The traditional methods used in the social research, are structured according with Classical Logic. The distinction between the syntactic and the semantic aspect of the date isn’t the way to make adequate instruments of research in a world more and more complex in the sense of a plurality of memberships and degrees of truth, which identify the construction of meaning by the subject, in other words the reality like a multidimensional and fractal structure. The problem of constitution of categories with given and close border like mathematical sets (in the Cantor’s sense) makes really hard to read the social events (what is a social events?) only by a qualitative point of view, the same could be said by a quantitative one. To use together quantitative and qualitative concepts, we need to put them in a logical framework which includes the analogy as a model and instrument of research; also to make possible to go from the theory to the empirical field.

Key words: Chaos Theory, Epistemology, Fractal, Meaning, Social Network
1 THE LOGICAL FRAMEWORK OF TRADITIONAL METHODS: THE CLASSICAL LOGIC

The by now traditional distinction of the methods of social search in quantitative and qualitative, based on deep differences in to define the object of study, the position of the social researcher and the techniques by him adopted in the construction, in the survey and in the analysis it comes to be constituted inside a well precise logical frame, that not only influences its dichotomic structure, but also the inside articulation of each of the two possibilities. Identifying the role developed by the Logic towards the Methodology of the research in the double perspective of logical architecture of reference and tool inside the techniques (Bruschi, 1996) the first footstep that is had to complete consists in to identify what logic has followed till now for being able to study, to read, to explain and to understand the world of the social relationships. This kind of logic is the so-called Classical Logic, that founding each other on the whole the Aristotelian constructions, of the elaborations of the Middle Age, to arrive to the parallel and antithetical formalizations of G. Boole and G. Frege, it has modelled, influenced and almost driven the whole adventure of the thought to our days, despite in 1931 either happened something that it has seriously, better irreversibly marked the destiny of the logic of classifications and clear and precise categorizations.

The Classical Logic is structured on a syntax given by extensional insiemistic groupings, the Cantor’s sets, totally defined, with closed border, certain, without any possibility of difficulty and uncertainty in attributing an object (in the case of the social search the object identifies, according to the level of analysis, a case, a phenomenon, a relationship, etc.) to a determined grouping. All the objects are inside a set and a same object cannot make part more set inside the same cognitive and explanatory level. The principles from to follow in this work of classification and subsequently of categorizations are the three Aristotelian principles of identity, not contradiction and excluded middle; the formalization happens for mean and through the attribution of the two values 1 and 0, belonging or not belonging of a case to a set. The affiliation results to be total, the information spread built and transmitted by the object, is forced to enter in a category; the external researcher or intern that he is, which adopt qualitative or quantitative methods, it is not able to manage the totality of the informative flow; contradictions paradoxes, cases of border emerge, that let rise problems in the classification and accordingly in the categorization. The result of this consists in a reading of the world of the social relationships more and more inadequate, is from the point
of view of the complexity of the social one, that from the point of view of a formalization that, in reason and through a simplification and a construction of rigid and partial meaning, it doesn't stick to the reality that emerges from and through the interactions, but it imposes the reality of a separated universe between the white one and the black, the correct one and the wrong, the good one and the bad one. The same grammar of the connective logical of negation, conjunction, disjunction, implication, etc. it doesn't do anything else other than to propose rules through which to analyze absolute truth, precise and without possibility of uncertainty.

This splendid construction, that has given the illusion of a reality, of a world of meanings that it would have had to be always the answer simply and however to the dramatic riproposition of the hamletic 'to be or not to be' collapses in 1931. K. Gödel with his theorem of incompleteness (Gödel, 1986) not only shows as the total application of the principles of formalization of the Logic Classical bring to the construction of a proposition that if it is also true it is neither demonstrable nor demonstrable, but, at the same time, as every cognitive architecture detached by what is the reality of becoming it is not able to give the answers that it pretends to give, the analyses that would have to eliminate the endless mutability and difference of what it happens, the last base of every type of system inside which to insert data and to wait for 'true' answers.

The certainty falls, truth falls. They fall, or at least, they would have to fall the illusions that the logical structure of the world follows the rigidity and the 'orderly' construction of the exclusive attribution, nevertheless, the logicians continued in their work of study, improvement and deepening of the Classical Logic, Gödel had given an important result, fundamental, but it was not worth the punishment of revolution everything, to build on a contradiction, the Classical Logic doesn't have the tools to be able to face the contradictions, the Classical Logic it turned by the other part and it continued its walk (Cellucci, 1999).

2 THE SYNTACTIC AND SEMANTIC ASPECT OF DATES

The classical Logic, as we have seen, has deeply influenced and delineated the way both of making a social research, and of articulating and elaborating the methods and the techniques to be able to let correspond a gathered datum to a specific conceptual construction. The
dynamics of the classification as insertion of an object in a box with rigid and not deformable walls produces a distinction between the syntax and the semantics of the social reality on more levels.

In first place it is had to analyze the one regarding the same structure of the social relationships. Social relationships divided in a tightly dichotomic way inside a dynamics of space and time that also if contextualized, is conceived as absolute. Every possible reference to single situations of interaction, doesn't do anything else other than to set the accent on men that are moved inside physical space and physical time, according with dynamics often identify as causally linear, or if also with some process of feedback, always and however with an invariance of who emits and who receives and there are changes only in the inputs and in the outputs. It has, therefore, a re-reading of pre-constituted syntactic contents, a re-making without possibility of adherence to the surrounding reality, to the single interactions in the specific one, re-reading, not suitable reconstruction. The contexts of interaction are, them themselves, typified, labelled in one a series of rigid prototypes. The whole existential and experiential lived of men in situation of interaction results to be only something with which to compare, with which to do a type purely formal compares, it results to be the rigid container inside which to insert the new data., not what is modelled, and in turn it contributes to model the action of the single one.

For how much it concerns semantics, always in this level of analysis, the sense comes to be simply something that is ‘separate’ from the man (or in the best of the cases from the men) in his to act daily. Both that the reality is read by a realist point of view, hypothesizing an external world, totally given that the researcher has to simply decoding and labelling the meaning in such way that is coherent with the whole theory of which he is an exponent, and that it is read in a constructivistic point of view, with an universe of which the same researcher is a constituent with his own moving and acting in it inside; the meaningful content is identified as reenter inside precise categories. It is ‘separate’ in the sense that the categories are made before on the base of a series of assumptions that in the greatest part of the cases they don't have anything (or very little) to see with the real situation of interaction, the information is assumed, it is understood, it is separated its meaning, but the researcher is neutral however, cold, he sets, to the maximum one, from the point of view of the other. The clear, rigid, made before separations reappear, the same concept of ‘us’ is however contrasted in a total manner to ‘others’ one, the syntactic linearity, of which it has spoken previously, pretends it; the interaction happens at the same time, but in a different space in comparison to
that in which the others move, space and time absolute for the one that lives in its own inside, therefore independent and inaccessible. Everything this is resolved in a reading given by N. Luhmann as tension between reality and possibility the one perfectly separated by the other and totally given the behave of social systems, social systems in which, as it is known the subject is dissolved (Luhmann, 1984).

Secondly it is had to analyze the distinction that is to have operated between syntax and semantics in the level of construction of the techniques of survey and analysis of the data.

If from a side the syntax is not able that to found itself upon the Classical Logic through the unconditional formal assumption of the three Aristotelian principles and of possible modal and indexical specifications, semantics cannot put aside from proposing again the fregean dichotomy between sinn and bedeutung, as the same M. Weber (Weber, 1997) can be read according this optics. Assuming as bedeutung of a predicate a concept (function whose values are values of truth (Frege, 1891) the sinn results to be a way to think the concept, accordingly the ideal type coincides with the dominion of the variable replaced the free occurrences of a concept for which the same value of truth is had, remembering that the values of truth for Frege not are able to be that two: “the true” and “the false.” The focal point consists in the individualization of the membership or less of a property to the set of the expressions that identify an ideal type, membership or not membership are here total (Givigliano, 1999b). The techniques are so structured in function of a rigid categorization, that loses information to earn in ‘clarity’, in precision, in certainty. The logical base is given by the characteristic functions that individualize the membership of an object to a set in a ‘certain’ way; it is the set itself that determines who is to its inside and who no, all identical objects among them. The structure of the characteristic functions is the following:

\[
f(x) = \begin{cases} 
1 & \text{se } x \in A \\ 
0 & \text{se } x \notin A
\end{cases}
\]

It is so underlined a rigid, even if complementary and interactive, distinction between syntax and semantics (they belong also to a dichotomy).
What would it happen, nevertheless, if is account also of the whole information that is eliminated inside the research work to be able to let enter again data and concepts in sets so made? It would be had to see again the same functionality of the Classical Logic, but to this problem an answer is already had, it has had since 1931, the answer is signed Kurt Gödel. One of the first assumption that it has to fall results to be, therefore, the whole the Aristotelian principles: identity, not contradiction, excluded middle. For how much it concerns the first one, it is had to assume as new criterion of equivalence the one hypothesized by L. Wittgenstein (Wittgenstein, 1953) that it proposes the concept of similarities of family inside a given linguistic game. This results to be a first footstep toward the construction of sets no more of ‘extensional’ type, but of ‘intensional’ type, sets that are individualized beginning from a single property assumed not in its entirety, but through quotas of membership. It can already notice as there is not a rigid distinction anymore between syntax and semantics. The second principle, the not contradiction, falls in the moment in which the same rigidity of the sets falls, in fact the same object can be inside in more than a set contemporarily even if such groupings are antithetical among them, the belonging is by quotas, not more in the totality; any least part of information is so useless to be able to be ignored. Attaching the third principle is put in discussion one of the principal concepts, if not the most important, of the whole science, the concept of truth. Following Gödel it can be affirmed that the theorematicity transcends truth, translating it within the logic of the social research “the true ” and “the false” of Frege are effected in the regulative ideal of which K. Popper (Popper, 1969) speaks, but in the world of the social relationships the whole is in constant becoming, it cannot satisfy of to draw near, to always have ‘probably’ the right answer. It is not wanted to incense the certainty, but to assume adherence to the reality as possibility of real verstehen, that keeps track of whom is in relations; of which are the relational time and relational space, different from, but inside the physical space and time; of as a thing is not necessarily true, correct, black in toto. With sets so made on different criterions, it is necessary to overcome the Classical Logic, that has to be inside a Logic that allows of reading the totality of the information. This type of logic will be illustrated later, for the moment it is fundamental to underline as the syntax of the reality has to lean on the principle of linear causality not anymore, but on one non linearity that allows of understanding as a small initial variation produces some deeply different effects: the syntax of the reality is a chaotic syntax. A small variation in the criterion of grouping, provokes a move inside the set, a move of the same set, the researcher is found, so, totally inside the
process of research, of his method, of his techniques, as he is inside to the reality of which belongings, that change and from which is modified in continuation. As, in the same time the objects of his search are, everything depend by the times, by the spaces, by the modalities of interaction and by the involved men; the research is not anything else than a type of interaction, that contributes, also to the making/modifying of the reality from which is in turn made/modified (as every other relational activity). The same reality has this form researchable only keeping track of this different type of causality and structure syntactic-semantic topology. The form of the reality, of its parts, of its relationships and of the subjects themselves and of their actions it is a fractal form (Mandelbrot, 1987).

3 THE WORLD OF SOCIAL RELATIONS AS A COMPLEX SOCIAL NETWORK

It has spoken previously of as the structure of the reality is read in terms of a linear type causality, more rarely as a ring of retroaction. Ring of retroaction that, nevertheless, leaves unchanged both who emits and who receives, according to the classical scheme introduced in the figure 1 where E is who emits, R who receives and f the process of feedback that intervenes between two to give way to modify both the input and the output:

![Figure 1. Classical Retroaction](image)

They stay, nevertheless unchanged both who emits and who receives, as if once given for their interaction there was not way to be modified, they exchange of time simply in time the roles each other, they operate a bargaining on the sense, they arrive to the determination of an informative content that discards of time in time a quantity of data. Data that
nevertheless influence on the general structure of the interaction, even if thought irrelevant, they contribute to the construction of the real sense, of the communication, of the relationship. They are perceived, they are not stopped to the stadium of pure feelings, they contain within themselves the whole relationship under the forms of a categorization that structures itself on the experiential lived of the men inside the “linguistic game”, which are contained and modified during, through and by the way of the process itself of meaningful construction. It is the characteristic structure of the fractal, a given area constituted by the men in relationship and by the context of the relationship and an endless perimeter constituted by the process of categorization, by the space and by the time of every single man, by theirs relational space, by theirs lived by the changes that they bring and that they receives from their mutual interaction and with the surrounding environment. Every single part of this complex topological structure reproduces the whole form, through (and inside) the actions gifted of, makers and modifiers of meaning, the whole situation of relational exchange is had.

It is passed by the figure 1 to the figure 2:

Figure 2. Complex Recursion

It is used the term recursion instead of the preceding retroaction, because it has passed from a traditional cybernetic structure (Wiener, 1965) to a complex recursive one (Morin,
1977). The single parts contain and they have the form of the whole, they are by it made and modified in the same moment in which they make and modify it, moment that doesn't coincide necessarily with the external physical time (even if it is from it contained), neither with that inside one of the single men, but it is the proper time of the relationship.

Relationships that structure the social reality as a network of communicative exchange. Every single interaction constitutes a dimensional axis on which the man covers not a static position but a dynamic coordinate, varying; the ‘extensional’ sets that connote in an exclusive and univocal manner don't exist anymore, the structure is that of the ‘intensional’ sets that vary according to the quotas of attribution of the single property that it determines them. Quotas that identify the meaning made by the subject, co-construct by the subject, because it is not only thanks to his attributions that it emerges, but it is made and modified continually (in turn it makes and modifies) the same interactions of the subject. His co-constructions of sense identify the positions that he occupies and his dynamics along the relational axis.

It is used the term subject, till now it was used the neutral word of man because it is have to operate a distinction, distinction that has varied gradations, varied quotas of membership distributed on the varied levels of reality, the distinction between actor and subject. The actor is the one who doesn't realize this structure of the reality, he is incapable of to manage the informative flow of which is co-constructor and modifier and by which is co-constructed and modified. He lives in the world of the certain one, of the correct one and of the wrong one, of the white one and of the black. The subject is the one, instead, that perceives this different modality of the being in relationship, he is able to manage his meaningful contents and to move along the net in aware manner, aware to possess himself the almost totality of the information regarding the reality in which alive, in a hologramatic dynamics type.

4 THE STRUCTURE OF SOCIAL EVENTS

In more occasions it is underlined the presence of a plurality of relational times and spaces. Every dimensional axis that identifies a single situation of meaningful interaction inside the social network, of the reality, possesses a proper relational time and a proper relational space that they contribute to structure the determinations of the individuals. Faded the idea to be
able to find a causal regularity type linear, valid always and however, independently from the initial conditions, provided that the structure of the exchange has a given syntax and semantics, it is owed it reconsiders the same concept of social event.

The social event emerges from the relational activity, is always introduced time by time in different and at the same equivalent way. It is not a simple happening, something that has to be necessarily in a given way, the conditions of necessity and sufficiency, that have characterized the analysis of the structure of the becoming, they are revealed inadequate, they all don’t takes is giving reason for non linear dynamics type chaotic. The butterfly effect can be an example of it. To be able to still exploit her case record regarding the conditions of necessity and/or of sufficiency, the many relational times and spaces would have to coincide them, or how much less, to be replaceable reciprocally, that it is it doesn't keep track of the continuous conceptual change that is operated inside the man. Conceptual change that derives from the same alive, from the continuous one and constant construction and modification of the meanings and from the continuous one to be made and modified by and through the meanings themselves. Is not dealt with a simple sociological competence regarding the language, as is not dealt with a pure application of abstract mental constructions. A single event is and is single, the concept of probability cannot be translated, already than for him same dicohotomic and under some aspects abssoluting, in the terms of a datum of fact. The numbers are mute, Gödel with his process of gödelization has brought this concept to the extreme consequences, the number as a label of one any other entity, but at the same time as a quantity. In the functions of distribution of probability, the percentages don't trace what it is the reality, an average loses in informative contained, the generalizations are founded on sample functions that are a simple abstraction of a reading of the reality that doesn't keep track of the multidimensionality of the subjects and the of relationships among them. Also the values attributed in investigations of qualitative type are groupings that don’t consider the inside multiplicity of the determinations that they want to classify and, therefore, categorize, the datum is forced toward values that of norm they are the exception.

A social event is therefore a set of positions along the dimensional axis, that interact the one on the others, which identify the single relationships of every social subject. It is a meaningful summation , not a simple sum of behaviours, attributions, sharings of sense. It cannot be an empirical generalization, the reality is not given, but neither co-construct by impersonal systems, nor by actors that as statues of marble always stay him same giving beauty every different time to a plaza according to the light that illuminates them. If it were
then a simple empirical generalization the meaning it would coincide with what it wants to be found, or better, with what the tool that has been construct is able to notice, independently from the optics of verification or falsification inside which the researcher moves, but, above all, without any adherence to the reality, it won't be twice never following 28 October 1998.

5 FROM CERTAINTY TO FUZZINESS

From what it is said emerges, therefore, the necessity that the cognitive framework to be able to predispose and to use methods and techniques of research that reads the reality and not make again it is structured on a different logic from the Classical Logic. This last are not nevertheless to eliminate, its validity is for a whole series of particular cases unchanged, not more for the totality of the determinations, the logic that is wanted to take in consideration owes therefore to contain the Classical Logic.

Not could use sets anymore of an ‘extensional’ type the first thing to modify it will be the structure of the characteristic function, this involves a whole series of extremely correlated implications among them. The concept of truth falls; the exclusive categorization falls, in the sense of total membership of an object to a set; the impossibility that the same object has antithetical property falls (possibility that sight doesn't come anymore how a contradiction, therefore, a something from to avoid absolutely as source of error); the absoluteness of the time and the space falls inside every single system of reference; the immutability of the subject falls in situation of interaction.

The characteristic functions attribute an object to a set not taking in consideration, in the greatest part of the cases, the totality of the information regarding the datum in matter. It prefers to eliminate a part to be able to maintain a rigid classification, clear, without possibility of uncertainty. Nevertheless Gödel has shown as a true proposition can be made, inside a axiomatized formal system at least as the arithmetic of Peano, that is not either decidable or not decidable according with the same axioms of the system. This theorem let fall the same bases of the Classical Logic, but what would it happen if instead of the ‘total’ ‘total’ demonstrability, of the truths it were analyzed degrees, quotas of demonstrability, truth, etc.? What would it happen if instead of attributing the objects to a set the whole it was made around the objects, every set for a single property with the possibility to individualize the position of the object inside the set in function of ‘how much’ possesses the property in
matter? What would it happen if the border of the set were no more rigid, creating enormous problems for the cases of border, but vague, fuzzy, in such way in that the same object can reenter contemporarily in more sets also antithetical among them? Epistemically would be reentered inside the scientific universe elaborated by E. Morin (Morin, 1977), logically it would be used as cognitive framework of reference and as instrument inside the techniques of research the Fuzzy Logic.

Been born in 1965 formally with the article of L. A. Zadeh Fuzzy Sets (Zadeh, 1965) Fuzzy Logic is more known perhaps for the technological applications that for the implications that it could have in the world of the social research particularly and scientific in general. There are many concepts that characterize it in first appeal: membership function, fuzzy set, fuzzy number. Fundamental, nevertheless, it is to avoid any approach between this logic and the whole oriental philosophical-mystic disciplines.

The membership functions constitute the correspondent one of the characteristic functions. While these last are operating on rigid sets (categories) in extensional way, the membership functions, made by the researcher himself on the base of the proper approach of reference, of the really lived existential, of the really sets of positions along the dimensional relational axes, they construct intensionally the sets. Their results, object for object, give the degrees of membership of the single one to the set, the how much it belongs, accordingly its position along the relational axis and, therefore, the whole its positions inside the network. Evidences can assume all the inclusive values between 1 and 0 (the particular cases of ‘total membership and not membership that identify the circle of action of the Classical Logic), values with a deeply different meaning in comparison to the probabilities. While a function of distribution of probability is coming to have normalized to 1, a membership function is not necessarily it, because it is not given a choice between to be inside the universe (whose total probability is note 1) and the not to be, but the choice is between the how much to belong to every single set individualized by a fuzzy membership function. The evidences so individualized are not always valid, in every time and in every space, but they vary with the changing of the relational dynamics of the subject, they are states of semistable equilibrium, the entropy of the system doesn't want therefore to point out a stadium of disorder (order and disorder coexist inside this complex dynamics, the first one could not be without the second contemporarily from the first one the second it is born), but the number of the states of possible evolution of the system on the base of the relationships themselves.
In the sets so individualized, with vague edges, fuzzy, the border cases are not source of loss of information because they’d have to however insert only inside a grouping, but from them an additional source of information originates. The contradictions are exploited for managing better the passage from a stadium to another, don't avoid, hidden, forget. They are no more static, but dynamic sets, constituted by the sum of their parts not anymore, either more then this, are at the same time more and less, something different from the sum (Morin 1977), they are a meaningful summation. They are characterized through emergent properties that individualize the sense co-construct through the categorization inside the relational dynamic that in turn it is by it co-construct and modified.

The same concept of fuzzy number follows the same assumptions not discreet quantity but vague values anymore; and the assumption according to which the all has contained in the part his correspondent it finds in the theorem of the fuzzy sottoinsiemiety.

The elaboration of the logical connectives leaves nevertheless some perplexities. To assume as value of the conjunction the least evidence between those furnished by two membership functions, or as value of the disjunction the maximum evidence they deserve ulterior deepenings, while to attribute as evidence of the negation that of the complement to 1 lets rise enormous doubts. It would almost seem a return to the concept of probability, while the antithetical category to a given one is not being made through the membership function given by the negation, but through a new function that consider the concept in matter as a new concept, with its tones, its zones of shade, its own border cases. If the evidence to be deviant is 0.4 the one not to be it is inclusive (again) between 1 and 0 but not necessarily 0.6. What is fundamental they are the relationships between the different levels of the reality, not the assumption of a rigid confinements inside which to move in a partially different manner.

6 THE ANALOGY

To be able to study the different levels of the reality contemporarily, the different relational dimensions inside which the subjects are moved, their manifold meaningful co-constructions, but also the same relationship among subjects and net, the proposal that seems more interesting concern the use as a logical instrument the analogy of proportionality. Shaped as a something that allows of to analyze the relationships in vertical manner, it not only allows of to underline the fractal structure of the network, where the fractional dimension is given by an
inside homotety, but it allows the same construction of the membership functions in such manner not to separate the dimensions to which the researcher has interested among them they identify his assumption of a well precise point of view. In this way fall both the riduzionistic assumptions and the olistic one, for of two logical (inner) fallacies, the logical fallacy of the composition, that assumes as truth for the whole what results to be for one of its single part, generalizing the attributions of a single object for the whole class; the logical fallacy of the division, that contemplates as truth for every single part what results to be true for the whole as it systematizes.

Through the use of the analogy the same distinction between a purely syntactic analysis and purely semantics one is overcome. The result, at the end of the process of elaboration, it is not a simple chain of tied propositions the one to the others from ties of axiomatic nature or underlying to the divinities necessity and sufficiency, neither a simple analysis of the content according to criterions and schemes rigidly constituted. The two components are integrated (they construct and constantly modify each other) among them in the moment in which the membership functions don't result to be anymore either a simple classification tool, or a pure component inside a mechanical procedure but something through which the model construct by the researcher is not superimposed to the datum, but it reads the datum, it enters inside the process of co-construction and constant change and it itself is continually co-construct and modified, in such way that the same concepts of reliability, validity and affidability have to been reread in the terms of a more narrow bond with the conclusive dynamics the social change.

7 TOWARDS THE EMPIRICAL FIELD

Everything how much it has been affirmed in precedence it is not anything else other than the attempt of construction of a suitable model for the scientific research in general, for social one particularly. It is spoken of model and not of theory, Because not only fall the assumption of the prevedibility, but also the rigid normative system of the generality and universality. It has spoken about the plurality of times and spaces, of the necessity of adequate readings of the real situation developed on more levels, keeping track of a non linear dynamics, confining everything this, forcing it inside the walls given by a theory is almost a declaration of surrender. It doesn't want to deny the possibility here, rather the necessity, to
ready some heuristic tools able to give the necessary technical support inside the research, of
sure they won't be, nevertheless, either of a type purely quantitative, or of a purely qualitative.
Through the analogy it is possible not only to operate a classical comparison between results
gotten through traditional techniques belonging to two poles of the distinction, but also to
establish a different process of research, where the quantity and the qualitative one work not
on the whole anymore, but on levels that shade the one in the other.

They operate together inside a model based on an equation that would have to be able
to manage the whole informative datum, assuming that the concept of derivative expresses
the limit of the incremental relationship of a function to the to extend toward a given point, so
the Communication expresses the limit of the incremental relationship of the membership
function given by the information in terms of transmission of a message, increased in the
sense of a categorization from the receiving subject, in a given space and in a given time that
they are those of the axis of relational dimension on which the particular point verse is
identified, point which extends the whole relationship. Remembering that the social subject is
in effects constituted by a plurality of positions, in a situation of continuous
construction/modification, that individualizes some situations of semistable equilibrium , it
emerges as the concept of derivative, is not a forced appropriation by the sociology of a
mathematical concept (if more precisely physical), but an attempt of create a model for
acting, thinking, in a word live as subjects in the world of the social relationships.

The equation in matter would owe therefore to be of the type:

\[
\frac{\partial S_i}{\partial X_j} \quad (2)
\]

where \( s_i \) is resulted to be:
\[ S_i = f(x_{i\ j\ k}) f(y_{j\ f\ k'}) f(z_{j\ f'\ k'}) \] (3)

defines the whole, the meaningful summation, of the membership of the properties ‘i’ in a space ‘j’ and at the time ‘k’ of the relationship (with subject n) in turn inclusive in the space and time physicists.

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