Structuration theory amid negative and positive criticism

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ABSTRACT

This paper tries to sum up the criticism that turns around structuration theory to help the applications in MIS field. The literature review allow to advance three categories of criticisms: (1) the conflation of structure and human agent, (2) the complexity and the outspread of the theory that lead to contradictions, and (3) the lack of assumptions and methodological guidelines. Some recommendations are given to direct future researches.

Key words: Structures, Agency, Duality of structural, Time-space dimension.

Introduction

Structuration theory is more and more used in the field of management information system. In fact, it offers the possibility to conceptualize IT artifact in a dynamic way and goes beyond the deterministic conceptualization in previous studies. The concept of the duality of structure is the main concept in structuration theory. It means that structural properties are at the same time the result and medium of practices which are organized in a recursive way. It allows a new perspective of the relationship between technology and user. Hence, the use of structuration theory in the IS field aims to provide a theoretical approach that helps the understanding of the interaction between user and information technology, the implications of these interactions, and the way to control their consequences (Pozzebon and Pinsonneault, 2005). More specifically, structuration theory allows human agency to surface and gives them the power to explain the difference of outcome in presence of technology (Boudreau and Robey, 2005).

Given the spread of structuration theory, the aim of this paper is to enumerate its different criticisms in order to offer a better understanding of its application in MIS field. In fact, in spite of the contribution brought by structuration theory, some remarks on its formulation may be worthwhile.

Otherwise, structuration theory is not the only dual theory which gives the opportunity to avoid the dualism between agent and structure. Some scholars have established theories and frameworks dealing with the same issue. One may cite the Bourdieu theory of practice (1977), Berger and Luckman's constitution of society theory (1966), Archer's morphogenetic theory (1995), and Feenberg's critical theory of technology (1991-2002). Indeed, Michel Foucault, a French post-modernist philosopher, has an interesting contribution in this field. Nevertheless, the success granted by structuration theory is unique, but what may be the causes for this success? Giddens (1995) asked the same question about the success of Parson, Marx, Weber and Durkheim. He said: "*the forgetting is an arbitrary matter*" (Giddens, 1995,p. 7). Therefore he concludes the hazard is the only explanation. In keeping with this, we do not share this point of view. We do not believe there is a similitude between the Parson theory and structuration theory. Hence we cannot adopt the previous argument. In fact, each theory has its historical singularities.

Regarding the historical context, the Giddens theory emphasizes the agent characteristics and gives to researchers the opportunity to study the agent behavior in society. At this time, most researchers focused only on the macro level of analysis. In fact, a dichotomy can be seen between the technological determinism (based

on Marx's thought) and the social constructivism (based on Kuhn's thought). Structuration theory seemed to be the only resort to transcend this dichotomy.

Indeed, Giddens offers an agent-structure analysis independently from the political issue. Giddens's works are even separated into dates. His work about agent-structure relationships started in 1970 whereas his political writing started later in 1995. This is why the Giddens structuration theory seems most suitable for the organization context. That means that the relationship between the worker and the structure is vital and can influence their performance.

Instead of Foucault, for example, who relates the fragmentation of the identity of agents to political conditions. In fact, his work focuses rather on the forms of power that an individual is subjected to. His analysis is closer to the political level. Indeed, Foucault has a pessimistic analysis of contemporary society. For example, he deals with the demonic society and the possible extermination of the population and expresses this position clearly. Thus, he does not give much freedom to the user for possible interpretation. More to the point, his work is characterized by discontinuity such as the conceptualization of power. In fact, there are at least three shifts in the power definition (Dean, 2001). An additional significant disparity between Foucault and Giddens is that Giddens expresses in an explicit way the aim of his overall project: "the struggle against dualism", whereas Foucault keeps this aim implicit (Layder, 2006). In keeping with this, Layder (2006) states the aim of Foucault may be not to transcend dualism because he is against the idea that the individual is a source of meaning. He rather encourages an objective analysis of society that shapes the subjectivities of individuals. Finally, Foucault is criticized for his lack of historical quality and his distortions (Horrocks and Jevtic, 1997).

In the same vein, another influential French philosopher Bourdieu (1977) proposes a dual interpretation of the social system advancing the habitus concept. He argues knowledge is constructed rather than passively learned (Bourdieu, 1980). Like Giddens, Bourdieu did not develop a specific theory of technology. The main criticism of the theory of practice is that Bourdieu focuses on the notion of habitus as an individual feature, unless it is shaped by interaction. However, he did not explain the evolutions that can occur within structures such as technology which are independent from the individual. At the same time, Bourdieu did not give a plethora of concepts as Giddens did. Accordinlgy, Joas and Knöbl (2011) argue Bourdieu did not expand his theory but rather spent his time defending it against criticism. They add: "*It is almost impossible, however, to discern any theoretical development here…. Ever since it was developed in the 1960s, his theory has thus remained basically the same. It was solely Bourdieu's identity or role that seemed to change significantly over the course of time*." (Joas and Knöbl, 2011, p.4). Even the empirical suggestion made by Bourdieu (1987) as an anthropological researcher can be criticized. Bourdieu (1987) developed an epistemology he called the "constructivist structuralism". Accordingly, the methodology that should be used is the half-structured interview. The explanation of his methodology seems to follow a deductive approach when he assumes the researcher should have *à priori* clear ideas about the subject research. Nevertheless, he neglected the objectives of the study; the interview is not always the most suitable methodology. He imposes a specific methodology on researchers. Therefore, he puts the researcher in brackets. As a consequence, the work of Bourdieu as well as that of Foucault did not give enough freedom to make possible interpretations or any flexibility of use.

A comparison between the dual theories and structuration theory is not within the scope of this paper but we can conclude that, besides the importance given to agent characteristics and the clear position taken by Giddens, the success of the theory depends on a logical evolution in his work. He started with modern theory criticism in his book Capitalism and Modern Social Theory: An Analysis of the writings of Marx, Durkheim and Max Weber in 1971. Hi started the development of his own theory as an answer to the different criticisms in 1979 in his book Central problems in social theory: Action, structure, and contradiction in social analysis. He established his theory in 1984 in his book The Constitution of Society: An Outline of Structuration Theory. He started an analysis of the actual society in The Consequences of Modernity in 1991. He analyzed the transformation that occurs in the agent of the twentieth century in Modernity and Self Identity in 1991 and The Transformation of Intimacy : Sexuality, Love and Eroticism in Modern Societies in 1992. Giddens 1994 Giddens started his work on the issues of political and social reform through Beyond Left and Right. Finally, the real political analysis and solutions are proposed in a book entitled The Third Way in 1998. This evolution is unique and it depends on the evolution of contemporary society. These titles are not the unique scientific production of Giddens but they highlight the continuity of his project. Therefore, the increasing use of the structuration theory in MIS field is understandable.

Nevertheless, is it possible to make good use of such a complex Meta-theory without understanding the weaknesses and strong points? As a consequence, an overview of the critical assessments becomes very important as it is not acceptable to use a theory without knowing its criticism. Critics show the increasing value of the theory and its usefulness in the information system field too. In this way, even Giddens greeted the efforts made in his dissertation *Reply to my critics* in 1989. He states that he is fortunate and privileged to be the source of other interests. But criticisms are directed toward different aspects.

The misuses of criticism lead to differences between the first formulation of structuration theory advanced by Giddens and its use in the information system field. In fact, many attempts to apply structuration concepts went far away from the Giddens' aim to overcome the traditional dualism characterizing the social field. There is a huge disparity between the emergent works and the original theory. The adaptive structuration theory (Poole and DeSanctis, 1994) is the most well-known application. Poole and DeSanctis (1994) offered a causal model and replaced the duality of structural by a narrow concept that is the appropriation of structures. The empirical application of AST reduces the potential offered by the structuration theory to explain the reality and keep some parts unexplained. Most importantly, the unconsciousness level of analysis is omitted.

Nonetheless, another main difference can be fruitful in the case of MIS field, that is a difference in structure conceptualization. In keeping with this, Jones and Karsten (2008) claim we should give technology an existence that is separate from the practices of social actors and independent of action. Ontologically, a structure that resides in a real, material artifact would also seem clearly distinct from one that exists only when instantiated in the practices of social actors as suggested by Giddens. So, as information technology has advanced to become more communication-based and collaborative, the field's concern with the structuring properties of technology has persisted (Poole and DeSanctis, 2002).

To sum up, there are main criticism and a trend in points of view at the same time. In this paper, we propose a review of the main criticism useful in MIS field. We are interested in criticism that can allow a better understanding of the technology-user relationship. The literature review we made allows the collection of criticism of the overall project of Giddens. In this paper, only the criticisms about subject-object relationship are mentioned. For example, the political dimension of the Giddens's project is not included in the background of this study.

We propose to put the criticism into three big categories: (1) the conflation of structure and human agent (e.g Craib, 1992; Layder, 2006), (2) the complexity and the spread of the theory that lead to contradictions (e.g. Turner, 1986; Loyal, 2003), and (3) the lack of assumptions and methodological guidelines (e.g. Rose, 1998; Orlikowski and Robey, 1991). This paper will be organized as follows: firstly, the three categories will be dealt with. Then, a recapitulation of Giddens's reply will be presented. Finally, a set of recommendations are going to be given.

1. The conflation of structure and agency

Rose (1998) claims the conflation of structure and agency is the main criticism of structuration theory. Giddens states that structural is not external to individuals. It exists into agency mind. Archer (1996) states this conflation reduces the analytical perspective because it leads to a non gathering between concepts such as interaction and social system. It is more appropriate to distinguish between people and society features. Hence, Archer (1990) withstands the analytical separation between structural and agency. Indeed, Layder (2006) postulates that the simultaneous constitution of action and structure do not allow the assessment of the relative impact of structure or that of agent. "It is difficult to analyze the way in which structural features may predominate in certain areas at certain times, while the creative and transformative activities of people may come to the fore" (Layder, 2006, p. 185).

When Giddens admits that structure can never be separated from agent, he puts the emphasis on agent rather than on structure, consequently, he leaves his main objective to overload the dualism. Although he admits in some quotations that structure can exist outside agent: "some forms of allocative resources (such as raw materials, land, etc.) might seem to have a real existence in a way which I have claimed that structural properties as a whole do not" (1984, p. 33); he continues to turn down the possibility of the separation between them instead of empirical analysis. In keeping with this, the definitions of modalities and interactions (such as

interpretative scheme, communication, power, ect) are expressed in agency term. For example power is defined as the human capacity, this denied the power of structure that has also power that is perceived as a constraint by agent. For example, the power of computer is on its capacity to process much information in the same time.

Therefore, it would be difficult in structuration theory terms to capture the continuity of structural characteristics. On the other hand, despite the fact that institutional characteristics are not standing, there is an overemphasis made by Giddens to explain the evolution of structure depending on human motivation. This reduction follows a conception of social system as being instable since it is constantly changing throughout interactions (Layder, 2006). Here, Giddens seems to adopt a postmodern perspective that enhances the fragmentation. It is also in contradiction with the importance that Giddens (1984) gives to the ontological security; a term that he borrows from Goffman. Ontological security depends on the establishment of routine. The relationship between routine and the continuous alteration of structure is flagging because it involves describing ontological security as fragile.

Indeed, when Giddens (1984) draws the advantages of the transformation capacity for human agent in face to face encounters, he underestimates the idea that structures constraint and enable agent (Thompson, 1989; Layder, 2006). Much emphasis is given to the enabling power of structure rather than the constraint dimension. Thereby, he takes a voluntaristic ontology. In much the same way, Loyal (2003) claims the ontological position of Giddens is controversial. In fact some authors think that Giddens has a voluntaristic direction (e.g. Layder, 1981; Archer, 2010; Callinicos, 1989; Clegg, 1989), whereas others (Bertillson 1984, Thompson 1989) see that he has a deterministic direction.

More to this point, to assume that structure cannot exist outside agent is to assume that there are no rules that exist outside agent. Nevertheless, when people drive a car or cross the street they follow some rules unconsciously which they never put down. Accordingly, Barnes (2001) wonders why Giddens focuses only on agent to explain the relationship with rules and norms without explaining the rules and norms independently of them. He states that Giddens did not give any explanation to this restriction. Indeed, Giddens (1984) admits that rules are independent from structure in the sense that it exists only in agent mind, which rule should agent follow? How can agent assess a given rule? Obviously, in reality rules are standards imposed by the social system. Structures are mode of communication rules that constrains agent. If the agent does not follow rules they cannot be in coherence with the other members of social system and cannot develop any relationships. This aspect of people encounters is also absent in Giddens work. Giddens devotes much of his work to identify and clarify the relationship between structure and agent; however he disregards the relationship between humans. He just makes a reference when he talks about the concept of co-presence.

In summary, human agent change their interpretation of rules and resources based on their interaction with others in addition to their interactions with structures, this level of analysis is omitted in structuration theory. Otherwise, norms as a dimension of the rationalization process cannot be internalized independently of other social actors. For example people should respect a person who dresses like a doctor. It is substantive rationality. This rationality leads to the agent being respected by others. If someone does not respect a doctor it will be perceived as ungratefulness, incivility and so on. In the same vein, the analysis of power as a transformative capacity is incomplete; as suggested by Loyal (2003); in the sense that the power of the individual is limited; the transformation requires often a number of individual acting together. This prior point leads us to another criticism that contemporary researches make to Giddens approach: the absence of cultural dimension into the analysis.

2. The complexity and the outspread of the theory that lead to contradictions

There is a consensus toward the difficulty that the readers encounter when they try to understand the structuration theory. Criticism is first made about writing style. Even Giddens (1984) says: "this has not been an easy book to write and proved in some part refractory to the normal ordering of chapters" (p. xxxv). Giddens made a similar note in (1991) when he wrote "*I hope to the reader will tolerate the slight elements of repetition which this strategy produces*" (p.1). Beside, many authors note this difficulty. For example, Craib (1992) expresses his frustration, irritability and disorientation when reading some passages. He says "I have found the same chaos intensified to an exquisite and almost unbearable degree in Giddens attempt to organize it". Similarly, Bernstein

(1986) claims Giddens text looks like a prose often characterized by repetitions. Therefore, he writes "a well thought-out opinion on virtually every topic or theme which has been addressed by any social thinker". Pozzebon and Pinsonneault (2005) add that it is a complex theory that involves concepts and general propositions that operate at a high level of abstraction. The theory is useful only if the researcher can internalize the entire concept evoked by Giddens. This highlights how important it is to adopt Giddens thought while doing research.

In addition to that, Giddens gives a plethora of concepts. The appendices of his books show glossary of terminology and indexes that include hundreds of concepts most of which are concepts developed by Giddens himself (Nizet, 2007). In keeping with this, the justifications of these concepts are based on Giddens own quotes (Bernstein, 1986). We cite the reflexive monitoring of action as one of the main ideas of the theory, the pure relationship, lifespan, and so on. Hence, in The Constitution of Society the index is shaped with 1000 themes, while, the glossary includes 43 themes. Similarly, in his book Modernity And Self Identity (1991) the glossary includes 41 themes and the index includes seven pages.

This leads to contradictions in his analysis and leads to the premonition that he is not in control of the material he is discussing. Besides, generally, Giddens makes his analysis talking about the statements that he disagrees with former researchers moving quietly to show his accord with them (Bernstein, 1986). The same idea is made by Turner (1986) that claims problem with structuration theory can be shown with its definitional quality. In fact Giddens gives a set of definitions and diagrams where it is difficult to understand the relationship between all the concepts and ideas. In this way, some contradictions can be mentioned. These facts make Giddens divert from his main objective in order to avoid the dualism. In the light of the above, we are going to enumerate the main contradictions.

Firstly, an important contradiction is made in the conceptualization of agency. Giddens focuses more on practical knowledge than on discursive knowledge. This is a contradiction because he puts the emphasis on the reflexivity of agents and their power. Indeed, the relationship between the structural dimension and the agency is not thoroughly developed. This is due to the fact that Giddens puts much more emphasis on agency rather than on structure. In keeping with this, Loyal (2003) states that Giddens concentrates on developing its own individual psyche structure, instead of explaining how social structures are lived through the psyche, through emotions and various cultural identifications. He even more compares between his conceptualization of consciousness and unconsciousness with Freud and Erikson. He points out that the different levels of consciousness (discursive consciousness, practical consciousness, and unconsciousness) replace the traditional triad of psychoanalysis: ego, superego and id.

In the same way, as the analysis is focused on unconsciousness rather than on consciousness, a relative importance is given to the ontological security. The latter is explained in an individualistic way, as influenced by the routine of daily life. More to this point, Loyal (2003) explains this conceptualization views the basic security system as socially unprocessed and without a history. Craib (1992) adds that structuration theory presents the individual as unconsciously depending on the routine and lacking emotional reactions. The dark side of social relationship as subscribed by Layder (2006) is not mentioned. In keeping with this, Saunders (1989) postulates that Giddens presents people in harmony with each other and with nature. This undermines the manipulation of self-interest drive and its effect on people relationships. Here again, the lack of reference to culture in the analysis is prevailing.

As a consequence, the criticism of the strong rejection of functionalism emerges. In fact, as functionalism and positivism present the individual as "cultural dupe", Giddens omits totally the culture dimension and presents individuals as "unconsciously dupe". Therefore, the contradiction between the emphasis on power and the emphasis on practical consciousness is highlighted. Indeed, a similar note can be made toward a contradiction between the conceptualization of self identity and that of ontological security. Giddens (1991) states" A self identity has to be created and more or less continually reordered against the backdrop of shifting experiences of day to day life and the fragmenting tendencies of modern institutions". In this way, self identity cannot be stable over time-space dimension. Giddens (1991) even talks about the reflexivity of the self-identity based on Rainwater's purposes. It refers to the fact that in the modern world the self is seen as a reflexive project that is continuously and constantly revisable. The need of routine as a precondition of ontological security does not fit in with the continuous evolution of the self.

It is noteworthy that most of criticism are related to agency (the privilege is given to practical consciousness, the contradiction between self identity and ontological security). The emphasis put on agent rather than on structure has markers even criticism. Nonetheless, some researchers commented upon the structure conceptualization. In this vein, the work of Thompson (1989) will be mentioned in the following. He states that the conceptualization of structure as a set of rules and resource accentuates the problem rather than dispels it. In fact, Giddens gives an ambiguous definition of rules. In keeping with this, it seems that Giddens seeks to be perfectionist when he borrows Wittgenstein's categorization of rules. There are intensive, tacit, informal, shallow, discursive and formalized rules. Some rules are weakly sanctioned and others are strongly sanctioned. Thompson (1989) points out an underestimation of the term rule. Giddens (1984) digs deeper when he proposes a mathematic equation of the expression or social structure in terms of rules as "$an = n2 + n - 1$". Therefore, Giddens did not offer a clear explanation of rule because he did not specify what must be a relevant rule and did not give clear criterion. In summary, such analysis of rules has induced generalization of the structure concept without grasping the specific features of social system (Thompson, 1989).

Besides, there are no standard rules for all structures. The interpretation of rules does not depend only on the consequence of action, as a reflexivity process; whilst, rules operate differently according to individual and type of structure. This is what Thompson (1989) calls the "structural differentiation" (p.65). In a word, Thompson (1989) claims that the need for social sciences is not a precise definition of structure and especially rule, but rather an explanation of the process that leads to social system reproduction and special features.

More to this point, we notice that Giddens has taken the sanction only as a modality to communicate rule, hence as having a constraint dimension. Nonetheless, sanction may be a resource. In fact, an agency action may be negatively sanctioned if it not fits the rules and positively sanctioned if it does not fit them. We can take the example of car insurance. If the car driver did not respect the traffic rules, an accident may occur; in this case the insurance will increase the price of quotation for the next year. Similarly, when the car driver respects the traffic rule; an accident is avoided; the insurance will decrease the price for the next year. This technique is well known; it is called "carrot and stick". When drivers want to reduce the insurance price they can be careful not to do accident, so that they take profit from the bonus. Hence, the sanction becomes a modality that involves resource. We consider this aspect to be missing in Giddens analysis.

To sum up, the emphasis on agent and the lack of structure explanation uphold the dualism that Giddens wants to avoid. In much the same way, researchers note another contradiction. Giddens claims to break the dualism that characterizes macro analysis and micro analysis. Instead of that, he has made an analysis of modernity at the macro level without referring to the agent, and an analysis of agent at the micro level without referring to institutional structure (Nizet, 2007). There is a gap between the two levels. For example in The Constitution of Society the analysis focuses on agent rather than on structure. In The Consequence of Modernity, Giddens (1990) talks about the modernity and provides explanation of the modernity features. He did not make any relationship between the institutional dimension of modernity and the reflexive monitoring of action. In the same way, in Modernity and self identity (1991), he talks about the concept of self identity without establishing any relationship with action. Otherwise, he did not break the dichotomy; he does not propose a continuous and upward analysis. That's why, as described above the work of Giddens is divided into three levels, the structuration theory at the micro level, the modernity theory at the macro level and the political studies.

Let's turn to the rejection of functionalism. When Giddens fully rejects functionalism and positivism; he neglected their potential useful aspect. Besides, he is a great critic of Merton. This rejection leads to misunderstand some aspect of reality; because it is difficult to understand all phenomena using only one perspective suggested by Giddens. Thereby, the approach of Giddens is reductionist (Craib 1992, Layder, 2006). Accordingly, many authors (e.g. Clegg, 1989; Callinicos, 1989; Porpora, 1989; Layder, 1981; Archer, 2010; Thompson , 1989) have made criticism about the absence of causality in the characterization of social relations (Loyal, 2003). The following quotation highlights this idea. Giddens seems to be subscribed on hermeneutic position; rather than overlapping the dualism; he states:

> "*The social sciences, unlike natural science, are inevitably involved in a subject - subject relation with what they are about. The theories and findings of the natural sciences are separate from the universe of objects and events which they concern. This ensures that the relation between scientific knowledge and the object world remains a technological one, in which accumulated knowledge is applied to an independently constituted set of phenomena. But in the social sciences the situation is different*" (Giddens, 1984, p. 348)

Criticism has gone much further even to evaluate the definition of theory made by Giddens. Giddens rejects the conceptualization of theory as made by post-empiricist researches although his definition of theory is close to their conception. In fact, he stresses the necessity of doing empirical work to make generalization of social science phenomenon (Bernstein, 1986). Similarly, Turner (1986) rejects the conceptualization of universal law by Giddens. For Giddens universal law is an empirical generalization but Turner posits that it is not possible because empirical events change all the time. However, Turner (1986) posits that if we reject the positivism view the building of conceptual scheme should be rejected too. He calls for ignoring this position of Giddens.

Finally, deep criticisms are made about the conceptualization of time-space dimension. In keeping with this, Gregory (1989) notes the conceptualization of time-space suffers from an essential wickedness that is the explanation of the reproduction of social system. In fact, Giddens makes more emphasis on time than on space; there is an absence of the conceptualization of space. In this way, Gregory (1989) says: "structuration theory is virtually silent about the production of space" (p.187). Thus, there is a disconnection between the analysis of time-space and the shifting on structures and agency; mainly since Giddens did not talk about the normative aspects of space and spatial representation. That's why Gregory (1989) states that this aspect of the theory can be moved away without distorting the overall meaning.

In the line of this vision and according to time conceptualization, Giddens builds a model based on a distinction between time dimensions as (1) daily time, (2) biographical time and (3) institutional time. In fact, there is a conflation between these dimensions; they cannot be separated. Therefore, Layder (2006) says that this conceptualization creates a separation between the structural properties and the ongoing conduct which Giddens states to avoid. This leads to the methodological bracketing that Giddens sustains and which refers to the fact that researches can concentrate on the individual conduct or the institutional level of analysis. In fact, Giddens overemphasizes the mutuality of action and structure whilst he takes a lot of freedom to talk about them separately (Layder, 2006).

This prior criticism leads us to talk about another criticism that is the analysis around the routinization aspect and its implication that was already mentioned in this paper. As described above, routinization occurs when social practices become reasonably stable over time and space. Giddens states the rationalization process is based on routine that involves the internalization of rules and values by agent. Nonetheless, this is not an automatic process. Agent will not acquire necessarily all the values. If so, the reflexivity of agent has no raiso-d'être. More to this point, Giddens did not make a separation between 'taken-for-granted' and the 'accepted-as-legitimate' (Gregory, 1989). Indeed, Giddens did not talk about the situation when agency did not internalize the value. For example, in as much as there is rupture of the routine, the ontological security of the agent is threatened. Accordingly, agent will not necessarily be rational. Such rupture can even be caused by phenomena outside of the control of agency such as death and so on. Therefore, the theorem that agent can all the time do otherwise is put into question. That said, Giddens did not analysis such situation. He takes the establishment of routine as an initial hypothesis for his theory. Hence, as presented by Giddens, the social system seems to be stable all the time. We wonder why we shall talk about the reflexivity of agent in such case.

In much the same way, Gregory (1989) mentions a critic about the time-space distanciation. In fact, this concept seems to belong the macro level of analysis. Indeed, Giddens did not explain the relationship between this concept and the agent in action. He merely focuses the analysis on the power that time-space distanciation gives to agent.

3. The lack of assumptions and methodological guidelines

The empirical application of any social theory is undoubtedly an important aspect. The need of the theory to empirical application means a misunderstanding of what happens 'out there' in the social world; therefore it

overlaps the main objective of social science (Gregson, 1989). In keeping with this, the structuration theory does not give clear "laws", its empirical application, so far, is sharply limited and controversial. Although Giddens offers a whole chapter in 1984 to empirical application, a clear guideline is difficult to be grasped.

Joseph (2006) claims structuration theory does not allow us to study causal relationships because relationships into the theory are recursive. He adds that this does not allow the introduction of relationships from a broad perspective and proposes that the theory may be used as complementary rather than in conflict with other theories. Even, Turner (1986) states that it is difficult to be tested empirically because there are not any clear propositions; it is just a compilation of concepts.

Giddens (1989) offers three recommendations to conduct an empirical research. Firstly he emphasizes the need to do an ethnographic or anthropological experience. This refers to the concept of double hermeneutic introduced by him. It means an intersection of two frames of meaning: the meaning of lay actors and the meaning of expert (the researches). Secondly, researcher should be sensitive to the agent complex skills, especially in institutional analysis because these skills are generally bracket out. Hence, he stresses the importance of the individual characteristics. Finally he suggests that the social analyst must also be sensitive to the time-space constitution of social life because the analysis of these dimensions reflects the feature of local when agents interact daily. Gregson (1989) claims the research program of Giddens is in contradiction with these recommendations. In fact, Giddens sums up his theory into 10 points that are related to several aspects such as the knowledge-ability of agent, the unintended consequence of action, and so on. Gregson (1989) suggests that to the ten points should fit the recommendations and concludes that they remain at the ontological level which characterizes all of Giddens's work.

This lack of empirical guidelines leads to remain that the concept of structuration theory are so abstract that an empirical application is far from easy to do. As a consequence, Gregson (1989) describes structuration theory as a second order theory which deals with general and abstract constituent of society such as agent and power, rather than a first order theory that makes an analysis of specific events.

4. Structuration theory beyond controversies

It is true that structuration theory is widely criticized. In this way, Meštrović (1996) for example describes the work of Giddens as objectionable in modern sociology. He even wrote a book entitles <u>Anthony Giddens The Last Modernist</u> to denunciate the theory. Nonetheless, Giddens's contribution is particularly distinctive. Many views share the usefulness of the theory and its richness and enumerate the advantages that it offers. In the light of the above some conclusions can be drawn concerning the main criticism. Some criticism turn around: the conflation of agent and structure, the conceptualization of agency (such as the emphasis made to practical consciousness), the conceptualization of structure and its components (such as rules), the time-space dimension (such as: the lack of space conceptualization), the ontological orientation (such as the rejection of functionalism, the conceptualization of theory) and the lack of empirical guideline. As a consequence, many researchers and Giddens himself try to answer the negative criticism to show the usefulness of structuration theory. In the following, a summary of these different contributions is given.

As seen above, there are noteworthy criticism about the main concepts: agent and structure. Giddens (1989) says that he does not agree with. Firstly, he argues that the structure is independent of agent only in its instantiation through the time-space dimension. He stresses the fact that structure is not the same thing as social system. The structure has rather a real presence as structural properties in the social system. Hence, Giddens insists on the virtual nature of structure. He also suggests avoiding labels such as "social structure" because he thinks that structure is beyond human agent. As a consequence, he did not reject the conflation of structure and agent but this problem is rather heading in another direction when talking about the difference between structure and social system.

In much the same way, Giddens (1989) gives an answer toward the conceptualization of rules critics. He states that there is a problem of formulation rather than a problem of definition. In this way, he says "I should be the first to admit that I have not always expressed my ideas as clearly as I might have done" (p.254). Hence, he

makes the following argument: the mathematic formulation wants just to show that rules are like generalizable procedures or convention; it does not express any reduction that is expressed by Thompson (1989)

In the same vein, according to the conceptualization of agent and structure, Bernstein (1986) thinks that it is an attractive theory because it expresses a deep understanding of the reflexivity of the knowledgeable human agent phenomenon; as this reflexivity leads to the reproduction of social system under the interaction with structure. Accordingly Bernstein (1986) says:"The theory is powerful and attractive because it expresses a deep understanding of what we are as reflexive knowledgeable human agents who are always conditioned by and are constantly reproducing social structures" (p. 240). In the same way, Giddens highlights the limits of human agents to control their destinies, when he rejects the voluntaristic illusion of control due to the logic of history. We think also that this limitation is shown in the idea that human agents can do intentional actions that do not always lead to intended consequences. According to Bernstein (1986) this gives Giddens work significance beyond the domain of sociology.

Secondly, Giddens (1989) answers the lack of space conceptualization saying that the Heidegger's approach that is the basis of time space conceptualization assumes that time and space cannot be inseparable. When talking about time, we talk implicitly about space and vice versa. They present the context of social interaction. He argues that the notion of routine is not in contradiction with the notion of power. In fact, Giddens (1989) states the modern world is characterized by a huge amount of information which influences the reflexive monitoring of action. Hence, routine does not interfere the power and freedom of agency. On the contrary, the modern world offers more choices to the individual. This idea stems from the answer of the fragile character of ontological security. In fact, Giddens (1990) claims the trust that is the base of ontological security can be enhanced in modern society through the expert system and the symbolic token such as media of political legitimacy and money. Accordingly, ontological security is enhanced through the relationship with others. In the same vein; there is a misunderstanding of the motivation concept. Giddens did not assume that motivation exists only at the unconsciousness level is not assumed because agent has a consciousness desire and motivation. As a result, motivation can influence directly the action. He shows this statement in his book <u>Modernity and Self Identity</u> (1991).

Thirdly, to answer the lack of empirical application, Giddens postulates that the social theory should not only explain empirical phenomenon, it should also allow philosophical critics. Giddens (1989) points out that it is important to have a theory so as to apply later empirical research. He is worried that the developed concepts are at a high level of abstraction. Indeed, he states that he has an eclectic approach to doing empirical research. It depends on research objectives. In keeping with this, Bernstein (1989) notes that Giddens did not fully reject the functionalism, nevertheless, he states "*functionalism has been highly important in the social sciences....for the empirical stimulus it has provided... conceptually its influence has been largely pernicious*" (p. xxxi). The rejection is either on the assimilation of sociology to the natural science. Rather, the main role of social science should be to understand the agent and their relationship with, others, structures and nature. Agent cannot be predictable as nature is. They do not follow universal rules as nature. In natural science we can enumerate some universal rules such as the Earth turns around the sun in 355 days. But it is not the same thing for agent and their relationships. We cannot say for example that all people drink milk in the morning. It depends on desires, motives even culture and tradition.

5. Recommendations

Given the success of structuration theory it is important to use it adequately. Therefore, in the light of the above, some recommendations are going to be presented. According to the theoretical level, firstly, it is recommended to be as near as possible to the original formulation of theory. Efforts made by Desanctis and Poole (1994) delete the duality of structural, the main concept of the theory, and keep the dualism problem.

Secondly, it is recommended to make a combination between the original formulation of the theory and the set of criticisms addressed to it. The aim is to avoid the areas of doubt around the structuration theory. In this vein, as said above, the structure is advanced as independent from agent by many scholars. It is more interesting to admit that technology is a structure having the ability to change independently from agent. At the same time, it is noteworthy to admit that structural properties depend on agent. This assumption tries to further clarify the

explanation offered by Giddens without destroying his original thought. In other words, a distinction between structural and structural properties is required.

The third recommendation deals with the concept of reflexivity. Giddens (1984) offers an interesting model of action based on three levels of consciousness. Nevertheless, only few studies (e.g. De Vaujany, 2008) determined the kinds of reflexivity. Studies should focus on the reflexivity issue to allow a prediction of the actions of agency and their consequences especially in terms of organization. For example, future studies can predict the evolution of individual performance according to the kind of reflexivity. In fact, reflexivity is assumed to be a chronic feature. It is defined as "The reflexive monitoring of activity is a chronic feature of everyday action and involves the conduct, not just of the individual, but also of others" (Giddens, 1984, p5). In much the same way, reflexivity concept can replace the software development and replace the traditional Moore law. Hence, it is useful to study the design and the consequence of the design of IT.

According to the application spirit of the theory, we suggest doing two separates analyses. In a word, we suggest a dualism analysis. The first side is the agent-structure relationship and the second side is the structure-agent relationship. The third step should be a holistic interpretation of results. In fact, when Giddens (1984) rejects the use of any causal relationship, he fails to reject the dualism between micro and macro level of analysis (Barnes, 2001).

According to the application field, we recommend the following: keeping in mind the spread of the theory as a Meta-theory as it is more interesting to apply it to discover new areas and to offer a new conceptualization of events, rather than studying contexts already explored by many other theories such as the adoption of technology in a voluntary context. The mandatory context has remained unexplored so far. Researches based on structuration theory should present new frameworks. Some contexts are very promising like the second life, the call centers, CRM context and so on. The aim is to avoid the criticism that Giddens directed at the explanation of the status quo of the social the system rather than its reproduction.

The last recommendation is to follow an eclectic approach as suggested by Giddens (1984). In fact, if the Meta-theory is directed by a strict guidance, it becomes limited by rules and cannot be used to explore new contexts characterized by a rapid change. MIS field is generally characterized by the positivism epistemology. Other methods can be borrowed from other fields (e.g. social field, psychological field, etc) and applied to the MIS field to give a new life to the field. For example, qualitative research is advised in the case of structuration theory. In this way, narrative inquiry, projective techniques and the ethnographic approach can be used to explore the unconsciousness and to explain the reproduction of the social system throughout time-space. To sum up, the research should be conducted by the research questions rather than a predefined epistemology, and thus a specific methodology.

Conclusion

Instead of criticism many authors still support the use of structuration theory. In this way, Chisalita (2006) claims; as a meta-theory; structuration theory offers a view on the world rather than a set of hypotheses. As a consequence, it is flexible and allows the combination with other theories. Hence, study can use only some aspects of this theory according to the study need and context. Turner (1986) states when Giddens offers universal laws he gives an importance to his theory; he refuses the view that theory must product universal truth. Accordingly he says: "*There are no universal laws in the social sciences, and there will not be any not, first and foremost, because… the causal conditions involved in generalizations about human social conduct are inherently unstable, [they vary according to] the very knowledge (or beliefs) that actors have about the circumstances of their own action*" (Giddens, 1984, p. xxxii). He adds that such generalization is also difficult to achieve because of the double hermeneutic that exists between the scientific and the research subjects. The interpretation of results is interfered by the environment of both the scientific and the subjects. On the other hand the advantage of the double hermeneutic process helps to shape and shift the social practices.

Finally, we should say that unless the criticism and the rejection in some cases; the main positive aspect of structuration theory is through its recapitulation and criticism of many theories and thoughts (as: Kaspersen, 2000; Jones and Karsten; 2008). Even, for example Craib (1992) who accuses Giddens of being reductionist,

because he does not draft some theories; he states on the other hand that the synthesis that he did remain the most important contribution. He claims it is not possible to think of social theory without reading Giddens. We think that Giddens had been presented as the most influencing theorist that characterized the social field starting with the classical thinkers such as Marx and Weber to the modern theorist such as Habermas. As a consequence, the structuration theory offers many advantages to be used in the MIS field.

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