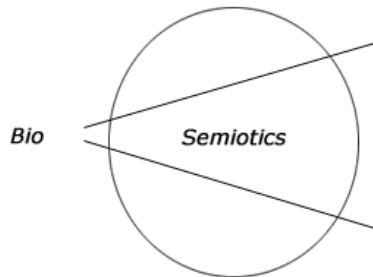
Figure 17. By adding the prefix *bio*, a lot of the knowledge potential of semiotics is removed. And as the figure suggests, a telos has been added to semiotics, namely *bio*.

We are able to reduce the knowledge potential of a given concept by adding prefixes. Biosemiotics is a more precise concept than semiotics. Consequently, we are able to manage concepts by prefixing syllables to abstract concepts.[16] Returning to Peirce's definition of final causation: adding a prefix to a concept is a matter of implanting a telos or a logical interpretant, and it is a matter of final causation. Consequently, adding a telos to a concept is a way of determining the development of the concept in a certain direction, indeed, it is a way of managing the knowledge contained in the concept. However, prefixing bio to semiotics creates a new abstract concept: biosemiotics, which shares epistemological qualities with semiotics. But, biosemiotics also rule out most of the structuralistic semiologie, and it adds knowledge to the basic concept: semiotics. While prefixing bio to semiotics, one could add an extra e to semiotics and remove the s, then one would have biosemeiotic. This concept clearly states that this version of biosemiotics is based on a Peircean semeiotic. Returning to Peirce's definition of final causation, final causation is not the purpose of a development; it is the development in a certain direction, as Peirce notes:

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[16]Peirce was not happy with the way his concept pragmatism evolved. Therefore, he added the extra syllable *ic* to pragmatism getting *pragmaticism*. The renaming of the scientific theory was an attempt to determine the development of pragmaticism in a certain direction. I believe this was a deliberate attempt to knowledge manage a scientific concept.

…we must understand by final causation that mode of bringing facts about according to which a general description of result is made to come about, quite irrespective of any compulsion for it to come about in this or that particular way; although the means may be adapted to the end. The general result may be brought about at one time in one way, and at another time in another way. Final causation does not determine in what particular way it is to be brought about, but only that the result shall have a certain general character. (CP 1.211)

Based on this definition of final causation the telos of a concept makes the concept develop in a certain and general direction, it becomes embedded with a logical interpretant. The general result of the final causation of a concept is the transformation of potentiality to facts, resulting in general knowledge. Let us return to biosemiotics to clarify the final causation.
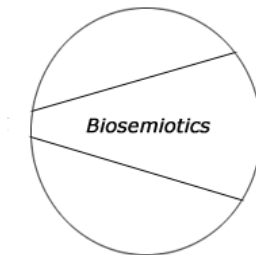
Figure 18. Biosemiotics is created within the knowledge potential of semiotics, sharing the same qualities as semiotics. However it has been granted a telos, thereby making

biosemiotics develop in a certain direction ruling out most of the structuralistic inspired semiology.

The lines in the figure suggest that the development of the concept is out and forward. This idea of movement is in fact similar to Peirce's concept of prope-positivism. The following passage from "Peirce's Pragmatism – The Design for Thinking" (2001) by the American Peirce scholar Phyllis Chiasson describes this particular type of positivism:

> Peirce's brand of Prope-positivism allows for realities that are general concepts, including values, potentials, and possibilities. Peirce holds that even things you cannot touch, such as general concepts, purposes, and values, are real things. Just because you cannot speak of something does not mean that it is not real. For Peirce, any subject is real as long as it possesses qualities sufficient to characterize it, whether or not anyone ever knows what those qualities are. His concept of reality holds that something can be true even if it has never occurred and even if it is an idea no one has previously thought. (: 75)

Consequently, when adding a telos to a concept that demarks the prope-development in the given concept, we are able (however, only to a certain degree) to manage the knowledge development of the concept, thus, we are able to decide the general direction of development. However, as figure 18 suggests, the development of biosemiotics is still very unmanageable. If we are to manage our concept, we must make a more precise definition of the

concept. Metaphorically speaking, we must tighten the lid of the concepts eye, so to speak.

The eye of the concept

The eye metaphor is very important because it suggests that we are able to focus the meaning of a concept, that is, narrow or broaden the lines in the concept according to our particular scientific purpose. If we want to develop a concept that has to be very precise, not allowing much room for unnecessary interpretations, the lines becomes closer and we squint the eye (see figure 19).
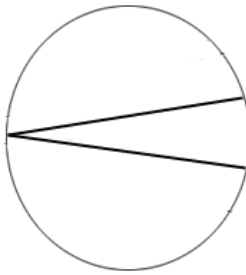
Figure 19. The squinting of the eye suggests that we are making a very precise definition of the particular concept, reducing the power of the knowledge potential. We close the concept, so to speak.

And if we want our concept to be interpreted in a broader sense, we open the lines, thus opening the eye of the concept (see figure 20).
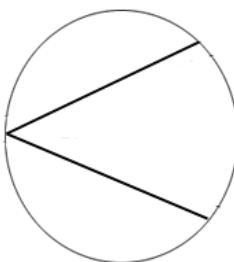
Figure 20. The opening of the eye suggests that we make an imprecise definition of a particular concept, expanding the knowledge potential and causing the concept to be in danger of falling victim to the chaotic knowledge potential. We open the concept.

In some situations it may be useful to be able to manage concepts in both ways. In cases where the knowledge profile has been applied it has been used to make researchers in the knowledge domains focus upon the purposes, ideals and goals of the knowledge domains. By focussing and tightening the eyelids, the actors in the knowledge domain are forced to make epistemological choices, which could be scientific descriptions of central concepts in the knowledge domain. This forces the actors to be aware of the concrete meaning of concepts. In my experience, this can be a problem especially within the humanities, where many concepts are defined much more loosely. However, since the knowledge profile is developed within the doctrine of pragmaticism I do believe that concepts have to be defined in a precise way in order to make our ideas clear.

In the following I will present three cases that show the knowledge profile in use.

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Case 1 - Knowledge profiling the knowledge domain of MARKK[17]

In 2003 I was asked to draw a knowledge profile of MARKK[18]. In the following I will describe the project. In 2003, MARKK[19] was a research unit within Market Communication and Aesthetics at Aalborg University. It was founded in 2002 by a group of four senior researchers who have been working within this field in various, more or less formalised, groupings for at least a decade. The reason for establishing MARKK was primarily to create a permanent organisation for developing the knowledge domain. Secondly, the intention was to integrate junior researchers and PhD-students into more formal research programmes. The wish to create a platform for external funding was a third reason for this initiative. In 2003 MARKK consisted of 10 members and offered frequent seminars on research topics. As a research unit, MARKK focused – I suppose they still do - on aesthetic aspects of Market Communication in order to:

Examine the aesthetic potentials of the formal features of Market Communication; investigate the impact of aesthetics on cognition in the moment of exposure; understand by which means and in which ways Market Communications has a bearing on culture (and cultural change), e.g. on influencing the ideas and values of the consumer or on shaping concrete forms of practice (habits, rituals, etc.).

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[17]The case is written together with Christian Jantzen.
[18]**M**arket communication and **A**esthetics: **R**eception (exposure), **K**ognition and *K*ulture.
[19] I have not been involved with MARKK since 2006, so I do not know the status of the research group.

The epistemological basis of MARKK

In order to draw the knowledge profile of MARKK, the group consisting of the four senior researchers and I held several research meeting. At these meetings, the four senior researchers agreed on the following epistemological basis of MARKK:

Aesthetics

Aesthetics in Market Communication

Formal aspects of Aesthetics in Market Communication

Formal aspects of Aesthetics in Market Communication from a structuralistic perspective

Formal aspects of Aesthetics in Market Communication from a structuralistic perspective with focus on the process of signification in the moment of exposure

Formal aspects of Aesthetics in Market Communication from a structuralistic perspective with focus on the process of signification, understood as the intertwining of cognition and culture, in the moment of exposure

The point of departure in MARKK is not Market Communication but Aesthetics, which defines MARKK as a humanistic approach, and not a marketing approach. This is step 1, which is a crucial one because it is seminal for the ideas, methodologies and other ways of practising research (organising and presenting knowledge) in MARKK. But in step 2, it is stated that MARKK is about aesthetics in a specific field (Market Communication). So, it is neither about the philosophy of aesthetics nor about art, nor media aesthetics in

general. MARKK is solely interested in aesthetics that serve market communicative purposes: to convince consumers/receivers of the necessity of a certain product. Thus MARKK studies aesthetic phenomena – or artefacts – like advertisements, logos, brands and design.

MARKK's interest in the formal aspects of these artefacts means: 1. that expression is favored over content; 2. that these artefacts are treated like texts, i.e. as a coherent and defined structure of meaning (or signification). This is step 3. Because these formal aspects are analysed from a structural(istic) perspective, the focus will be on structuralistic issues like the coding of the text, the system of meaning and the formal structure of the artefact (step 4). The next step (5) informs us that MARKK is not about the meaning of these formal structures *per se*, but about how the receiver/consumer uses the text/message, and about how formal structures effect – influence or determine – the response of the receiver in the moment of exposure. In step 6, it is pointed out that *effect* and *use* is viewed as a dynamic relation – a dialectics – between cognition and culture. This intersection is made up of patterns or schemes of emotion, embodiment and thinking.

Having identified the epistemological basis of MARKK, we have also identified the consequences of the epistemological basis. The consequences thus correspond to the level of abstractness in the epistemological basis. I have listed the consequences as follows:

The consequences of the epistemological basis of MARKK

Ad 1. The Humanities (history, analysis, interpretation, evaluation, taste)

Ad 2. A humanistic approach to Market Communication (focusing on artefacts produced to serve marketing purposes)

Ad 3. Artefacts understood as texts with focus on their formal features

Ad 4. System, structure, code (paradigms/syntagms)

Ad 5. Situational aspects of effect and use

Ad 6. Schemes of emotion, embodiment and thinking

To sum up, this gives us an overall knowledge profile of MARKK:

The epistemological basis of MARKK	The consequences of the epistemological basis of MARKK
Aesthetics	The Humanities (history, analysis, interpretation, evaluation, taste)
Aesthetics in Market Communication	A humanistic approach to Market Communication (focusing on artefacts produced to serve marketing purposes)
Formal aspects of Aesthetics in Market Communication	Artefacts understood as texts with focus on their formal features
Formal aspects of Aesthetics in Market Communication from a structuralistic perspective	System, structure, code (paradigms/syntagms)
Formal aspects of Aesthetics in Market Communication from a structuralistic perspective with focus on the process of	Situational aspects of effect and use

signification in the moment of exposure	
Formal aspects of Aesthetics in Market Communication from a structuralistic perspective with focus on the process of signification, understood as the intertwining of cognition and culture, in the moment of exposure	Schemes of emotion, embodiment and thinking

As mentioned earlier, the basic aim of knowledge profiling MARKK was to clarify the use of terminology amongst the researchers within MARKK, and to identify the unique normative fundamental sign of MARKK in order to be able to make a realistic representation of MARKK's socio-cognitive knowledge organization.

When focusing upon the use of terminology, the concepts are often filled with disturbing denotations that make the meaning of the concepts seem unclear, not just to the members of the knowledge domain, but also to people outside the knowledge domain. Naturally, this will lead to misinformation and misunderstandings. Therefore, I have used the knowledge profile to clarify the use of terminology in MARKK. Furthermore, I have clarified the scientific profile of the knowledge domain. I have clarified the terminology of MARKK to a degree where the terminology is almost free of disturbing denotations, and where it should be almost beyond a doubt what the focus of MARKK is. Moreover, I have identified the normative fundamental sign of MARKK as:

Formal aspects of Aesthetics in Market Communication from a structuralistic perspective with focus on the process of signification, which is understood as the intertwining of cognition and culture. With focus upon schemes of emotion, embodiment and thinking.

This is the normative fundamental sign of MARKK and it is this normative fundamental sign that clarifies the meaning of the concepts in use. Moreover, the normative fundamental sign is the basis of the conceptual structure depicted in figure 21.
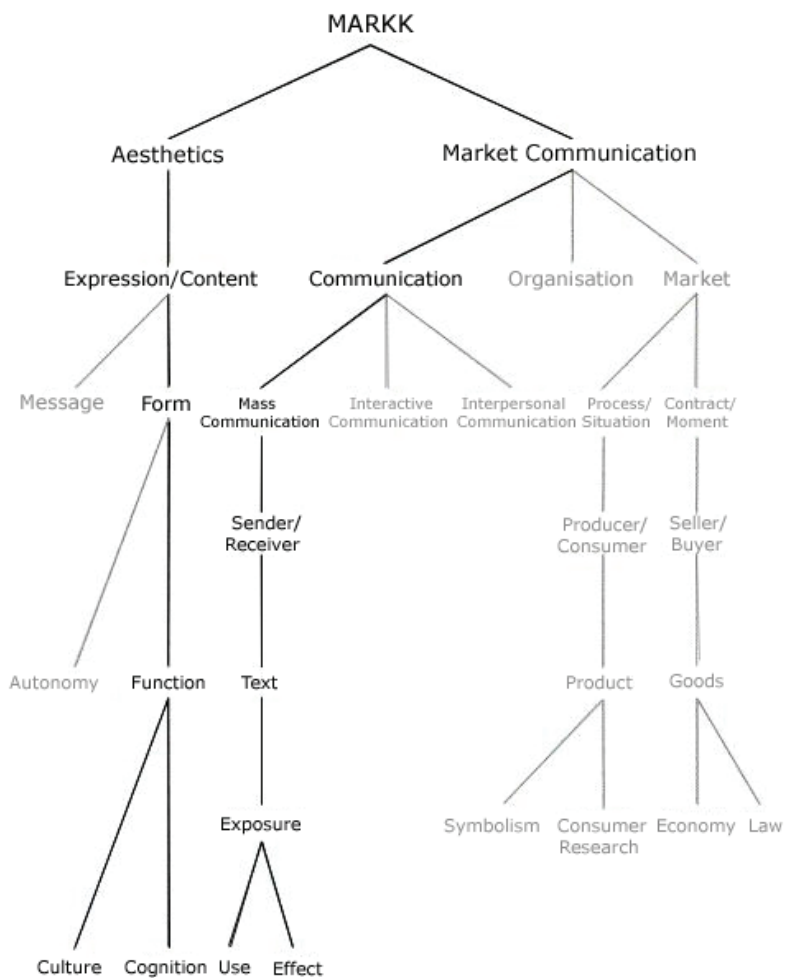
Figure 21. The knowledge map of MARKK

The knowledge map is not solely built upon a top-down structure. It is a construction based upon the normative fundamental sign of MARKK and the consequences of the normative fundamental sign. This renders the knowledge map prior to any hierarchical structure, and it necessitates knowledge mapping as a prior activity to building e.g. a thesaurus or other hierarchical structures.

This conceptual structure is a graphic representation of key concepts in MARKK. As already elaborated, MARKK is concerned with *Aesthetics* in *Market Communication*, which makes these two terms the basic related concepts.

Within the field of Humanities, aesthetics is related to the dialectics of *expression* and *content* in the signification process. As stated in the epistemological basis, MARKK's prime interest is in *form* favoring expression instead of content. The intended meanings or ideological values of the message are therefore in the background (and therefore grey or dim in the graphic representation above). In regard to a long lasting debate within aesthetics between autonomists (stressing that aesthetics concerns "a purpose without purpose" or "l'art pour l'art") and functionalists (stressing that aesthetic form should be shaped in accordance with the practical purpose of the object), MARKK favors *function*. This is due to MARKK's structuralistic approach. Function is analysed in terms of *cognition* (schemes) and *culture* (patterns).

The second basic concept for MARKK is Market Communication. It is a field where communication studies meet marketing, management (organisation studies) and other social sciences. MARKK's prime interest is in *communication*: i.e. the transmission and creation of meaning. In other words,

as the communicative aspects of market communication are stressed, other aspects such as market and organisation are more peripheral to MARKK. Communication is a process, and MARKK's interest is on *mass communication* (pushing e.g. interpersonal communication into the background). The actors within mass communication are conceived as *senders* (active) and *receivers* (passive and massive). What MARKK actually analyses and investigates in this process between senders and receivers are, according to the epistemological basis, *texts:* aesthetic relations of expression and content in a coherent and defined structure which serve one or more functions. In other words, texts are the manifestations of aesthetics in communication processes. These texts are analysed in respect to the ways in which they function for the receiver in the moment of *exposure* (or reception). These ways are pinpointed either in terms of *effect* or *use*, terms mirroring cognition and culture in the string of related concepts of aesthetics.

The graphic representation of the conceptual structure of MARKK consists of two main strings of related concepts that specify how aesthetics and market communication should be understood in a MARKK perspective. In other words, these two strings inform us of what MARKK is concerned with: the specification of aesthetics, market communication, expression/content, form, function, etc. This specification develops in a displacement of meaning that points out and defines the normative fundamental sign of MARKK by narrowing down the knowledge domain. The logical interpretant of the normative fundamental sign is realised during this process.

Moreover, this narrowing down should be understood as a continuous process of clarifying the focus of the domain, thereby shaping a more and more precise foreground. In this process, other concepts move into the background. They are not the prime focus of MARKK but, on the other hand, they are not to be discarded when dealing with the concepts in focus. They still give meaning to the strings of primary concepts. For example, the reason why market communication is a specific form of communication is the fact that the goal of the sender of market communication is to convince the receiver to buy the object of the text: that is, to become a customer and a consumer. So, market communication is communication which intends to transform receivers into buyers/customers and consumers through texts on the goods to be acquired (implying law and a monetary system) and the products to be appropriated (implying consumption and meaning creating acts when consuming the product).

To grasp these two different kinds of relations, the graphic representation features concepts in bold and others in grey/dim. The strings in bold represent the *basic* or *primary* conceptual structure of relations. The strings in grey represent *secondary* relations to the normative fundamental sign which, being in the background, nonetheless hold relevant information in regard to the prime concepts. The primary concepts are the relations that MARKK should constantly keep in mind. The secondary concepts are relations that MARKK should not neglect.

To summarize, the normative fundamental sign contains the qualities of MARKK and it is the manifestation of the interpretative habit that constrains

these qualities and makes them identifiable. Consequently, the qualities of the normative fundamental sign are displaced from the normative fundamental sign to the related terms in the conceptual structure. The abstract and yet precise normative fundamental sign becomes the center in the common cognitive structure of MARKK, and the related terms become manifestations of the normative fundamental sign. These manifestations, e.g. aesthetics, market communication, culture, and cognition, etc., are all interpreted in relation to the normative fundamental sign.

This means that the specific MARKK-understanding of aesthetics is formed within the normative fundamental sign. MARKK is not about all kinds of aesthetic objects but is only interested in artefacts that fulfill purposes of market communication. Furthermore, MARKK is not interested in how these objects serve as works of art in their own right (industrial design as the art form of modern society or in commercials as art), or how these works have an ideological function (by glorifying values of consumerism). MARKK's focus on aesthetics is in terms of cognition (effect) and culture (use) determined by the function of the object's formal structure. In other words, the normative fundamental sign carves out the MARKK position in the debate on aesthetics, stressing a functionalistic and structural approach to a relatively well-defined range of aesthetic objects.

Some Reflections

This case study has as its purpose to show the usability of the knowledge profile. The theoretical discussions of MARKK have absolutely nothing to do

with my semeiotic point of departure. In order to draw the knowledge profile of MARKK, I gathered the senior researchers of the group, told them about the knowledge profile, the method, what I expected from them and how to draw the knowledge profile. During 5 or 6 sessions the group of researchers identified MARKK's epistemological basis and the consequences of it. Based on this data, I drew the conceptual structure. Showed it to the group and edited it to suit their comments. When the knowledge profile was finished, including the conceptual structure, the knowledge profile was discussed in plenum in MARKK. At that time MARKK consisted in around 20-25 members.

The problem of such a process is of course that it alone was the senior researchers who defined the knowledge profile and forced it upon the other members, who of course could object to it, but did not have the institutional power to change the profile. So this process was not in any way democratic, and it is very doubtful if there in MARKK existed a sense of community – a feeling of belonging to the community. In a way, MARKK had a normative fundamental sign, but it lacked the sub-cognitive fundamental sign. The survival of such knowledge domains depends on the institutional power, and not the search for truth or any other idealistic claims. Of course, there existed a sub-cognitive fundamental sign between the four senior researchers. It is however very doubtful if this sub-cognitive fundamental sign was shared by others in MARKK.

Case 2 - Knowledge Profiling the OT Concept of Occupation[20]

Within the recent four years, I have tried to capture the essence of Danish OT in order to create a point of departure for making a realistic knowledge representation of OT, which in the long run should provide the basis for a scientific development in Danish OT. The basic assumption is that a stringent and well-developed terminology is an essential part for a knowledge domain to become scientific. Moreover, it is important to make the basic ideas of a knowledge domain clear in order to communicate them both internally to the actors in the knowledge domain, and externally to the world outside the knowledge domain. The project is based on the belief that in order to create a realistic representation of Danish OT, it is a must to identify the basic epistemological qualities of OT. By epistemological qualities I mean the knowledge features that make Danish OT unique and different from other knowledge domains. I strongly believe that knowledge is organized in respect to the goal(s) and ideal(s) of a knowledge domain, and that the goal(s) containing the ideals and the knowledge in the knowledge domain are so integrated that it is impossible to separate them, let alone understand the goal(s) without understanding the knowledge domain. As we shall see when I analyse OT: The goal of OT is to prevent loss of occupational capacity, and to rehabilitate patients who have lost occupational capacity; hence, knowledge seems to be organised according to this goal.

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[20]The case is written together with Occupational Therapist and PhD Lisbeth Villemoes Sørensen

The ideal of OT is based on a particular view of the nature of human beings and their occupation. According to Dr. Elisabeth Yerxa (1992), this ideal is based on the following:

> The person is active, capable, free, self-directed, integrated, purposeful, and an agent who is the author of health-influencing activity. The activity, occupation, also has implicit qualities. It is significant, organized, involving, intentional, goal-directed, autotelic, and adaptive. Occupation is both a human process (the engagement) and an outcome, for example, health through increased skill, competency, or efficacy. OT is concerned with the person and his or her occupation, which takes place in an environment. The roots of the profession are grounded in a complex, rich soil that has provided both strength and special dilemmas. (p. 79)

However, to make a realistic representation of Danish OT has proven to be a considerably more difficult task than expected. The difficulties are primarily based on the fact that OT in Denmark is not scientifically grounded. The lack of scientific research creates a major problem. Within the Danish branch of OT there seems to be a consensus of what OT is and what the core of OT is. However, this consensus is unspoken; it primarily exists as logica utens. No stringent scientific terminology has been developed; no scientifically derived nomenclature or classification schemes have been developed. On top of this, there seems to exist a fear of developing a stringent terminology, a fear of

being caught in constraining definitions that will not allow concepts to bloom and flourish. Based on a general lack of scientific education, only few occupational therapists seem to be willing to take the responsibility for defining a stringent terminology since this could create a lot of resistance from members of the knowledge domain who disagree in the concept definitions. This leaves Danish OT in a situation where no one is taking responsibility for directing the terminological development of Danish OT, and this makes the scientific development a lot more difficult than it has to be. However, Lisbeth Villemoes Sørensen and I were up for the challenge. Therefore, the aim of this case was:

- To propose a definition of the OT concept *occupation* by drawing the concept's *knowledge profile that proposes* a definition of the concept that can form the basis of making a realistic representation of OT's knowledge organization, and furthermore is able to create the background for the scientific development of Danish OT.
- To clarify that the development of a stringent terminology indeed is one of the most important features when maturing a knowledge domain towards scientific status.

It was also our aim to show Danish occupational therapists that Danish OT indeed has the potential of becoming scientific. However, before we start the knowledge profiling activity, let us briefly:

1) Explain the background for this case, and
2) Make a general definition of occupation.

Activity as the fundamental sign of OT

As mentioned in the beginning, I have worked for almost four years trying to develop a realistic representation of the knowledge structures in Danish OT. I have not reached this goal; however, I have identified the concept of *activity* to be the fundamental sign of OT, meaning that activity is the most abstract yet most important concept in OT.

Activity or Occupation

OT started as a profession in Denmark in the 1930s, with the objective to provide occupation for diseased people which could have the effect of withdrawing attention from their illnesses. The profession has moved, synchronously with the cultural development, from the starting point where handicrafts were provided as occupation for diseased people to a focus on providing possibilities for occupation in everyday life for people who have limited possibilities of occupation, at home, at work and in leisure. The focus of the profession is also to prevent loss of possibilities for occupation in everyday life. A basic OT premise is that humans require to be engaged in creative, productive and playful pursuits in order to flourish (cf. G. Kielhofner 1997: 57). The premise has roots in a core construct that Adolph Meyer set forth in 1922, concerning the role of occupation in human life:

> Our conception of man is that of an organism that maintains and balances itself in the world of reality and actuality in active life and

active use, i.e., using and living and acting its time in harmony with its own nature and the nature about it. It is the use that we make of ourselves that gives the ultimate stamp to our every organ. (Meyer: 5).

From this starting point, OT has changed over time. In 1956, Denmark passed legislation about work-rehabilitation for handicapped people. In the following years, the OT profession added an active rehabilitation perspective to their professional field of responsibility, which implied that activities were arranged in a specialised way so they could meet the needs of retraining functions for patients who had damaged their physical condition by illness or accidents and for patients with psychiatric illness or disorders. Up to the middle of the 1970s, the majority of occupational therapists worked in hospitals and in institutions for handicapped people, but legislation about public support for technical aids to the handicapped offered new opportunities for occupational therapists to work outside hospitals and institutions and closer to peoples' everyday life in their homes and local community, also called *community-based OT*. Around 1980, political attention was drawn to the health damaging effects of hard and repetitious physical work. The perspective of prevention of physical work strain, which threatens health, was added to the professional responsibility, and occupational therapists also became employed in private companies. Today, there is also great concern about psychological work strain, and this area is also covered by occupational therapists.

Today, the professional field of OT in Denmark is comprehensive, and it covers implementation of healthy occupation for people in all ages, from

newborn children to the very elderly, to maintain or to improve occupational capacity, and to prevent unnecessary reduction of occupational capacity of physical, mental, and social problems. It also covers the field of rehabilitation of people with congenital handicaps. Occupational therapists are employed in hospitals, institutions and in private companies.

Through the history of OT in Denmark, the core concepts have been human occupation and activity. The word Occupation has several meanings. In the book "An Occupational Perspective of Health", the Australian OT researcher Ann Wilcock uses occupation to refer to all purposeful human activity that engages time and attention. Activity is defined as:

> ...the state of being active; the exertion of energy, action and, like occupation, describes specific deeds or actions. It is often used interchangeable with occupation and occupation remains the word that can be used for all types of activity and is therefore the most appropriate word to use (: 24).

Nationally and internationally, there is an ongoing discussion about what the core concept in OT is, and there is no complete consensus about the differences in meaning of *occupation* and *activity*. The concepts are not interchangeable, but in literature they are often used synonymously. However, as I agree with Wilcock, I mean that *occupation* is the concept that best captures the epistemological qualities of OT, because I understand *occupation* as referring to the performance/act of work, play or activities of daily living

within a temporal, spatial and socio-cultural context that characterizes most of human life. This is the target field of occupational therapists.

The professional field of OT in Denmark provides occupational therapeutic intervention to people who have lost or who are in risk of losing capacities, functions, etc. which make them able to undertake important occupations necessary for maintaining their mental and physical health and necessary for undertaking daily activities at home, at work and in leisure.

As this general definition of occupation seems to confirm, there exists in Danish OT a common and general, however mostly sub-cognitive understanding of occupation. In the following, we will clarify this general definition, and try to bring the concept of occupation a step further towards a more stringent and narrow definition by drawing its knowledge profile. We start by identifying the epistemological basis of *occupation*:

The epistemological basis of Danish OT

We follow the six step method of the knowledge profile presented earlier in this chapter.

1. Draw the knowledge profile of your concept, your project or your knowledge domain by identifying its epistemological basis and the consequences of this epistemological basis. *We place occupation in the middle of the knowledge profile.*

2. Consider what theoretical basis you want to unfold upon the research object, identify the most general state. Place the most general state of theory

on the first line in the upper left side of figure one. *We write Occupation as the most general state of the concept.*

3. Consider how to clarify this general mode by prefixing or suffixing terms to the concept. Since occupational therapists work with humans and not animals, *we prefix occupation with human and get Human Occupation*.

4. Consider whether you can clarify the concept/phrase even further, e.g. by using a theory within the theory that narrows down the knowledge potential of the concept, or use another theory that can make your concept or project more precise. In Gary Kielhofner's book "Conceptional Foundations of Occupational Therapy" (2004), he presents the following definition of the paradigm of occupation in the following way:

> 1) Occupation plays an essential role in human life and influences each person's state of health.
> 2) Occupation consists of alternation between modes of existing, thinking, and acting, and requires a balance of these in daily life
> 3) Mind and body are inextricably linked
> 4) Idleness (lack of occupation) can result in damage to body and mind
> 5) Occupation can be used to regenerate function. (: 38)

Therefore, *we clarify Human occupation by adding Everyday Human occupation capacity*.

5. Consider whether you need to clarify your concept even further, or if you are ready to identify the consequences of your concept.

Since the occupational therapist only enters the picture when a patient suffers loss of or is in risk of losing occupational capacity, *we add Everyday Human Occupation (loss of) capacity reduction to Everyday Human Occupation capacity*. Working on the knowledge profile of occupation, we have identified this epistemological basis:

The epistemological basis of occupation
Occupation
Human Occupation
Everyday Human Occupation
Everyday Human Occupational Capacity
Everyday Human Occupational Capacity Reduction (or risk of)
Intervention to compensate for Reduction or Risk of Reduction of Everyday Human Occupational Capacity.

The last point is the most precise and clarified state of occupation. This point simply defines occupation as "Intervention to compensate for Reduction or Risk of Reduction of Everyday Human Occupational Capacity". This point also seems to be a plausible normative fundamental sign of Danish OT. However, having identified the epistemological basis of occupation, we have to identify

and discuss the consequences of the epistemological basis, since the meaning of the epistemological basis and hence the normative fundamental sign resides in its consequences. We have tried to let the consequences correspond to the level of abstractness in the epistemological basis. We have listed the consequences as follows:

The consequences of the epistemological basis of occupation

Ad 1). Occupation is part of the human condition; human activity engages time and attention.

Ad 2). Human Occupation consists of the three basic non-reducible elements: to think, to be and to act.

Ad 3). Everyday Human Occupation is a balance between thinking, being and acting in everyday normal life; a balance that makes it possible to live a normal life.

Ad 4). Everyday Human Occupation Capacity is the result of a complex interaction between several elements in the person, in the physical environment and in the demands of the social environment.

Ad 5). Everyday Human Occupation Capacity Reduction is a result of a complex interaction between many elements. Many reasons can trigger it, e.g. if the person is hit by physical or mental illness, if the physical environment changes, or if the demands in the social environment are higher that the person can fulfil.

Ad 6). Intervention to compensate for Reduction or Risk of Reduction of Everyday Human Occupational Capacity. The Western cultural has high

demands for the capacity of acting, and pays less attention to the necessity of thinking and being. That is why OT-intervention is principally directed towards acting in relation to the activities of daily life, work and play. OT works with adaptation of the demands of the physical and social environment to make sure that the balance between the three elements (acting, thinking and being) is maintained, and to make sure that the demands are reasonable in relation to the person's mental and physical capacity.

Occupational Therapists also work with adaptations of the demands of the activities. As an example, a person may have difficulties in walking, but has to do her own cooking; the kitchen can be rearranged so that cooking can be done while sitting and moving around in a wheelchair. Another example is when a person has difficulties in organizing daily life; the occupational therapist can help the person to find alternative ways of organizing daily life. Perhaps a person gets tired after having a bath, and he will then get the advice from the occupational therapist not to take the bath in the morning, but before bedtime. If a person has reduced lung capacity, it is necessary to organize daily activities in an energy preserving scheme where oxygen-demanding activities alternate with less oxygen-demanding activities. Occupational therapists also deal with health promotion such as stop smoking-activities, physical activities, healthy work, safety in traffic and many other topics in order to maintain health and to reduce risk of losing Everyday Human Occupational Capacity

Basically, OT has a humanistic, individual approach; this is pointed out in the goal described at the beginning of the case. The first thing an occupational

therapist identifies in a patient is the needs of the patient. The occupational therapist's approach is adapted to the patient, and it will consider the size of his loss of or his risk of losing occupational capacity to carry out his everyday activities. These considerations are primarily focused on the hindrances in carrying out his daily activities: are the hindrances found in the environment (physically and/or socially), or are they "within" the patient's physical or psychological health? Following these superior considerations, more specific examinations and analyses are made. These examinations and analyses are based on knowledge from humanities and from sociology and the natural sciences.

Occupational therapists regard the everyday human occupational capacity as dependent on the person's mental capacity in close and complex interaction with the physical and social surroundings and the demands of the everyday occupations.

Therefore, it can be concluded that OT is based primarily on transdisciplinary knowledge, and on the basic belief that every individual is unique and that occupational therapists recognize and identify individual needs of OT intervention to maintain or improve their occupational capacity. To sum up, this gives us an overall knowledge profile of occupation:

The Knowledge profile of Occupation

Epistemological basis

1. Occupation

2. Human Occupation

3. Everyday Human Occupation

4. Everyday Human Occupational Capacity

5. Everyday Human Occupational Capacity Reduction (or risk of)

6. Intervention to compensate for Reduction or Risk of Reduction of Everyday Human Occupational Capacity.

Consequences (reduced)

Ad 1) Occupation is part of the human condition.

Ad 2) Human Occupation involves thinking, being and acting.

Ad 3) Everyday Human Occupation is a balance between thinking, being and acting in everyday normal life.

Ad 4) Everyday Human Occupational Capacity is a complex interaction between many elements in the person and in the physical and social environment.

Ad 5) Everyday Human Occupational Capacity Reduction (or risk of) is a complex interaction between many elements, e.g. physical or mental illness or changes in the physical or the social environment.

Ad 6) Intervention to compensate for Reduction or Risk of Reduction of Everyday Human Occupational Capacity means that OT intervention is principally directed towards acting in relation to the persons activities of daily life, work and play.

Point 6 and ad 6, is the most precise definition of occupation. It is from this point I believe the scientific journey of Danish OT may begin.

Conclusive remarks

No doubt, it is possible to outline a normative fundamental sign for OT as suggested in the above. However, this is only a small step in making Danish OT scientific. There will be several paradigmatic battles to be fought before ending up with a normative fundamental sign that can be used as a basis for knowledge organizing OT. Remember the metaphor "the eye of the concept". The eye of OT is wide open, it must be more focused. Danish OT is in many ways very different than MARKK. It does not have a normative fundamental sign as MARKK does. It does have a sub-cognitive fundamental sign, though. Occupational Therapists definitely share a feeling of ours. I believe that the four senior researchers in MARKK shared a sub-cognitive fundamental sign, but it was not shared by others in the knowledge domain. I believe it is easier for OT to create a normative fundamental sign than it is for MARKK to create a sub-cognitive fundamental sign.

Case 3 - Knowledge profiling Peirce's concept of esthetics[21]

Peirce himself did in fact give us the structure and all the answers regarding a knowledge profile of esthetics, since he placed esthetics in the classification of the sciences as the first of the normative sciences.

Consequently, the aim of this case is to show how a student can use the knowledge profile in order to structure a scientific paper. Here it is important to structure the questions regarding esthetics as systematically as possible.

We know that being a normative science, esthetics is a theoretical science, and a sub-branch of sciences of discovery. In the article Bent Sørensen and I posed the following questions followed by short answers. We used these questions and answers as the outline for the article. The questions follow the logic of the knowledge profile, starting with the most general question and ending with the most specific.

What does it mean that esthetics belongs to the branch of theoretical sciences?

It means that esthetics is in search of the truth of the objectively admirable.

What does it mean that esthetics belongs to the sub-branch of sciences of discovery?

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[21] See Bent Sørensen & Torkild Thellefsen (2004). Making the Knowledge Profile of C. S. Peirce's Concept of Esthetics. *Semiotica* 151, p. 1-39.

It means that esthetics is in search of new truths about the objectively admirably.

What does it mean that esthetics belongs to the class of philosophical sciences?
It means that esthetics is in search of the truth of the objectively admirable, which can be deduced from what is in the ordinary experience.

What does it mean that esthetics belongs to the order of normative sciences?
It means that esthetics is in search of what one ought to, but not what one has to, be ready to admire for its own sake.

What does it mean that esthetics is the first of the normative sciences?
It means that ethics and logic depend upon esthetics.

This is a possible way of structuring a paper regarding Peirce's concept of esthetics.

Conclusive remarks
I hope to have demonstrated the usability of the knowledge profile, and I hope that it has become clear that the knowledge profile offers us a way of conducting knowledge organization that is realistic, insofar as it can identify

the normative fundamental sign. I also hope that I have shown that the knowledge profile can be used to knowledge manage concepts by implanting a logical interpretant into a concept.

However, I have only shown the usability of the knowledge profile when it comes to identifying the normative fundamental sign, not when it comes to the sub-cognitive fundamental sign. Knowledge organization within knowledge domains is primarily about the normative fundamental sign. However, when it comes to brands and branding, the method of semeiotic constructivism seems to be a more appropriate method. In the next chapter I will take a closer look at brands and branding in a semeiotic perspective.

Chapter 4 - Branding from a semeiotic viewpoint

Symbols grow. They come into being by development out of other signs, particularly from icons, or from mixed signs partaking of the nature of icons and symbols. We think only in signs. These mental signs are of mixed nature; the symbol-parts of them are called concepts. If a man makes a new symbol, it is by thoughts involving concepts. So it is only out of symbols that a new symbol can grow... A symbol, once in being, spreads among the peoples. In use and in experience, its meaning grows (CP 2.203).

Branding has changed from its original form, e.g. branding of cows, branded goods, corporate branding to storytelling, city branding, personal branding, etc. Seen in a historical perspective, the brand communicates ownership. In this way, the brand, or branding as the process of making the brand, is not in any way a new phenomenon. If someone leaves a mark that signals ownership, it is a brand. The brand communicates that someone owns the product. In this

way, one could argue that cave paintings made by our ancestors were a way of making a brand, i.e. this cave belongs to this family – stay out! The mark on the slaves in ancient Egypt, Rome and Greece pointed to their owner in the same way that the mark on the cattle points to the owner of the cattle. The branding of criminals in ancient times was the ultimate way to use symbols as a lifetime sentence; an idea not far from the marking of Jews by Nazis in more recent history. The brand is a way of using symbols to mark what is mine or ours – a way of constructing communities. It is a way to make symbols communicate certain values to a given society. It is a way to differentiate; a way to classify. Consequently, the brand as a sign is not a new invention. However, when discussing brands and branding, it is not so much the history of brands and the act of branding that people come to think of. The focus is primarily on branded goods in a commercial perspective, and as a method of marketing applied by corporate businesses.

One of the leading researchers in branding theory and practice, David Aaker (1991), defines a brand in the following way:

A brand is a distinguishing name and/or symbol (such as a logo, trademark, or package design) intended to identify the goods or services of either one seller or a group of sellers, and to differentiate those goods or services from those of competitors. A brand thus signals to the costumer the source of the product, and protects both the customer and the producer from competitors who would attempt to provide products that appear to be identical (Cited from Jacobsen p. 38)

The essence of the quote is that the purpose of the brand is to differentiate one product from another, communicating the values of a given organization. When the buyer buys the product, it is an act of acknowledging and agreeing with the values of the organization defining and communicating the given brand. As such, the action of buying a branded artefact is a statement of confidence from the buyer to the given organization. I will return to this when addressing the aspects in branding – the statement of confidence seems to be bear resemblance with the establishment of the cominterpretant – a kind of a common consent of understanding. Furthermore, Philip Kotler (1984) defines a brand as follows:

> A brand is a name, term, sign, symbol or design, or a combination of them, which is intended to identify the goods or services of one seller or group of sellers and to differentiate them from those of competitors (Ibid. p. 38).

The Danish advertising consultant, Glenn Jacobsen (1999), combines these two definitions of brands in the following definition: "A brand is a relevant and visible product, which is known by a target group that remains loyal to it because it signifies increased value, is dynamical and is consistent in its appearance" (p. 41 my translation) And further on from one of many websites concerning branding:

Brand is the proprietary visual, emotional, rational, and cultural image that you associate with a company or a product. When you think Volvo, you might think safety. When you think Nike, you might think of Michael Jordan or "Just Do It." When you think IBM, you might think "Big Blue." The fact that you remember the brand name and have positive associations with that brand makes your product selection easier and enhances the value and satisfaction you get from the product. While Brand X cola or even Pepsi-Cola may win blind taste tests over Coca Cola, the fact is that more people buy Coke than any other cola and, most importantly, they enjoy the experience of buying and drinking Coca Cola. The fond memories of childhood and refreshment that people have when they drink Coke is often more important than a little bit better cola taste. It is this emotional relationship with brands that make them so powerful[22].

Based on these quotes, the essence of branding seems to be that a brand represents a product which communicates certain desirable values besides being a functional product. Hence, consumers not only buy an artefact, they buy e.g. a certain lifestyle (cf. Stigel 1993). And most importantly, branded artefacts are able to trigger memories of e.g. certain experiences of childhood, or any other scenarios which make a positive appeal to the consumer. And it seems that the values communicated are more important than some of the other qualities of the product, as the latter quote suggests. However, in recent

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[22] cited from http://www.brand.com/WhatIsBrand.htm

years, branding, as a phenomenon, seems to have exceeded the limits of value communication using artefacts as media (cf. Paustian 2003); branding is no longer limited to branded goods; now we have e.g.:

City branding, which is related to rendering special buildings or city areas symbols of the level of cultural creativity and wealth of the given city, or to cultivating special values to attract families, i.e. by securing jobs and/or making special offers for the children. All in order to attract financially strong newcomers who can contribute to the growth of the city treasure. (See Hauben 2002 for examples on city branding in Dutch cities, however, from a slightly more artistic viewpoint). City branding is used to persuade people with considerable resources to move into the given city or to attract e.g. tourists by presenting the best qualities of the city. As of summer 2009, the Danish tourist magnets Blokhus and Øster Hurup are being branded in order also to attract tourists during winter.

Personal branding, or the marketing of the individual; e.g. how to optimize your personal values, and how to sell yourself in for example job interviews, using appropriate clothing, makeup, etc., or promoting personal attributes such as hire me, I am reliable, I work for less, etc. (See Horn 2004 for a discussion on this matter). It is about cultivating the stronger sides of the personality in order to persuade e.g. an employer to hire you.

Storytelling (e.g. Kragh 2003, Hatch & Schultz 2001), concerns the values of a given organization or company communicated to e.g. stakeholders, consumers, employees, etc. through positive stories. Storytelling is very complex, since it involves both internal communication e.g. between the

employees and external communication to stakeholders. However, the focus is still on communication of values based on the unique stories of e.g. the product or the company.

Naturally, these short definitions cannot in any way capture the different branding concepts; however, the brief definitions serve as an underlining of the communicative aspect of brands and branding. These different types of branding all vary from classic branding since they do not concentrate on concrete artefacts; on the contrary, they focus on intangible values communicated by different kinds of manifestations. Consequently, it seems that branding no longer concerns branded goods as artefacts only, but also embraces cities and individuals, groups of individuals, communities. Therefore, the focus of branding may have altered slightly. However, the focus still seems to be on cultivating and communicating certain important values that *apply to*, *attract* and *create* certain segments. I believe that this altered focus is very interesting, and it is within this focus that I would like to investigate brands and branding by applying semeiotic theory.

By applying semeiotic theory to branding, we are able to understand brands and branding as acts of communication and as communication processes, respectively. The latter being the process where the brand becomes cultivated. It is not my errand to create a new branding theory; instead it is my aim to show how it is possible to unfold my semeiotic inspired concepts on brands and branding.

Although some work has been carried out within semiotics, as the recent review article of the field by David Mick, James Burroughs, Patrick

Hetzel, and Mary Brannen (2004) has documented, there seems to be very little work done on defining brands from a Peircean perspective. Indeed, Mick et al. state that an important frontier in the future semiotic study of brands is "spelling out and using in more detail the abundant resources of Peirce's paradigm" (2004: 61).

I do not believe any other brand analyses involve Peirce's four metaphysical claims, as defined in the preface, or Peirce's thinking in general, apart from the second sign trichotomy consisting of icon, index and symbol. However, the Canadian semiotician Marcel Danesi has both alone[23], and with Ron Beasley[24], indeed unfolded semiology and semeiotic upon branding, the latter being with Danish Peirce scholar Bent Sørensen and myself[25].

Based on this short attempt to pin down brands and branding, I will investigate the results of endowing branding with semeiotic.

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[23] Danesi, Marcel (2008) Brands. New York: Routledge.
[24] Danesi, Marcel & Beasley, Ron (2002). Persuasive minds – semiotics of advertising. Berlin: Mouton de Gruyter.
[25] Torkild Thellefsen, Bent Sørensen, Marcel Danesi & Christian Andersen (2007). A Semeiotic Note on Branding. *Cybernetics and Human Knowing.* Vol. 14, no. 4, pp. 59-69.
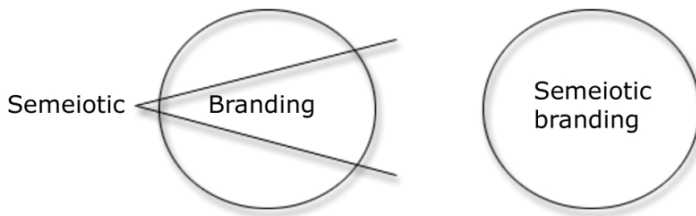
Figure 22. When combining concepts like semeiotic and branding, we endow branding with the epistemological qualities of semeiotic such as Peirce's four metaphysical claims. This means that the new concept *semeiotic branding* concerns brands and branding perceived from a semeiotic angle.

In a semeiotic sense, branding is about communicating certain values to a certain segment and in that process creating communities. In short, I define values as habits of conduct containing certain conditions and qualities, which qualify and determine a certain understanding directed towards the ideal in relation to which the meaning of the values is evoked. And I define a brand community as a system of signs emanated and displaced from the values of a given brand into similarly disposed minds, cf. chapter 1. Thus, it is the central values of a given brand community that creates and maintains the community. These central values constitute the sub-cognitive fundamental sign and the attraction it causes by the sub-cognitive significance-effect. Furthermore, I understand communication as semeiosis, the sign process where certain qualities of signs are displaced to other signs, creating new signs. Thus, I am interested in how the brand, as a semeiotic phenomenon, is capable of

condensing, carrying, and communicating values causing sub-cognitive significance-effects and in that process creating brand communities.

I emphasize the communicative aspect since I believe that branding is communication par excellence, both in the process of creating a brand and in the interpretation process when the public becomes exposed to the brand, the former process depending on the latter. I disagree with branding experts (cf. Aconis 2003), who distinguish between actions and communication. In my brand understanding, action is always purposive and intentional; it simply makes no sense to state that a given action of a given organization is not an act of communication, since this would imply that an organization acts unintentionally and unconsciously, compare the semeiotic inspired communication theory discussed in chapter 1. When an utterer communicates, he or it causes an intentional interpretant, which creates an effectual interpretant in the utterer, causing some mental or physical effect. Even if the cominterpretant does not occur, it will still be an act of communication.

Eco writes that signs are also what we use for lying, "semiotics is in principle the discipline studying everything which can be used in order to lie" (Eco 1976, p. 7). This is also applicable to branding. When drinking Coca-Cola, eating at McDonalds, wearing Nike or listening to a Bang & Olufsen cd player, we do not become better persons; we do not become hipper, cooler, nor does it make us more clever. When it comes to artefacts branded with certain fashions or lifestyles, most brands lie. This can hardly come as a surprise to anyone since advertising and thus branding is a means to persuade the consumer to buy the product. However, buying branded goods makes you part

of a community that (at least on a theoretical level) identifies and relates the positive qualities of the brand with the one who buys them. The particular community displaces the qualities from the brand to the buyer, and since you use the brand, you *do* become e.g. cooler, cleverer or hipper in the eyes of the community. Brand users simply borrow ethos or credibility from the brand, or in other words: the brand displaces its qualities into the brand user. The Volvo owner borrows ethos from the qualities of the Volvo manufacturer, and through his ownership of the brand, he communicates e.g. that he is reliable and trustworthy, etc. The values of the Volvo manufacturers are spread and communicated by the actions of their brand users. In this way, both the manufacturer and the consumer become actively involved in communicating and using values. Consequently, the brand manufacturer depends on the brand user, and the brand user depends on the brand manufacturer. The background for the displacement of qualities from the brand to the brand user can be illustrated in the following way:
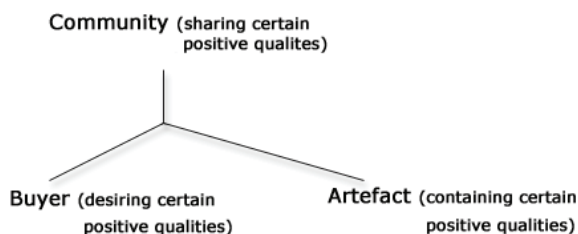
Figure 23. The artefact contains certain qualities, i.e. certain lifestyle values. For certain reasons, the buyer of the artefact desires the qualities of the artefact. The community

shares the same qualities as contained by the artefact, and is maintained by the sharing of qualities. Buying the artefact, the buyer becomes part of the community. The buyer may not even know of the existence of the community. In this case, the artefact in itself defines a universe of discourse.

Within the branded goods, a potential or a sub-cognitive fundamental sign resides, and it becomes unfolded whenever the branded goods are bought. If someone wears a Slayer[26] t-shirt and meets another person wearing a Slayer t-shirt, they are part of the same community, a community of Slayer fans sharing the same values, such as anti-religion, anti self-proclaimed authorities, etc. If someone wears Nike shoes or rides a Principia bicycle, they may share a sub-cognitive fundamental sign with other people wearing Nike shoes or riding Principia bicycles – we simply share values and interests with equal minded people, and this creates relations that are the backbone in any community. However, this may be very loose communities, perhaps only a superficial community. We may not share anything else than the values of the artefacts we buy, but, nonetheless, the community exists – it is real; we may even think that the other person riding the Principia bike is an idiot, but he still rides a bike which we relate to certain positive values, so even though he is an idiot, he may thus only be a small idiot.

The participation in a community makes it easier for a person to talk to another person wearing e.g. a Slayer t-shirt than a person wearing a Michael Jackson t-shirt. Consequently, the values communicated by the brand become

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[26] Slayer is a legendary American thrash metal band, see www.slayer.net for further information.

displaced to the person using the brand. So, a preliminary conclusion is that the sub-cognitive fundamental sign based on the values of the brand attracts or repels people, and we use our shopping habits or consumerism to enter or leave communities by using the values of a given brand. Another preliminary conclusion is that the brand creates communities, which the partaker may not even be aware of. In fact, we participate in many communities without ever getting to know the members of the community, i.e. as citizen in a country, a city, member of a fan club, etc. But not knowing the community or the members of it does not in any sense make it less real.

In many cases, the use of a brand containing certain values displaces the values from the brand to the buyer, making the buyer a brand user, and therefore also part of a community of people using the particular brand and its values. This creates a silent community that is maintained by the values of the particular brand. I believe that these silent communities do not follow the classic way of defining segments, i.e. age, gender, education, etc. Instead, I believe that such communities are far more heterogeneous; in my opinion, it is the values communicated by the brand that create the consumer groups, not the other way around. Consequently, in a semeiotic view, the key to the brand is its values and it is in this scholastic realistic view that I understand brands and branding. Now let us take a look at the values embedded in the brand; I name this layer the supra-symbolic layer, since it is a symbolic layer of values which as a starting point does not appear in the artefact, but which the artefact has a potential of containing.

The supra-symbolic layer

If we look at the general idea of mobile phones,all mobile phones use the same basic technology. However, they offer different features. Some have built in mp3 players, some have built in digital cameras, etc. So, it is necessary for the manufacturer of mobile phones to make distinguishable products and, naturally, to make the buyers buy their products, e.g. by directing a special feature to a specific segment, which could be mp3 players, digital cameras, etc. Since the technology basically offers the same functions, the difference of the products must be embedded in their added lifestyle values – an extra layer added to the product, which I name a *supra symbolic layer*. This layer has nothing to do with the usability of the artefact, but through branding it becomes integrated so that it eventually becomes a symbolic feature of the artefact. Thus, the supra symbolic layer becomes an inseparable aspect of the artefact. In the case of the mobile phone, the supra symbolic layer could be the values of the added features directed e.g. towards school children who communicate that in order to be cool, hip, keep up with fashion, be member of a certain or dominating clique etc. you have to buy this or that particular mobile phone. This, of course, has little to do with the technology and thus the artefact in itself.

The embedding of a supra-symbolic layer implies a symbolization process, through which a given artefact becomes related to a particular brand, namely that of the producer/corporation, which itself represents a brand. The relation between a given artefact and a corporate brand cannot be alleged; the relation only becomes stable and symbolic during a branding process, where

the values of the corporation become incorporated into the artefact. The branding process is the symbolization process which enables customers to recognize the concrete artefact as referring to a certain brand, understood as a certain lifestyle value saturated idea, through e.g. its logo, trademark or package. Therefore the logo, trademark or package design cannot be brands; in a semeiotic perspective they are symbolic representatives of the brands: replicae, since the relation is habitually interpreted. The brand is abstract but real, and the only way we can identify its meaning is through an ongoing investigation of its manifestations. Let me elaborate on this.

Despite my attempts to blur it (see figure below), because of its inherent qualities, the logo can be recognized, i.e. the row of the letters, the distinct forms, coherence and distinctiveness of letters, and if one possesses previous knowledge of the logo, one can even imagine the color or its taste or smell.

The latter qualities, which are absent in the replica, but present in the mind of the interpreter when he interprets the replica, is essential to the brand. Any manifestation of a brand is a replica, i.e. a representation of the given brand. The replica is itself not the brand, but the brand's representation, and the

brand cannot be reduced to a row of replicae, even though they may give us an understanding of the brand; and it is only through the replicae of the brand, that we can get close to the meaning of the brand. No one has ever bought or owned a brand; no one can buy a brand. One can buy, own and use representations of the brand, containing the values of the brand. I can smash a coca-cola bottle or burn a Gucci back, or stab a Barbie doll, but it is only the replica I smash, burn or stab not the brand. The point is, that the brand is real, but it has no actual existence – it is a symbol, and as a general sign its esse in future, i.e. it regulates, gathers and gives meaning to future replicae. This is the sign status of the brand.

Creation of a brand consumer group

The consumer group has substantial influence upon the life and death of the brand, since they, based on their consumer habits, which may be formed by several different economical, political, cultural and religious views, decide whether the brand reference will become vigorous or wither away. Consequently, it is the acceptance of the consumer group – through their uses and experiences with the artefact and its brand reference – that eventually makes the artefact merge together with the brand. And, through this branding process, the artefact becomes a brand. However, the interesting questions are: How does the relation between the artefact and the brand become symbolic? And, what enables the consumer group to relate the artefact to a special brand? My answers to these questions are to look upon the formation of meaning of artefacts as ongoing negotiation processes. I use negotiation in a

somewhat idiosyncratic manner since the partakers in this negotiation process do not know each other. On the one side of the negotiation table we have the corporation (the utterer), and on the other side, we have a potential consumer group (the interpreter), and the individuals in the consumer group are not in any way a homogeneous group. It is a group of people who properly share a number of values in a community. However, this community can be very fragile and superficial.

Consequently, the success of the negotiations between the utterer as a corporation and a potential consumer group as interpreters resides in the pre-work of the corporation identifying its potential consumers. If this work is not done properly, the corporation may negotiate with a phantom – a consumer group that only exists in the corporation's paperwork, in market surveys, etc. If the work is done properly, and the artefact has been properly introduced into a market, the success of the artefact depends upon whether the intended use harmonizes with the actual use of the artefact. In the following, I will take a closer look at the intended and actual use of an artefact.

Intended use and actual use of artefacts

As noted above, branding is used to distinguish brands within existing technologies such as mobile phones, clothes, computers, soft drinks, etc. This means that the artefact, e.g. the mobile phone, as a concept must be present and accepted by the public mind before any branding can be applied. Branding becomes an added layer to an already existing meaning. Before any branding can take place, the meaning of the given artefact must have been negotiated,

accepted and symbolized. Let us take a closer look at the negotiations of meaning in artefacts.

Even if the corporation has made a thorough reconnaissance, there is no guarantee that the consumers will adapt to the artefact. They may find other ways of using the artefact which the utterer could not have thought of (cf. Fischer 1992, Nye 1990, Kline 1996). Therefore, analytically, in product development, it is necessary to separate the process of making the artefact - and I understand artefact in the broadest sense of the word, covering all kinds of human creation - and the process in which the artefact is exposed to the consumer group and forms the significance of the product. I call these two separate processes: the *intended use* and the *actual use*. From my perspective, it is when the intended use and the actual use meet in a common consent through ongoing negotiations that the artefact becomes embedded with brand values of a corporation – thus it seems that negotiations not only form the meaning of the artefact, but are the background for the economic success of branding. We have at least two layers of meaning formation:

- The development of the meaning of the artefact as negotiations between utterer and interpreter.
- The supra symbolic layer added to the artefact as negotiations between utterer and interpreter and between interpreters.

Consequently, it is not possible to perform branding solely from the perspective of the utterer. The brand is only established when the user group

understands the given artefact as a brand, and metaphorically sees its values reflected in the artefact. Therefore, branding is an ongoing and lengthy process. The negotiation process can be illustrated in the following way:

The product

The making of a brand — The brand user

Utterer ⟶ Sign ⟵ Interpreter
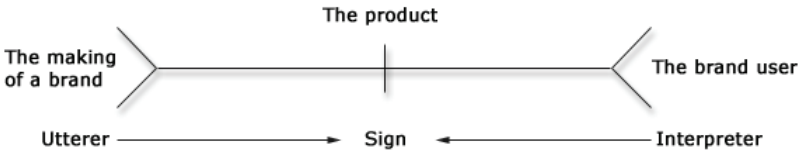
Figure 24. The branding process as an ongoing negotiation process between the intended use of the utterer and the actual use of the interpreters. The product has been made. It is introduced into a market to a given consumer group (potential brand users), whose potentiality has been positively investigated and identified by the corporation – it has been communicated. The responses from the consumer group form the meaning of the brand. Is there a market for the product, and do the consumers adapt to the artefact? Do they use the artefact as intended? Or, do they use it in another way that perhaps calls for modifications of the artefact? Do they interpret the artefact as a brand?

If the consumer group uses the artefact in another way than intended, the artefact may (or may not) call for modifications. The corporation either makes the modifications in order to meet the demands of the consumers, and to narrow the gap between the intended use and the actual use, or it may ignore the consumers and force them to use the artefact as it was intended, or not to use it at all. Naturally, it depends on the nature of the artefact. However, I do not believe that it is wise to ignore the creative effect of how the consumer

group uses the artefact. As we shall see in the examples following this theoretical discussion, it is the creative uses and experiences of the consumers that may call for modifications of the technology. In the case study, the technology is the mobile phone. Here, the development of the mobile phone is caused by the consumer group's ongoing and creative interaction with the mobile phone.

However, before we address the case study, I will explore the negotiation process as a communication process. As I wrote above, the meaning of the artefact, which aspires to become a brand, is created when the intended use of the artefact meets the actual use of the artefact. This can be illustrated in the communication model below, introduced in chapter 1, figure 3:

Communicative Interpretant

Univers of discourse

Collateral experience

Intentional Interpretant   **Effectual Interpretant**

Utterer ———— **Sign** ———→ **Interpreter**
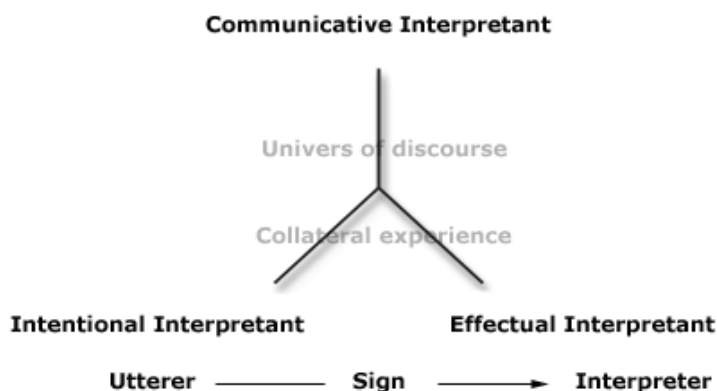
In the figure, a corporation (utterer) communicates a brand (sign) to a consumer group (interpreter). By doing this, the corporation creates an intentional effect (intentional interpretant), which may cause an effect in the consumer group (effectual interpretant) (depending on the brand's similarity and contiguity with the consumer group, this effect may vary in strength, the strength being the sub-cognitive significance-effect). However, in order to establish a common consent, which is when the intended use and actual use is identical or nearly identical (cominterpretant), the communication has to take place within a contextual framing (universe of discourse), which could be a community. Between the corporation and the consumer group, there also has to be background knowledge present (collateral experience). In respect to the sense of community within the community, the ongoing sharing of knowledge through communication creates and strengthens the governing, interpretative habit of the brand, which is the sub-cognitive fundamental sign.

Before I focus on the case study, I have to make a few comments on the relation between artefacts and brands. As written earlier, I understand artefacts in the widest definition of the word (i.e., when I use the term (technological) artefact, I mean a product of human art and workmanship used in some form of human activity). This means that a technology as e.g. the mobile phone is an artefact. Any brand is an artefact; any commercial, any man made product, is an artefact. As a technological concept, the mobile phone is an artefact, but it is not a brand; it is a concept. However, even if brands as such are artefacts, brands are used to differentiate within an existing technology. Consequently, mobile phone brands are the accepted names of

mobile phones which differentiate the particular goods or services from those of competitors. However, the brand is only established within a given technology when the technology has been established and there is a need for differentiation. Recalling Acker's brand definition, a brand is a distinguishing name and/or symbol which is intended to identify the goods or services of either one seller or a group of sellers, and is used to differentiate those goods or services from those of competitors (cf. Jacobsen p. 38). Consequently, branding is an ongoing negotiation process between utterer and interpreter carried out in order to distinguish and separate a given artefact within a technology in order for the interpreter to be able to recognize it through its supra symbolic layer. In the following, I will take a closer look at the mobile phone. The interesting elements in the case study (see also Vetner 2004), are how the intended use and the actual use of the mobile phone form the meaning of the mobile phone.

Mobile phones and text messaging

The mobile phone is like its "ancestor," the stationary telephone, obviously first and foremost designed and used for making phone calls. The first commercial, portable, cellular phone, the Motorola DynaTAC 8000X, was introduced in 1983, priced just below $4000 and weighing around 28 ounces/≈ 800 gram (Motorola www1 and www2). The phones were an almost immediate success, despite their high cost and unmistakable lack of elegance, and were praised for providing the owner with an unprecedented freedom which the stationary phone could not provide. Almost a decade later, in

December 1992, the first text message was sent from Sema, a British technology company, to Vodafone, a large British wireless carrier. Transmitted through the GSM network's signalling channel, text messaging was initially designed for sending service notifications and alerts, such as notifications to the subscribers of waiting voicemail messages. Later on, text messaging was developed even further, so that it was possible to send text messages from one mobile phone to another.

Until the late 1990s, however, customer uptake was rather stagnant, since a large part of the wireless carriers had precluded themselves from opening their text messaging systems to interoperability - that is, to send messages from one carrier to another. This, however, became an absolute necessity caused by several circumstances: first of all, it was necessary due to the high prices per minute, and, secondly, an opening to interoperability was needed because of a huge increase in the number of young users who had started buying prepaid calling plans. This development entailed an enormous growth in the number of sent text messages during the late 1990s and in the beginning of 2000.

The text messaging service, which, as mentioned above, was originally introduced for the purpose of sending short to-the-point messages, soon became object of actual communication. In some countries there were even local and national contests in who were the quickest to write text messages, and the producers of the phones started producing so-called chat boards and installing intelligent dictionaries (with predictive text input) in the phones to ease the otherwise fairly difficult typing. Instead of just being concise service

messages, text messaging quickly became a significant part of the mobile phone communication culture. Several statistics illustrate the enormous increase in the number of sent text messages: an example could be Denmark, a country with around 5.3 million inhabitants and several wireless carriers. Here, the number of sent text messages in the first six months of 2001 was 619 million; two years later, in the first half of 2003, this number had increased to 1.5 billion sent text messages (National IT and Telecom Agency www). A qualified guess is that the number in 2009 has increased considerable.

In contrast to the manufacturer's initial expectations, a relatively insignificant feature of the mobile phone became immensely popular over a very short period of time. And it seems more than reasonable to advocate that this development took place due to the users' specific and frequent usage of the text messaging feature on their mobile phones. This development was of course only possible because the technology made it possible. *However, it was not foreseen by the manufacturers of the mobile phones, or by the original designers of the text messaging system*. Text messaging was an absolute success because of the appropriation of the users, who became agents of technological change as well as agents of the change in the horizon of meaning surrounding mobile phones. Due to the popularity of text messaging, the manufacturers started, as mentioned earlier, producing mobile phones with predictive text input, chat boards, special keyboards (such as the Nokia 5510 or the Nokia 6800 series), etc., and in turn the text messaging culture also brought about substantial changes in the advertising of wireless communication. But moreover, text messaging became a distinct means of

communication especially among young people. Text messaging was ease to use, it was convenience, discrete and, most importantly, it was perceived as a fun and cheap way of communicating.

Consequently, the creative tension between the intended use of the mobile phone and the actual use catalyzed a development of the mobile phone not foreseen by the manufacturers. Now, having established the technology based on the users' creativity, different brands have occurred. So how does the single brand brand itself?

In my view, branding is a process of negotiation between the maker of the artefact and the user of the artefact. The common consent enabling the supra symbolic layer to merge with the artefact is the branding process. It is this supra symbolic layer, when merged with the artefact, which enables the consumers to recognize the artefact as a brand.

In a discussion at a seminar, someone said that Coca Cola, as one of the strongest brands, does not communicate values. This is partly true. The values Coca Cola communicates have merged so much with the technology in itself that it is almost impossible to separate the supra symbolic layer from the technology. Coca Cola has become the values it communicates. This is the character of a strong brand, and a result of a successful branding process. And, in many ways, this is also the case regarding some of the leading mobile phone manufacturers, such as Nokia or Motorola.

Returning to Peirce's extreme scholastic realism as defined in chapter 1, Peirce believed that it is the idea that chooses its advocates, not the other way around: "… [ideas] have a power of finding or creating their vehicles, and

having found them, of conferring upon them the ability to transform the face of the earth" (CP 1.217). In other words, ideas make communities and, thus, advocators. The notion of ideas having generative life has considerable merit in the case of consumer groups, since such groups have undoubtedly been generated by the brand's sub-cognitive fundamental sign. But this is not unique to the commercial domain. Music styles, movie genres, scientific movements, religious concepts, among other things, are similarly able to create a sense of community and, thus, to produce advocates, who will defend the idea or ideas on which their belief system is founded. Brand makers are no different. Their ultimate goal is to produce brand advocates who will protect brands from counteractive forces within society, and who will try to convert others to their semeiotic system of belief.

Like any symbol, the brand is a central feature of shared memory. This is why consumers reacted negatively when certain brands attempted to change their logo or product design—Coca-Cola and Campbell's Soup are two recent cases-in-point (both of which wanted to introduce new design for their products, and met with considerable opposition). Clearly, it is in the form of shared memories that the brand, as a sub-cognitive fundamental sign, constitutes a community-solidifying idea in the Peircean sense. Building a supra-symbolic layer into a product is, thus, the ultimate objective of branding. Creating a system of meanings that are relevant to specific kinds of individuals is the central technique in branding. This is achieved, first and foremost, by giving it a *brand name*. The product, like a person, can then be easily differentiated from other products. The legal term for brand name is

trademark. It is little wonder that trademarks are so fiercely protected by corporations and manufacturers. So powerful are they as identifiers that some have gained widespread currency, becoming general terms for the product type in common discourse. Examples include *aspirin*, *scotch tape, cellophane*, and *escalator*. Most brand names appear on the product, on its container, and in advertisements for the product.

The fact that a brand is so much more than a mere product is evidenced by the emergence of people who oppose certain brands for specific ideological reasons. Opponents of brands such as Coca-Cola, McDonald's and Shell are attacking the kinds of values that these brands communicate (by and large). However, in some ways such opposition only leads to enhancing shared memories and integrating them more into overall social cognition.

So, what does a Peircean view of branding suggest? In my view:

- It suggests that there is something inherent in the brand, beyond its product status, that has the power to garner attention to itself.
- It suggests that the brand is able to evoke a sense of community, that is, a sub-cognitive fundamental sign among brand users based on their shared memory with the brand.
- It suggests that branding is a very complex semeiotic process involving both emotional and rational thought processes.
- It suggests that brands can create a shared intersubjective memory system based on its sign value.

Brand Attraction

The discussion above begs for a single question: What is it about brands that allow them to attract and maintain advocates? In order for someone to be attracted to a sign, there must be in that person some values similar to the values in the brand. If a brand communicates certain lifestyle values, these values must be those already present in an individual, both cognitively and emotionally. In other words, there must be an iconic continuum established between brands and their consumers. Iconicity, as is well known, is Peirce's term for emphasising the fact that signs that resemble or assign some significant social meaning to something, such as a product, is a primary cognitive capacity in the human species. Iconicity is an effective strategy in branding, because it renders products highly memorable. Products that awaken positive memories are those that people accept as sub-cognitive fundamental signs for the simple reason that pleasant memories are those that people wish to experience again. If signs do not evoke such memories, emotionally, there will be a breakdown of the iconic link between the sign and the sign-user. Brand attraction is grounded on such mnemonic iconicity. Clearly, therefore, it is not on a rational level that brand attraction occurs, but on an exclusively emotional-mnemonic one. The strength of attraction is the sub-cognitive significance-effect. The more someone is able to recognize himself in the brand, the stronger is the level of attraction and thus the sub-cognitive significance-effect.

Although it is largely an emotional construct, a brand is not devoid of an internal logic. That logic is, as the origin of the word suggests, based on word

(or brand) meaning. As mentioned earlier, linking brands to social memory is largely a subconscious process. But this does not mean that brand allegiance comes about simply through passive exposure to a particular brand via advertising. Branding is a semeiotic process, which entails a rational discourse based on a sense of community. But in order for this process to become habitual it must involve the perception that a product and its inbuilt allusions to existing social symbols are one and the same. The ultimate success of the brand is its ability to tap into these allusions and, thus, awaken emotions in the interpreters that have the potential of creating a commens that will enable them to enter into a brand community or, more accurately, to create for themselves a branded consciousness. Recalling Peirce's metaphor regarding the consciousness as a bottomless lake, we can think about the lake as the shared memory system. It is obvious that the deeper the ideas generated by branding are, and the more difficult it is to bring them to the surface, the less capable is the process of creating a shared system of memory. Ideas communicated by the brand should never sink into the murky waters of the lake - they must always be near the surface. This is generally ensured by the brand advocates' defence of the brand. Being a symbol, the brand is not in the same danger of sinking into oblivion as are the ads and commercials that promote it, which are sensitive to change within the larger social context (cf. Beasley and Danesi 2002). The brand is remembered through use and experience of its use.

This would explain why branding has now extended into the domain of cultural spectacles. Both aim to create shared memories or memorates. Brands

do not only refer to products, but to entire corporations (IBM, Ford, etc.) and even specific characters that represent, in some way, a corporation. Take, for example, the Disney Corporation cartoon character Mickey Mouse. In 1929, Disney allowed Mickey Mouse to be reproduced on school slates, effectively transforming the character into a social icon—a social memorate. A year later Mickey Mouse dolls went into production, and throughout the 1930s, the Mickey Mouse brand name and image were licensed with huge success. In 1955, *The Mickey Mouse Club* premiered on US network television, further entrenching the brand and image—and by association all Disney products— into the cultural mainstream.

Analogous "branding events" have repeated themselves throughout modern society. The idea is to get the brand to become intertwined with cultural spectacles (movies, TV programs, etc.) and thus to become indistinguishable as a sign from other culturally meaningful signs and sign systems. Because of the Disney Corporation, toys, children TV programming, childhood films, videos, DVDs, theme parks and the like have become part of the modern perception of childhood as a Fantasyland world. This is why children now experience their childhood through such products.

Relating the brand to the sub-cognitive fundamental sign and the sub-cognitive significance-effect

So, if a brand creates its community by establishing a sub-cognitive fundamental sign based on its supra-symbolic layer, which exerts a certain effect of attraction – a sub-cognitive significance-effect, we must be able to

characterize such a brand by relating it to the sub-cognitive fundamental sign and the sub-cognitive significance-effect.

I think it seems reasonable to suggest that a given brand creates its own community consisting of brand advocators based on a certain force of the sub-cognitive significance-effect. The stronger a sub-cognitive significance-effect, the stronger a force of attraction; consequently, the more a potential consumer is able to reflect himself in the brand, the nearer he is to the sub-cognitive fundamental sign, the stronger a force of attraction is exerted by the sub-cognitive fundamental sign.

A representation which does not resemble its object, does not attract, and will not be able to represent its object. The attraction of a brand for a brand user primarily takes place on an iconic level, i.e. a level where the brand user, consciously or subconsciously, recognizes or pursues the values of the brand to a degree where the brand user lets the brand communicate for him. Similarly, the brand uses the brand user to propagate its values. There does not have to be a 100% similarity between the representant and the represented, it is sufficient if the representant represents only some of the most important values of the represented.

If we imagine a given brand like for example Coca Cola, in our minds, we may create a mental icon of a Coca-cola bottle, or a situation where we drink the coke, i.e. we create a replica of the brand which contains the most important – but not all – values of the brand. If this was not the case, the mental icon could not represent the brand. There will always exist a quality gap between what is represented and what represents the represented. The

wider this gap, the poorer the representation represents the represented; the narrower the gap, the greater the quality similarity between the representation and the represented. Branding is all about reducing the gap between replica and brand as much as possible. The narrower the gap, the stronger the brand, and the wider, the weaker the brand; it all depends on the ability of the representation to represent the represented. So, the question is whether or not there exists a threshold of attraction, where attraction is the result of an overlap of values between brand and interpreter? A threshold is defined as a given point, which has to be crossed, before a given reaction may happen. I.e., the threshold of attraction is the point which has to be crossed before a consumer becomes attracted to a brand in such a manner that the consumer is willing to act upon the attraction. Such a threshold of attraction can be shown in the following figure:

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                              Threshold of Attraction
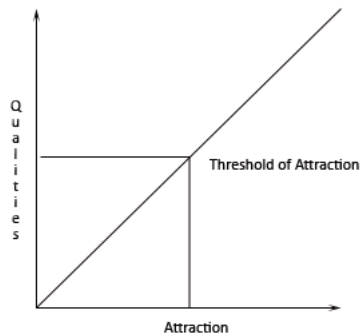
Attraction

Figure 25. The figure shows, that if a brand is endowed with certain values, recognized by a certain brand community, which presumably contains or pursues the same values,

the force of attraction increases. The threshold of attraction in the figure is fictive. The two extremes of the sloping line are not realistic states.

Naturally, the two extremes, i.e. non convergence, where the value is 0, and the total convergence, where the value is 100, are non-existing values. A sign will always contain valuescorresponding to the interpreter, or else the sign cannot be interpreted and would therefore not be a sign. Value 100 would mean that exactly the same values are held by the interpreter and the sign; consequently, the sign would be the interpreter's own dynamic object, which of course is impossible. The threshold of attraction can be identified between 0 and 100, and as we get closer to the extremes, we must expect that the chance for identifying the threshold is considerably reduced. But is the threshold of attraction related to the individual, or is it possible to speak of a common threshold of attraction? Of course, the individual or subjective element is present in attraction. However, in communities, I believe that the threshold of attraction resides as a general feature of the community, although, defined, maintained and shared within the community, it may vary from individual to individual. But because the individuals form a community, it is possible to theorize about a general threshold of attraction within a given community.

The relation between a brand and a brand user is conditioned by the fact that the content of the brand, to a certain degree, already is contained in and known by the brand user, even if the brand user only should pursue some of the values of the brand. Put in another way, the brand user uses the brand to communicate his values, and the brand lets the brand user propagate the values of the brand. In this way the brand and the brand user are, so to speak,

each other's vehicles. However, the brand and the brand user are related by virtue of their shared values, and are in that way of the same kind, even if the brand user, as a dynamical object, thereby causes interpretants wherever he goes, enters many different communities. The brand only represents elements of the brand user[27], and it only creates certain emotional effects in the brand user, which are partly determined by the content of the brand and how the brand user is emotionally disposed. In short, the brand user corresponds to the brand, and through this similarity the brand user is attracted to the brand.

Let me use an example to illustrate how two different, well-known sub-cultures become integrated in a new brand, enabling this brand to attract and construct a new community simply because the two different sub-cultures share so many values that it, to the interpreter, seems natural to merge them.

Since spring 2006, the Danish TV-channel TV5, has run a commercial campaign for Internet poker. The interesting aspect of this campaign is that it value brands poker, i.e. it revitalizes poker within a different target group, by relating poker to a certain sub culture (a community) devoted to gangsta rap music. By relating poker to rap music, poker becomes endowed with the qualities of rap culture. This is possible, since rap, as a phenomenon, in many ways shares qualities with poker. We believe that it is only possible to relate

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[27]It seems to be the dissimilarity in similarity which creates the dynamics in signification. If two relations were identical, the first would not represent the second. Something can only be related to something else if the first represents aspects of the second, and the second lets itself be represented by the first. I.e. in order to represent the second, the first must in some regards share resemblance with the second. However, the first must also contain independent qualities, which are not contained in the second. Therefore, the first must be of the same kind as the second.

things or signs which beforehand share independent values, i.e. resemble each other. But how is poker revitalized?

When someone like me, who does not possess much knowledge about poker, i.e. the inherent qualities of the game – its rules, normally thinks about poker, it is primarily in relation to Hollywood movies, e.g. westerns, where poker is played in saloons, under heavy smoke clouds and the smell of whiskey, accompanied by piano music and scantily clad show girls. Cheating and duels or fistfights often occur. Westerns are often emotionally related to the battle between good and evil, a struggle for freedom, and an emotional state of justice – the American dream. The good defeats the evil either in a gunfight or at the poker table. The poker table is a battlefield, where battles are fought.

Thus, poker is more than a game; it is a concept, a phenomenon. However, poker also symbolizes gambling, the criminal and scoundrelly elements. Poker has a long history, and is not only related to the Wild West or to other fictive universes; however, its basic qualities do not seem to have changed much during the years. It is a game anchored in many metaphorical, mental images (war: the tactics, religion: the immorality of gambling, sin, damnation; ideals of liberty: the American dream, and above all, excitement, to name a few), and it can create identity and appeal to people who seek the emotional states poker can get them into.

In TV5's commercial campaign mentioned above, all these mental images are combined with a gangsta rap attitude, represented and communicated by the Danish rapper, Jokeren ((The Joker) aka Jesper Dahl), one of the most well-known Danish rap musicians. Since the Joker represents

rap and hip hop, important elements in a considerable youth culture, the Joker endows poker with the values from rap music.

Originally, rap was the musical expression of the black ghetto Americans. The so-called gangsta rap, which The Joker also represents, emerged in the beginning of the nineties in the American ghettoes, on both the east and west coast. It had a very violent expression; it was reversed racism aimed at white people, but also competitive within the different fan communities representing their own favorite rapper, it was very sexistic, and it was considered cool to be a pimp or a hustler with lots of money, gold, bitches and hoes (as the slang goes). (This quickly becomes confirmed when reading the lyrics of NWA (Niggas With Attitude), Ice-Cube, Ice-T, Paris, to name a few). During the nineties, gangsta rap became mainstream, and the violent, revolutionary, Islamic element disappeared – roughly speaking. What remained were the sexistic expressions and the pimp and hustler mentality. How is an interpretative habit established which, in a symbolic way, relates these two different phenomena? Peirce's formal definition of abduction is:

A well-recognized kind of object, M, has for its ordinary predicates P[1], P[2], P[3], etc., indistinctly recognized.
The suggesting object, S, has these same predicates, P[1], P[2], P[3], etc.
Hence, S is of the kind M. (CP 8.64)

A well-recognized kind of object, Poker, has for its ordinary predicates: P1 (gambling (hustler), illegal, excitement), P2 (money, women (pimps)), P3

(power), etc. The suggesting object, S, has these same predicates. Hence, poker is of the same kind as Rap/hip-hop.

In order to stress the similarity of values between poker and rap/hip-hop, when The Joker presents the viewers to the basic rules in poker, the Joker is dressed in a typical pimp and hustler fashion: white suit and a certain gangsta twinkle in his eye, and flanked by beautiful women, he welcomes the viewer with the following words: "Whazzup, Playerz?"

The metaphorical union of poker and rap/hip-hop will only be successful if the viewer experiences a similarity of values between poker and rap/hip-hop, i.e. a merging of values. It is a clear example on how two communities share an intersection of values which enables a new community to arise; a community consisting of poker players who are attracted to the values of rap music, or just the mentality of rap. However, we do not know if the established metaphor is successful, and we do not know if and how long the community will prevail.

Summing up, the sub-cognitive fundamental sign designates the inner qualities or, more specifically, the inner values of a sign. Regardless of which a sign we may approach, it contains some basic values that makes it unique and identifiable at least emotionally. Since I understand both brands and communities as signs, their meaning must be related to their sub-cognitive fundamental sign, and because the sub-cognitive fundamental sign is unique and identifiable, we must be able to identify any brand's sub-cognitive fundamental sign. In Thellefsen (2002, 2004, 2005), it has been pointed out that any community is structured around a central sign and its related signs.

This also applies for loosely structured brand communities where the members do not necessarily know each other, but only share a wish to enter into a certain emotional state through their consumption. And it is the desire to enter a certain emotional state that brings the brand user into the community, where the sub-cognitive fundamental sign represents and affords that certain desirable emotional state. The particular brand community does not have to be anchored in the brand as an artefact; rather, it is anchored in the emotional state in which the brand places the brand user when using the brand. The artifact is merely a vehicle for communication of certain values. The sub-cognitive fundamental sign is the emotional center of the community, and the brand is the emotional brand user's tool to enter into a desired emotional state. The sub-cognitive fundamental sign represents a habit of feeling and action. It contains values which attract brand users who themselves contain elements of these values, or wish they did, and who are attracted to the emotional state represented by the sub-cognitive fundamental sign and caused by the brand.

The attraction between brand and brand user, where the sub-cognitive fundamental sign represents the emotional center of the brand and the brand community, is basically iconic (even though attraction is indexical), since the brand user reflects himself in the sub-cognitive fundamental sign, "sees" himself, and is brought into a certain emotional state, i.e. feels happy about what he sees or feels, and becomes attracted to it. However, the brand users may also be attracted intersubjectively. The brand user can reflect his values in other brand users, who may represent elements of the same values, and

thereby be attracted. Some brand users represent similar values, which enable the sub-cognitive fundamental sign of the community to attract them, and they can be attracted by each other's values. Through this process, the community is anchored, and is further symbolized, strengthening the particular habit represented by the sub-cognitive fundamental sign.

Conclusions and further perspectives

> It is not by dealing out of
> cold justice to the circle
> of my ideas that I can
> make them grow, but by
> cherishing and tending
> them as I would the
> flowers in my garden.
> (CP 6.289)

Let me use the conclusion to sum up the different versions of the presented concepts, starting with the two versions of the fundamental sign, followed by the two versions of the significance-effect, then followed by the knowledge profile. Subsequently, I will follow up on semeiotic constructivism. The thesis ends with a short analysis of the perspective of the concepts in relation to knowledge organization and branding.

Fundamental signs

The normative fundamental sign	The sub-cognitive fundamental sign	
The normative fundamental sign is the epistemological center in every knowledge domain possessing a well defined terminology.	The sub-cognitive fundamental sign is the emotional center in every loosely defined community, e.g. a brand community.	
All concepts in a knowledge domain with	The sub-cognitive fundamental sign	

terminological consistency are understood in relation to the normative fundamental sign.	exerts attraction upon the members of the community through emotional similarity. It maintains and develops the community.
The normative fundamental sign is related to medisense.	The sub-cognitive fundamental sign is related to primisense and altersense.
As a sign, the normative fundamental sign is an argument containing symbols and legisigns.	As a sign, the sub-cognitive fundamental sign is a symbol containing legisigns.
The normative fundamental sign depends upon the existence of a sub-cognitive fundamental sign.	The sub-cognitive fundamental sign is a condition for the normative fundamental sign.
The normative fundamental sign is placed in the clear waters of the bottomless lake of the community.	The sub-cognitive fundamental sign is placed in the murky waters of the bottomless of the community.

The normative fundamental sign is an argument; it is normative and subject to self-control. It can for example be identified in the terminology of a given knowledge domain or through a conceptual analysis, like the one I conducted in MARKK and the one suggested for OT. The normative fundamental sign is related to thirdness, and can only be identified in domains with high conceptual awareness either in form of a written terminology or, as was the case with MARKK, as a negotiation between researchers in the knowledge domain. The success of a suggested fundamental sign, as was the case in OT, depends on how much support it gets from leading occupational therapists. If

it does not get any support, it has no impact, and probably no future, even if it might be a plausible place to start developing terminology.

The sub-cognitive fundamental sign is an emotional center of community, a "feeling of ours" or a feeling of "belonging to", which attracts and maintains the community through desired emotional effects. It is not an argument. It is not as such subject to self-control, it is not normative in the same sense as the fundamental sign defined as an argument; it is emotional and sub-cognitive. This sub-cognitive layer is very important. As previously cited – from Peirce's first lecture on "Detached Ideas on Vitally Important Topics" (1898), entitled "Philosophy and the Conduct of Life": "It is the instincts, the sentiments, that make the substance of the soul. Cognition is only its surface, its locus of contact with what is external to it" (CP 1.628). This sub-cognitive version of the fundamental sign is a symbol containing legisigns. And in relation to the emotion, the fundamental sign is in Peircean sense a sentiment – a closely knit web of related emotions. These two versions of the fundamental sign exist in a close relation, since the sub-cognitive fundamental sign precedes the normative fundamental sign. Thus, the sub-cognitive fundamental sign can be abstracted from the normative fundamental sign. Consequently, the sub-cognitive fundamental sign contains the center of community which exists prior to the normative fundamental sign. Hence, the emotional center of community is a condition for community as such and the normative fundamental sign. In relation to research into the technical language of OT, I concluded that the technical language of OT was so immature that it was impossible to draw their knowledge profile. However, it was interesting

that despite the lack of stringent terminology, there was something that maintained the community and caused cohesion. They shared *a feeling of ours* in the community, a sub-cognitive fundamental sign. So, it seems that it is plausible to suggest that the sub-cognitive fundamental sign precedes the normative fundamental sign, that the sub-cognitive fundamental sign is a condition for the normative fundamental sign.

The sub-cognitive fundamental sign containing and maintaining the community members' shared sense of community established by symbols is created by emotions/legisign. As a condition for the creation of the normative fundamental sign it means that any knowledge domain must contains a normative fundamental sign, but also a sub-cognitive fundamental sign. A well-defined knowledge domain must possess a normative fundamental sign, and thus a sub-cognitive fundamental sign. However, a brand community may only need a sub-cognitive fundamental sign in order to exist. Both types of communities include several emotions as legisigns, since these are conditional for both the sub-cognitive fundamental sign and the normative fundamental sign. Consequently from the emotion as legisign, to the sub-cognitive fundamental sign as symbol, to the normative fundamental sign as argument, there is a rise in cognitive level, an upward rise in the bottomless lake.

It seems clear to me that knowledge organization, which only takes the normative scientific terminology into consideration and ignores the sub-cognitive emotional center of community, may be one-dimensional and only scratch the surface of the knowledge domain. This may be enough when it comes to very narrowly described scientific knowledge domains, but it

certainly is not enough when it comes to knowledge domains like OT, or brand communities for that matter. We can only understand such knowledge domains or communities if we understand their sub-cognitive fundamental signs.

Significance-effects

If there are two versions of the fundamental sign, there also has to be two versions of the significance-effect. The first version of the significance-effect, the normative significance effect, is related to communication of knowledge from technical language. The normative significance-effect is related to the normative fundamental sign. The other version of the significance-effect, the sub-cognitive significance-effect, is related to the second trichotomy, since it occurs as a communication of emotional effect in relation to the sub-cogntive fundamental sign. Consequently, the normative significance-effect and the normative fundamental sign is a conceptual pair related to thirdness, and the sub-cognitive significance-effect and the sub-cognitive fundamental sign is related to the secondness trichotomy.

The normative significance-effect	Sub-cognitive significance-effect
The normative significance-effect designates the interpretative distance between concept and the correct interpretation – the shorter the distance is, the more forceful the normative significance-effect is. The interpreter	The sub-cognitive significance-effect enables us to let us be attracted to a given sign, e.g. brands. The attraction takes place because the interpreter sees parts of himself or wishes he sees parts of himself in e.g. the brand – or simply

reflects his knowledge level in the concept – the normative significance-effect depends on how much the interpreter "sees".	desires values in the brand. The attraction is based on a confluence on an iconic level.
The normative significance-effect depends on the sub-cognitive significance-effect.	The sub-cognitive significance-effect is a condition for the normative significance-effect
The normative significance-effect is connected to the normative fundamental sign.	The sub-cognitive significance-effect is connected to the sub-cognitive fundamental sign.
The normative significance-effect is connected to the logical interpretant.	The sub-cognitive significance-effect is connected to the emotional and energetic interpretant.
The normative significance-effect is placed in the clear waters of the bottomless lake.	The sub-cognitive significance-effect is placed in the murky waters of the bottomless lake.

Summing up the two versions of the significance-effect:

The normative significance-effect is a communicational effect of technical information, where the communicational effect depends on the interpreter's prior knowledge of the technical term. The more knowledge possessed by the interpreter, the shorter the interpretative distance is between interpreter and sign.

The sub-cognitive significance-effect is an identification with a sign, where the interpreter is drawn to the sign since it in some way resembles the

interpreter, and through the identification the interpreter lets the sign communicate for him.

The Knowledge profile/value profile
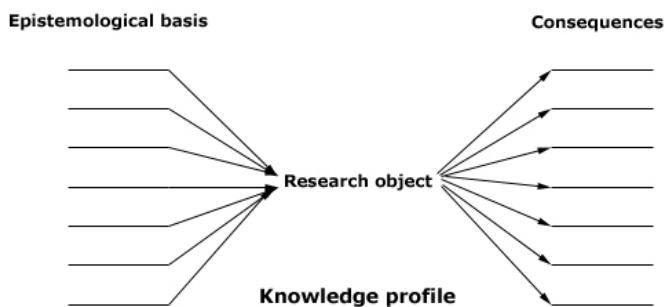
The pragmaticistic knowledge organization method, *knowledge profiling*, is primarily related to the normative fundamental sign and the normative significance-effect. But it can also be used in order to identify the emotional center of community. However, I have not presented a case study in the thesis that demonstrates it. The closest I come to a case such as this is the merging of gangsta rap and poker. However, the methodology is the same as with the knowledge profile. It is about identifying basic values and subsequently identifying the consequences of the values. In the case of poker and gangsta rap, the basic values of gangsta rap and poker were identified. Based on their consequences, it seemed possible that the two domains could be merged into

a new domain, constituting a new community. Consequently, in order to value profile existing brands, it is necessary to identify their basic values and their consequences, analyze if they have something in common, estimate if the shared values and consequences are powerful enough to create a new domain and a matching community. This method could be labelled a *value profile*.

The knowledge profile and the value profile use the same method, i.e. a qualitative investigation of the normative fundamental sign of a knowledge domain, or the sub-cognitive fundamental sign of a brand at its community. Now, value profiling can be used to identify and clarify the fundamental values of a corporation, its center of community, by drawing the value profile of the corporation. The value profile, like the knowledge profile, builds upon an assumption that certain values create certain emotional effects in the minds of a certain target group. Therefore, it is important to be conscious about what emotional effects the values of the corporation cause in order to value manage the corporation. The meaning of values changes, not rapidly, but as symbols grow; thereby their emotional effects also change, and as a consequence, the brand user group also changes. Therefore, it is important for the corporation to be conscious about its values, and not least the communication of them. The value profile is able to secure a consistency in the communication of the corporation, so that the values one endows ones products with are consistent with the way the consumers understand the products of the corporation.

Semeiotic constructivism

As mentioned in the foreword, semeiotic constructivism has nothing to do with social constructivism. It is a pragmatistic inspired method, which can be used to render our ideas as clear as possible. It adds a logical interpretant to a concept by adding a prefix or suffix to a general concept, e.g. bio (as prefix) and semiotics as a general concept. I think the eye of the concept provides a powerful metaphor to describe the logical interpretant in the concept, since any interpretant and especially the logical interpretant has its esse in future. It is a habit, which tends to develop in a certain direction – by no means deterministic, but towards truth. Semeiotic constructivism is a method that makes researchers, students or scholars in general think about the interpretative direction of concepts, and it enables them to manage concepts in a desirable direction. Only time will tell whether or not the concept is true or not.

Conclusive thoughts on brands and branding

One central issue of the thesis has been to investigate what it is that creates attraction between brand and brand users, and attraction between brand users themselves. My tentative conclusion is that it is the brand's ability to communicate and cause emotional effects (emotional interpretants) that create certain emotional states in the mind of the brand user, under the assumption that he is interested in the emotional influence of the brand that causes the brand-brand user attraction. This emotional effect is anchored on an iconic level. Since the emotional effect primarily is iconic, the brand user's

experience of the emotional effect must also be found on an iconic level, a level made up of similarity. I.e. the brand user reflects himself in the brand, and based on how well the brand user sees or experiences his own qualities in the brand, the greater is his quasi-empathy in the brand and thereby the force of attraction. The force of attraction is based on the force of the sub-cognitive significance-effect. Thus, the brand user acts through the brand and lets the brand communicate for him. This is the way I define the sub-cognitive significance-effect. The sub-cognitive significance-effect is – in branding – man's ability to put himself in the place of the brand and letting the brand communicate to the surrounding world. The sub-cognitive significance-effect must be understood as the case where a given brand user reflects his own emotional interior in the brand. When reflecting in something, one often sees oneself (or parts of oneself (or wishes to see oneself)) in the reflection. Often, one feels sympathetic towards something which looks like oneself, the known, and the interpretative habit is primarily positively disposed towards the known (the unknown is what potentially threatens belief). This is why attraction takes place on an iconic level, i.e. the brand user sees and reacts positively towards brands which represent values aimed at by the brand user, since he himself represents the same, or elements of the same values. The brand user lets himself be represented in the brand, and the brand lets itself be represented in the brand user.

A brand not only communicates to a single subject. We have to imagine that the brand communicates to a lot of subjects, and if the brand is capable of attracting many subjects, we must expect that these subjects have something

in common - and that is the emotional effects the sign mediated values cause in the subjects. Thus, values are also vehicles for the appearance of certain emotions. Based on this, influence and attraction also take place intersubjectively. It is this influence and attraction between subjects caused by the brand that create the community, where the center of the community is the sub-cognitive fundamental sign, which maintains the community through further strenghtening of the values communicated by the sub-cognitive fundamental sign and the emotional effects it causes. I choose to view the creation of communities as a positive attraction from sign to individual/group instead of defining the community negatively, where the community is the result of non-selection of something else until what is left is what is in common. Naturally, one can share being against something.

The general sense of community is a condition for the local sense of community, i.e. the general sense of community comes prior to the local sense of community. But is the general sense of community a sense equal to our other senses, e.g. sight, hearing or touch? If this is the case, the general sense of community is a biologically determined ability to enter into many different communicative communities, a perceptive ability to catch and interpret other minds' sympathetic states and letting oneself be drawn to them. Peirce posed the following rhetorical question in a lecture manuscript (c. 1866/67):

But are we shut up in a box of flesh and blood? When I communicate my thought and my sentiments to a friend with whom I am in full sympathy,

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so that my feelings pass into him and I am conscious of what he feels, do I not live in his brain as well as in my own -- most literally? (CP 7.591).

This is the general sense of community par excellence: the ability to share mind and minds, the ability to share emotions and their effects, in short the ability to communicate, to mediate and create emotional interpretants in interpreting minds, to attract and repel, to create communities.

Value branding

It is the idea which creates its advocators and which creates the community, or put in another way: it is the brand which creates and forms its community. If it is the brand which creates its target group, since the brand is endowed with certain values, which attract and create the target group, we must expect that the target group does not exist before the brand is communicated into a certain market. However, the target group exists as a potential which comes to life, spawned by the values of the brand, triggering the sub-cognitive significance-effect of the consumers who either possess, or wish to possess, or at least know of the values of the brand, and thereby are capable of identifying themselves with the brand. If this is the case, we may have to leave normal target group segments, e.g. age, gender, education and income etc. out of account. My assertion is that the target group is awakened and is created in the branding process, and that the target group subsequently adopts the brand - and if the brand is experienced strongly enough the target group will defend the values of the brand, and those who experience the most powerful

attraction will be the best advocators of the brand. Of course, the problem is that we always only know the community retrospectively. I.e. a branding process takes place within a given market; we presume that the process is successful and that the brand becomes established. Subsequently, the brand circulates in a certain amount of time, and after that we measure who has used the brand, and the particular brand users then equal the target group of the brand. Of course, this is not the whole story. The success of a brand is not identical with its sales figures, especially when discussing the values of the brand. A brand may have fierce advocators who may not have the possibility to buy the brand - i.e. one can be a fierce advocator of the car make Ferrari and engage in intense discussions with advocators of other car makes, without ever owning a Ferrari, except maybe a Ferrari toy car. It is the values of Ferrari one advocates for. This type of advocator is very important, since he/she functions as an autonomous advocator of the brand. However, even if we can only have a retrospective/historical approach to the investigation of brand communities, we are able to estimate future compositions of the values of future brand communities and set up hypotheses about their consequences. However, it demands that we know how people react in respect to different values. In connection with this, I will advocate for what I designate value branding.

Value branding is not positive or negative valorization of a certain brand. Value branding is branding where one carefully estimates which value one should endow one's product with, hoping that the values may cause certain emotional states in the minds of the brand users. As I have touched upon earlier, values are what make a brand unique. These values can be found on a

symbolic level, and the attraction between the given values of the brand and the brand users are determined by the fact that the brand users are able to recognize themselves in the brand, e.g. to recognize and desire the values carried and communicated by the brand. Value branding is about targeting the use of values in brands in order to create desired emotional states in the minds of the brand users, which correspond to the expectations of a certain brand community before the branding process even starts. If we investigate which values we are able to endow our product with (while remembering that it is only possible to ascribe those which already lie as a potential within the brand, i.e. the product and the values must resemble each other, otherwise the brand user may experience a negative emotional state), we are able to present a qualified guess at the profile of the brand community. I presume that it is possible to target a brand using the value profile; however, this has still to be done.

Future work and perspectives

Having theoretically and to some extend empirically documented the existence of the fundamental signs and the significance-effects, and the usability of the knowledge profile, it is my next task to show the effectiveness of the value profile. I believe that knowledge about knowledge, and knowledge about values, are very important when conducting both knowledge organization and branding. In fact, both areas operate with objects charged with knowledge. Knowledge organization as such is impossible; it is only possible to represent an already existing knowledge organization organized around a normative

fundamental sign. Branding is only possible if the given artefact contains an already existing potential for the given values. Branding is also not individual – rather, it takes place within a community of potential brand users, and it stipulates an actual community of brand users. I would very much like to see if the value profile combined with semeiotic constructivism is capable of making the branding of artefacts more precise in terms of communication, if my concepts and methods are able to make decision makers focus on knowledge and values as dynamical entities that in fact mean something. Values cannot be asserted, they have to be earned. I sincerely hope others will use and improve the knowledge/value profile. As for the concepts, I will most certainly return to them and further clarify them when it is needed – following Peirce's ethics of terminology.

Literature

Aconis, A. (2003). *Fireball : et opgør med branding*. Kontrabande.

Andersen, C. (2009) Den trykte reklames budskab: Komposition og effekt. Aalborg University. Unpublished ph.d. thesis

Andersen, C. & Jantzen, C. (2004). Reklamekategorisering og kognition. I: Torkild Thellefsen & Anne Marie Dinesen (red.). *Semiotiske undersøgelser*. Hans Reitzels forlag.

Apel, K. O. (1995). *Charles S. Peirce from Pragmatism to Pragmaticism*. Atlantic Highlands: Humanities Press.

Ayers, R. (1980). C. S. Peirce on Miracles. *Transactions of the Charles S. Peirce Society*, 16:3, p. 242-255.

Beasley, R. & Danesi, M. (2002). *Persuasive Signs: The Semiotics of Advertising.* Mouton de Gruyter.

Bedell, G.(1980). Has Peirce refuted egoism? *Transactions of the Charles S. Peirce Society*, 16:3, p255-271.

Berger, A. A. (2000). Ads, Fads, and Consumer Culture: Advertising's Impact on American Character and Society. Lanham: Rowman & Littlefield.

Berger, P. L. & T. Luckmann (1967). The social construction of reality: A treatise in the sociology of knowledge. New York, Anchor Books.

Bergman, M. (2002). C. S. Peirce on Interpretation and Collateral Experience.

http://www.helsinki.fi/science/commens/papers/collateral.pdf

Brier, S. (2008). *Cybersemiotics – why Information is not enough*. Toronto: University of Toronto Press

Brier, S. (1996). Cybersemiotics: A new interdisciplinary development applied to the problems of knowledge organization and document retrieval in information science. *Journal of Documentation*, 52, (3).

Brier, S. (1994). Information er sølv: om muligheden for en pragmatisk informationsteori baseret på anden ordens kybernetik, semiotik og sprogspilsteori. Danmarks Biblioteksskole, Aalborgafdelingen. Forlaget Biblioteksarbejde.

Cabré, T. M. (1999). *Terminology. Theory, methods and applications*. John Benjamins Publishing Company.

Chiasson, P. (2001). Peirce's Pragmatism: The Design for Thinking. Rodopi.

Chiasson, P. (2001). Logica Utens. *Digital Encyclopedia of Charles S. Peirce*. Ed. João Queiros, São Paulo (PUC) http://www.digitalpeirce.org/p-logchi.htm

Colapietro, V. (1989). Peirce's Approach to the Self: A Semiotic Perspective on Human Subjectivity. Albany: State University of New York.

Colapietro, V. (1995). Notes for a Sketch of a Peircean Theory of the Unconscious. *Transactions of the Charles S. Peirce Society*, 31:3, p 482-507.

Cornelius, R. (1996). *The Science of Emotion*. New Jersey: Prentice Hall.

Deacon, T. (1997). *The symbolic species*. New York, Norton.

Delaney, C. F. (1993). *Science, knowledge and mind: a study in the philosophy of C.S. Peirce*. Notre Dame, Ind.: University of Notre Dame Press.

Dines Johansen, J. (1993). *Dialogic Semiosis - An Essay on Signs and Meanings.* Indiana University press.

Dines Johansen, J. (1997). Dialog og fortolkning hos C. S. Peirce. I: Ove Christensen (red.). *Fortolkningens Rum*. NSU Press.

Eco, U. (1979). *A Theory of Semiotics*. Bloomington: Indiana University Press.

Esposito, J. L. (1980). *Evolutionary metaphysics*. Athens, OH: Ohio University Press.

Fairclough, N. (1992). *Discourse and social change*. Cambridge, Polity Press.

Fisch, M. (1978). Peirce's General Theory of Signs. I: T. Sebeok (red.). *Sight, Sound and Sense*.

Fisch, M. (1986). *Peirce, semeiotic, and pragmaticism*: *Essays by Max H. Fisch* (K. L. Ketner & C. J. Kloesel, Eds.). Bloomington: Indiana University Press.

Fischer, C. (1992). America Calling – A social history of the telephone to 1940. Berkeley: University of California Press.

Fitzgerald, J. J. (1966). Peirce's Theory of Signs as a Foundation for Pragmaticism, The Hague: Mouton.

Goudge, T. A. (1950). *The Thought of C. S. Peirce*. Toronto: University of Toronto Press

Greenlee, D. (1973). *Peirce's Concept of Sign*. The Hague: Mouton.

Haley, M. C. (1988). *The semeiotic of Poetic Metaphor.* Bloomington: Indiana University Press.

Halton, E. http://www.nd.edu/~ehalton/Peirce.htm. Citeret June 2003

Hansen, F. (2002). The Role of Emotion in Understanding the Effect of Advertising. Center for Marketing Communication.

Hatch, M. J. & Schultz, M (2001). Are the Strategic Stars aligned for Your Corporate Brand, Harvard Business Review. February.

Hauben, T. (red.). (2002). *City branding : image building & building images*. Netherlands Architecture Institute. Nai Uitgevers/Publishers.

Hausman, C. R. (1993). *Charles S. Peirce's Evolutionary Philosophy*. Cambridge University Press.

Helder, J. & Kragh, B. (2003). Når virksomheden åbner sit vindue: kommunikation og formidling - et corporate perspektiv. Frederiksberg: Samfundslitteratur.

Hjørland, B. & Albrechtsen, H. (1995). Toward a New Horizon in Information Science: Domain-Analysis. *Journal of the American Society for Information Science* 46(6).

Hjørland, B. (1997). *Informationsvidenskabelige grundbegreber.* København: Danmarks Biblioteksskole.

Hjørland, B. (2002). Domain analysis in information science: eleven approaches - traditional as well as innovative. *Journal of Documentation* 58(4).

Hjørland, B. (2004). *Domain analysis in information science*. Encyclopedia of library and information science, Marcel Dekker.

Hookway, C. (1997). Sentiment and Self-control. In: The Rule of Reason. Brunning, J. & Forster, P. (eds.) (1997). *The Rule of Reason*. Toronto: Toronto UP.

Horn, P. (2004). Personlig branding - skab dit eget varemærke. Børsen.

Houser, N. (1983). Peirce's General Taxonomy of Consciousness*. Transactions of the Charles S. Peirce Society*, 19:4, p.331-360.

Innis, R. E. (1994). *Consciousness and the play of signs*. Bloomington and Indianapolis: Indiana University Press.

Jacobsen, G. (2003). Branding i et nyt perspektiv: mere og andet end mærkevarer. Kbh: Handelshøjskolens Forlag.

Kielhofner, G. (1997). *Conceptual Foundations of Occupational Therapy*. F.A. Davis Company, Philadelphia.

Kline, R. & Pinch, T. (1996). Users as Agents of Technological Change: The Social Construction of the Automobile in the Rural United States*.* I: *Technology and Culture*, October 1996; 37, 4. – Johns Hopkins University Press

Kuhn, T. S. (1974). *The structure of scientific revolutions*. Chicago: University of Chicago Press

Lakoff, G. (1987). Women, fire, and dangerous things: what categories reveal about the mind. Chicago, University of Chicago Press.

Lakoff, G. & Johnson, M. (1999). Philosophy in the flesh: the embodied mind and its challenge to Western thought. New York, Basic Books.

Lane. R. (2009). Persons, signs, animals: a Peircean account personhood. *Transactions of the Charles S. Peirce Society*, vol. 45, 1-26

Liszka, J. J. (1996). *A General Introduction to the Semeiotic of Charles Sanders Peirce*. Indiana University Press, Bloomington and Indianapolis.

Liszka, J. J. (2008). Information, Meaning and the role of Semiosis in the Development of Living Systems. *Signs – International Journal of Semiotics* http://vip.db.dk/signs, 188-217.

Marty, R. (no date stated). 76 definitions du signe de C. S. Peirce et leur analyse.
http://robert.marty.perso.cegetel.net/semiotique/76defeng.htm

Merrel, F. (2008). Why I Believe Becoming Peircean is Preferable. *Signs – International journal of semiotics*. Vol. 2007 p. 1-28.

Meyer, A (1922) The philosophy of Occupational Therapy. *Archives of Occupational Therapy*, 1.

Mick, D. [et al]. (2004). Pursuing the Meaning of Meaning in the Commercial World: An International Review of Marketing and Consumer Research Founded on Semiotics. *Semiotica*, vol. 152.

Motorola (www1):

http://motoinfo.motorola.com/motoinfo/20th_anniversary/docs/ 20thAnnouncementRelease.doc (last visited June 23. 2004)

Motorola (www2):

http://motoinfo.motorola.com/motoinfo/20th_anniversary/docs/how_its_cha nged.pdf (last visited June 23. 2004)

Murphey, M. (1993). *The development of Peirce's Philosophy*. Hackett Publication Company. Indiana/Cambridge.

National IT and Telecom Agency, Denmark (www): http://www.itst.dk/image.asp?page=image&objno=135226277 (last visited June 23. 2004)

Nonaka, Ikujiro & Takeuchi, Hirotaka (1995). *The Knowledge-Creating Company*. New York: Oxford University Press.

Nöth, W. (1995). *Handbook of Semiotics*. Bloomington : Indiana University Press

Nye, D. (1990). Electrifying America: Social Meanings of a New Technology, 1880-1940. Cambridge, MIT Press

Oehler, K. (1993). *Charles Sanders Peirce*. München. Verlag C. H. Beck.

Paustian, M. (2003). *Branding-filosofi*. Kbh.: Nyt fra Samfundsvidenskaberne

Peirce, C. S. (1931-1966). *Collected Papers of Charles Sanders Peirce*, 8 vols. ed. by Charles Hartshorne, Paul Weiss, A. W. Burks. Cambridge, MA. Harvard University Press.

- (1958). *Selected Writings*. Wiener, P.P. (red.). New York: Dober Books.

- (1976). *The New elements of Mathematics by Charles S. Peirce*, edited by Carolyn Eisele, four volumes in five books (The Hague: Mouton, 1976)

- (1977). Semiotics and Significs. The Correspondence between C.S. Peirce and V. Welby. Hardwich, C. (red.). Bloomington, Indiana University Press.

- (1992-1998). The Essential Peirce. Selected Philosophical Writings. Vol. 1 (1867-1893), edited by Nathan Houser & Christian Kloesel, 1992, vol. 2 (1893-1913), edited by the Peirce Edition Project, 1998. Bloomington and Indianapolis: Indiana University Press.

Plessis, E. du (2005). The advertised mind: groundbreaking insights into how our brains respond to advertising. London: Kogan page.

Potter, V. G. (1996). Peirce's philosophical perspectives. (Ed.) Vincent Colapietro. New York: Fordham University Press.

Potter, V. G. (1997). *Charles S. Peirce: On Norms and Ideals*. New York: Fordham University Press.

Rescher, N. (1978). Peirce's Philosophy of Science: Critical Studies in his Theory of Induction and Scientific Method. Notre Dame, IN: Notre Dame University Press.

Robin, R. (1967). *Annotated Catalogue of the Papers of Charles S. Peirce*. Amherst: University of Massachusetts Press.

Rosch, E. (1987). *Wittgenstein and categorization research in cognitive psychology*. *Meaning and the growth of understanding*. Wittgenstein's significance for developmental psychology. M. Chapman and R. A. Dixon. Berlin, Springer: 155-166.

Santaella Braga, L. (1996). Semiotics In Times Of Maturity. *Semiotica*. 108.

Savan, D. (1988). *An introduction to C. S. Peirce's full System of s*emeiotic. Toronto: Toronto Semiotic Circle.

Savan, D. (1981). Peirce's Semiotic Theory of Emotion. I: Ketner, L (red.). *Proceedings of the C. S. Peirce Bicentennial International Congress*. Lubbock: Texas Tech University Press.

Sheriff, J. K. (1994). Charles S. Peirce's Guess at the Riddle. Bloomington: Indiana University Press.

Skagestad, P. (1978). *Vitenskap och Menneskebilde: Peirce og amerikansk pragmatisme*. Oslo: Universitetsforlaget, Tankekors-serien.

Skagestad, P. (1981). *The road of inquiry: Charles Peirce's pragmatic realism*. New York, Columbia Univ. Press.

Spender, J.-C. & Scherer, A. G. (2007). The Philosophical Foundations of Knowledge Management: Editors' Introduction, *Organization* 14 (1): 5-28.

Stigel, J. (1993). Det vigtigste er som regel det, der ikke er der – om kulturproduktion, reklame og propaganda. I Jensen, F. J. m. fl. (red.). *Reklame – Kultur*.. Aalborg Universitetsforlag.

Sørensen, B. & Thellefsen, T. (2004). Making the Knowledge Profile of C. S. Peirce's Concept of Esthetics. *Semiotica* 151, p. 1-39.

Sørensen, B. (2008). Comments regarding Charles Sanders Peirce`s notion of consciousness, abduction, and the hypo-icon metaphor. *Semiotica* 172, p. 11-25.

Sørensen, B. (2009). The Sign Universe, Summum Bonum, Self-control and the Normative Sciences in a Peircean Perspective or Man ought to contribute to the Growth in the Concrete Reasonableness. Forthcomming in *Semiotica*.

Temmerman, R. (1997). Questioning the univocity ideal. The difference between socio-cognitive terminology and traditional terminology. *Hermes* 18.

Temmerman, R. (2000). Towards new ways of terminology description. The sociocognitive-approach. Amsterdam, John Benjamins Publishing company.

Thellefsen, M. (2008) Knowledge Organization, Concepts, signs: A Semiotic Framework. PhD thesis. *Danmarks Biblioteksskole* (unpublished).

Thellefsen, T.; Thellefsen, M. (1998). Signifikans-effekt i indeksering. *Svensk Biblioteksforskning*. (2).

Thellefsen, T.; Thellefsen, M. (1999). Indeksering i semiotisk og kognitiv semantisk perspektiv. *Biblioteksarbejde*. 54/55.

Thellefsen, T. (2001). Den peircianske metafysiske evolutionsteori og betydningsdannelse*. I: Thellefsen, Torkild (red.). *Tegn og betydning:

betydningsdannelse i filosofisk, biologisk og semiotisk perspektiv. København, Akademisk forlag.

Thellefsen, T. (2001). C. S. Peirce's evolutionary Sign : an Analysis of Depth and Complexity within Peircean Sign Types and Peircean Evolution Theory. *SEED (Semiotics, Evolution, Energy, and Development)*

http://www.library.utoronto.ca/see/pages.htm.

Thellefsen, T. (2002). Semiotic Knowledge Organization: theory and method development, *Semiotica* 142, 71-90.

Thellefsen, T. (2002-03) Fagsprogssemiotik. Ph.D afhandling. Institut for Kommunikation, Aalborg Universitet.

Thellefsen, T., Brier, S. and Thellefsen, M. (2003). Indexing and significance-effect : A Peircian semiotic and cognitive semantic approach to the analysis of the problems of subject searching, *Semiotica* 144, 177-218.

Thellefsen, T. (2003). Pragmaticism and the role of Terminology, *Impact*. www.impact.hum.auc.dk

Thellefsen, T. (2004). Knowledge Profiling: the Basis for Knowledge Organization, *Library Trends* 144 (1/4).

Thellefsen, T. & Willemoes Sørensen, L. (2004). Knowledge profiling the Occupational Therapy concept of occupation. (upubliceret – accepteret i Semiotica)

Thellefsen, T. & Jantzen, C. (2004). What Relations Are: A Case Study on Conceptual Relations, Displacement of Meaning and Knowledge Profiling, *Sign Systems Studies*, vol. 31.1.

Thellefsen, T. (2004). The Fundamental sign, *Semiotica* vol. 149.

Thellefsen, T. (2004) Charles S. Peirce's Ethics of Terminology revisited. Semiotica 151.

Thellefsen, T. (2005). The revised fundamental sign, *Semiotica* vol. 155.

Thellefsen, T. & Sørensen, B. (2005). Foreword in Semeiotik – 75 tegndefinitioner af Charles Sanders Peirce – samlet og analyseret af Robert Marty. Indledning og oversættelse ved Torkild Thellefsen og Bent Sørensen. MÆRKK serien nr. 3. Aalborg Universitetsforlag.

Thellefsen, T. (2005). *Vidensprofilering*. MÆRKK-serien nr. 2, Aalborg Universitetsforlag.

Thellefsen, T.; Sørensen, B. & Andersen, C. (2006). Significance-effect, semiotics and brands, *Cybernetics and Human Knowing*. Vol. 13, no. 3-4.

Thellefsen, T; Sørensen, B; Thellefsen, M; & Andersen, C. (2006). The formal conditions for the significance-effect, *Semiotica* 158.

Thesaurus Construction :

http://instruct.uwo.ca/gplis/677/thesaur/main00.htm. June 2003

Turley, P. (1977). *Peirce's cosmology*. Philosophical Library. New York: Philosophical Library

Umiker-Sebeok, J. (red.). (1987). Marketing Signs: New Directions in the Study of Signs for Sale. Berlin: Mouton de Gruyter.

Vetner, M. (2004). Do Artefacts Have Meanings? On the Attribution of Meaning to Technological Artefacts. – I: Ben Dorfman (red.). *Culture, Media, Theory, Practice: Perspectives*. Aalborg Universitetsforlag.

Vetner, M. (2006). Internettets sociale mening: Den sociale konstruktion af teknologier. – Ph.d.-afhandling ved Institut for Kommunikation, Det Humanistiske Fakultet: Aalborg Universitet.

Wilcock, A. A. *An Occupational Perspective of Health*. SLACK Incorporated, Thorofare.

Wolfe, O. (1989). Sociosemiology and Cross-Cultural Branding Strategies. *Marketing Signs* 3.

Yerxa, E. J. (1992). Some implications of Occupational therapy's History for Its Epistemology, Values, and Relation to Medicine. *American Journal of Occupational Therapy*, 46.

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