The ontology of environmental values: the contribution of historical institutionalism to Socio-Ecological Economics

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1. INTRODUCTION

The establishment of the International Society for Ecological Economics (ISEE) in 1989 signified the recognition of fundamental failures within mainstream economics and discontent amongst a spectrum of academics concerned about environmental problems. Ecological Economics (EE) can be seen as opening-up a wide theoretical and political space in which the idea of the economy's embeddedness in society and Nature, systems thinking, ethics, interdisciplinary work with natural sciences and others would be favoured. Success as a new scientific field is evident with regard to the production of new knowledge and insights on a variety of topics, e.g. post normal science, footprint analysis, plural value articulation. EE now constitutes a collective questioning of economic orthodoxy and serious body of work for anyone working to address environmental problems and sustainability.

The development of specific research programs has in fact involved a tension in particular vis-à-vis Environmental and Resource Economics (ERE). A large part of the EE movement – mainly the natural science and energy school factions in North America – has adopted a 'conservative' approach which employs neoclassical economic models and monetary valuation of the environment. This can be contrasted with a more radical heterodox approach, notable in the European Society. Social concern and political economy have been to the fore of this approach that has been called "socio-ecological economics" (SEE) (Spash, 1999).

The rejection of monetary reductionism and market essentialism in relation to environmental values (EV) by SEE was first based on ethics and politics. SEE now mobilizes institutionalism. From some points of view, this orientation is compelling and promising. From some others, it remains fragile and too fragmentary to enable the emergence and consolidation of shared ontological and methodological standpoints which would in turn lead SEE to the status of tangible and workable alternative to ERE. From the avowal of one pioneer, EE remains an "epistemological no man's land" (Faber, 2007).

This paper inscribes itself in an ongoing program, partly initiated by ourselves, which aims to outline ways to overcome such weaknesses. An important line of research in this regard is a systematic studying of *human-environment relationships in a social-historical perspective*. The appeal of an historical institutionalist approach, founded on the postulate that all human-nature relationships refer, firstly and decisively, to relationships between humans themselves, is argued either for systematising, or for ontologically and conceptually rethinking some paths taken by SEE, or for drawing new ones.

A double anchoring in Marx's and Common's thoughts, which is specific to historical institutionalism (HI), is advanced to sustain the following standpoints:

- CBA praised by ERE to integrate EV in decision-making processes is interpreted as the projection of specific and instituted relations between humans which, conceptually, starts with the establishment of property rights – which for HI are political constructs – and finishes with the realisation of economic value in the money form – an institutional form having specific roles in capitalist societies. Mainstream approach of EV can be seen as the ideological superstructure supporting the growing commodification of Nature.

- Ecological resources have no intrinsic economic value: those which are not privatively appropriated and which stand outside the sphere of socialised work have no economic value, but a value that refers to ethics, aesthetics, and politics. The neoclassical quest for an economic value of Nature constitutes an analytical mistake that results from the a-historical and a-social attributes of its epistemology.
- The SEE approach has shown that multiple rationalities or modes of human valuation are activated around natural elements. The dualist model actor that prevails in SEE as the core foundation of this stance is discussed through the reappraisal of the notion of interest in a social-constructivist perspective, in order to emphasize the political and social characters of human valuation.
- Conflicts are inherent to human-nature relationships. Any formal institutional structure for decision-making, as "legitimate" it would be, would never overcome them as such. Beyond this normative issue, an institutionalist approach should first try to produce a denaturalised representation of the "game" – values, powers, etc. – so that the relevant actors, in accordance to desired outcomes, would be identified.

These principles are seen as paths supporting a historical institutionalist research program on environmental issues. In particular, this work can be seen as both supporting and extending the exploratory one of B. Zuindeau (2007) about the influence of modes of regulation and regimes of accumulation on environmental trajectories, therefore emphasizing the need for a holistic and historical approach of economy-environment relationships.

Section 2 briefly describes the context and the content of the institutional ecological economics. Section 3 relates this movement to an original taxonomy of institutionalisms. Section 4 provides the core principles of an historical institutionalist approach of environment around the relationships between value(s), market and nature.

2. THE INSTITUTIONAL ECOLOGICAL ECONOMICS

2.1. The development of Ecological Economics

The establishment of EE can be seen as the outcome of a rather long period of gestation used to structure paths opened in 1960's and 1970's by economists like N. Georgescu-Roegen or K. Boulding and ecologists/energetists like C.S. Hollings or the Odum brothers. Several descriptions of EE's development may be provided. This 'precariousness' results from an identity problem, beyond shared "basic ideas" (Ropke, 2005).

The "basic view" shared by scholars earlier involved refers to the economy's embeddeddness in nature and, in turn, to the possibility of conceptualising economic processes in terms typically used in natural sciences. Some others core principles emerged from seminal articles: the need for transdisciplinary work, conceptual and methodological pluralism (Costanza, 1989), the need for post-normal science because of "fundamental ignorance" in relation to human impacts on environment (Funtowicz and Ravetz, 1994). Some others principles were widely shared at least in their formulation: systemic thinking, the need for intra-generational equity, and the economy's embeddeddness in a broader socio-cultural system which, in turn, "co-evolves' with nature (Noorgard, 1989).

On that base, ecological economists viewed their field as being characterized by a "mission to engage in public debate" in order to "develop theories and means that will bring us closer to the ideal of a sustainable society" (Söderbaum, 2000).

20 years on the birth of EE, Ropke (2005) qualifies it as being a "vulnerable success". The successful aspect refers to wide audiences within conferences of the International and regional

societies, to the rapidly gotten notoriety of *Ecological Economics*, to the creation of new reviews, and to the broad range of books edited. The vulnerability concerns: 1) the lack of "some common ground" because identity is blurred by "the acceptance of anything as being justified because of transdisciplinarity"; 2) the inadequate definition of independence making EE susceptible to becoming "a sub-field" of ERE "modelling links between ecosystems and the economy."

A tension has grown up between those who seem to view EE as a reviving branch of ERE and those who would like to make of EE a real theoretical and political alternative.[1] The attraction of mainstream economists has been evident especially starting from the mid-1990s.[2] It results that some factions, in particular in North America, attach themselves either to use and to widen the interpretative potential of ERE to new objects, or to look further into conceptual and methodological innovations that appeared over that period about the modelling of interactions between economic processes and natural systems.

This orientation is named "economics&ecology" by Spash (2006), in opposition to that which is named "socio-ecological economics". The latter covers in particular economists having initially non-orthodox backgrounds – institutionalism, Marxism, social economics, etc. – which come to EE to look further into a heterodox approach of environmental problems for which little attention has been paid in their original (general) associations. A workshop organized in 1995 in the Wuppertal Institute (by Ropke, Martinez-Alier and some others) resulted in a call for a "socio-ecological economics" in the ISEE Newsletter (Jacobs, 1996). The creation of the European Society for Ecological Economics (ESEE) was largely inspired by this orientation.[3]

The perimeter of EE is broad enough to encompass very different approaches, sometimes contradictory. The question of the nature of the value of ecological resources is the real ground of dispute between these two perspectives: it is in relation to it that the more promising theoretical and methodological areas of research have been opened out for the structuration of SEE.

2.2. Commodification vs. "incommensurability of values"

Economic valuation of ecological resources is presented as the main domain of ERE's development, and even of EE's own development for Turner et al. (2003). It consists in the projection of the "commodity perspective" (Vatn, 2000) both at the upstream, the core and downstream levels of the analytical process which aims to reveal their *economic value*.

The upstream of this process corresponds to the identification of the causes of environmental degradation. The market failures framework attempts to reduce the issue to the "zero price problem" (Pearce, 1998). Facing heavy criticisms from SEE, this stance finds a support that is based on a political presupposition, as seems to attest G. Daily's (1997) words (biologist):

[1] Costanza et al. (1997) argue that "ecological economics is not a new single paradigm based in shared assumptions and theory. It represents a commitment among economists, ecologists, etc. (…) to learn from each other, and to facilitate the derivation and implementation of new economic and environmental policies". Özkaynak et al. (2002, 2004) think that "to deal with environmental issues successfully (…) it is necessary to break from the mainstream epistemology" and that a distinct contribution is to be realised "by combining and integrating the insights of several disciplines within a coherent framework and transforming the nature of the problem considered".

[2] This trend is visible through the content of special issues of *Ecological Economics* journal since mid-1990s.

[3] "The European branch tends more to socio-economics and political economy while the Americans lean towards a scientific approach" (Spash, 1999).

> "[Economic] valuation involves resolving fundamental philosophical issues about the roles of economic values in the policy process, and about the relation between economic value and human welfare. (…) But nothing could matter more than attaching economic values to ecological services because the way our decisions are made today is based almost entirely on economic values, and we should put a price on it."

At the core of this process is the set of concepts and methods worked out by ERE to mitigate such "zero price problem". The link between welfare economics and economic valuation is direct. The former is supposed to provide the means to assess the "potential change in utility" resulting from a change in the level of provision of an environmental good (Carson et al. 2001). The welfare implications, whatever the drivers, are expressed in terms of the monetary amount which would require to be taken from – willingness to pay (WTP) – or given to – willingness to accept (WTA) – the agent to maintain its overall level of utility.

What is often put aside in discussions is the old assimilation between utility or "generic concept of value" (human valuation of things) (Marx, 2007a) and exchange-value which was the cornerstone of the marginalist revolution. Since then, in neoclassical economics the word value has been assimilated to price. Hence, the only way of "considering the value of non-market commodities" (ibid.) is to define shadow prices and assume for people the possibility of trading-off them against money reflecting "others things [they] value" (Turner et al. 2003).

The Contingent Valuation Method (CVM) is the most widely used tool for revealing such shadow prices (in the CBA context). A surrogate market has to be defined during the interviews of respondents, so they turn out to be either owners or consumers of the natural resource for which they could express their WTP for preserving it or their WTA its degradation.

The downstream of the process can be seen as its normative consequence, particularly well expressed by Pearce (2002):

> "Valuation is only one stage of a two-stage process. If we can demonstrate how important the environment is in terms of WTP, then the next stage is to devise ways in which those valuations can be realized as cash flows. The issue is to design 'capture' mechanisms. A cost-benefit analysis does not concern itself with capture mechanisms – that is, means of converting non-monetary benefits to cash flows. If benefits exceed costs, that is sufficient cause to recommend conservation. But for a great many policy contexts, costs and benefits matter only if they are associated with real resource flows".

From the status of a theoretical premise, the assimilation between the "economic category of value" and the "general concept of value" (Marx, 2007a) is elevated to that of a political stance according which non-market things or conditions valued by individuals are (socially) of worth or 'count' only of they become commodities.

The divide in EE about this approach is rather clear. One part aims at enlarging the use of its concepts and methods, facilitated by collaborations among economists and ecologists, which allow the former to broaden their understanding of the notion of 'natural capital' (see Azqueta and Sotelsek, 2007). The other part provides a massive stream of critiques which can be grouped under the epistemological stance of "incommensurability of values" (O'Neill, 1993). Two mains areas of research have been established in this respect.

The first area refers to the anthropological hypothesis on the "valuing agent", and the values underlying his choices. The notion of values is not systematically defined (see Trainor, 2006). It is stated that they guide human action and that "they express individual judgments about what is legitimate or right which are open to revision through argument" (O'Neill and Spash, 2000). In ERE, "moral commitments are confused with individual satisfaction" (Vatn, 2000). The agenda is to inform policy with "philosophical, psychological and sociological understanding which offers a richer model of the agent" (O'Neill and Spash, 2000).

The second area is complementary with the first. It deals with the legitimate institutional arrangements for capturing EV in decision-making process. CBA rests on the assumption that rational choice requires a single measure of value, of course monetary. This can be interpreted as a will to divert the problem away from its (inherently) conflicting or political elements and to reduce it to a problem of individual substitution (Holland, 2002). Moreover, the "ethical and political status" of natural entities is seen as a source of "market boundaries", so that they "cannot or should not be treated as if they were commodities open for exchange in markets" (O'Neill and Spash, 2000). They are valued for "superior values" (Azqueta and Delàcamara, 2006), which can be perceived by individuals as being perverted when market-based mode of valuation is applied (see Spash, 2002).[4] The large number of "protest bids" in CVM – refusal to provide WTP or WTA – illustrates such a consideration.

The logical extension of this turns around the concept of "value articulating institutions" (Jacobs, 1997). CBA rests on a particular type of value – monetary and market-based – to which all others "realms of value" (Trainor, 2006) are reduced. Alternative institutional perspectives are needed to adequately express "incommensurable values". The idea of quality of decision-making process is developed around the motives of "democratic legitimacy" (O'Neill, 1997) and "procedural rationality" (Faucheux and Froger, 1995).

The basis of this "rebel" approach first rested on political philosophy, environmental ethics, and social psychology. The quest for additional arguments to the existence of multiple and incommensurable modes of human valuation (or rationalities) has been the main way of establishing an institutionalist approach in EE.

2.3. The institutionalist approach

The attention here will be focused on the main institutionalist economists of SEE, i.e. Peter Söderbaum (1992, 1999, 2000, 2007, 2008), and Arild Vatn (2000, 2005a, 2005b).[5]

P. Söderbaum has devoted his career as an ecological economist to argue that "[i]t is possible to take steps toward the construction of an alternative economics with the help of alternative theoretical perspectives, such as institutional economics" (Söderbaum, 2000). The insights offered by K.W. Kapp and G. Myrdal are used to support the following features: "individuals and organizations" need to be understood as *political* actors, each moved an "ideological orientation" (Söderbaum and Brown, 2008). An ideological orientation or a "means-ends relationship" refers to a person's images and ideas that guide his/her actions, while being "fragmentary and uncertain [in] nature" (Söderbaum, 2000). This concept forms the basis of the "Political Economic Person" (PEP) as an alternative to the "Neoclassical Economic Man" (NEM) (Söderbaum, 2007). The context of latter is limited to markets for commodities, and its motives are assumed to be expressed only in egoistic terms. "Sustainability as a challenge, however, suggests that we as much are interested in the non-market roles and relationships of the individual and in specific kinds of changes in ideological orientation and behaviour as desirable" (ibid.). Figure 1 (below) provides the schematic conceptual structure of the PEP (Söderbaum, 2000).

[4] "(…) to put a price on an object has a cultural meaning: it can be felt as an act of betrayal of a moral commitment" (O'Neill and Spash, 2000).

[5] Paavola and Adger (2005) also want to develop an "institutional ecological economics". Their main subject is the governance of ecological resources – i.e. diverse regimes of governance (common property, private property, hybrid forms, etc.). Their approach tries to develop the conceptual basis for establishing typologies of such regimes (see Paavola, 2007). In fact, this approach is quite different from those of Söderbaum and Vatn, both in terms of purpose and conceptual tools. There is nevertheless an evident complementarity between them: claims for plural value articulation results in needs for regimes of governance that take into account the plurality of values and that are based on "multi-criteria" approach of efficiency (Paavola, 2007).

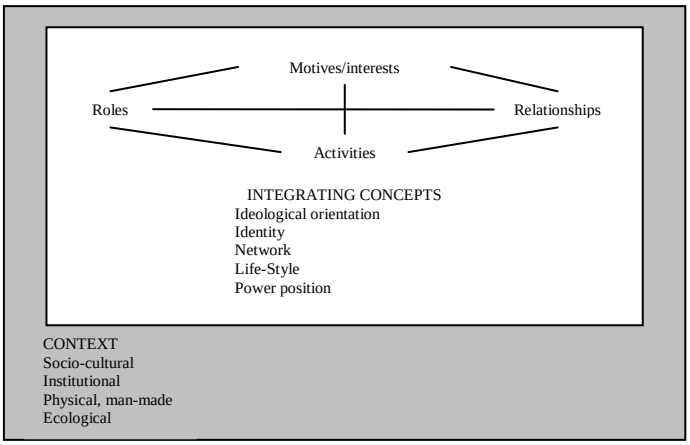

FIGURE 1. *Political Economic Person. Essential Concepts for an Understanding of a Person's Behaviour and Adaptation to her or his context* (Söderbaum, 2000)

In that view, the value of the CBA "itself depends on a consensus in society about [its] specific ethics or ideology" (ibid.). The democratic ideal is seen as a "meta-ideology" or as an "imperative" (Söderbaum, 1992) that would enable decision-making process to adequately deal with irreducible ideologies initially involved.

In this paper, only the ontological structure of conceptualization of the human actor will be considered. A dualist model of the human being is adopted: that consists in contrasting *self-interested* or egoistic motives (NEM) with a set of *disinterested* or other-related motives. The essence of the latter lies in moral sentiments, obligations or a sense of duty to others.[6] Becker (2006) refers to the PEP as one of the well-known dualist approaches of the human being in EE, each being devoted to a specific aspect: "homo politicus" (Faber et al. 2002), "homo sustinens" (Siebenhüner, 2000), "homo ecologicus" (Becker, 2006), etc. Söderbaum (2007) refers to them as sharing with him the idea to look for some other basic idea of human beings – based on "We" rather than "I" (Etzioni, 1988) – than NEM for EE.

The institutional approach of Söderbaum leaves some points to be further considered or clarified. The first point concerns the emergence and the change of ideological orientation. A few substantive propositions are specified beyond: (1) the enumeration of actors and organizations that produce the "images and ideas inscribed in the social space" (Söderbaum, 2000); (2) the idea that their change depends upon "processes which are often unconscious" for individuals, once the conduction path is not any more "public debate" (Söderbaum, 1999). A second point questions the effectiveness of the dualist model of the human being. A conceptual uncertainty arises from the terminology used by Söderbaum: the person's ideological orientation refers to a "means-*ends* relationship" which is constitutive of his self since it defines his motives or, as the author puts it, his *interests*. Any institutional approach of the human actor should make the primary and irreducible nature of his motives clear epistemologically. This point will be treated in section 4.

[6] Etzioni (1988) and Sen (1987) are often cited as precursors to this dualist view. The former argues that "[the] line of conflict is between moral values and other sources of valuation, especially pleasure. (These two are not necessarily in opposition, but in effect often do pull in divergent directions". Becker (2006) presents also the systematic view of this literature: "homoeconomicus is a construct which may certainly be adequate and fruitful for the analysis of many purely economic situations, and, in general, the characteristics it is based on can be regarded as phenomenologically plausible. (…) Other concepts of the human being are needed for the task of EE."

A. Vatn provides a very rich institutionalist approach of the following issues: what is the "logic of [individual] choosing?" In turn, how is "rationality understood and defined?" What "characterizes the motives of those choosing?" "How are motives (…) developed – that is, are they purely individually defined or are they also socially contingent?" The answers to these questions are supposed to provide, in turn, the background for the answers to the following ones: when are markets proper institutional contexts and when they are not? What alternative solutions exist? (Vatn, 2005a).

The individualist model of rational choice is rejected for an alternative perspective that looks at preferences, values and motivations as social constructs. Institutions are seen as the basic structures that enable people to act (Vatn, 2005b). A more systematic definition is:

> "(…) the conventions, norms and formally sanctioned rules of a society. They provide expectations, stability and meaning essential to human existence and coordination. Institutions regularize life, support values and produce and protect interests." (Vatn, 2005a).

Conventions (similar for Vatn to the "reciprocal typifications" of Berger and Luckman) have the function of coordinating behaviour and simplifying by "*combining certain situations with a certain act or solution*" (ibid.). *Norms* are distinguished from conventions since they combine a certain situation with a "*required* act or solution which supports an underlying *value*" (ibid.). *Formally sanctioned rules* combines a certain situation with an act that is "*required* or *forbidden* and which is governed by *third-party sanctioning*" (ibid.). The first category corresponds to cognitive structures – concerning our mental structures, the second to normative structures – in relation to values involved, the third to regulative structures – establishing external punishment and reward structures.

This paper focuses on two directions taken from there with regard to the environmental context (see Part IV of the book for more details): 1) individual motivations and values – ethical, aesthetic, etc. – are socially instituted – i.e. influenced by institutions – and they refer to plural modes of human valuation or rationalities, that are irreducible between them and to any monetary value; 2) the way policies or incentives are formulated influences the type of rationality that people apply when treating an issue: these are normative structures signalling whether people should look at an issue as an "I" or a "We" problem. To sum up, according to the "model of social construction", the individual acts on the basis of cognitive and normative structures that are socially constructed. These institutions shape the individual and "define which rationality is relevant or appropriate in each type of setting" (Vatn, 2005b), i.e. they articulate environmental values in a specific way.

This lead to the following conclusions: CBA invokes the logic of markets[7] and calculative rationality – which also corresponds to cognitive structures socially constructed – without asking whether this is the perspective which is appropriate when analyzing "*common goods*" (Vatn, 2005b). If people have problems with perceiving environmental issues in monetary terms, it may be because they invoke rationalities that differ from the market logic when thinking about these issues: it may be a "*category mistake*" (ibid.). Furthermore, policy measures become more than choosing instruments for incentives: "first of all it is about instituting certain logics" (ibid.). This supports the need for developing institutional frame –

[7] Vatn (2000) proposes a structured analysis of the market notion seen as an institution (inspired from Polanyi). He states first that "what may seem to be a relationship between man and nature is primarily about the regulation of access to resources amongst people themselves". Two basic characteristics follow from the market as "a general motor of resource allocation": 1) "the need to transform a wide range of use and even existence values into a uniform system of exchange values – i.e., prices"; 2) "the capacity to commoditise, including the physical demarcation of various resources". As objections to CBA, in this regard, it is argued: 1) that "the price of even the most simple commodity only captures a subset of the dimensions of its importance; 2) certain things are excluded from market because, in a given socio-cultural context, their meaning and worth lies on ethical and symbolic considerations.

multicriteria analysis, deliberative method – that can better take account of the plurality of environmental values: "environmental issues are basically the common good, about how we interact in each other's life" (ibid.).

Before starting the next section, a number of comments should be made. On the whole, it can be said that SEE's concern is primarily with developing and applying an "institutional *microeconomics*" (Söderbaum, 1992, 2007, emphasis added) with a *normative* aim. These two attributes are forcefully related to the object of analysis: the multidimensionality of values characterizing environmental choices and the development of institutional arrangements for taking it into account. In this context, the model of the human actor and the manner in which institutions affect his/her behaviour are central themes – in terms of conceptual structuring. The dualist model praised, for example, by A. Sen – who is, however, not very structuralist – is integrated in a social-constructivist framework.

Concerning the normative aim, SEE is somewhat close to 'neo-institutionalism'. While the purpose is not to promote the best arrangements with regard to limitation of transaction costs or availability of information, the main question remains to provide new formal institutional settings which would be *rational*, not from the viewpoint of the maximisation of an exogenous individual attribute, but from that of the collective, procedural legitimacy in relation to complex logics, themselves socially instituted. The object of study is not the conditions of emergence, reproduction and change of institutions in a context of *conflicting values* or rationalities, but the design of the "good institutions" to be provided to decision-makers in order to "resolve practical conflict" (Trainor, 2006), even if Vatn (2005a) states that "institutions regulate conflicts, they also tend to normalize them, or make them 'invisible'. Through this kind of approach, there are dimensions of conflict that are necessarily insignificant or, precisely, made invisible; for example, the values' embeddedness in power relationships (Akbulut and Soylu, 2008). The naturalization problem, rightly pointed out in relation to ERE, may finally be present – while in other context – because the ontological framework and analytical categories that would enable to (try to) provide a denaturalized representation or to write the "script" of the "game" are not clearly established in SEE.

This kind of uncertainty relates also to the more general question of the identity of the field. There seems to be a growing is a growing will to work out a "common structure of knowledge" (Ropke, 2005). Adaman and Özkaynak put it as follows:

> "Although the approach has elaborated suggestions regarding the environmental issues, it has not yet considered the operation of the socio-economic system *as a whole*. Readers, therefore, may find it difficult to see how decisions on environmental issues might be incorporated into the overall picture. More precisely, although the Institutional school acknowledges the presence of a network of social institutions, some of which are value articulating and consequently takes a critical view of monetary reductionism, it nevertheless relies, in the final analysis and with varying emphasis, on the operation of market forces to determine the changes in capacity that occur in economies".

The mobilization of institutional theories in EE remains for now an open research program. It has already opened out promising areas of research and provided compelling insights for shunting the car of sustainability economics away from ERE. But, this movement has not yet developed clear and decisive epistemological and conceptual standpoints needed to work out a consistent framework for analyzing the "operation [dynamic and complex] of the socio-economic system *as a whole*". As illustrations (rather abstract for the moment), we may here mention: 1) the substantive quasi-emptiness in which the notions of *commodity*, *economic*

value, and *money* are left, while these are central features of CBA and ERE; 2) (and so) the sort of silence about any structural explanation of the ecological crisis.[8]

To be honest, the reasons for that are not so obvious. It may be related to starting (understandable) choices in terms of intellectual inspirations. For example, Martinez-Alier (1987) criticizes Marx and Marxism(s) from the ecological viewpoint and asserts that "not much is lost analytically by focusing on the use of energy as the central point in ecological economics". Burkett (2006) thinks that this stance signified the elimination of Marx from the EE's background. Many recent writings exemplify that (see section 4), and it contributes to deviate in some extent EE's investigations from two general standpoints: 1) *economic value* is produced only by socialized human labor and there is no economic value *as such*, i.e., that could be defined outside of social relationships; 2) *all* human-nature relationships refer, firstly and decisively, to relations between humans themselves.

Institutionalism is crucial with regard to the analytical challenges faced by SEE. The paths already traced out by SEE are compelling and we think that their potential for structuring a common body of knowledge depends on the emergence of "a *holistic* (…) ontological and methodological standpoint" that will enable the researcher "to take full account of the *complexity* and *multidimensionality* of social and economic *structures* and natural systems and their *dynamic* interactions" (Adaman and Özkaynak, 2002, emphasis added). The next section confronts these necessary attributes of an institutional approach of economy-environment relationships with characters of main traditions of institutionalism in social sciences, in order to justify the choice of the *historical* one as the future direction of research in this regard.

3. A TAXONOMY OF INSTITUTIONALISMS

Since the beginning of the 1990s, all theoretical traditions in economics describe themselves, in some regard, as 'institutionalist', even neoclassical economics.[9] It is thus necessary to have a clear view of what ultimately distinguishes each broad approach. The institutional perspective experienced a renaissance in a variety of social disciplines. This does not undermine the possibility of constructing a cross-disciplines and workable taxonomy of institutional approaches, such as the one proposed by Hall and Taylor (1996).

In its more general sense, an institution refers to the set of rules, beliefs, ways of thought, habits and customs that guide the behaviour of individuals forming a group. Whatever the type of institutionalism, the main questions relate to the mediations between humans and social structures, and the way in which institutions guide the agents' behaviour while being actualized by it (Billaudot, 2004). The differences concern mainly interpretations of 1) the relationship between institutions and behaviour; 2) the process whereby institutions emerge, reproduce, and change. The taxonomy of Hall and Taylor (1996) – retaken by Théret (2000) – enables to distinguish between "Rational Institutionalism" (IR), "Sociological Institutionalism" and "Historical Institutionalism". Figure 2 (below) allows locating these broad categories along with some of their declinations – New Institutionalism in Economics (NIE), Conventions Economics (CE), Old Institutionalism (American and European) and Regulation Theory (RT) – in relation to their conception of institutions, and of rationality.

[8] The paper of O'Neill and Spash (2000) reflect in fact the themes and current of a workshop on the "conception of value in environmental decision-making". It is stated that: "Standard economic approaches to valuation treat environmental problems as 'market failure' – environmentally good and bad outcomes fail to be captured in market exchanges. (…) A different approach argues that many environmental problems show how markets as an institutional structure have boundaries. That is, environmental problems reflect the limitations of market economics [?]. Environmental entities cannot or should not be treated as if they were commodities open for exchange in markets".

[9] T.H. Veblen, one of the first institutionalist, was the first to use the term 'neoclassical' to refer to authors which used theories close to the marginalists and Marshallian thoughts… which he judged as non-institutionalist.

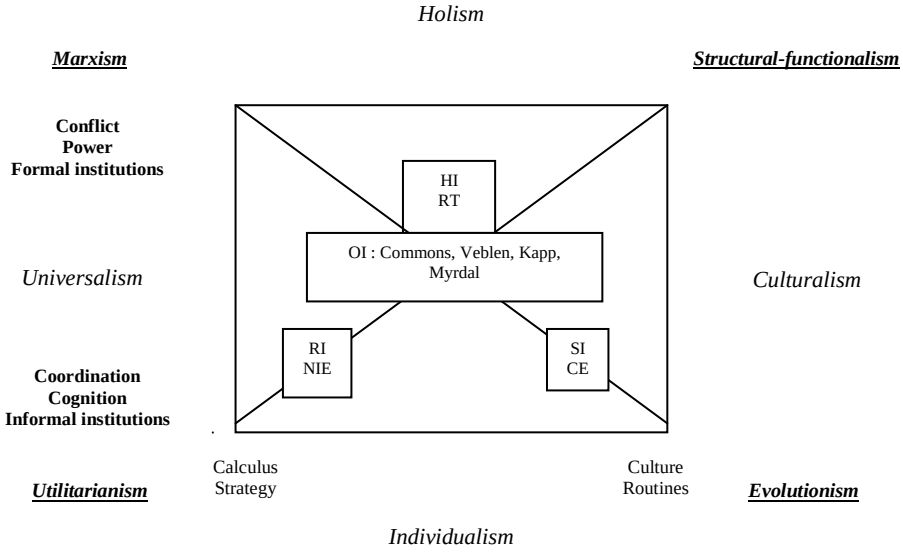

FIGURE 2. *The field of institutionalism*
(Théret, 2000)

3.1. Rational Institutionalism (RI)[10]

RI includes all approaches of the extended standard theory – transaction costs, North's, agency theories – that focus largely on property rights, rent-seeking and transactions costs (Hall and Taylor, 1996). Like other approaches, it contains some (evolving) variations (see Dequech, 2002). Following Hall and Taylor (1996) and Billaudot (2004), four features may be emphasized.

The first feature relates to the set of *behavioural assumptions*. The actor's behaviour is likely to be driven, "not by impersonal historical forces" (Hall and Taylor, 1996), but by a (*strategic*) *calculus*: it would exist an *universal* and *natural* economic rationality; the actor has infinite capacities of calculus and has also fixed (perfectly identifiable) and exogenous objectives (except in North's works) which are somewhat troubled by beliefs, etc.

The second relates to the question of *why an institution emerges*. The social field is seen as a series of "collective action dilemmas" – 'prisoner's dilemma', 'tragedy of the commons' – in which individuals strategic calculus are likely to produce a collectively sub-optimal outcome – due to transactions costs, information asymmetries, etc. It is the absence of institutional arrangements that prevent the achievement of the optimal one: these are conceived as constraints or second best solutions to *coordination* problems.

The third relates to the question of *how institutions affect individual action*. The actor is driven by a strategic calculus that includes expectations on about others' behaviour. Institutions then structure such interactions: they affect (positively or negatively for the actor) the range of alternative on the "choice-agenda" (Hall and Taylor, 1996); they provide information or mechanisms that reduce uncertainty in the context of *strategic interaction*; they allow "gains from exchange" (ibid.).

The fourth and last one refers to the questions of *how institutions originate*, how they *reproduce* and how they *change*. RI is essentially '*functionalist*': "it explains the origins of an

[10] The taxonomy of Hall and Taylor (1996) relates to political science. They use the expression "Rational Choice Institutionalism" (RCI). In a footnote they talk about the "new institutionalism" in economics which "overlap heavily [with RCI]". Billaudot (2004) uses "Rational Institutionalism". In Hall and Taylor (1996), "new institutionalism" covers all three different analytical approaches (RCI, SI, HI) that have appeared in political science over the past 15 years.

institution largely in terms of the effects that follow from its existence" (ibid.). Their persistence relates to the value for the actors of the functions that they perform. Hence, the institution is created by the actors affected – '*intentionalism*', through mutual agreement – '*voluntarism*', in order to realize this value – i.e. the gains from cooperation and this institution persists as long as alternate institutional forms do not provide more benefits.

Clearly, the refinements of neoclassical theory with the contribution of game theory, economics of uncertainty (while reduced to risk) or situations of information asymmetries, have improved realism of its models – e.g. the understanding of a number of situations of market failures that was not understandable under assumptions of perfect information and absence of strategic interactions. Hence, RI and game theory can well explain in *simple cases* institutional genesis which corresponds to a Nash equilibrium or a perfect equilibrium in an evolutionary game (Aoki, 2001): "*consensus* among actors habituated to strategic action and of roughly *equal standing* is necessary to secure institutional change" (Hall and Taylor, 1996).

At least three criticisms can be leveled against RI. First, its high-level of functionalism is problematic: "one cannot safely deduced origins from consequences" or effects (ibid.). These effects may contribute to explain the reproduction of an institution, but this problem should not be confused with the problem of explaining an institutions' genesis. This functionalism results from the idea that institutions emerge for resolving economic problems, but that is wrong: neither the belief in God, nor trust aim at resolving such a problem, even if they may have effects on economic issues.

Second, the high-level of purposiveness about institutional creation implied questionable assumptions about the actors and their rationality. The actors involved control the creation, they perfectly perceive the effects in terms of gains and the purpose of the institution is to secure these gains. The absence of any historical perspective (except for North (1990) and Greif (1998), in particular terms) explains such "heroic assumptions" (Hall and Taylor, 1996). The case of rationality is symptomatic in this regard: the calculative rationality is not universal and preferences are endogenous. The derivative calculus was invented in the 16th century, and mathematics need to be teached for being used and are themselves institutions.

Three, the high-level of voluntarism make invisible the role of power relationships. Institutional creation is viewed as a "quasi-contractual process marked by voluntary agreement among relatively equal and independent actors" (ibid.). Although it may depict some simple cases, it understates the "degree to which asymmetries of power vest some actors with more influence than others over the process of institutional creation". Power and conflicting relationships may be fundamental source of institutional change. This assumption requires considering that new institutions are created "in a world already replete with institutions" (ibid.) – so that rationality, motivations of actors and relationships between them are largely driven by them. SI and HI insist on this point.

3.2. Sociological Institutionalism (SI)

SI is represented in sociology within the sub-field of organization theory, in economics with the French CE and more generally by many culturalist approaches.[11] There are many variations between approaches generally included within SI. Still following – partly – Hall and Taylor (1996) and Billaudot (2004), four features may be emphasized to render it relatively distinctive.

[11] Hotimsky et al. (2006) use the expression "Institutional sociology". They also describe it as emphasizing the importance of *power* and *legitimacy*. In Hall and Taylor (1996), Théret (2000) and Billaudot (2004), these two features are used to divide betweem SI and HI. The proper existence of SI may remain an open question. For instance, Hall and Taylor include the works of N. Fligstein within SI, while others use them in a historical-institutionalist perspective.

The first relates to the *definition of institutions*. SI defines broadly institutions to include: "formal rules, procedure, norms, symbols systems, cognitive scripts, and moral templates that provide the 'frames of meaning' guiding human action" (Hall and Taylor, 1996). Comparing to HI, SI puts more emphasis on informal institutions. Here, the definition of 'culture' includes not just shared values, but also routines, symbols providing guides for behaviour, so that culture is defined as an institution.

The second relates to *the relationship between institutions and human action*. Institutions are essentially viewed either or both as *social norms and cognitive structures*. In the first view, institutions are associated with specific roles to which specific values or norms are attached. Individuals socialized into these institutional roles internalize these values or norms and they affect behaviour in the sense that individuals behave, through interpretation – in accordance with these norms. The cognitivist view emphasize the idea that institutions influence behaviour by providing cognitive structures and models that are indispensable for action because they provide, as Vatn (2005a) writes, "expectations, stability and meaning essential to human existence and coordination".

The third feature is closely related to the latter since it refers to the *model of human actor*. SI is influenced by *social constructivism*: "institutions influence behaviour not simply by specifying what one should do (…). The self-images and identities of social actors are said to be constituted from the institutional forms, images and signs provided by social life" (Hall and Taylor, 1996). "[Institutions] also constitute the individuals themselves and their interests" (Vatn, 2005a). SI often rejects any form of holism which would negate the "liberty of the actor": "humans both influence and are influenced by the institutions" (ibid.). Central to this perspective is the notion of *interpretation*: facing a situation, the actor has to find a way of recognizing and responding to it. The symbols and practices implicit in the institutional world provide the means: the actor can manipulate or reinterpret these symbols and practices (Hotimsky et al. 2006), "work with and reworks the available institutional templates to devise a course of action" (Hall and Taylor, 1996).

Accordingly, SI largely endorses a *complex methodological individualism*, which is different from RI. The approach is comprehensive and rests on the assumption of a socialized actor, adopting a culture and specific routines. Individuals have internalized or follow routines and values and act according to the interpretation they make of rules and according to their values. This does not suggest that they are not goal-oriented or rational. *Rationality* is shaped by institutions and the goals or the interests – even if most of sociological institutionalists are reluctant to talk about individual interest – toward which an actor is striving are generally conceptualized in broader terms – e.g. justice, altruism, etc: "actors (…) are more driven by concerns for doing what is institutionally acceptable and culturally appropriate than by some kind of cost-benefit analysis" (Powell and DiMaggio, 1991).

The fourth feature refers to the problem of *explaining institutional genesis, reproduction and change*. Actors or organizations often adopt new institutional symbols, practices or rules because it enhances their "social legitimacy" in the extent which the latter are widely valued within a broader cultural environment (Hall and Taylor, 1996). Hence, the question of what confers *legitimacy*, i.e. the sources of cultural authority – become central to this approach. Hotimsky et al. (2006) stress that legitimacy is "grounded in actors' subjective orientations and beliefs about what is considered appropriate or morally correct" and they refer also to Mahoney (2000) who states that the legitimacy of an institution may range from "active moral approval to passive acquiescence in the face of the status quo". Institutional reproduction then rest on a positive feedback process of increasing legitimacy. Institutional change may come about by arising inconsistencies "between multiple cognitive frameworks that are predominant in society, providing a basis for actors to adopt new subjective evaluations and moral codes concerning appropriateness" (Hotimsky et al. 2006).

SI provides serious improvements over RI in explaining individual behaviour and collective actions: 1) it emphasizes the variety of motives of action and of 'cultural universes': the idea of plurality of rationalities or modes of human valuation can be founded on such approaches; 2) it shows that institutions are not simply constraints for individuals; 3) it emphasizes that the existing world of institutional rules and symbols delineates the range of institutional creation.

Here again at least two issues can be discussed. The first relates to the model of human actor. Most of these approaches are deeply concerned with the problem of relationships between institutions and individual behaviour and actor's subjective orientations play a crucial role in explaining institutional genesis and change. But the ontological status of these subjective orientations remains often unclear. The emphasis on social constructivism is rather attractive but the latter's articulation with the (often implicit) dualism in the self remains problematic: we could ask why individuals would do what is culturally appropriate? And what explains the genesis of altruism and of the sense of justice?

The second issue relates to the problem of institutional change. The latter in SI is conceived as a diachronic form of variety. As Hall and Taylor (1996) puts it, the approach that SI takes to such processes "often seems curiously bloodless" in the sense that it miss the extent to which processes of institutional production and change "entail a clash of power among actors with competing interests". That is to say, conflict, power and violence are not taken into account in explaining institutional emergence and change.[12] Many frames of meaning, practices and symbols emerge not only from processes of interpretation but also from processes of conflict.

This kind of 'harmonicism' – in CE it is vey likely due to the fact that the institutions' aim is to resolve problems of coordination – entails a normative bias (Amable and Palombarini, 2005): the poverty in terms of conflict and power explains the "poverty of history" (Johnson, 2004) in explaining institutional genesis and change. The emphasis on collective legitimacy and social appropriateness lead some approaches to promote, in some context, a just deliberative order – e.g. democratic rules that would enable the expression of plural views and in which consensus would be achievable.

3.3. Historical Institutionalism (HI)

HI does much to alleviate such criticisms. This field includes several authors or schools of thought: T. Veblen, J.R. Commons, Régulation Theory, 'Variety of Capitalisms' approaches, or the Social Structures of Accumulation approach. Generally, the definition on institutions does not differ so much from that of SI. The emphasis stressed on such or such aspect often depends on the analytical purpose of the author or the approach. In the context of the other traditions reviewed, three features of HI are clearly distinctive.

The first relates to the question of *why an institution emerges*. RI explains that institutions emerge for resolving problems of coordination in the context of strategic interactions. In SI, the coordination problem, and more generally, the question of the creation of a legitimized social order are central. For HI, an institution is essentially a *mediation* that emerges in order to *regulate* – not to resolve or to 'extinguish' – the *social conflict* between *contradictory interests* of agents and to institute *de facto* a new social order (Théret, 2000).

The second, closely related, refers to the problem of the *institutional genesis, reproduction* and *change*. While RI and, to a least degree, SI emphasize the functionalist aspect, HI highlights the role of *power*, *conflicting relationships* and *collective action* in the process of creation and change of an institution, especially formal institution – so explaining the

[12] In this sense, Hotimsky et al. (2006) seem to confuse SI and HI when they regroup the "power-distribution" and the "legitimacy" accounts of processes of genesis and reproduction of institutions under the expression "Institutional sociology".

importance of *law* in these approaches. Since interests are inherently contradictory, only political compromises between groups or classes enable to institutionalize new rules. These rules allow a *temporary stabilization* of the social conflict: "institutions structure conflict so as to privilege some interests while demobilizing others" (Hall and Taylor, 1996). HI emphasizes the creating role of power and conflicting relationships, but none of this suggests that *functions* of reduction of uncertainty or of cultural referential frame are denied: they are in fact integrated in a synthetic view which stresses that an institution 'vehicles' a common sense and a symbolical and normative transcendental order (Amable and Palombarini, 2005).

For IH, consequently, the institution appears to be, not at all a constraint, but a necessary condition to economic action and to the dynamic reproduction of the social order *by putting into brackets conflicts*. Indeed, no market activities – as such inherently instable and uncertain in terms of outcomes – and would take place without the existence of a state law, of rules of protection for property rights, debt payments and quality of products, etc. These rules do not constraint market but are even its conditions of existence: "institutions are collective action in restraint, liberation and expansion of individual action" (Commons, 1934).

Moreover, the institution is not only a referential but also a language: the institution creates the categories to which it applies. For instance, the 'wage-earning' institution creates the categories of 'wage-earner', 'employer' (capitalist) and 'wage': these categories have to be apprehended only through their respective relationships that are mediated by the institution. The category of 'wage' cannot be thought as such, but only in a society in which there are relationships based on the juridical subordination of labour, as defined in capitalism.

The third feature refers to the question of *the relationship between institutions and human action*. It should be noted that HI tend to conceptualize the relationship between institutions and individual behaviour in relatively broad terms (Hall and Taylor, 1996). HI is based on a *structuralist holism* and focus more on social structures and organizations (Montalban, 2008).[13] But as Hall and Taylor (1996) put it, "it is through the actions of individuals that institutions have an effect on (…) outcomes".

The idea of rationality in HI is much more complex to interpret than in SI and RI, since it seems to be at the crossroad between the instrumental rationality and the one of SI. As socialized individuals, agents' preferences and behaviours result from the incorporated rules and routines. Culture, values and routines are thus central to the agent's behaviour. If the calculative and maximising rationality is rejected by the historical institutionalist approaches in economics and economic sociology[14], the notion of *interest* remains nevertheless fundamental to the HI's problematic. RT, for instance, is closed to the Bourdieusian conception on the interest (Bourdieu, 1994). The calculus is not the general behaviour of the agent. Incorporated practices, routines and structures affect much more the agent's behaviour, but always in the direction of the individual interest (the *habitus* concept allow Bourdieu to develop the dialectic relation between objective structure and subjective action): the latter is a

[13] The following comment of Hall and Taylor (1996) about the divide between structural-functionalism and HI in political science can also be applied in economics: HI sees "the institutional organization of the polity or political economy as the principal factor structuring collective behaviour and generating distinctive outcomes" instead of seeing "social, psychological or cultural traits of individuals as the parameters driving much of system's operation".

[14] Hall and Taylor (1996) state that in political science historical institutionalists approaches are divided about this issue between: 1) the "calculus approach": those who adopt a calculus approach and focus on those aspects that are instrumental and based on strategic calculation; and 2) the "cultural approach": those who stresses the degree to which behaviour is not fully strategic but bounded by an individual's worldview. The calculative aspect is clearly rejected in the Régulation Theory, for example. Perhaps the expression "instrumental" or "interested approach" would be more appropriate that "calculus approach" for HI in economics and economic sociology. The central point for any consistent historical institutionalist approach is the rejection of the anthropological hypothesis made about the agent's interest: (1) all actions are conscious and fully deliberate; (2) the cultural and social contexts do not play a role regarding them (3) they are made under the scope of the methodical pursuit of an individual advantage – the arithmetic of pleasures and pains.

social construct, a 'putting into form' of the *libido* that Bourdieu calls *illusio* (Bourdieu, 1994; Lordon, 2006). The interest always relates to a particular field – i.e. to a symbolic system, and is simply what has *value* for the agent. HI implies thus to explore the social conditions of *interestment* or valuing. The use of calculus is limited to very particular situations and the strategic calculus is itself much simpler than the one supposed by neoclassical theory.

The hypothesis argued by HI is thus an *institutionally located rationality* (Boyer, 2004): 1) symbolic structures affect calculus and the way in which individuals represent their environment to themselves; 2) the institutional and symbolic environment as well as the social position of the agent condition his interest; 3) institutions synthesises the relevant information for the agent. Hence, institutions vehicle a symbolic sense and system which organize the systems of values to which agents refer and, thus, their propension to consider that something is or is not of value: they are institutions of sense and language (Descombes, 1996).

An important corollary of the assumption of agents having institutionally located rationality is that their objectives and performance criteria are only relevant in relation to their social positions and their particular environments. Any (economic) category relates to a specific symbolic universe which organizes the agents' rationality as well as their practices.[15]

If interests are contradictory, then it cannot exist for HI any common objective to be achieved, as any "good governance" for that. In contrary, HI must lead to a *radical renouncement of any category of optimum or efficiency* in order to consider the polity as the space of mediation of conflicts and institutionalisation: if performance criteria have somewhat an objective character, they are always social constructs which favour some agents' interests against others. It results that the reference to the optimality of an institution is necessarily a normative claim – to be explored through a theory of justice. What need to be explored from the HI viewpoint is the *dynamic stability of institutional arrangements and their contradictions*.

In this sense, HI can be viewed as a constructivist and genetic structuralism: it seeks to take account of the agent's subjectivity by replacing it within its objective positions. The approach implies to study: 1) the institutional genesis – i.e. the conflict – and the resulting rules; 2) the agents' position in the economic space that results from the rules; their representations in relation to their social positions; 3) the conditions of the dynamic reproduction of the institutional order, i.e. the institutional complementarities and the regulation of the system. The approach focus on the stability, consistencies and contradictions of society or a sub-space of it, for instance with concepts of institutional complementary, institutional hierarchy, instituted compromise and mode of regulation, that RT has worked out. HI does not particularly aim to provide political prescriptions – the polity being endogenous – or to define "optimal" or "just" institutions. It tend rather to offer to affected agents the intellectual tools that would enable to orient the conflicting relationship toward their advantage by revealing the working logics of domination and the working competitive interests in institutional orders.

This section could have appeared as getting us away from the institutionalist approach of SEE and the claim for the need of an innovative framework that would allow analyzing economy-environment relationships in a holistic and inclusive way. Actually, it has served: 1)

[15] In the *Grundrisse*, Marx writes about the interest: "The economists express this as follows: Each pursues his private interest and only his private interest, and thereby serves the private interests of all, the general interest, without willing or knowing it. (…) The point is rather that private interest is itself already a socially determined interest, which can be achieved only within the conditions laid down by society and with the means provided by society; hence it is bound to the reproduction of these conditions and means. *It is the interest of private persons, but its content, as well as the form and means of its realization, is given by social conditions independent of all.*" (Marx, 1967, p. 93, emphasis added).

to locate the SEE's institutionalist orientation as being *rather* akin to SI's standpoints. This statement could be disputed in light of the following considerations:

> "We therefore have to accept that *whatever institutional structure is formed*, it implies the recognition and protection of some interests and the denial of others. (…) Partly the relevant social groups may lack the political or other necessary power. Partly they are not able to legitimize their interests on the grounds of arguments that are acceptable within the existing political system" (Vatn, 2005a).

These ideas form part of HI's core argument. What is (or should be) rather external to the latter is the treatment of the problem of the "grounds" on which "an interest can be said to be legitimate". The idea that the "choice of institutions must be based on arguments, on reasoning about what sort of society we want to foster" bring then the approach much closer to the SI's 'harmonicism' than to HI; 2) to emphasize the holist-structuralist and dynamic attributes of HI that bring it, a priori, to the status of relevant option for the sake of SEE's project. The SI-oriented approach of SEE did and still does much to counter and to deliver alternatives to CBA – i.e. *plural value articulation*. This orientation, added to various other standpoints (see 4.1.), has nevertheless contributed to the leaving aside of potentially fruitful standpoints – while clearly stated by Vatn and Söderbaum – or directions of research when it is question of studying the human-nature relationships in a socio-historical perspective. The purpose of the next section is to integrate them into a primary framework of an historical institutionalist of environment.

4. VALUE(S), MARKET AND NATURE: FRAGMENT OF AN HISTORICAL INSTITUTIONALIST APPROACH OF ENVIRONMENT

Two assumptions underlie our proposal: 1) the systematic study of human-nature relationships in a socio-historical perspective constitutes the more promising avenue for achieving the task that some socio-ecological economists have assigned to themselves. 2) a historical institutionalist analysis of these relationships is a fruitful way for bringing together SEE's results – after some reformulations – with some other theoretical and methodological standpoints about the dynamic interactions between environment and capitalist's economic and social structures. To our knowledge, the work of Zuindeau (2007) is the first attempt of bringing a HI's school – RT – within the environmental arena, but without inscribing it into the 'state of the art' in EE, so that important features of it have could be missed.

An integrative view leads to the idea that a consistent *heterodox* and *disciplinarily open* research program can be derived from the delimitation of *fundamental forms* of the mediation between humans and nature in capitalism (4.1). The idea of diversity and specificity in the humans-nature relationships can be tackled through the theme of the *social construction of wealth* (4.2). The main directions of future research will be then provided (4.3).

4.1. Property rights and economic value (abstract labor)

Any human activity implies two levels: 1) the human-nature relationships; 2) the relationships between humans themselves. The distinction between "economic sphere" and "politic sphere" often used to qualify and to distinguish these two levels is an analytical mistake (Billaudot, 2006). For Polanyi (1977) the substantive meaning of the economy – in opposition to the formal definition – "stems, in brief, from man's patent dependence for his livelihood upon nature and his fellows. He survives by virtue of an *institutionalized interaction between himself and his natural surroundings*. That process is the economy" (emphasis added). In other words, the main thrust of the substantive approach is Polanyi's proposition that "man's economy, as a rule, is submerged in his social relationships" (Polanyi, 2004). Commons

(1931) holds the same view: “The classic and hedonic economists, with their communistic and anarchistic offshoots, founded their theories on the relation of man to nature, but *institutionalism is a relation of man to man*”. Marx (1994a) defines relations of production as relationships that humans establish between themselves for acting on nature.

Marx views human labor as the fundamental mediation between humans and nature, whatever the considered social mode of production: “So far as labor forms use-values, i.e., as *useful labor*, it is therefore a necessary condition, independent of all forms of society, for the existence of the human race; it is an eternal nature-imposed necessity, in order to mediate the metabolism between man and nature, and thus human life” (Marx, 1994a).[16] The corollary is the general notion of *property*: “All production is appropriation of nature on the part of an individual within and through a specific form of society. In this sense it is a tautology to say that property (appropriation) is a precondition of production” (Marx, 1967).

Marx is interested in revealing the nature of a specific form of society or mode of production – capitalism. In this mode, the *concrete* human labor can be seen itself as mediation between the two fundamental forms of mediation between humans and nature: 1) “a specific form of property, e.g. *private property*. (Which further and equally presupposes an antithetical form, non-property)” (ibid.); 2) the *abstract labour* – i.e. “labour as expenditure of labour power, regardless of the “useful” way in which it is expended” – which is the substance of the “economic value” of a commodity – a purely social phenomenon – which, in turn, “in the final instance takes the money form” (Marx, 2007a).

Private property rights

In the Manuscript Marx (2007b) writes that “there is no political economy without private property”. This statement can be viewed as referring to the naturalist view of classical economics.[17] It can be seen also as stating the historical precedence and pregnancy of private property – a “juridical relationship” (Marx, 1994a) or a political construct – in studying capitalism. Taduro (2008) recalls that Marx and Engels view the disintegration of feudalism as a process of appropriation of natural resources by the dominant class – notably forest areas collectively used before by rural populations. A “tragedy of appropriation of the commons” (ibid.) is described by them, even if it concerns more social aspects of destructions caused by the bourgeois’ management of forest resources.

The precedence and the social character of property rights is clearly emphasized by Commons (1931): “it is society that controls access to the forces of nature, and transactions are, not the "exchange of commodities," but the alienation and acquisition, between individuals, of the rights of property and liberty created by society, which must therefore be negotiated between the parties concerned before labor can produce, or consumers can consume, or commodities be physically exchanged.”[18] Property right is thus a mediation between humans and nature and between humans themselves. As an institution, this right is the product of social conflict, and its forms are historically variable: it results from a political compromise about wealth or resource use-conflicts.

[16] The “metabolic character” of natural transformations performed by human labor is often mentioned by Marx. Through this metabolism, there is a retroactive relation between humans and nature. Transformations of matter and energy are also transformations of society and humans.

[17] “This political economy begins by seeming to acknowledge man (his independence, spontaneity, etc.); then, locating private property in man's own being, it can no longer be conditioned by the local, national or other characteristics of private property as of something existing outside itself” (ibid.); “History rather shows common property (…) to be the more original form” (Marx, 1967).

[18] While ultimately linked to the production of economic value, Commons’ and Marx’s definitions of the capitalist property right have a distinctive feature: for the former, it corresponds to right on future values, whereas for the latter, it refers more to the spoliation of *past values* – i.e. incorporated work into the thing received by the owner (Guéry, 2001).

Commons (1934) deeply analyzes the capitalist property right (CPR) and its transformations. Generally, three attributes can be distinguished: 1) the *usus* right – to use the good; 2) the *abusus* right – to dispose of it as we choose; 2) the *fructus* right – to obtain gains and revenues from it. The CPR is thus intimately linked to the market: the *usus* relates to the good's *use-value*, the *abusus* to its potential *selling*, and the *fructus* to its *capitalisation*.

Commons (1934) argues, in relation to that, that we should make a distinction between "tangible property" – corresponding to the "material" use (not necessarily physical) – and "intangible property". The former relates to the "traditional" use – producing and consuming, while the latter refers to the "capitalist" use – acquiring for selling. Capitalism is ultimately characterized by the passage of the former to the latter: the property of a good become an asset or a capital – i.e. a right to obtain future revenues. While the "tangible property" relates to the possibility of using a good to produce and to increase social wealth, the "intangible property" allows getting the power of negotiation and of creating an *artificial* scarcity by restraining supply for *getting money*.

The CPR is a necessary condition for a thing being a commodity. ERE (with CV) acknowledges that when referring when it refers to "shadow prices". What remains hidden are: 1) the competitive model of market is itself a fiction compared to the real structure and functioning of markets; 2) CV consists, finally, in the projection of a *specific instituted* relationships between humans, whose *autonomous logic*[19] – the production of money – is described by Marx and Polanyi as attacking the natural foundations – "land" – and the anthropological foundations – "labor" – of any society. Recognizing CPR as both political construct and devoted to an autonomous logic implies to emphasize the ideological character of CV, i.e. its "commodity fetishism".

Commodities, economic value and money

Burkett (2004, 2006), Nelson (2001) and others have attempted to bring Marx into EE. Indeed, many ecological economists have taken notice of old Marxian debates and recent Marxists ones, but in most cases in an abbreviated and/or biased way. The simplest understanding of Marx concludes that he preaches the development of productive forces without taking their potential destructive potential into account (Altvater, 2007). Faber (2008) argues that "Marx followed on from Adam Smith in his hope that material wealth could be increased indefinitely" and that "[i]t never occurred to (…) Marx that nature, which provides the raw material for (…) wealth, might resist this human striving for continuous growth".

The debate over the relationships between Marx, Marxism and ecology is far from over – between those who relatively overemphasize the 'Marx's ecology', those who think that the Marxist theory need to be modified so as to better understand the environmental dimension, and those, as some ecological economists, who argue that Marx has nothing substantive to bring to it. We enthusiastically share the Taduro's general appraisal: Marx's ecology contains the major weakness of "having not understood the difference between renewable energy and non-renewable energy at the historical scale." However, Marx's oeuvre develops a set of concepts "that are indispensable for apprehending the environmental crisis in its *historical determination*, as a crisis between *humanity and its environment*, thereby as a *social crisis*" (Taduro, 2008, emphasis added).

[19] Earlier on the Manuscripts, Marx (2007b) writes about industrial capital as the objective form of private property: "We can now see how it is only at this point that private property can complete its dominion over man and become, in its most general form, *a world-historical power*" (emphasis added).

In Marx's "Critique of Political Economy", the dialectic between economic value and use-value which corresponds also to the double character of labor, production and the commodity is of utmost importance (see Das Kapital, Book I, Section I, Chapter 1).[20] The commodity is seen as the most abstract and universal element of the totality of capitalist production, the "germinal cell" of the bourgeois' society (Marx, 1994a). The twofold aspect of commodities – use-value and exchange-value – reflects, in fact, the twofold character of works producing them: the concrete works are not immediately socially useful without the exchange mediation; and works exchanged are not the concrete one but works that Marx called "abstract" or "social". The first have qualitative differences but as "abstract" labor, all works count only as "productive expenditures of human brains, muscles, nerves, hands, etc., [which] in this sense are both human labor" (Marx 1994a).

These "abstract" works are the substance of a phenomenon, deprived of any content as such, a "real abstraction" (Jappe 2003), which is *purely social*: the "value" that Marx calls, in 1880, "economic value". The latter expresses itself monetarily by exchange values and its course's end is a quantity of money coming to enlarge capital. The validation of concrete works on the market is realized by the expression of "abstract" works directly exchanged in money. As Harribey (2008) puts it, money, under capitalist conditions, can be interpreted as the "social institution without which the sell of the commodity on the market could not exist", e.g. the economic value could not be validated and thus could not take the money-form".

The economic value/use-value dialectic contains the phenomenon of indifference of the former to the latter which however constitutes its body: the means that society uses to achieve its qualitative goals have become an independent power and all production of use- values is merely a mean for only one finality, e.g. disposing of a greater amount of money. The real production is only "an unavoidable intermediate link, as a necessary evil for the sake of money-making" (Marx, 1976). According to Marx, the economic value is just a form of social organization and its production does not enrich society: "Not too much wealth is produced. But at times too much wealth is produced in its capitalistic, self-contradictory forms" (Marx, 1965). In the meantime, he thought that we should not call it "wealth" because "the self-valorisation of capital – the creation of surplus value (…) is utterly miserable and abstract content" (Marx in Dangueville, 1971). Thus, the Marxian analysis of capitalist accumulation process started with and had been entirely founded on that of the primacy of the economic value on use-value, e.g. of the economic value on wealth. It should not be confused that the aim is to produce the maximum of use-values – the *concrete wealth*; the aim is to *produce* the maximum of *economic value* (Marx, 1968).[21]

The indifference statement carries in germ a potential disjuncture which goes beyond the one usually claimed by Marxists – e.g. punctual overaccumulation and the contradiction between capital and wage-earning labour. Once having become an end in itself, interested only in its own quantity, the economic value is indifferent from its viewpoint whether its support is coal, wheat, edifices filled of asbestos, etc. If the social character of a production or a thing consists ultimately in its ability to transform itself in money – the *abstract wealth*, so its concrete content, its social and environmental consequences do not form part of their social nature. Accordingly, the dialectic between economic value and use-value corresponds to the

[20] "That the economists, without exception, have missed the simple point that if commodity has a double character – use value and exchange value – then the labour represented by the commodity must also have a two-fold character, while the mere analysis of labour as such, as in Smith and Ricardo, etc., is bound to come up everywhere against inexplicable problems. This is, in fact, *the whole secret of the critical conception*" (Marx and Engels 1975, emphasis added).

[21] Burkett (2006) rightly questions, while supporting his critique of the ecological irrationally of the economic process, Georgescu-Roegen's view of the economic process as having no more fundamental root than the pursuit of "enjoyment of life". Altvater (2007) comments: "This is a superficial and unsatisfactory explication of the reasons why humanity accepts the entropy increase. It is a good example of the failures resulting from the disdain of useful Marxist categories by even critical ecological economists".

subordination of concrete wealth to an abstract form of wealth, the latter being an autonomous power or an "*automate subject*" (Marx, 1967).

This dialectical reasoning provides the structural and historical explanation of the environmental crisis. The human-nature relationship is a centrepiece of the Marxian critique of political economy. It is also the object of EE and any firm and radical (vis-à-vis ERE) version of the latter would be hardly achievable without Marx and the socio-historical basis that he provides for analyzing this relationship.

4.2. The social construction of wealth

The SEE's rejection of monetary reductionism and market essentialism in relation to EV can be interpreted as a quest for theoretical legitimation of a *sovereign space* for EV and ecological resources. The contribution of a *political economy of wealth* in this regard could be decisive (Harribey, 2008; Douai, 2008). Ricardo – against Say – and Marx – against Wagner – have established the irreducibility of *social wealth* to market categories.

Two strong stances find a basis from this irreducibility: 1) ecological resources have *no intrinsic economic value*: those which are not privatively appropriated and which stand outside the sphere of socialised labor have no economic value, but a value that refers to ethics, aesthetics, and politics, etc; 2) having said "what there is to say about the commodity in so far as it is a use-value" (Marx, 2007a) when it has been said that use-value (utility) constitutes a necessary but not sufficient conditions for a thing having an economic value. It results that no specific philosophical and anthropological hypothesis about *use-value* or utility are needed: its *socio-historical and political features* can be easily articulated.[22]

Economic value, wealth, values

The polysemic character of the word 'value' has caused and still causes considerable controversy and trouble in economics. Marx does not treat explicitly this problem until 1880 and the controversy with Wagner. The latter criticises Marx's theory of value with a reasoning which is symptomatic and close to neoclassical one:

> "It is a *natural* striving of man to arrive at a *clear awareness* and *understanding* of the *relationship* which inner and outer *goods* bear to his *needs*. This is done through the *appreciation (valuation)* by which *value is attributed* to goods or things of the outside world and this value is *measured*" (p. 46), and he says, p. 12: "All means of satisfying one's needs are called *goods* (…) In order to avoid misunderstandings, it is necessary to establish what is meant by value pure and simple, and it is in conformity with German usage to choose use-value for this purpose" (Wagner in Marx, 2007a).

Marx describes and criticizes the conceptual jumps made by Wagner:

> "[he] derive[s] the *economic category "value"* (…) by simply renaming what is *vulgo* called "use-value" in political economy as "value" pure and simple. (…) One might also have said: Since man relates to the things of the outside world which satisfy his needs as to "goods," he "prizes" them, thus attributing "price" to them, and thus the derivation of the concept "price pure and simple" by "man's" own methods is supplied ready cut to the German professor" (ibid.)

Facing these ideas, Marx distinguishes between "economic category of value" and "*generic concept of value*". The latter corresponds to the human valuation of things as a practical and socio-historical process which results from the connection between one's needs and things.

[22] "Whatever its social form may be, wealth always consists of use-values, which in the first instance are not affected by this form.(…)Although use-values serve social needs and therefore exist within the social framework, they do not express the social relations of production. (…) *To be a use-value is evidently a necessary prerequisite of the commodity, but it is immaterial to the use-value whether it is a commodity*. Use-value as such, since it is independent of the determinate economic form, lies *outside the sphere of investigation of political economy*." (Marx, 1994b, emphasis added).

The space that this distinction for considering non-market categories as categories of social wealth cannot be more evident than in the following passage:

> "A thing can be a use-value, without having [economic] value. This is the case whenever its utility to man is not due to labour. Such are air, virgin soil, natural meadows, etc. A thing can be useful, and the product of human labour, without being a commodity. Whoever directly satisfies his wants with the produce of his own labour creates, indeed, use-values, but not commodities. In order to produce the latter, he must not only produce use-values, but use-values for others, social use-values. Lastly nothing can have [economic] value, without being an object of utility. If the thing is useless, so is the labour contained in it; the labour does not count as labour, and therefore creates no [economic] value" (Marx, 1994a).

Marx has never undermined the idea that natural elements have a value for humans: he has just defined more accurately the nature of this value which, for non-market resources, refers to other registers than economy. Accordingly, the neoclassical quest for an economic value of Nature constitutes an analytical mistake that results from the a-historical and a-social attributes of its epistemology. In coherence with what he defines as being the object of political economy, Marx does not provide any clear analysis of the human valuation of nature or of any other things: it should or must be the object of an historical institutionalist approach.

The 'moral', 'ethical' and 'esthetical' value determines what must be considered as 'good' or 'bad', 'beautiful' or 'ugly', and more generally what is socially recognized as superior, as 'worthy'. *Values* refer to beliefs, religious or not, and they structure the symbolic order of society by providing meaning to human action.[23] Ontologically speaking, these are *incommensurable*: we cannot find out a common metric for comparing a courageous action and the beautifulness of an 'oeuvre d'art'. The goodness of nature protection and caring to future generations refers to ethical values socially produced and reproduced and it cannot be conflated nor compared with the economic value of a commodity (even if it can be linked to the former). A thing can have value from an ethical motive without having an economic value, and would even lose any 'moral value' by transferring it into the world of commodities. For instance, the gift relationship makes sense only by contrast to the market relationship, while the former is 'interested' since being socially valued, or good for one's image: it may provide prestige or enable to preserve good friendship relationships.

The normative value of nature is extremely diverse depending on societies, and so is agents' interest for it. The several beliefs and religions, which largely structure the symbolic system, have different behaviours with regard to nature. For instance, for christianism and all monotheist religions, nature is provided by God to Man which is considered as his most important creature, thereby being positioned all other creatures and having just to be a 'good manager'. In contrary, in animism and shamanic religions, Man is just a part of nature and not a superior being to other species. These beliefs and institutions involve human-nature relationships that are extremely different and capitalism would not have developed if Man had not been conceived as being above nature.

Accordingly, in HI and specifically in RT, agents' behaviour depends on institutional structures and on their *habitus*. This does not suggest that there is an absolute determinism of behaviours through institutions and the habitus (incorporated structures). Institutions are just rules that guide action whose finality is proper to the agent. They are at the same time resources and constraints for individual action (according to Commons they restraint, liberate and expand individual actions), whereas the habitus allows someone to adapt to situations by

[23] 'The study of values is central to and involves the intersection of interests of philosophers, anthropologists, sociologists, and psychologists [*and economists*!]. Values are presumed to encapsulate the aspirations of individuals and societies: They pertain to what is desirable, to deeply engrained standards that determine future directions and justify past actions' (Braithwaite and Scott, 1991).

creating new practices more or less adjusted to uncertain situations. For acting, agents have nevertheless some motives, incentives that give them reasons to invest themselves.

Traditionally, HI considers that motivations relates fundamentally to the individual *interest*.[24] As said earlier, RT retains the Bourdieusian conception of interest, which has been recently linked to or completed by the Spinozian *conatus* (Lordon, 2006): the individual interest cannot be reduced to the economic interest, but must be considered as the tendency for an individual to engage in something, to consider that there is something at stake. The interest in its generality is equivalent to the motive of individual action in a given institutional context – in a *field* in the Bourdieusian sense. Bourdieu (1994) prefers the term *illusio* defined as the tendency to be involved in the game, to *give a value to certain stakes, goods or actions*. Doing an interested act simply signifies that the action is motivated. This motivation is, for Bourdieu, the result of the incorporation through the habitus, i.e. this generating and organizating principle of thoughts and practices, of field's structures. In this sense, there is no 'disinterested' act because it would signify that the act is motiveless. This does not imply that there is no room for generous or sympathetic actions: these are so because they are socially recognized and valued as such (in relation to prestige or symbolic capital). The incorporation of the illusio is made by classical processes of socialisation, mimetism and contamination of affects (Lordon, 2006): agents engage in something because other members of their group or class are engage in it and because it produces positive affects.

Hence, society's culture, values and ethic shape the individual interest, which appears as a social construct (see works of the American economic sociology). To say that an agent is interested by a thing or an action is equivalent to acknowledge that he values it, but also that society creates and provides incentives for valuing it. More than rejecting the model of the interested action, it would more fructuous to focus on: 1) the way in which institutions distributes values and interests among individuals, and then determine behaviours; 2) collective action as a mean to transform institutions depending on actors' interests.

The social construction of use-value

If Marx focuses on exchange value, he never underestimates the role of use-value – both in its physical and psycho-sociological sense – in the functioning of the capitalist market. In his Notes on Wagner, he emphasizes the socio-historical character of use-value:

> "First, it is not the word "use-value" which stands in relation to the individual, but concrete use-values, and which of these "stand in a relation" to him (for these people everything always "stands"; everything is a question of "standing") is entirely dependent on the level of the social production process, therefore also corresponding to "a social organisation." But if Rodbertus only wishes to make the trivial statement that use-value which really stands in relation to an individual as an object of utility, relates to him as an individual use-value for him—then this is either a trivial tautology or it is incorrect, since not to mention such things as rice, maize, wheat or meat (which does not stand in any relation to a Hindu as food), an individual's need for the title of Professor or Privy Councillor or an order is possible only in quite a definite "social Organisation"
> "Consequently use-value—as the use-value of a "commodity" itself possesses a specific historical character" (Marx, 2007a).

In the introduction of his *Grundrisse*, Marx states that:

[24] The social dimension in the analysis of individual action is central to the Commons' thought. Choices and individual behaviours refer to a social process of learning that forms and transforms expectations, preferences and objectives, and that locates individuals within their social roles and thus in their power relationships. This institutional conception of behaviours, however, contains a vision of man who does not seek only his interest, but also security, equity and cooperation, i.e. what Commons calls the "instinct of justice" (Ramstad, 1990). In the German Ideology, Marx and Engels (1975) argue that "no one can do anything without at the same time doing it for the sake of one or other of his needs and for the sake of the organ of this need".

> "Production not only supplies a material for the need, but it also supplies a need for the material. As soon as consumption emerges from its initial state of natural crudity and immediacy – and, if it remained at that stage, this would be because production itself had been arrested there – it becomes itself mediated as a drive by the object. The need which consumption feels for the object is created by the perception of it. The object of art – like every other product – creates a public which is sensitive to art and enjoys beauty. Production thus not only creates an object for the subject, but also a subject for the object." (Marx, 1967).

The world 'use' has several meanings: 1) it means *utilization*; 2) it means also *habits, custom, institution*. In this sense, a thing has a use-value because it is inscribed in a use, a custom which provides it with a social sense and a value. The use-value of a product or a thing depends on the considered society and on what we can call a *mode of consumption*, i.e. the set of rules, habits, and norms that govern the affectation of households' incomes to the consumption of use-values. A system of use corresponds to the set of relationships that determine the concrete uses of a product. It is then easy to understand that some products have a use-value only in certain conditions: petrol certainly had not the same use-value before the discovery of the explosion motor and before the generalisation of automobile as mean of transportation. Typically, households' consumption habits depend largely on tastes socially shaped by mimetism and the want for distinction (Veblen, 1898). The fact that a product has a use-value is equivalent to the fact that some agents have an interest to possess and use it, which nothing more than an affect socially shaped (Lordon, 2006). These use-values are thus inscribed in a symbolic order, i.e. an order of sense.

In contemporary capitalism, a large part of modes of consumption are formed by marketing and publicity which, in turn, produce new outlets for the accumulation of capital. The socio-historical character of use-value concerns also the notion of quality: the quality of a product is instituted. For instance, we can ask what fundamentally distinguish a medicament from a poison: a medicament is a product supposed to protect health in certain conditions of utilization or which is toxic in certain other (the word *pharmakos* means remedy and poison). A medicament is always a balance between beneficial effects and risks. Its quality is legally determined through a benefits/risks ratio by a governmental agency. What defines its use-value is thus a therapeutic substance associated with a defined posology and use, in accordance with validated rules and clinical tests which the produced benefits/risks ratio is judged as satisfying by the governmental agency.

More generally, numerous works have shown that a market cannot be reproduced without reproduced rules of certifications or guarantees on products' quality, notably in situations of asymmetries of information (Akerlof, 1970; Hatchuel, 1995; Fligstein, 2001). A fundamental hypothesis supported by neoclassical economics is that the products' nomenclature is perfectly known by everyone. However, the definition of a product's quality is a social – that partly refers to common symbolic system and ethical values – and political – because submitted to contradictory interests – process. For instance, the definition of a wine's quality is submitted to conflicts of interests, as is the quality of 'environmentally-friend' products. In the same way, the definition of a 'biological product' – in the context of conflicting interests with regard to patentability – is a contradictory process between multinational firms, who seek to show that their discoveries can be considered as human products, and ecologist militants or consumers who defend the idea that these products are natural and that they should not privately appropriated. However, the definition of biotechnological products and their patentability refers essentially to what we will define as being natural.

In contemporary capitalism, nature and the environment become political issues, i.e. *arenas* where contradictory interests and conceptions are in confrontation. For capital, nature is essentially a 'natural capital' to be valorized, substitutable with 'man-made capital': cf. the

expansion of markets of rights or permits for emissions, patentability of living things, and appropriation of energetic resources. We can hardly avoid considering neoclassical approach of environment as an ideological superstructure supporting the growing commodification and capitalistic 'valorization' of nature. At the same time, the sustainability issue and growing preoccupations in relation to environmental problems entail sometimes strong oppositions to the 'privatization' movement and that constitutes also an important source of alternative norms and rules (Bakker, 2007).

More generally, in modern societies, it is *law* that provides the boundaries of human practices. The environmental regulation, the right of environment and the associated system of taxes, along with property rights, largely determine the relationships to environment in a number of domains. These rules still result from political compromises between contradictory interests. They are not necessarily constraining: they constitutes also resources since they allow some actors to shape strategies of valorization – in its capitalistic sense or not – of nature and of the environment.

4.3. The future directions of research

Two levels of analysis could be fruitfully explored through a historical institutionalist point of view: 1) the macro-level: historical – attributes of the prevailing accumulation regime – and comparative – variety of capitalisms or of modes of regulation – analysis of the economy-environment relationships; 2) the meso/micro-level: actors' strategies and political coalitions in order to change the rules.

The capitalism/nature dialectic: capital accumulation, sustainability and crisis

The identification of fundamental and more specific forms of mediation between humans and nature opens a wide analytical range in terms of historical and comparative analysis of capitalist societies' relationships with the environment.

The fundamental forms of capitalist social relationships entail a *fundamental contradiction* between "abstract wealth" – money – and "concrete wealth" – use-values and natural wealth (see Zuindeau, 2007). The sustainability issue can be seen as expressing this contradiction between capitalism and nature. Conflicting relationships may lead to political compromises that frame the production of economic value and capital accumulation. At this stage, the two main analytical tools of RT – at least originally – are potentially fruitful: an '*accumulation regimes*' is "the set the set of regularities that ensure the general and relatively coherent progress of capital accumulation, that is, which allow the resolution or postponement of the distortions and disequilibria to which the process continually gives rise" (Boyer, 1990). The other key concept of this approach is '*mode of regulation*':

> "The set of procedures and individual and collective behaviours that serve to: 1 — Reproduce fundamental social relations through the mode of production in combination with historically determined institutional forms. 2 — Support and 'steer' the prevailing regime of accumulation. 3 — Ensure the compatibility over time of a set of decentralised decisions, without the economic actors themselves having to internalise the adjustment principles governing the overall system" (Boyer, 1990).

The emergence of a mode of regulation depends both on the construction of political compromises and on the emergence of institutional complementarities which are not automatic. The economic dynamic and its environmental impact rest crucially on the modes of regulation of capitalism and on these institutional complementarities. Following Zuindeau (2008), a research program could be the analysis of the variety of capitalisms and their distinctive consequences on the environment. Another path could be the dynamic study of

conditions of sustainability of accumulation regimes and their entry in crisis. An important specificity of this potential crisis is the question of the *scales of regulation* and of the forms of governability that could be created in relation to the conflicts of interests between states.

Actors' strategies and political coalitions

SEE are less interested in macro-level themes than RT. However the latter's interest on strategic interactions between actors and collective action may provide fertile elements for investigating new areas and reformulating some current stance.

The working hypothesis underlying this paper is that the theme of sustainable development cannot be a speciality as such: it is a question addressed to all actors of our societies and, even if it questions 'objectively' their foundations, the primary issue relates to the translations and the consequences of this exigency from the conflicting relationships between actors, that are inherent to capitalist societies. Consequently, a historical institutionalist approach of environment should focus on 1) the ways in which exigencies of environmental and social equity impact on established political compromises and institutional arrangements at all levels and in relation to all influential organizations; 2) the impacts of existing institutional arrangements and their changes on the dynamic relationship between economy and the environment.

In HI and in RT, *collective action* is central. Commons (1934) considers that one of the main failures of neoclassical economics relates to the absence of collective action. Only the latter enables to act on existing institutional forms or arrangements. Collective action supposes the construction of political coalitions created in order to change the rules by the mobilization of diverse sources of legitimacy – e.g. registers of values or interests – that put into brackets, for a time, conflicts in order to elaborate compromises: the institution is created for making the conflict "sustainable" or "liveable". The environment can be an almost problematic as such – in relation to use-conflicts or externalities – or can be used as a register of legitimation of a discourse aiming at defending interests, the condition being that actors engage in it.

The normative institutional perspective developed by SEE has thus to be questioned since: 1) it seems to undermine the idea that conflicts are irreducible in a complex society; 2) it rests on a pro-ecologist a priori; 2) it undermines the idea that institutions are created and change in relation to the constructions of political alliances between irremediably contradictory interests. In practice, consensus is unachievable in a complex and democratic society: a political decision satisfies some interests against others and some of them are intrinsically contradictory. No decision is politically neutral since it reveals the primacy of some interests and gives a specific symbolic and ethical sense. The SEE's agenda should contain an explicit questioning about the institutional change and its consequences with regard to environmental issues. It implies to study: 1) interests at stake; 2) conflicts and struggles between actors; 3) the collective action and its consequences on the economic and environmental dynamic, without any normative posture about the good institution or rules. This does not suggest that the scholar can be "value free", the latter being always engaged in, but it suggests that a workable distinction between analytical postures and normative preoccupations should be made clear by choosing, as much as possible, the axiological neutrality in the Weberian sense.

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