



Institutions and the environment: the case for a historical political economy

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Institutions et environnement: la contribution d'une approche d'économie politique historique.

Résumé

Cet article fournit une revue critique de l'analyse institutionnaliste appliquée essentiellement par les tenants de la "social ecological economics" dans le domaine environnemental. Ce travail met l'accent à la fois les points forts et les points faibles de cette approche du point de vue analytique, en la confrontant à une taxonomie générale des institutionnalismes - largement utilisée en science politique et ici adaptée à l'économie. Cette démarche nous conduit à reconsidérer les objets de la social ecological economics sous le prisme d'une approche institutionnaliste historique des rapports sociaux à la nature.

Mots-clés : Economie écologique, institutionnalismes, socio-économie, régulation.

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Abstract

This paper provides a critical review of the 'state of the art' of institutional analysis applied essentially by social-ecological economists in the environmental domain. It highlights both areas of strength and issues where there is still room for improvement in analytical terms, by construing these approaches in the context of a general taxonomy of institutionalisms – widely used in politics and applied here in the economic realm. This provides the rationale for re-construing a number of related issues drawn from the core insights of a historical institutionalist approach to human-nature

Keywords: Ecological economics, institutional analysis, socio-economy, regulation.

JEL : Q01, Q57, B52, P16

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It is right that what is just should be obeyed; it is necessary that what is strongest should be obeyed. Justice without force is helpless; force without justice is tyrannical. Justice without force is gainsaid, because there are always offenders; force without justice is condemned. We must then combine justice and force and, for this end, make what is just strong, or what is strong just. Justice is subject to dispute; force is easily recognised and is not disputed. So we cannot give force to justice, because force has gainsaid justice and has declared that it is she herself who is just. And thus, being unable to make what is just strong, we have made what is strong just. **Blaise PASCAL**, *Pensées*, coll. "La Pléiade", Ed. Gallimard, 1954, p. 1160.

1. Introduction

In examining the intellectual economic context through which environmental issues are commonly approached, one would be hard put to avoid noting: 1) that money numbers and the capitalisation of nature are becoming increasingly predominant features since standard economists have found new grounds – including in the area of *Ecological Economics* (EE) – for extending the use of their framework; 2) the fragmented state of the heterodox ‘community’. The chief motivation behind the initiative known as ‘*Ecological Economics and Heterodoxies*’¹ was to develop convergences between the various schools that tend to reject standard analysis. One of the premises of this new field will be at the heart of this paper: *institutional thought* is well suited for supporting this aim and is in itself a productive program of applied research.

A first step involves clarifying what is meant by ‘institutional thought’ in our context. Relating the purposes of an analysis to the demands of institutional thought is not a critical matter if it is assumed that all economic schools adhere to some extent to institutionalism, and even neoclassical economics.² Furthermore, institutional approaches to the environment – which argue that ‘the idea that the economy is embedded in society... should influence the analysis of environmental issues’ (Røpke, 2005, p. 271) – still tend to be underrepresented by comparison with, say, monetary valuation. We target the *historical approach* as opposed to the *rational* and *sociological* approaches, insofar as the former exhibits the epistemological and methodological standpoints that are well-suited for developing the potential of a ‘socio-economy of the environment and sustainability’ (Douai, 2008, 2009).

Socio-economic approaches to the environment are currently being developed – essentially within Socio-Ecological Economics (SEE) – around three areas: 1) environmental conflicts, with the aim of demarcating ecological resources from the market; 2) environmental governance solutions; and 3) the general interpretation concerning sustainability. Our approach is based on a critical review of the unifying core of these approaches, i.e. the development of an *ethical-based socio-economy*. SEE has had some success, for instance in making most scholars and decision-makers suspicious of efforts to value the environment in monetary terms. Yet SEE remains either silent or ambiguous when it comes to: 1) the structural causes of the global ecological crisis; 2) the notions of commodity, economic value and money; 3) the origins of institutional change; and 4) the interrelations between ecological issues and dynamic processes of political and economic transformation.

The object of this paper is to lay the foundations of a framework that reconsiders the three areas identified above with a view to clarifying what should be required in analytical and conceptual terms for an inclusive heterodox approach of the four issues identified above. This framework develops the core tenets of a historical institutionalist approach of environmental issues based on Classical Marxism and Regulation Theory. Its basic premise is

¹ Title of a workshop held at the 10th Conference of the Association for Heterodox Economics in Cambridge (UK).

² Veblen was the first to employ the term ‘neoclassical’ to designate the authors committed to marginalism and to Marshallian thought... which he deemed to be at odds with the core principles of institutional analysis.

that all human-nature relationships refer primarily to relations between humans themselves. Its social-historical problematization implies support for the relevance of the following features currently discussed in radical geography, environmental politics and economics as forming an ‘institutional political economy approach’ (Castree, 2008): 1) The *structural-logical contradiction* inherent in the use of nature for commodity production; 2) the expression of this contradiction through historically and geographically localized *social conflicts*; and 3) both the co-existence of structural contradictions and stability in social relationships with nature and social conflict as visible challenges raise the question of how contradictions and conflicts (the latter interpreted in terms of the failure of existing institutions to contain underlying contradictions stemming from the historical-structural ways in which the economic process of valorization subsumes ecological entities and physical-ecological laws) are *effectively regulated* over time. This implies a commitment to the *regulation of social relationships with nature* as the object of study emphasizing actors’ interests and power relations.

Section 2 provides a critical review of the ethical-based socio-economy of the environment. Section 3 offers a cross-disciplinary taxonomy of institutional theories. Section 4 outlines the core tenets of a historical institutionalist approach to social relationships with nature. Section 5 concludes.

2. A critical review of the ethical-based socio-economy of the environment³

The first task is to provide an outline of the main philosophical and epistemological presuppositions of the ethical socio-economy of the environment before showing how they result in the disappearance of existing social relationships with nature.

2.1. The presuppositions of the ethical-based socio-economy of the environment

Environmental conflicts and the value of nature are at the heart of the divisions within EE between factions (in North America) that employ monetary valuation and SEE (especially in Europe, Spash, 2006). SEE rejects neoclassical monetary valuation methods (MVM) and promotes plural value articulation. The crucial areas of critique articulated by SEE concern: 1) the conception of human actors; 2) the social construction of actors’ values; and 3) the promotion of discursive institutions.

– *An alternative view of the ‘valuing agent’*. Two neoclassical postulates concerning human beings are rejected: 1) the existence of a coherent set of preferences that provide a uniform account of human behavior; 2) the exogeneity of these preferences. In contrast to these postulates, SEE emphasizes the existence of a plurality of ‘realms of values’ (Trainor, 2006), of ‘rationalities’ (Vatn, 2005a), of a ‘sphere of justice’ (Paavola, 2007), or of the ‘incommensurability of values’ (O’Neill, 2004; Gowdy and Erickson, 2005). O’Neill and Spash (2000) claim that ‘an alternative view of values is that they express individual judgments about what is legitimate or right and which are open to revision through argument... A deontological view emphasises that consequences are not the only thing that matters’. SEE argues that ‘homo economicus is a construct which may certainly be adequate

³ The purpose of this section is to clarify the ways in which SEE deals with the three objects of study cited above. For an overview of the cross-disciplinary application of institutional theories to environmental issues, see Hotimsky et al. (2006).

and fruitful for the analysis of many purely economic situations', but this implies 'limited perspectives on the relation of the human being with future generations or the relation of the human being with nature' (Becker, 2006, p. 18).

– *The social construction of values.* O'Neill (1997, p. 83) insists that 'preferences that individuals have... cannot be taken as simply given. They have an institutional context. They emerge from... a set of social practices'. This leads Godard (2004, p. 139) and Vatn (2005a, p. 210) to conclude, respectively, that MVM are 'technical tool[s] for the construction of preferences, and that '[t]he type of institutions invoked in the process of expressing values influences both [those] that come forward and the conclusions that can be drawn on the basis of them.' A Value Articulating Institution (VAI) is a 'constructed set of rules' that defines 'who shall participate and on the basis of which (...) role' (Vatn, *op. cit.*). An important distinction needs to be drawn between choice as consumer and choice as citizen. Consumer behaviour is not a constitutive component of an actor's identity: 'his preferences are those of a person over one of his social roles' (Godard, 2004a, p. 147).⁴ When the 'common good' is at stake, '[p]olicy-makers need to call upon other [VAI] that will allow individuals to express their values in an appropriate manner' (O'Neill and Spash, 2000, p. 541).

– *The need for discursive institutions (DI).* Vatn (2005b, p. 163) argues that since the 'institutional setting influences which preferences and values in the continuum from 'I' and 'We' are found to be acceptable and/or relevant'; an important 'choice for society is to decide which institutional system should be in place for which type of problem'. DI are seen as tools for achieving agreement or consensus at the crossroads of the different logics or values to which the different parties are committed. As Godard puts it, 'the aim is to find the level of reality in which antagonisms between individuals are *suppressed* for making consensus or harmony possible'. This is based largely on Habermas's model of dialogue. As O'Neill (1997, p. 84-5) explains, a distinction is to be made between the 'model of negotiation' and the 'model of reasoned dialogue'. The former is appropriate where there exist conflicts of interests, 'not judgments'. [Its] aim is not to converge on an agreed judgment, but to arrive at some *modus vivendi*, a compromise, that allows individuals with quite different interests to operate in a common world.' The environmental conflict is open to 'reasoned adjudication', to a more disinterested, free and honest dialogue aiming at convergence. SEE sometimes emphasizes the normative character of this task:

It is important to distinguish between positive and normative claims. [N]ot everyone may approach environmental issues in [an ethical way]... But the fact that people do not always [e.g.,] vote in pursuit of the public good is not an argument against the normative claim that they *should* do so; that thinking about public goods from a 'citizen' perspective is what membership of a political community... ought primarily to be about... The institutions proposed here are based on a normative political theory, that of deliberative democracy. (Jacobs, 1997, p. 214-5 & 228).

SEE and Godard argue that this approach is feasible if 'we consider that actors engaged in a conflict are not attached in an identity manner to their [values or logics, etc.], but that they have the property of moving through this pluralist space'. O'Neill questions the claim that consensus is always achievable: the 'ideal dialogue' may succeed in arriving not at agreement, but at each party appreciating the reasonableness of the opposing view while remaining committed to his or her own view' (*op. cit.*). This open-mindedness may be seen as

⁴ A host of empirical observations that show that respondents in the context of contingent valuation (CV) may not wish to and often fail to conform to the assumptions of the rational choice model has been accumulated. For SEE, this proves the existence of ethical limits to commodification (Spash, 2008). Protest responses in terms of willingness to pay or accept (very high individual bids, state a zero bid, or refuse to bid at all) are interpreted as proofs that '[individuals express] the opinion that the environment is not well represented by economic value' (Svedsäter, 2003, p. 123). As O'Neill and Spash (2000, p. 528) state, 'to put a price on an object has a cultural meaning: it can be felt as an act of betrayal of a moral commitment'.

depending on what Paavola (2007) refers to as ‘procedural justice’ in the absence of ‘distributive justice’.

Paavola argues that this framework helps to reconsider the nature of environmental governance (EG) solutions. His reconceptualization of EG is designed to take account of multi-level solutions and of all kinds of ecological resources.⁵ EG is defined as ‘the establishment, reaffirmation or change of institutions to resolve conflicts [of interests] over environmental resources’ (p. 94). Resolving them requires defining ‘whose interests are to prevail and to what degree’, which ‘is not an issue of efficiency, but of distribution’. He insists that the ‘choice of governance institutions is a matter of *social justice* rather than of efficiency’: ‘legitimate [EG] decisions... have to reflect both distributive and procedural justice concerns’ (p. 96). The second type operates in fact as a counterweight to dilemmas implied by the first:

In the context of pluralism, distributive justice matters in a broad sense of whose interests and values will be realized by the establishment, change or affirmation of [EG] institutions. [Pluralism] may entail different governance solutions for the pursuit of different goals. Yet the dilemmas of distributive justice will remain difficult to resolve. Procedural justice plays a role in justifying decisions to those whose interests and values are sacrificed to realize some other interests and values. It can also facilitate learning and transformation of values and motivations of involved actors (p. 97).

The core concerns of procedural justice are: whose interests are *recognized* and how? Which parties can *participate* and how? What constitutes an effective distribution of *power*? The relative power of the involved parties then ‘determines to which extent they can make their interests count’. Distributive justice therefore concerns the issue of whose interests will be realized, while procedural justice concerns the effective distribution of power. The claim that the choice of EG institutions ‘is a matter of social justice’ may be viewed with a degree of scepticism. If EG implies that some ‘interests and values are sacrificed to realize some other interests’ and that the choice of EG institutions is determined by the relative power of the involved parties, then ought we not to consider that: 1) EG is first of all a matter of *power accumulation*; and 2) that it *calls* for *effective* procedural justice – thereby ensuring that ‘the interests which are not endorsed by a particular environmental decision can count in other decisions’, and that the affected parties can ‘express their consent or dissent, and maintain their dignity’ – as the means *for making what is strong just* or more legitimate? This has implications for the way in which the object of institutional analysis is defined. Paavola argues that:

Institutional analysis should examine central institutional rules of governance functions because their formulation has implications for transaction costs and distributive, procedural and governance outcomes... In practice, institutional analysis has to analyze and compare the implications of alternative rule formulations and institutional designs that could be or could have been applied to the governance problem at hand.

Yet what of the following issues: which interests and strategies tend to prevail? How do the involved actors or parties work politically to establish institutions that are favourable to them, i.e. that imply the recognition and protection of their interests and the denial of others? In other words, how do the involved parties work toward becoming hegemonic, in the sense of the capacity to persuade other actors to accept a compromise? How might these institutions appear to the actors to constitute objective and inherent constraints? We will return to this point in due course.

⁵ Interdisciplinary research sheds light on the conditions in which ‘voluntary collective action’ attain sustainable governance environmental resources’ and has identified ‘design principles of successful governance solutions’ (p. 93).

The final approach discussed here is the Polanyi-inspired account of the ecological crisis described by Adaman *et al.* (2003). This approach tends to be holistic and historical-oriented, as illustrated by the following judgment concerning SEE and the general programmatic appeal formulated by Adaman and Özkaynak (2002):

Although the [Institutional school] has elaborated suggestions regarding environmental issues, it has not yet fully considered the operation of the socio-economic system as a whole. Readers... may find it difficult to see how decisions on environmental issues might be incorporated into the overall picture...

[T]he definition and the scope of environmental issues and the ways in which they should be approached and treated should be conceptualised at the social level... [O]nly a holistic methodology 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.

Polanyi's thesis, outlined in *The Great Transformation* (1943), is thus endorsed. In his study of the nineteenth-century economy, Polanyi showed how the rise of capitalism served to destroy feudal social relations and social and natural habitats, thus providing an account of the degree of violence implied by the process of 'disembedding': the capitalist market system 'reinstated the economy as a separate and distinct sphere, with its own logic and laws of motion, disembedding it from society and nature by creating markets for labour, land and money' (Adaman *et al.*, 2003, p. 362).⁶ Yet 'disembedding can never be complete since laissez-faire economic liberalism undermines the conditions necessary for continuous capitalist reproduction and calls forth movements of resistance' that Polanyi (1957, p. 180) referred to as the 'self-protection of society'. He therefore interpreted nineteenth-century history as the result of a 'double movement' (at the national level) of an expansion of liberated markets for real commodities and of a limitation concerning fictitious commodities, i.e. 'a conflict between the market and the elementary requirements of an ordered social life'. This background is used to define claims for ecological sustainability as a concrete manifestation of this double movement, as the need to 'reconstitute... [the economy] in ways that bring it under social control' (Adaman *et al.*, 2003, p. 357).

Two related comments are in order here, though we would not wish to imply that they apply entirely to Adaman *et al.* They are inspired from comments made by Brand and Görg (2001) concerning the Polanyi-inspired account of neo-liberal globalization to which Adaman (2005) positively refers and for which Adaman *et al.* use the term 'deregulation'. 1) One important matter is the role of the *political content* of processes such as globalization and sustainability. While Polanyi postulated the existence of an enforced 'self-regulating market', he also emphasized its political content. The re-regulation/re-embedding imagery may tend to disguise or underestimate the fact that even 'liberated' markets 'have to be established and enforced, ... by the transformations of the existing social relations and thus by political activity in a broader sense' (Brand and Görg, p. 72). Adaman *et al.* draw a distinction between 'institutedness' and 'embeddedness': 'institutedness' appears to imply that economic activity is a kind of social-political process. Here we may ask what it means to 'seek ways of [re]embedding the economy in society' and to figure the economy and society separately in a schema, if we consider that capitalism, construed as a contradictory process, invariably requires a web of political and socio-cultural institutions to guarantee its stabilization, i.e. that capitalism is invariably embedded in some sense. The answer refers to embeddedness within 'organic' or 'comprehensive' social relations – 'a *moral economy*' as emphasized by Thomson (1980), or more practically, the development of political and socio-cultural institutions through which 'civil society [would] exercise [a] control'. While the notion of the

⁶ These latter are called 'fictitious commodities', i.e. things whose socio-cultural value, physical function, or biological needs exceed that which is registered through market transactions of discrete commodities. By treating them as if they are true commodities the capitalist system is contradictory.

loss of collective power along with the emergence of the capitalist market system may be relevant, this analytical framework may tend to neglect the social-political construction of markets and of the never-ending process of (re-)articulation of economics and politics in which conflicting interests and power relations come to the fore. 2) A key point is the Polanyi-inspired account of conflicts in terms of the ‘self-protection of society’. Even if movements of resistance are by nature political, this view is based on a ‘functionalist concept of society’. Polanyi (1957, p. 223) observes: ‘In the final analysis things were set in motion by the interests of the entire society, even if their defense originally fell more to one than to another part of the population. It thus appears to us to be appropriate not to gear our report of the protective movement to class interests but to the social substance threatened by the market’. The view of capitalist society as a contradictory process and the emphasis on conflicts and their regulation (even if Polanyi does refer to this) are thus abandoned. Society is viewed as a ‘functional whole’ driven by a sole interest: to harmonize all of its spheres in order to prevent any single sphere from becoming destructively independent.

The danger in analytical terms – the unifying feature of the reviewed approaches – would be to construe sustainability as a particular model pursued and achieved jointly by the various actors, provided the appropriate incentives or political and socio-cultural institutions are made available, i.e. arenas in which the particular interests and power relations from which actors would step away for the sake of an objective goal. As soon as the identification of social conflicts between various actors aiming at markedly different goals is made to become the pre-analytical vision, the view suffers from a neglect of: 1) the primary motive forces of institutional genesis and change in many contexts and at different levels; and 2) the connection between ecological issues and socio-economic processes.

2.2. Between power and morality: the decline of social relationships with nature

SEE consciously neglects the role of objective conditions or social structures within which values or intersubjectivities are embedded, of power relations and of political compromises – the latter understood as an arbitration process between heterogeneous interests, which reflects neither the requirements of economic efficiency nor those of an ethical imperative, but reflects instead an autonomous logic of power accumulation. Indeed, although there are some references to these issues, nonetheless SEE either tends to treat them as second-order concerns or ignores them altogether in cases where environmental conflicts are the object of the analysis. Yet a number of caveats have been raised. Holland (2002, p. 33) observes that:

[C]riticism [of discursive institutions] will focus on the effects of the uneven distributions of power, confidence... that will apply to any given context of deliberation. Results may be inconclusive, contradictory, or irrelevant... democratic principles imply a right to be considered; but they do not imply a right to count or to determine the outcome.

O’Neill (1997) seeks to draw a distinction between conflicts of interests and conflicts of judgments, thus drawing a further distinction between negotiation and reasoned dialogue, yet he writes:

[A] certain wariness needs to be exercised in writing as if ideal speech situation already existed. Environmental conflicts are not only about values, they are also about power and interests [Footnotes: To that extent there is something to Sen’s comment on Elster’s version of Habermas: ‘it is not really easy to see how antagonistic interests, including class interests would all get submerged in “unanimous preferences” merely by a “rational discussion”’]. The two are in tension (...).

A little earlier, O'Neill had claimed that the model of negotiation is appropriate where there is a conflict of interests, and is not appropriate in 'the cases of conflict which [he] ha[s] outlined'. He now claims that environmental conflicts are not merely matters of judgment, but are also issues of power and interests. No particular attention is paid to the tension between values and interests. He observes later that '[t]he association of evaluative practices with positions of social power and wealth induces quite proper scepticism about their reliability'. In fact, the sphere of values and social structures are ontologically opposed. For him this calls for 'a political epistemology concerning conditions of trust, and a corresponding social and political theory about its institutional preconditions'. O'Neill (1993, chapter 8) deals with trust between scientific expertise and individuals from the perspective of moral philosophy. His inquiry leads him to reiterate his support for deliberation as a means of solving a problem arising from it, thereby creating a sense of circularity in the argument:

Through common deliberation, the citizens may show better sense than the best of individuals. Such common deliberation is a necessity in the modern world. Given that a variety of knowledge and practices inform many choices, it is only through such common deliberation that rational policy is possible.

As such the relation between science and society constitutes a relevant subject matter. Yet its treatment via normative political theory hardly exhausts what is at stake analytically if SEE seeks simultaneously to take account of the reality of the social world *and* to promote discursive institutions. If there is a tension, it is between these two modes of thinking.

The work of Vatn (2005b) typically illustrates this ambiguity. The first part of his book deals with institutional change. Vatn defines institutions as the set of 'conventions, norms and sanctioned rules of a society [which] provide expectations, stability (...), regularize life, support values and produce and protect interests' (p. 60). Concerning institutional change, Vatn identifies two approaches: 1) the efficiency-based account of standard analysis; and 2) a view concerning the protection of specific interests. He cites the example of the interpretation of the effects of the green revolution in the Philippines in terms of yield distribution. The green revolution increased yields that were distributed in accordance with the rules of existing share tenancy. For Hayami and Ruttan (1985) this created a degree of disequilibrium between marginal costs and productivity. The observed shifts in the labour payment system are interpreted by the authors as a means of restoring a degree of equilibrium. Vatn (p. 183) responds thus:

The difficulty with th[is] type of explanations is that distribution is the result of some natural forces – the correction of some externally forced disequilibrium. [It] is not 'nature', but institutional arrangements that define what is income and what is a cost and for whom. The explanation of the institutional change is based on concepts that are themselves defined by the given institutional setting. No neutral point exists and, as we ... see, the change can be better explained with reference to the power implied by given rights structures.

Vatn's comment reflects the view that 'what *becomes efficient* is defined by the interests protected by the collective via the formulated institutions' (p. 170), notably the state. He also refers to Schmid's account of the role of economics in this matter:

There is no theoretical reason that [the landless labor] cannot be beneficiaries of public investments in irrigation and new plant varieties as well as landlords and original tenants... This ideology [that of natural equilibrium], masked as a science, is part of *the power struggle* used by different groups *to obtain institutions favorable* to them. There is *no way to have welfare economics that does not require the taking of sides* (emphasis added).

Vatn (p. 185-190) concludes that: 1) 'power... may be built into the basic structures of society – the institutions – like access to resources and the rules defining the distribution of surplus'. In this sense, 'the differences between old and modern societies is not only that of

democratization..., but also of converting visible and brute force execution into more hidden – that is, institutionally hidden – ones’; 2) as soon as conflicts are involved:

The very concept of efficiency, the rules and conventions by which efficiency is measured, are themselves largely defined by the actual institutional set-up... The efficiency claims become embedded in the assumptions of the analysis. 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. Certainly the capacity of different interests to secure their protection by these institutional structures varies. Partly the relevant social groups may lack the political or other necessary power.

To summarize, as soon as conflicts are involved: (1) an institution regulates a conflict, and tends to ‘normalize’ it or to make it ‘invisible’; (2) it implies the recognition of some interests and the denial of others; (3) it is not natural, neutral and immortal; (4) it is a condensation of power relations; (5) criteria of efficiency reflect the interests of those occupying advantageous positions; and (6) ideas (theorems, philosophical positions...) provide ideological support and are part of the power struggle between different groups to obtain institutions that are favourable to them.

Yet the environmental conflict is not concerned by this analysis (p. 303):

[S]ince ‘what is good’ (‘efficient’) is a function of the institutional systems, choices about institutional reform must lie beyond those of individual preferences and technical efficiency. It is a second-order issue concerning which interests and values society should protect... [T]he choice of institutions must be based on arguments... about what sort of society we want to foster. The objectivist perception of ‘what is best’ offers the opportunity to do such evaluations. Choosing between [VAI] implies choosing between rationalities and values... it becomes inconsistent to use the evaluative logic of one institutional structure – private property and markets – to evaluate outcomes from another institutional system.

The normative premises expressed marginally in the case of economic relations – ‘What then is a legitimate use of power?’; ‘The problem we face... is on what grounds can an interest be said to be legitimate’ – now become central. The concept of *legitimacy* becomes crucial. Two cases are possible: 1) legitimacy – the normative aspect of any institution – refers to power relations, as Vatn argues in the case of economic relations. Following Lordon (2007), we then need to consider that: (i) all of the interests involved in conflicts are legitimate for those who support them; (ii) any criteria of goodness serve and reflect the interests of dominating groups. Other groups may lack the political or other necessary powers to impose their interests, and/or dominating groups use a symbolic power to be hegemonic; (iii) assuming a position concerning the legitimacy of such and such an interest or of such and such a use of power is the expression either of the adherence to some parties or of a moral judgment.

2) Legitimacy is related to ethics, in a framework in which individuals are primarily motivated by the fairness of their actions, and in which their values are the driving factors of institutional change. This option amounts first of all to conflating *politics* with ethics, the former viewed as a space of convergence between values, and secondly to overlooking the role of interests and power relations.

Vatn hesitates between the first position – typical of Historical Institutionalism – and the second position – typical of Sociological Institutionalism. He refers to environmental conflicts and the choice of institutions as a ‘second-order issue’. It might have been assumed that his normative positions would thus be made clear, the latter being clearly distinguished from ‘first-order issues’ concerning environmental conflicts, i.e. their conceptual connection to the dynamics of the social world for analyzing their structure and regulation. Yet environmental

conflicts and the dynamics of the social world remain unrelated, and the hope invested in the primacy of the common good is seen as a specific analytical stance.

The general approach of Vatn can be outlined as follows. In the context of capitalist relations or economic order, the main drivers of institutional change are interests and power relations. Environmental conflicts are located at the crossroads of several orders, thus raising the issue of the incommensurability of values. A useful step for avoiding the ‘intra-order’ drivers is to transfer the environment into the sphere of the common good: ‘The problem with the standard position is that it involves the logic of markets without asking whether this is the perspective which is appropriate when analyzing common goods’ (2005a, p. 209). Like all other logics or orders, the common good has its proper institutional system (2005b, p. 226) – that of the ideal forms of deliberative democracy – and is supported by an *objective* vision of the good: ‘what is good can be evaluated in objective terms – that is, accepting that one argument can be evaluated as better than another *in the public domain*’ (p. 363). Note that Vatn previously adhered to Schmid’s idea that ‘[t]here is no way to have welfare economics that does not require the taking of sides’... In the logic of the common good the relevant role of the actor is to be a citizen: a person can be asked ‘to step out of [his] position [in society]’ and his goal is to ‘create consensus’, i.e. an agreement concerning judgments and values which is facilitated by actors’ capacity to transform their preferences and values (p. 354-5).

Vatn seeks to respond to those who argue that his presupposition concerning actors and the role of politics is merely a ‘naïve ideal’, i.e. that it overlooks the role of ‘strategic manipulation’ and that agreement comes about as a result of ‘the premises of some powerful actors’. Vatn argues that: 1) ‘dialogue in itself discourages strategic behaviour’ and ‘accentuates the focus on the common good’; 2) several ‘remedies are available to strengthen the internal drivers of communication towards neutralizing specific interests, (...) [m]eetings may be explicitly defined as public, and socially weak groups may be given special support so that their voice might be heard’. But if individuals are oriented towards an ideal of justice, why should we support socially weak groups, and against whom or what? Nothing in these arguments provides an answer to Holland: ‘democratic principles imply a right to be considered, but they do not imply a right to count or to determine the outcome’. To speak of a ‘dialogue in itself’ in reference to Habermas is highly debatable. There is no dialogue in itself that is external to a systemic perspective. In Habermas’s theory of ‘communicative action’, power relations are excluded; actors are motivated by creating and maintaining the fundamental condition of symmetry between interlocutors; the force of arguments is antinomic with the power of interests and is the only issue that counts. SEE is keen to support communicative action and to take account of the role of power relations and interests, which is impossible. If the latter are inscribed in language, as Holland argues, then there is no dialogue that is external to power relations and symbolic violence.

Our aim is not specifically to underline the idealism or wrongness of the moral approach to conflicts, a claim that would at any rate make little sense. The point is that it implies an internal contradiction, as well as questionable analytical premises. The contradiction is the following: the environmental conflict concerns the conflict between different logics or orders. The assumption is that the involved actors accept on this occasion the primacy of a ‘general interest’, while they are simultaneously embedded in logics or orders in which private interests and power relations are the motive force of activity. Yet this amounts to assuming that the *democratic order* – along with the underlying presuppositions concerning human actors and the role of politics – is *already* present and operational *within* the involved logics or orders. The issue here is to know how the compatibility between the stance of value pluralism and the quest for the common good can possibly be defended. There are two possibilities: 1)

either actors are primarily motivated by the common good, in which case the democratic order is everywhere, i.e. present and operational within all specific logics. In this case, Vatn ought to abandon his entire analysis of institutional change based on diverging private interests and power relations, and to accept that the problem of the incommensurability of values is solved, within the framework of SEE, merely through *ad hoc* assumptions concerning actors and the role of dialogue; 2) or Vatn persists in his analysis of institutional change based on interests and power relations, in which case the promotion of deliberative institutions has no other basis but a normative concern for keeping nature away from markets, or for ensuring that conflicts do not end ‘in a war’ (p. 354).

However praiseworthy this concern may be, from an *analytical* perspective, it lends support to principles that tend to displace the object of study from an analysis following certain findings of SEE concerning the role of interests and power relations. Environmental conflict, governance and sustainability cannot be simply related to the sphere of values, to a matter of individual ethical orientations. These are spaces of conflicts between divergent interests that are defined by the positions occupied by actors within the social structure, and which are supported by normative values, the latter themselves related to objective social conditions. Vatn ought to have based his analysis of environmental issues on his own claim that ‘institutions structure the relationships between humans as they utilize their common natural base’ (p. 14). He might then have argued that property rights, firms and the state – the examples he uses to illustrate his analysis in terms of power – simultaneously serve to structure relationships between humans and *their relationships with nature*. The treatment of environmental conflicts merely through the lens of normative values results in the disappearance of social relationships with nature, and in the impossibility of construing these conflicts as manifestations of contradictions inherent in these relations. The position of an ethical-based socio-economy amounts to denying that all human-nature relations concern relationships between humans themselves.

SEE is thus rendered inoperative with regard to: 1) the structural accounts of the global ecological crisis; 2) the meaning of the concepts of commodity, economic value and money, which constitute the very core of neoclassical economic valuation. SEE is unable to perceive that MVM is, like the rules of equilibrium concerning revenues, the ideological superstructure that supports the growing commodification of nature; and so cannot perceive itself as a part of the power struggle used by different groups; and 3) the interrelations between ecological issues and socio-economic dynamics.

The epistemological and methodological standpoints required to develop a more comprehensive socio-economic approach to environmental issues remain an open question. We argue that *Historical Institutionalism* provides some broad guidelines for addressing this issue. The following section presents a taxonomy of institutionalisms that have flourished in recent years within the social sciences with a view to making a first step toward demonstrating this point and to position the ethical socio-economy of the environment on the related ‘map’.

3. A taxonomy of institutionalisms

As noted above, the near totality of schools of thought in economics describe themselves as institutionalist. An outline of their main differences is in order. In its broadest 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. The core issues relate to the mediations

between humans and social structures, and the way in which institutions guide agents' behaviour while being simultaneously actualized by it (Billaudot, 2004). Clear divergences appear with respect to 1) relationships between institutions and behaviour; 2) processes governing the emergence, reproduction and transformation of institutions emerge. In this regard, Hall and Taylor (1996) draw a distinction between *Rational Institutionalism (RI)*, *Sociological Institutionalism (SI)* and *Historical Institutionalism (HI)*. Figure 1 arranges these approaches, along with some of their chief 'representatives' – New Institutional Economics (NIE), Convention Economics (CE), Old Institutionalism (OI, American and European) and Regulation Theory (RT) – based on their conception of institutions and rationality. Table 1 provides a summary of their key differences.

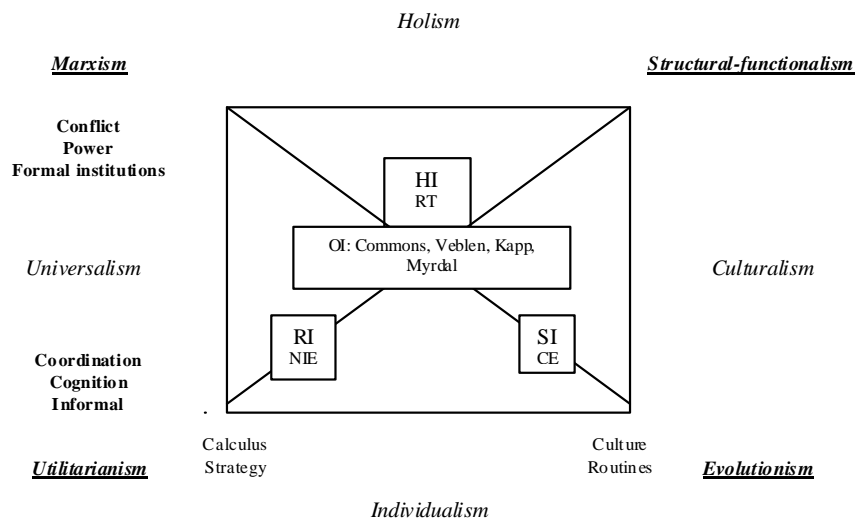


Figure 1. The field of institutionalism (adapted from Théret, 2000).

Table 1. The three types of institutionalisms and their main differences

	RI	SI	HI
Institutional genesis	Solve problems of coordination minimize transactions costs (contracts)	Common reference to solve problems of coordination and to act (conventions, norms)	SI + Regulation of social conflicts
Methodological approach	Individualism	Complex individualism	Structural holism
Rationality and interest of actors	Substantive rationality; Economic interest	Interpretative rationality; Culture and values; Self-interest / moral values	Institutionally located rationality; Individual interest socially constructed
Institutional change and dynamics	Exogenous (static)	Legitimacy and consensus	Compromises, conflicts and power; Path dependency
Examples	Neo-institutional economics Transaction costs theory Agency theory	New economic sociology Conventions economics <i>SEE?</i>	Commons, Veblen <i>Régulation</i> School

3.1. Rational Institutionalism (RI)⁷

RI includes mainstream-inspired approaches of institutions that focus essentially on property rights, rent-seeking and transactions costs. Like other general approaches, it contains some variations. Following Hall and Taylor (1996) and Billaudot (2004), four features can be emphasized.

– *Behavioural assumptions.* The behavior of actors is driven not by impersonal historical forces but by a strategic calculus, itself based on a universal and natural economic rationality. The capacities of actors are infinite and have fixed, perfectly identifiable and exogenous objectives (except in the works of North) that are troubled to some extent by beliefs, customs, etc.

– *The ‘raison d’être’ of institutions.* The social field is a set of collective action dilemmas, prisoner’s dilemma, or tragedies of the commons in which individuals’ calculus produce collectively sub-optimal outcomes as a result of transaction costs and information asymmetries. The absence of institutional arrangements prevents the achievement of an optimal outcome. They are conceived as constraints or second-best solutions to coordination problems. As soon as institutions are designed as a consequence of strategic calculus, they solve coordination problems (the spontaneous order of Hayek), although they are generally sub-optimal if they emerge as a result of the actions of the state.

– *Institutions-behaviour relationships.* The strategic calculus of actors includes expectations concerning other actors’ behaviour. Institutions structure such interactions: they affect (positively or negatively for the actor) the range of alternatives on the ‘choice-agenda’ and provide information or mechanisms that reduce uncertainty in the context of strategic interaction; they also allow ‘gains from exchange’.

– *Institutional genesis, reproduction and change.* RI is ‘functionalist’, i.e. ‘it explains the origins of an institution largely in terms of the effects that follow from its existence’. Their persistence relates to the value, for the actors, of the functions which they perform. The institution is thus created by the actors affected – ‘intentionalism’ and ‘voluntarism’ through mutual agreement – i.e. the gains from cooperation, and the institution persists as long as alternative institutional forms do not provide more benefits. The refinements of neoclassical theory, such as those achieved with game theory, have helped to improve the realism of its models – e.g. market failures that cannot be understood based on usual assumptions (perfect information, absence of strategic interactions). RI is able to account for institutional genesis in simple cases corresponding to a Nash or perfect equilibrium in an evolutionary game (Aoki, 2001). Yet at least three criticisms can be levelled against it: 1) a high-level of *functionalism*: institutions emerge for the purposes of resolving economic problems, yet this is not the case: neither a belief in God nor trust aim are designed to resolve this problem, even if they may have an impact on economic issues; 2) RI implies questionable assumptions about actors and their rationality. The actors involved control institutional creation and are perfectly able to perceive the effects in terms of gains; the purpose of the institution is precisely to secure these gains. The absence of any historical perspective – except in North (1990) and Greif (1998), although in highly specific terms – explains these ‘heroic assumptions’ (Hall and Taylor, 1996); 3) the high-level of *voluntarism* makes the role of power relations invisible and

⁷ The taxonomy elaborated by Hall and Taylor (1996) stems mainly from political science. They use the expression ‘Rational Choice Institutionalism’ (RCI) and refer in a footnote to the ‘new institutionalism’ in economics which ‘overlaps 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.

overlooks the fact that we come to life in a world where there are already institutions which we have to learn about. Institutional creation is viewed as a contractual process marked by voluntary agreement among equal and independent actors. Although it may reflect some simple cases, it tends nonetheless to underestimate ‘the degree to which asymmetries of power vests some actors with more influence than others over the process of institutional creation’ (Hall et Taylor, 1996, p. 321).

3.2. Sociological Institutionalism (SI)

SI is represented in sociology by organization theory and in economics by the French CE and a range of culturalist approaches.⁸ There are many variations in these approaches. Following Hall and Taylor (1996) and Billaudot (2004), four features can be emphasized to clarify the exact nature of SI.

– *Definition of institutions.* SI broadly defines institutions to include formal rules, procedure, norms, symbols systems, cognitive scripts, and moral templates that provide the ‘frames of meaning’ that shape human action. Compared with HI, SI lays greater emphasis on informal institutions: culture includes not merely shared values, but also routines and symbols that shape behaviours and therefore constitute institutions.

– *Institutions-behaviour relationships.* Institutions constitute both social norms and cognitive structures. They are associated with specific roles to which specific values or norms are attached. Individuals socialized into these roles internalize these values and behave, through interpretation, in accordance with these norms. The cognitive dimension implies that institutions shape behaviour by providing cognitive structures and models that are indispensable for action since they provide expectations, stability and meaning essential for human existence and coordination.

– *Behavioural assumptions.* SI is thus influenced by social constructivism, but often rejects any form of holism that tends to negate the freedom of the actor: humans simultaneously influence and are influenced by institutions. The notions of subjectivity and interpretation are central: faced with a particular situation, an actor needs to find ways to understand and respond appropriately. The symbols and practices of the institutional world provide the means for this process: the actor works with and reworks the available institutional templates to devise a course of action. The approach is comprehensive and rests on the assumption of a socialized actor: individuals internalize routines and values and act according to their interpretation of rules. This does not imply that they are not ‘interested’. Rationality is shaped by institutions and the interests toward which an actor is striving are generally conceptualized in broader terms, e.g. justice, altruism, etc. (even if most sociological institutionalists are reluctant to refer to individual interests): ‘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).

– *Institutional genesis, reproduction and change.* Actors or organizations often adopt new symbols, practices or rules since these tend to enhance their social legitimacy. The question of what confers legitimacy – i.e. the sources of cultural authority – thus becomes central. Hotimsky et al. (2006) insist that legitimacy is ‘grounded in actors’ subjective

⁸ Hotimsky et al. (2006) use the expression ‘Institutional sociology’, which emphasizes the importance of *power* and *legitimacy*. These two features are generally used to draw a distinction between SI and HI. The proper existence of SI may remain an open question (e.g. Hall and Taylor include Fligstein in SI, while others use these in a historical-institutionalist perspective).

orientations and beliefs about what is considered appropriate or morally correct', while Mahoney (2000) observes 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 rests on a positive feedback process of increasing legitimacy. Institutional change may come about as a result of inconsistencies arising between multiple cognitive frameworks that are dominant in society, providing a basis for actors to adopt new subjective evaluations and moral codes concerning appropriateness.

SI provides improvements over RI in accounting for individual behaviour and collective actions, since it emphasizes: 1) the variety of cultural universes and the plurality of rationalities/modes of human valuation; 2) that institutions are not only constraints; and 3) that the existing world of institutional rules and symbols delineates the range of possibilities in terms of institutional creation. But once again two comments are in order: 1) most of these approaches are concerned with the relationships between institutions and behaviour; actor's subjective orientations thus play a crucial role. Although the emphasis on social constructivism is attractive, its articulation with the (frequently implicit) dualism within the self remains problematic: why would individuals do what is culturally or morally appropriate? What explains the genesis of altruism and the sense of justice? 2) The second issue relates to institutional change. The latter is conceived as a diachronic form of variety. As Hall and Taylor (1996) put it, the approach taken by SI to such processes 'often seems curiously bloodless', since it overlooks the extent to which processes of institutional production and change entail a clash of power among actors with competing interests. Many frames of meaning, practices and symbols emerge not only from processes of interpretation but also from processes of conflict. The underlying 'harmony' – in CE, the purpose of the institution is representative of a 'principle of justice' and of an 'altruist' conception of actors – entails a normative bias (Amable and Palombarini, 2005). Poverty in terms of conflict and power explains the 'poverty of history' (Johnson, 2004). The emphasis on collective legitimacy and social appropriateness means that some approaches tend in some contexts to promote a deliberative order – e.g. democratic rules that enable the expression of plural views and in which consensus is achievable.

3.3. Historical Institutionalism (HI)

HI does much to overcome these criticisms. The field of HI includes a number of authors – Veblen, Commons – and schools of thought – RT, 'Variety of Capitalisms', and Social Structures of Accumulation. The definition of an institution does not differ significantly from the definition used in SI, although three features of HI are clearly distinctive.

– *The 'raison d'être' of institutions.* RI emphasizes the resolution of problems of coordination in the context of strategic interactions. SI emphasizes more generally the creation of a legitimized social order. For HI, an institution is essentially a mediation that emerges to regulate – rather than to resolve – a social conflict between contradictory interests and to institute *de facto* a new social order (Théret, 2000).

– *Institutional genesis, reproduction and change.* While RI, and to a lesser extent SI, emphasize the functionalist aspect, HI highlights the role of power, conflicting relationships and collective action in the process of institutional creation and change, especially formal institutions. Since interests are in conflict, only political compromises between groups enable the institutionalization of new rules. These rules allow a temporary stabilization of the conflict and structure conflict so as to privilege some interests while demobilizing others. HI thus

emphasizes the creative role of power and conflicting relationships. Yet none of this implies that functions of reduction of uncertainty or cultural referential are thereby denied, since they are in fact integrated in a synthetic view which claims that an institution promotes a common sense and a symbolical and normative transcendental order (Amable and Palombarini, 2005). An institution appears not to be in any way a constraint, but is instead a necessary condition for economic action and the dynamic reproduction of the social order by putting the social conflict 'in brackets'. Indeed, no market activity (which is inherently unstable and uncertain in terms of outcomes) would occur without a state law, rules of protection for property rights, debt payments and the quality of products... These rules do not constrain markets but are in fact its conditions of existence: 'institutions are collective action in control, liberation and expansion of individual action' (Commons, 1934).

– *Institutions-behaviour relationships*. HI tends to conceptualize the relationship between institutions and individual behaviour in relatively broad terms since it is based on a structuralist holism and focuses more on social structures and organizations (Montalban, 2008). The idea of rationality is much more difficult to interpret than in SI and RI since it is located at the crossroads between instrumental rationality and the concept postulated in SI. As socialized individuals, the preferences and behaviours of agents are the product of incorporated rules and routines. Culture, values and routines are central. While substantive rationality is rejected by HI approaches in economics and economic sociology, the notion of interest remains fundamental. For instance, RT is close to Bourdieu's (1994) conception of interest. The calculus and conscious actions are not the general behaviour. The incorporated practices, routines and positions of agents in the structure affect the agent's behaviour and are invariably directed towards his own interests: the latter is a social form of the libido which Bourdieu refers to as *illusio* (Lordon, 2006). The interest invariably relates to a particular field and merely constitutes that which has value for the agent. HI implies therefore an examination of the social conditions of the interest or valuing process. The strategic calculus is limited to particular situations and is far less complex than the calculus assumed by neoclassical theory. HI argues for an institutionally located rationality (Boyer, 2004): 1) symbolic structures affect calculus and the way in which individuals represent their context to themselves; 2) the institutional context and the agent's social position condition his interests; 3) institutions synthesise the relevant information. Institutions therefore promote a symbolic sense that organizes the systems of values to which agents refer and, thus, their tendency to consider that something is or is not of value (Descombes, 1996). An important corollary of the assumption of institutionally located rationality is that the objectives and performance criteria of agents are only relevant in relation to their social positions and social context. If interests are in conflict, there can be no common objective to be achieved, nor can there be any 'good governance' for this purpose. HI necessarily implies a radical renouncement of any category of optimum or efficiency to consider politics as the space of mediation of conflicts and of the institutionalisation of social compromises. While performance criteria may constitute fairly objective character, they invariably remain social constructs that favour some interests over others. The reference to the optimality of an institution is not relevant. What needs to be explored is the dynamic stability of institutional arrangements and their contradictions. In this sense, HI can be seen as a constructivist and genetic structuralism insofar as it looks for ways of taking account of an agent's subjectivity by replacing it within the objective positions of the agent, which means examining: 1) the institutional genesis – the conflict – and resulting rules; 2) the agents' positions in the socio-economic space resulting from the rules and their representation in relation to their positions; 3) the conditions of the dynamic reproduction and stabilization of the institutional order, i.e. the institutional complementarities and the regulation of the system. HI does not aim to provide policy prescriptions – since politics is

endogenous – or to define ‘optimal’ or ‘just’ institutions. It tends rather to provide agents with the intellectual tools that would enable them to direct conflicting relationships to serve their own interests by revealing the working logics of domination and the competing working interests in institutional orders.

Based on this taxonomy, the positioning of SEE is ambiguous. Clearly, SEE does not belong to RI, since it rejects substantive rationality and endorses social constructivism, but it is much harder to establish whether it refers to SI or to HI. SEE emphasizes the role of conflict and power relations, yet at the same time legitimacy, ethics, and discursive institutions are mobilized normatively. There are several contradictions here. First, if we assume that power and conflicts are important, it is hard to see why dominant actors would accept discursive institutions and plural conceptions of value since they can use power to impose their own interests. Furthermore, it is impossible to clarify which conception of value will be adopted since no one party is able to force others parties to endorse its own conception. It is therefore difficult to understand institutional change (e.g. the genesis of another kind of VAI) since we have to assume a consensus between actors, which is in conflict with the idea of pluralism. Logically, the only possibility would be that people accept a ‘fair’ dialogue, the ‘truth’ and related institutional changes, even if these changes go against their own interest... Another problem is that if SEE aims to defend both a normative ecological perspective and value pluralism, we may ask why people (especially those in dominant positions) would accept the ethical value of Nature and ecology. The only way of avoiding these contradictions is to adopt a ‘pure’ HI and to reject this normative bias *temporarily*. For instance, if we follow Vatn’s assumptions concerning the role of power and conflicts in institutional change, it would be more fruitful to use this framework for the purposes of analysing institutional change, the construction of political compromises between actors, the relative stability of institutional arrangements and their effects on environmental and economic outcomes, and then to provide some actors with the intellectual means of changing the world rather than promoting institutions prematurely to find the ‘right’ value of Nature or the enlightened decision.

4. Contradiction, conflicts and regulations: fragments of a historical institutionalist approach to human-nature relationships

The purpose of this section is to integrate sustainability into a political economy approach called *Regulation Theory*. This work was initiated by Zuindeau (2007), Becker and Raza (2000) and by recent studies of the neo-liberalization of nature in geography. Most of these studies are reviewed and criticized for the purposes of lending support to an integrative historical institutionalist framework by clarifying a number of theoretical and methodological issues. This approach develops the concepts of *structural-logical contradiction* in the use of nature for the purposes of commodity production, *social conflicts*, and the *regulation of social relations to nature*. The resulting methodological basis will be used to outline the scope of an applied research program. A central feature is to support both the macro-level and above all the *meso-level of analysis* (production dynamics at the sector level) as the most appropriate level for providing an analytical articulation of the various spaces – international, national and local – in which political compromises or forms of regulation of social relationships to nature are instituted.

4.1. The structural contradiction between nature and commodity production

The concept of contradiction is employed here in the dialectical sense used by some Marxists to analyze the development of capitalism and capitalist crises for the purposes of capturing the structural-logical nature of the relationship between capitalism and nature (as opposed to the contingent and empirical nature). For O'Connor (1988, 1998), the ecological crisis can be analysed as an *external* 'second contradiction of capitalism'.⁹ It is connected with the exteriorisation of some costs of social production:¹⁰ firms have little or no regard for the environmental costs of production to society and the biophysical world, even if they depend on the under-produced 'conditions of production' provided by the biophysical world. For O'Connor (1988, p. 26), this is an 'under-production crisis', since ecological processes are not actively produced and are 'underpriced' by the market. O'Connor also argues that 'we can... introduce 'scarcity' into the theory of economic crisis in a Marxist way and the possibility of capital underproduction once we add up the rising costs of reproducing the conditions'. He emphasizes that crises do not arise objectively out of the biophysical problems caused by capital: 'it is a contingent question whether the type and scale of these problems are sufficient to generate real or perceived crises among firms, within the state apparatus, or in the wider society'.

The concepts used to analyze this contradiction are criticized by Harribey (2001) and Altvater (2003), who rightly observe that the concepts elaborated by Marx are themselves sufficiently powerful to develop an analysis of the social relations of man with nature and to understand ecological issues. For Marx, 1) the reproduction of nature follows quasi-eternal natural laws that are radically different from the reproduction of labour and capital; (2) capitalism develops the two contradictions jointly, i.e. they are *internal* to capitalism. In the 'Critique of Political Economy', the analysis of the dual character of commodities is fundamental; Marx referred to it as the 'Springpunkt', or core question. As Altvater (2007) remarks: '[t]he use value produced by concrete labor in the production process is nothing else than the result of the transformation of matter and energy, i.e. of nature. It is an integral part of the human-nature 'metabolism.' The [economic] value produced in the valuation process by abstract labour however constitutes nothing else than an immaterial social relation in capitalism between the capitalist class and the working class'.¹¹ This underlies the Marxist concept of commodity fetishism. One effect is that the means used by society to achieve its qualitative goals become an independent power – which cannot however be reproduced without the activity of actors – and all productions of use values are subordinated merely for the purposes of yielding a more substantial amount of money. This is precisely what Marx (1885, p. 52) meant when he asserted that production is just 'an unavoidable intermediate link, a necessary evil for the sake of money-making'; capital is a form of social organization, and its (re)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'. The '*auto-movement*' of economic value and capital (1857-8, p. 211) means the fundamental *indifference* of these towards the *qualitative* features surrounding commodity production.

⁹ See also Benton (1989) or Leff (1999) for some variations of this concept. The first contradiction to which Marx referred in Capital concerns production (overaccumulation) and the difficulty of realisation of surplus value (underconsumption).

¹⁰ In this sense, this understanding is close to Kapp's (1950) approach in terms of 'social costs of private enterprise'.

¹¹ Concrete labours have qualitative differences but on markets all labours count only as productive expenditures 'of brains, muscles, nerves, hands, etc.' (Marx, 1967), i.e. count only as abstract labour. Economic value (exchange value being 'its form of appearance') amounts to a 'mere concretisation of human labour, as the expenditure of equal human labor-power.' (Marx; 1880, p. 1550) whose sensible form is a quantity of money serving to enlarge capital.

Socio-cultural value, biophysical function, and social and environmental consequences do not form part of *the very social nature* of commodities and therefore of the economic process of valorization. From this dialectical perspective, ecological and social costs of capital accumulation are endogenous to the metabolic process of human-natural reproduction in its specifically capitalist form.¹²

At this stage two important remarks are in order:

– *The fundamental mediations between humans and nature in capitalism.* The basic standpoint of this paper is that all human activities *simultaneously* imply two levels: 1) the relation between man and nature; 2) the relation between humans themselves. Commons (1934, p. 651) identifies the distinctive characteristic of [historical] institutionalism: ‘The classic and hedonic economists... founded their theories on the relation of man to nature, but *institutionalism is a relation of man to man*’. Capital accumulation can be seen as the more abstract expression of the fundamental mediations between humans and nature. This process is based on historical-concrete forms, the logical sequence of which begins with *property rights, human labour* and ends with *money*. Marx saw human labour as a trans-historical mediation between humans and nature, and also postulated the logical precedence of property in general. Yet what interested him were the historical forms taken by these processes: wage labour and capitalist property right (CPR). Commons (1931, 1934) provided an in-depth analysis of the CPR, defined as a ‘right on future values’ in relation to ‘intangible property’. Its analytical primacy is emphasized: ‘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 labour can produce, consumers can consume, commodities be physically exchanged’. A property right mediates the relations between man and nature; its forms are historically variable and it is the product of social conflict/political struggles, and thus an instituted compromise about wealth and resource-use conflicts. By drawing a distinction between its three main attributes – *usus, fructus* and *abusus* – and between ‘tangible’ and ‘intangible’ property, Commons insisted that while ‘tangible property’ refers to the possibility of using a good to produce wealth, ‘intangible property’ helps to achieve the power of negotiation and the power of creating an *artificial* scarcity by limiting supply with the aim of earning money. These comments are merely designed to give more substance to the suggestions made by Vatn (2005b, p. 14): ‘Institutions structure the relation[s] between humans as they utilize their common natural resource base. Today many of these relations are governed by an institutional structure called ‘markets’. Property, wage and monetary relations need to figure prominently in investigations into the connection between political economy and ecological issues.

– *From latent contradictions to social conflicts as visible challenges.* The account of the structural contradiction between the use of nature and commodity production does not imply that there is a kind of inherent mechanism that produces crises or social conflicts. The contradiction of the value form provides only the abstract possibility for crisis, but it cannot account for any single empirical crisis and its complex social-political origins. Altvater (1993, p. 215) and Bridge (2000, p. 239) rightly highlight the analytical power of this distinction. On

¹² I have argued elsewhere that this supports a systematic non-market conception of *natural wealth* (Douai, 2009), which is the main analytical purpose of SEE. Moreover, I do not argue that there is a ‘full’ ecology of Marx. Marx did not anticipate the global ecological crisis. While he had ‘a clear understanding of the basic contradiction between the potentially unlimited character of value accumulation and the limited character of some natural resources, especially the soil... he did not explore the consequences of this for nature in general. But [if this] may be seen as a weakness, this is because the conceptual framework he elaborated could well have led him to anticipate the ecological crisis’ (Tanuro, 2007).

the one hand, it is possible to recognize that not all social conflicts over nature are expressive of this contradiction. On the other hand, by acknowledging that the structural-logical contradiction is not invariably expressed through open conflict, it is possible to study the social-political mechanisms regulating contradictions over time and space.¹³

4.2. From contradiction to the regulation of social relationships to nature

The aim of this subsection is to develop the concept of regulation of social relationships to nature (RSRN) and to show how its articulation with theoretical and methodological tools of RT provides a fruitful framework for studying the relations between socio-economic processes and ecological questions, i.e. for examining the role of nature and sustainability in the transformation of accumulation process, and its social and ecological outcomes.

RT emerged 30 years ago as an alternative both to equilibrium-based neoclassical theories and to the a-dynamical/a-contextual dimensions of structuralist accounts of capitalist development. Its core focus is to provide an account of the paradoxical perseverance of capitalist modes of production (MP) in spite of a number of immanent contradictions – which concern essentially two ‘fundamental relations’: 1) the market relation between separated though interdependent producers of commodity; 2) the wage-labour relation. To this end, regulationists have sought to integrate the technical and organizational features of productive processes with socio-political relations of capitalist reproduction (see Jessop, 1995). They argue that these socio-political relations codified as institutions can regulate periods of macroeconomic growth by providing coherence to production processes (Boyer, 1990). RT specifies different periods of growth conceived as different ‘*regimes of accumulation*’ (RA). An RA is a standard scheme of capital accumulation that has to be supported and ‘steered’ by *modes of regulation* (MR), i.e. ‘the set of procedures and individual and collective behaviours’ that also ‘[r]eproduce fundamental social relations through the mode of production in combination with historically determined institutional forms [and] [e]nsure 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’ (p. 43). The key concepts of RA and MR are connected at the macro-level of historical institutional configurations with given forms of accumulation – a connection captured by the concept of ‘mode of development’ (MD). The framework used to analyze national experiences in the mid term retains five *institutional forms*, i.e. a specific codification of fundamental capitalist social relationships resulting from social conflicts and compromises themselves dependent on the country’s political history: *forms of competition*, the *configurations of the wage-labour nexus*, *monetary regime*, *insertion in the international regime* and *nature of the state*.

RT focuses primarily on the macro level, by combining synchronic and diachronic analyses for the purposes of studying the temporal and spatial variability of institutional forms and the manner in which these forms mediate contradictions arising from the wage relation. However, other levels are also under consideration, especially the level of the firm. The aim is to study the diversity of modes of organisation in firms in connection with the analysis of the

¹³ Bridge (2000, p. 240) argues that O’Connor ‘reduce[s] social context to the status of shadow-lands surrounding capital’ rather ‘than promoting a socialized account of contradiction’. In fact, for O’Connor crises cannot arise without the interplay of social and geographical contingencies. Altwater (2003, p. 14) writes: ‘The discourse on general conditions of production is a politicised one because the state, the political system and the power structure of a given society... are involved. J. O’Connor is very clear with regard to the politicisation of discourses on general conditions of production’. O’Connor (1988, p. 37) writes: ‘[I]ssues pertaining to production conditions are class issues, even though they are also *more* than class issues’.

different forms of capitalism, in other words by articulating these modes with their institutional context – at the macro-level, but also at the meso-level (sector dynamics) which remains the principal arena of the institutionalisation of the compromises structuring competition (Lung, 2008) within an *institutional order*, to use the phrase coined by Jullien and Smith (2008). In any field of application, two points are emphasized: 1) the importance of considering *institutional complementarity*, i.e. when the marginal efficiency of a certain institution is positively related to the presence or intensity of another institution in another area (and vice versa), or when the presence of an institutional form in one area results in the adoption of an institutional form in another area (Amable and Palombarini, 2005); and 2) the central role of conflicts of interests, power accumulation and political mediations in explaining institutional change, as *Figure 2* illustrates. Figure 2 also provides a summary of a number of features identified above concerning institutions and institutional change.

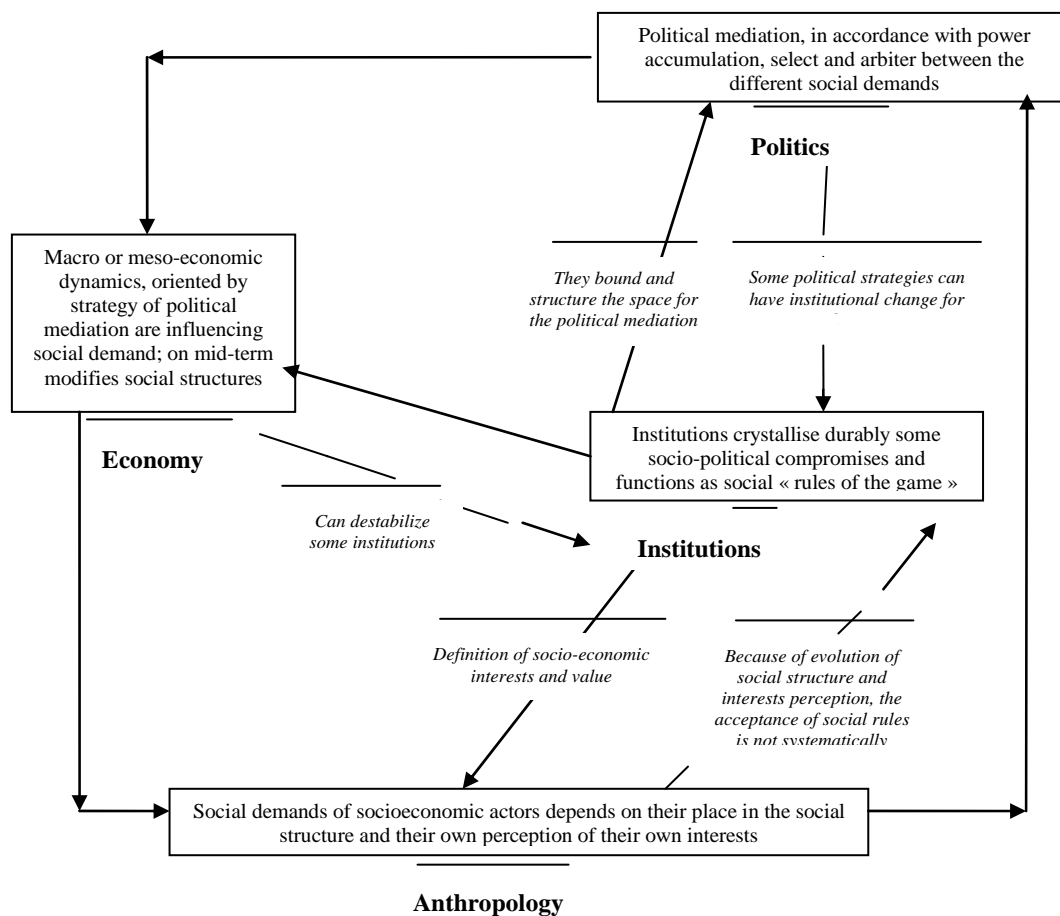


Figure 2. Institutions and change (inspired from Amable and Palombarini, 2005)

The integration of the concept of *regulations of social relations to nature* (RSRN) implies to consider the inherent contradiction between the use of nature for commodity production and their specific codifications, which has yet to be considered by RT. This perspective is implicit in Zuindeau (2007) and Becker and Raza (2000). For Zuindeau (2007), ‘economic relationships to the environment’ take on a ‘general capitalist form’, and a ‘capitalist-specific form’, implying a diversity of modes of management of environmental problems’ (p. 297). However, Zuindeau focuses exclusively on the articulations of capitalist-

specific forms of relations to the environment with institutional forms, i.e. the *ex post* coherence of MR (institutional complementarity of institutional forms). Yet he provides no analysis of the process of institutionalisation of these relationships, thus focusing on what is institutionalized without examining the process of institutionalization. We argue that without rejecting the work of Zuideau, this field merits further analysis since these processes represent two steps of the same approach. The same remark applies to Becker and Raza (2000) or Rousseau (2000), who conceptualize the relationship between the economy and environment as the ‘sixth structural [institutional] form’: since the material world constitutes a constraining factor of capitalist production like money, it could also be referred to as an ‘ecological constraint’, a form that ‘regulates access to and utilization of the material both for production and reproduction activities’. Becker and Raza (2000, p. 321) argue that ‘[b]ecause of its complexity, it does not seem appropriate to subsume ecological regulation under any one of the five structural forms defined by RT’.

Our aim is not to discuss the relevance of introducing a sixth institutional form, since this would imply an excessive focus on macroeconomic questions at the expense of a more relevant analytical focus on the institutionalization of ecological regulations. However, we use the definition of an ‘ecological constraint’ for defining the concept of RSRN: *RSRN is the entire set of regulations that governs the access to natural resources and the use of the material world of the activities of (re)-production and the regulations governing the spatial and temporal distribution of their costs and benefits*. In our view, this definition covers all the institutions and transactions that codify the fundamental social relations of capitalism, since such relations are *at the same time* relations to nature. In other words, the regulation of fundamental social relationships needs to be understood as a RSRN: an MR is also an RSRN. An RSRN cannot therefore be reduced to explicit environmental policies: all institutional forms structure the RSRN. Of course, a distinction needs to be drawn between regulations, which are based explicitly on the political issue of ecology, and those dimensions that are not based on this issue. Before conceptualizing the sixth institutional form, it is important to conceptualize these rules as regulations of crises and conflicts – the expression of capitalist relationships.

Two types of questions can be inferred from this theoretical position.

1) First, to avoid an exclusive focus on explicit environmental policies and to avoid overlooking other levels of regulations, we have to consider the analysis of the ‘political work’ of actors (Jullien and Smith, 2008) designed to influence environmental policies. The crucial point here is the capacity of actors to prevail over other interests, or as Brand and Görg (2001, p. 94) put it, ‘to be hegemonic, in the sense of the capacity to win other actors to accept a compromise’. This is absolutely essential for understanding and illustrating the ways in which ecological problems emerge as social-political issues, and the ways in which EG rules are created as political compromises between competing actors, i.e. exchanges of reciprocal concessions between contradictory interests, crystallising temporarily a power relationship rather than a consensus on values concerning different conceptions of justice. The dominant social relationships with nature result in the emergence of overt conflicts or multi-level social-political issues that are never merely based on biological/biophysical necessities or on the shaping of socio-cultural institutions that reflect an enlightened viewpoint or an ethical stance, but that are a matter of political work that may lead, for instance, to the establishment of new markets. EG rules are not merely about ‘constraints’ concerning capital accumulation, but may also be seen as *political opportunities* for actors to get the dominant position according to their interests within the relevant social field.

2) In most cases, the conflicts and crises that emerge as a result of a process of politicisation based on ecological concerns assume, at all levels, the contestation of the prevailing political compromises sustaining RA. It is therefore necessary to examine how the regulation of conflicts transforms political compromises by favouring the interests of some actors to the detriment of others. This is not to say that the concrete content of ecological problems or the implications of formal rules in terms of social and environmental outcomes have to be ignored. But these elements have first to be inscribed into and articulated within an analysis of conflicts – at all geographical levels – and the inherent divergent interests and power relations, which occur as a new MD is in the process of taking shape. The concept of RSRN is used to overcome the exclusive focus (from SEE in particular though not exclusively) either on the objective ecological requirements or on the ethically valid procedures and individual behaviours, or on explicit institutional rules, that ultimately ignore (and indeed sometimes negate) the wider social context in which the political work of actors with divergent interests performs, from the heuristic point of view, the *primary* role in concrete practice and trajectories. This standpoint has the (perhaps unpleasant) consequence that sustainability can no longer be viewed as an objective model revealed to the various actors as soon as they are inserted into the appropriate value articulating [forming] institutions, or as a process of re-embedding the economy within society and nature driven by a *unifying* movement of self-protection against the destructive effects of liberated markets. *Sustainability is an arena of social-political conflicts*: it needs to be conceptualized as part of the open process of restructuring the regulation of the accumulation process within countries, regions and worldwide.

4.3. The political arenas of sustainability

As noted above in the case of RSRN, the political arenas of sustainability include a large number of institutions. Yet a problem is not by essence political: it becomes political only after a process of politicisation implying a political work of actors. The same principle applies to sustainability. An analytical grid of institutional change is thus required. For RT, institutional change is linked to conflicts and crises. Here a distinction is therefore required between two types of ecological conflicts, corresponding to two types of crises: *ecological-economic* and *social-political*.

In the case of ecological-economic crises, the existing institutional framework is no longer viable in the sense that it fails to contain (in the sense of responsibly ensuring the pacific co-existence of structural contradictions and of the accumulation process) the structural contradictions that arise from the capitalist depletion of ecological resources and conditions, and which threaten ‘capital’s own conditions, hence its own profits and capacity to produce and accumulate more capital’ (O’Connor, 1988, p. 25). Such is the case for instance of industries based on the extraction and exploitation of natural resources. We may also think of a crisis as causing growing costs for capital and decreasing profit rates. Note that this can be a macroeconomic crisis (crisis of RA) or a sectoral crisis. An ecological-economic crisis may result in a social-political crisis.

In the case of social-political crises, the existing institutional framework is obsolete since the ecological impact of production processes threatens the social-political compromises that had previously upheld economic activity and the interests of the groups constitutive of the hegemonic bloc. Such a crisis assumes that actors are engaged in explicit political work with a view to contesting the prevailing political compromises. We may consider the local impacts

of rejections or global impacts that may threaten a sector or some classes which will then contest the political compromise and make the conflict fully visible.

An analysis of institutional change could be carried out at international/national, sectoral, or local scales. This is a workable classification, but is it also at least partly artificial. At the macro-level, the issue is to study how political crises and changes of hegemonic blocs transform the RSRN and MR, which could imply isolating, for practical reasons, an institutional domain/form dedicated to environmental issues. Indeed, political compromises are not merely structured by environmental issues. At the meso-level (sector), the understanding of the institutionalisation of RSRN implies to examine, through an analysis of concrete political work, the divergent interests of actors (firms, consumers, employees...) and the way in which such compromises are institutionalized. This approach will thus help:

- (1) to avoid the isolation of environmental conflicts from others conflicts;
- (2) to avoid the question of the sixth institutional form;
- (3) to analyse the effects of institutional changes on the economic and environmental performances of industries;
- (4) to analyse the process of submission vs. autonomization of sectors from global political constraints;
- (5) to highlight how the macro-level is influenced by institutional changes at the meso-level and *vice versa*.

While the RSRN encompasses all of the MR, some regulations may nonetheless be viewed as being explicitly ecological, in the sense that the rules are institutionalized following a process of politicization of environmental questions and the regulation of environmental conflicts connected with the environmental effects of accumulation. These working rules control the transactions with the ethical aim of achieving a given environmental target, considered as a “good”, following conflicts and their legal institutionalization. We may then build a taxonomy of what Zuideau (2007) calls “management’s modes of environmental problems”. Markets, norms and taxes are often opposed. The problem here is that there tends to be a confusion between transactions and the working rules controlling transactions. Yet for Commons (1931, 1934), the three types of transactions (bargaining transactions, managing transactions and rationing transactions) are in fact regulated by law and ethics. It is more useful to oppose transactions: first of all, norms are not in any way opposed to markets since they are institutions that are designed to regulate bargaining transactions (e.g. markets of polluting rights are created by norms, laws and States; quality standards enable markets to function...) and managing transactions (the norms of production). These norms are sometimes customs, when they are not formalized through laws, and are sometimes working rules of laws when they are formalized. Yet taxes, conceived as tools, are opposed to markets: the former constitute rationing transactions, while the latter are bargaining transactions. But both cases invariably imply a property right transfer: for instance, a tax is the payment of an ecological debt by a polluter, since the latter borrows part of nature from society through a transfer of incorporeal property, which is then reimbursed by tax. Bargaining transactions involve a transfer of intangible property from an individual to another individual, which assumes a transformation of Nature in capitalist assets. Moreover, the norms aimed at creating incentives to adopt “green” technologies or production processes (extended producer responsibility) are working rules designed to regulate managing transactions. Finally, some rules organize the transactions of corporeal property that may be bargaining, managing or rationing transactions (such as the use rights of a park belonging to a community, or the simple purchase of a piece

of land). Following Billaudot (2005), we may consider that each transaction is based on some types of justifications or on ethical grounds (liberty for bargaining transaction, efficiency for managing, order/equality for rationing), and different types of justifications are available to concrete forms of RSRN and models of capitalism. A more relevant taxonomy of models of capitalism could be built on the basis of such concepts. Yet as Pascal remarked, such justifications constitute merely a justification of power.

Analysis of institutional change needs to be articulated with an analysis of structural coherence of MR and RA at the macro-level, or of the coherence of industry at the industrial level. We could then carry out a diachronic and synchronic analysis of the variety of environmental trajectories of MD, which, connected with an analysis of institutionalization, would help to gain a deeper understanding of the degree of stability and sustainability of the models (e.g. “cognitive” accumulation regime to manage ecological crises? “hedonist” regime?). The study of international regimes and agreements connected with the variety of MD is another potential field of investigation. This last point could be fruitfully studied from a meso-economic point of view since:

- (1) the sectors that suffer from a crisis (ecological-economic or social-political) and those that cause a crisis have conflicting interests;
- (2) but they can also shape the macro-regulation since many political issues can be appropriated at the sector level;
- (3) sectors can be regulated at transnational levels;
- (4) It allows for a “closer”, in-depth analysis of the institutionalization of environmental policies, the conflicts of actors and their interactions with the economy and the macro-level (e.g. conflicts linked to access to resources in water, oil, fish; conflicts linked to the appropriation of natural resources through genetically modified organisms; effects of ecological and energy crises on the automobile industry...).

5. Concluding remarks

The adoption of a socio-economic approach to the environment and sustainability is surely the most promising avenue for developing a credible and comprehensive alternative to standard analysis. The (dominant) ethical-based approach presents some serious shortcomings that stem essentially from the same root: the absence of any clear divide between normative and descriptive claims. It is therefore impossible to draw a clear distinction between politics and ethics, and between social science and moral philosophy. The underlying conception of social mediation between humans and nature is based on a complex methodological individualism: environmental issues are related to a matter of individual ethical commitment, to the context in which actors are free to make identity choices. The tension – sometimes envisaged – between this view and real social relations with nature cannot be taken into account. Consequently, this approach cannot (begin to) explore the interrelations between environmental issues and socio-economic dynamics.

This paper proposes some guidelines in this direction. The core principles of the historical-institutionalist approach are as follows: ecological crises or conflicts must first be included in an analysis of global, national and local social conflicts, and of the opposing interests and power relations that are inherent within them, which are currently in view as a result of the emergence of a post-Fordist mode of development. The questions to be asked include how institutions change, how these appear to actors to constitute an objective constraint, and which interests and strategies tend to prevail (Brand and Görg, 2001).

Sustainability can be seen as the exacerbation of contradictions inherent in the dominant social relationships with nature. It marks a reform project within the framework of an open process of searching for novel, stabilized compromises to overcome the crisis of Fordism. The concept has now become an integral part of post-Fordist restructuring within individual countries and at a global level, and no longer represents a particular approach for overcoming the socioeconomic and ecological crises, but is itself an element of the conflicts that are currently being fought out over the regulation of social relations. In practical terms, an analysis of the different modes of development and their sustainability should lead us to consider the various uses of this concept as ethical justifications that conceal actors' interests, since, to quote Pascal, 'being unable to make what is just strong, we have made what is strong just'.

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