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"FROM NEO-CLASSICAL ECONOMICS TO NEW INSTITUTIONAL ECONOMICS AND BEYOND - PROSPECTS FOR AN INTERDISCIPLINARY RESEARCH PROGRAMME?"

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From Neo-Classical Economics to NIE and Beyond: Institutions in the Spotlight

#### **Abstract**

Institutional approaches have seen a remarkable revival in social science research within the last decades. In particular New Institutional Economics (NIE) has progressed rapidly over the last years and attracted a considerable deal of attention by social scientists in particular from the disciplines of sociology, economics and political science. NIE is often either rejected as a hybrid concept that lumps together incompatible competing assumptions or it is championed and selectively instrumentalised as convenient catch-it-all ad-hocery.

This essay argues that NIE is nevertheless a very valuable concept that deserves its current place in the limelight. By reviewing the fundamental assumptions of neo-classical theorising and tracing their gradual elaboration, it attempts to make a point that NIE can be viewed as a consequent logical refinement of neo-classical methodology. NIE goes beyond the myopic and overly restrictive methodological framework that informs much of current applied neo-classical analysis and reopens orthodox economic thinking to sociological reasoning and paves the way for an interesting cross-fertilisation between these long-alienated disciplines.

#### I. Introduction

Institutional approaches have seen a remarkable revival in social science research over the last decade. In particular New Institutional Economics (NIE) has progressed rapidly over the last years and attracted a considerable deal of attention by social scientists, in particular from the disciplines of sociology, economics and political science. Unfortunately the reception of NIE appears to be fought out along the long-standing methodological and ideological faultlines that separate these very schools. On the side of sociologists NIE often prompts the well-known reflex of fending off a perceived unwarranted intrusion by economic methodology into the domain of other social sciences. On the other side, economic theorists charge it with watering down the formal purity of neo-classical economic theorising. In other words NIE falls between two stools.

On closer inspection however NIE could be conceptualised as potentially bridging some differences that inform this eminent divide. This is what this essay is about.

It attempts to present a comprehensive picture of NIE and its methodological location in institutional theorising. In detail this means to:

- 1. Outline the basic elements of the neo-classical framework and distinguish the *potential* of the framework from its actual narrow *application*.
- 2. Trace the gradual "discovery" of institutions in orthodox neo-classical analysis, trace the development from orthodox neo-classic approaches to NIE, and show, to what extent NIE can be understood as a cogent, logical continuation and elaboration of the former.
- 3. Discuss the shortcomings of NIE and outline the linkages to institutional approaches in neighbouring disciplines.

As this schedule indicates, the analysis takes economic theorising as a point of departure and works its way towards the openness of NIE with regard to sociological, political and cultural approaches. It does not elaborate however on detailed links to particular theories, but only outlines some areas of overlapping research agendas and thus suggests possible points of departure for future integrative work in this area.

## II. Institutions - an Elusive and Multi-Faceted Concept

Institutional approaches have seen a remarkable revival in social science research within the last decades. One cannot help but suspect that part of the recent success story of institutional analysis is due to the vagueness and elusiveness of the concept of institutions, which render it open to various

interpretations. Like *sustainable development* or *culture*, institutions are a soft concept, "one finds in them what one wants". The catchword *Neo-Institutionalism* provides a comfortable umbrella for many diverse strands of social science thinking and sometimes seems to be embraced too readily as a very welcome label for some rather worn-out concepts to recapture the air of innovation and dernier-crie. From a different point of view it might however be argued, that NIE is a major advancement in social science research, since it serves as an integrative and powerful focal point which brings together long separated and alienated schools of thinking and fosters a very fruitful intermethodological dialogue. Viewing it the latter way, it is all but understandable that a clear-cut and uniform theoretical approach to institutions cannot and should not be employed. Solely relying on one specific theoretical or even methodological background would neglect important insights of neighbouring social science disciplines and forgo the opportunity of a multifaceted (and more realistic) understanding of institutional processes for myopic stringency in theory.

#### A preliminary definition

Following North institutions can be conceptualised as:

"[...] the rules of the game of a society, or, more formally, [...] the humanly devised constraints that structure human interaction. They are composed of formal rules (statute law, common law, regulations), informal constraints (conventions, norms of behaviour and self-imposed codes of conduct), and the enforcement characteristics of both."<sup>2</sup>

This definition gives a good idea of the diversity and ubiquity of notions that are usually gathered under the label "institutions". Rather controversial, however is North's implication, that the creation of institutions is a deliberate act. Whether the nature of institutions is fully captured by describing them as "humanly devised constraints" or "self-imposed codes of conduct" shall be discussed later.<sup>3</sup>

#### III.Institutions Sidelined? The "Old" Neo-Classics

## A. Development of neo-classical thinking4

Based on Adam Smith's famous and rather intuitive notion of the "invisible hand" economic theorists starting with Cournot (1838), developed a formal codification of the working of the market which culminated in the standard reference model of neo-classical economics in the 1960's, which is mostly referred to as the Walrasian General Equilibrium or the Arrow/Debreu Model. Originally designed to lay open the fundamental mechanisms of the working of the market as an allocational mechanism, its fundamental axioms and deductive methodology have been readily adopted and applied to the study of politics, law, organisations etc.

#### B. The neo-classical model

In the following outline of the neo-classical model the attempt is undertaken to distinguish between the potential openness and applicability of neo-classical tools for analysis (denoted the neo-classical framework - NCF) and the actual main-stream neo-classical application (NCA) thereof, which is considerably narrower and does not fully exhaust the scope of NCF.

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<sup>&</sup>lt;sup>1</sup> Fareed Zakaria on cultures (Zakaria, 1994, p. 125).

<sup>&</sup>lt;sup>2</sup> North, 1995, p. 23.

<sup>&</sup>lt;sup>3</sup> For a critical discussion of the supposed voluntary nature of institution-building see Bates, 1995, p.46; Hall, 1996, p. 952 and on the deliberate nature Hall, 1996, p. 954.

<sup>&</sup>lt;sup>4</sup> The presentation of theoretical advancements tries to trace the progress of ideas rather than following a rigid chronological order.

<sup>&</sup>lt;sup>5</sup> For bibliographical references to the original sources see Toye, 1995, pp. 50-51.

<sup>&</sup>lt;sup>6</sup> Therefore it is not the acknowledgement of the supremacy of the economic sector which renders NIE important in the envisaged analysis of telecommunications policy, but its general power to be applicable to many kinds of social interaction as long as one is willing to accept its axiomatic framework outlined above.

Drawing up these two concepts and highlighting their differences appears to be an important task. Much unnecessary confusion in the current discussion on the sense and nonsense of the neo-classical approach could be avoided. Too often the label "neo-classic" is applied both to a set of basic methodological assumptions and to a smaller subset thereof, which is employed by most neoclassical analysts. This makes it very easy to discredit the entire methodological framework of NCA by pointing for example at the limited power and materialistic tinge of Gary Becker's work on family and personal relations, although he employs a very narrow concept of preferences. The following distinction between the actual scope of an assumption and its rather narrow application should make clear, that

- 1. the NCF is not so myopic as widely portrayed, and
- 2. an elaboration and less restrictive interpretation of the assumptions subsumed under NCF almost cogently leads to NIE.

At the core of its axiomatic setting NCF posits the homo-oeconomicus, the individual actor, who makes rational decisions with the objective to maximise his subjective welfare given his preference structure and external constraints on the set of available options. This implies among others the following assumptions:

#### 1. Methodological Individualism and Reductionism

Relevant object of study can only be the individual. Collective entities and collective action can be fully understood by analysing the actions of the individual agents involved. *The whole is only the sum of its parts*, an "Emergenzphaenomen" does not exist. Thus, NCF can be viewed as the antipode to radical structural-functionalist approaches, which conceptualise individual behaviour as determined by the needs and rules of the societal (sub-)system, which the individual is part of.

It should be remarked however, that this does not necessarily mean that the homo-oeconomicus is an amoral and egoistic creature. In principle the neo-classical apparatus does not preclude the consideration of social concerns such as social values, norms, or the well being of other actors in the preference structure, although neo-classical theorists only very rarely do this. The gap between the openness of NCF and its narrow interpretation in NCA become clearly evident at this point. Moreover it is important to realise that standard applications of the neo-classical model focus on the individual level not only in their positive but also in their *normative* analysis of social phenomena.<sup>8</sup>

#### 2. Exogenous Preferences

The individual structure of preferences is given. It neither changes over time, nor is it influenced by changing political, social or cultural circumstances. This is a very problematic and rigid assumption the relaxation thereof is a main point of departure for NIE. On principle however, it does not, as is often complained, fully rule out the possibility for learning. As long as learning is conceptualised "instrumentally" as a process of identifying and adopting superior techniques to pursue given goals it is fully compatible with exogenous preferences. 9

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<sup>&</sup>lt;sup>7</sup> See Becker, 1981.

<sup>&</sup>lt;sup>8</sup> See for example Bates, 1995, p. 28. It is very important to bear this point in mind. The foremost normative neo-classical paradigm, the pareto-efficiency criteria, only take into account genuinely **individual** preferences and shirks comparisons of individual welfare levels. Of course this ultraliberal view is in itself a highly normative and assumption and discredits the often claimed normative-neutrality of neo-classical analysis techniques. Even if isolated individual welfare serves as the only legitimate yardstick and social goals (which could be introduced through social welfare functions) are not considered, important questions such as the distinction between perceived and real interest are omitted. For a discussion of real vs. perceived interests see for example Lukes (Lukes, 1974).

<sup>&</sup>lt;sup>9</sup> This requires however, that a clear distinction can be made between ends and means, which eventually turns the given preferences into an elusive set of psychological motives devoid of almost any substantial elements and thus unsuitable for analysing specific decision-making situations.

#### 3. Instrumental Rationality

The individual always chooses a strategy which maximises her expected utility. At first look this seems to be a rather self-evident assumption. Nevertheless it was and is the source of many misunderstandings and needs some clarification: 10

The emphasis here lies on instrumental. This is rationality conceptualised on the lowest common denominator. It does not imply any judgement on the rationality of goals, on the social or selfish content of motivations nor on the degree of emotions, etc. in individual behaviour. These aspects only depend on the modelling of the individual's preference structure, which is basically open. Given her likes and dislikes and the information available to her, the individual chooses the best option available.11

Again, the potentially wide scope provided by of NCF is considerably narrowed down in the NCA's exclusive focus on material preferences.

#### 4. Perfect Information

This is a rather heroic assumption that should, however, not be read as perfect foresight.

Stochastic uncertainty is not ruled out. In many models it is only assumed, that every agent has perfect and equal information on the probability distribution of stochastic processes. It is further assumed, that no systematic differences exist in the *interpretation* of information. Subjective worldviews are identical and coincide with the objective situation.<sup>12</sup>

The problematic nature of these overidealised assumptions is obvious and has been a major point of departure for NIE.

#### C. The Perception of Institutions

Reading standard textbooks on neo-classical economics, one easily gets the impression that the neoclassical approach can do without institutions.

Under the assumptions outlined above, the neo-classical framework identifies in a static equilibrium model the market mechanism as a suitable allocative arrangement, in order to achieve paretoefficiency. 13 Institutions are not explicitly taken into account. 14 It should be noted however, that neoclassical theory did not completely omit institutions. Adam Smith, on whose notion of the invisible hand neo-classical thinking builds upon, recognised the importance of norms and values for individual behavior. 15 However institutions were dealt with in a rather ad-hoc manner and did not assume a prominent role in the analysis itself. Lacking the attraction of easy formal codification, these crucial

 $<sup>^{10}</sup>$  I do not adopt North's definition of instrumental rationality, since he appears to mixe rationality with perfect foresight. (North, 1995, p.14).

<sup>&</sup>lt;sup>11</sup> In the presence of uncertainties instrumental rationality needs not even be equated with maximising the utility of the expected value. NCF can accommodate subjective risk preferences by modelling the preference structure correspondingly. <sup>12</sup> See for example North, 1995, p.17.

<sup>&</sup>lt;sup>13</sup> Neo-classical theory has often been criticised for its myopic focus on efficiency (e.g. Bates, 1995, p.28) In my eyes those reproaches are to a certain extent unwarranted for two reasons: 1. At the very beginning the Walrasian model seems to suggest, that allocational and distributional goals can be dealt with separately (cast in the two main propositions of welfare economics). This result however does not hold any more, when the assumption of perfect information is relaxed. This might be considered one of the most important theoretical contributions of NIE. (see also Bowles/Gintis, 1993, p.92) 2. Cautious neo-classical theorists have made very clear that the only normative criteria neoclassical theory can claim competence for is the efficiency criteria. Statements about other normative criteria or even on the relative importance of efficiency with respect to other criteria cannot be derived from within the neo-classical framework (see for example Wiegard, 1995); an important self-limitation which seems to be more and more neglected by ardent adepts of neo-classical adherents and their receptive following in the policy-making arena.

<sup>&</sup>lt;sup>14</sup> See for example Varian, 1993.

<sup>&</sup>lt;sup>15</sup> Raphael / Macfie, 1976.

assumptions were sidelined over time in the elaboration of formal economic theorising and are onyl rarely mentioned whenever `reference is made to Adam Smith's work as the foundation of modern economic thinking. As a consequence neo-classical models are often viewed as operating in an institutional vacuum.<sup>16</sup>

## IV. Institutions Do Matter - The "Discovery" of Their Importance and the Dawn of Neoinstitutional Economics

### A. Externalities and Public Goods – Institutions Increase Efficiency

The first notable supplement to the neo-classical model was developed as early as 1923 by Arthur Pigou who introduced the concept of externalities. Pigou's main proposition goes as follows: If individual actions, which affect the utility of other agents, are not mediated via the price mechanism (e.g. because of ill-defined property rights), the market mechanism produces an inefficient outcome. Corrective interventions in the form of taxes or assignments of property rights (institutions as formal rules) are necessary to internalise those effects and force individuals to take into account the true relative scarcities of resources when making decisions.<sup>17</sup> Since externalities abound in the real world, institutions fulfil vital functions to increase the allocative efficiency in the use of scarce resources. For the first time individual maximisation generates a social outcome which is suboptimal, even judged by the very weak pareto-criteria. Although Coase could show, that private negotiations can replace formal institutional regulation under certain circumstances, this eventually cannot really weaken the role of institutions. An examination of the Coase's propositions reveals, that the success of private bargaining critically depends on the existence of an elaborate institutional framework. Thus even the Coase theorem implicitly presupposes institutions and indirectly recognises their importance. The problem of externalities eventually led to the theory of public goods, which ultimately confirmed the vital functions performed by institutions<sup>18</sup>. Again individual maximisation in the absence of institutional enforcement mechanisms paves the way for all kinds of strategic behaviour such as free riding and leads to market failure in the sense of a suboptimal provision of the public good.<sup>19</sup>

To sum up: even the initial refinements of the standard neo-classical model<sup>20</sup> detected an important role for institutions in the overcoming of market failures and recognised their impact on efficiency. These findings urgently called for a closer probe into the nature of institutions, which were back then often ex-ante conceptualised (and idealised) as the intervention of the benign and perfectly informed state. The increasing attraction and success of the neo-classical analytical framework led to its expansion into the analysis of collective action in other spheres such as politics. This also meant that the "blackbox of institutional regulation" was opened and the mechanisms underpinning state intervention and economic policy making in general became the subject of analysis.

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<sup>&</sup>lt;sup>16</sup> See Katterle, 1991.

<sup>&</sup>lt;sup>17</sup> Since the theory of externalities is common ground it will not be elaborated further in this paper.

<sup>&</sup>lt;sup>18</sup> Associated most often with Hardin (1968) it can be viewed as a specific case of "full impact" positive externalities.

<sup>&</sup>lt;sup>19</sup> From a slightly different perspective the same problem structure can also be interpreted as the overexploitation of existing public goods or the creation of public bads.

<sup>&</sup>lt;sup>20</sup> Externalities and public goods have long been firmly incorporated into neo-classical models and thus might even be considered part of the standard model rather than a first supplement to it.

# B. The Expansion of Rational Choice Analysis and the Introduction of Asymmetric Information – Institutions as Prerequisites for Political and Economic Organisations

#### 1. Expanding NCF – Market Failures are Everywhere

It should not come as a surprise that an examination of political processes, law and polity *under the assumptions of the neo-classical paradigm* generated similar problem structures. It turned out, that the problems of externalities and public goods are reproduced in the political<sup>21</sup>, and bureaucratic<sup>22</sup> sphere and more generally, that they plague all situations of collective action.<sup>23</sup> Rent-seeking behaviour<sup>24</sup> prevails in any kind of social interaction. It seeks to skew decisions about the "rules of the game" in favour of particularistic interests and hampers the provision of adequate formal institutions.

### 2. Refining NCF – Market Failures are Worse Than Assumed

As if questioning of the *provision* of adequate formal institutions were not enough, a different branch of research, which might, judging from today, be labelled NIE, scrutinised the functioning of the market mechanism beyond the standard market failures. I think it is no exaggeration to say, that the relaxation of the heroic assumption of perfect information and ex-ante existing exogenous enforcement mechanisms can almost be viewed as the opening of Pandora's box in terms of their impact on propositions neo-classical thinkers have long grown fond of. It sparked off a radical reorientation of theorising. Numerous approaches from different perspectives have been developed around this issue.

The first non-formal treatment by Williamson subsumes the problems to identify suitable contracting partners, to negotiate, monitor and enforce the contract under the label "transaction costs." <sup>25</sup>

A more formal elaboration has been made possible through major advancements in game theory. Starting from the analysis of problems in designing efficient insurance contracts<sup>26</sup> a large body of research has explored the issue of asymmetric information and identified three main patterns of strategic problems: hidden type (adverse selection), hidden action (moral hazard) and unforeseen contingencies.

If information is not perfect and costly to collect, contractual relationships will be rendered inefficient and distorted by *endogenous enforcement strategies*<sup>27</sup> and information-rent-seeking.<sup>28</sup>

Once identified, it has been shown that these problems can occur in any kind of contractual (explicit or implicit) relationship, be it market exchange, internal firm organisation or collective action in general.

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<sup>&</sup>lt;sup>21</sup> Buchanan / Tullock, 1962.

<sup>&</sup>lt;sup>22</sup> Niskanen, 1971.

<sup>&</sup>lt;sup>23</sup> Olson, 1965.

<sup>&</sup>lt;sup>24</sup> When consequently applying the neo-classical framework rent seeking is nothing else than the basic assumption of utility maximisation. A distinction between productive (legitimate) maximisation and redistributional (rent-seeking) maximisation is artificial and profoundly incompatible with the axiomatic neo-classical framework, which conceives rational individual behaviour merely as the maximisation of individual utility.

<sup>&</sup>lt;sup>25</sup> Williamson, 1979.

<sup>&</sup>lt;sup>26</sup> See Akerlof, 1970.

<sup>&</sup>lt;sup>27</sup> Endogenous enforcement strategies refer to the design contract with built-in incentives to comply. One example is the *efficiency wage*: The employer pays a wage rate above the market-clearing level to induce loyalty and rise the cost of job loss, since alternative employment opportunities do not provide the same remuneration. Thus the incidence of shirking can be reduced (see Shapiro/Stiglitz, 1984). As a consequence, the ensuing equilibrium wage level is higher than the efficient market clearing level in the absence of asymmetric information.

<sup>&</sup>lt;sup>28</sup> For a brief and very accessible overview on asymmetric information problems see for example Bates, 1995 ppp. 31-35. Other similar approaches, which have found recognition are the hierarchy oriented "Principal-Agent" (Stiglitz, 1974) and the more encompassing "Contested Exchange" (Bowles/Gintis, 1993)

Thus the expansion and refinement of NCF reveals the ubiquity of strategic interaction problems. Bowles and Gintis pointedly describe the implications of these theoretical advancements for the "old" neo-classical framework:

"The strength of the neo-classical paradigm, generations of students have been told, lies in its hardheaded grounding in a general model of self-interested action. But recent developments in microeconomic theory have shown that the self-interested behaviour underlying neoclassical theory is artificially truncated: it depicts a charmingly Victorian but utopian world in which conflicts abound but a handshake is a handshake."<sup>29</sup>

How do these "startling" findings alter the perception of institutions?

When combining rational choice with asymmetric information, it is highly questionable, if suitable formal institutional arrangements for coping with market failures are actually created. It is an act of crude functionalism to explain their existence with their desirability.<sup>30</sup> The emergence and existence of efficient formal institutions cannot be taken as granted.

To doubt the feasibility of building formal institutions, however, does not mean to question the important functions appropriate institutions can perform. On the contrary, the introduction of asymmetric information and the expansion of the neo-classical paradigm have clearly shown that the very foundations and the functioning not only of the market, but also of collective action in general heavily depend on the existence of a regulatory institutional framework that constrains unlimited exploitation of strategic opportunities and enables the construction of stable mutual commitments and long-term contractual relationships.<sup>31</sup> Thus in broader terms institutions can resolve ubiquitous strategic interaction dilemmata by reducing uncertainties and creating settled expectations in social interaction.<sup>32</sup>

This means, that on the one hand NIE underlines the key importance of institutions in a world of rational utility maximisers. On the other hand it questions the ability to create those very institutions and cannot even stringently explain how collective action is brought about in the presence of profound strategic pitfalls.<sup>33</sup>

## V. Institutions Do Influence - Conceptual Integration of Institutions in NIE and Beyond

Once the importance of institutions is recognised it has to be examined how exactly they influence behaviour.

The gradual and almost cogent development from NCF to NIE and its further advancement is also reflected in the conceptual integration of institutions.

Each theoretical approach has developed its own concept of how to model the influence of institutions. Although there are no clear-cut dividing lines the following structuring might be helpful:

<sup>31</sup> As a consequence applied institutional analysis directs attention to bodies that are capable of shaping institutions such as the State or NGOs. ( see chapter XIV *Implications for Research* in chapter outline–not included in this essay)

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<sup>&</sup>lt;sup>29</sup> Bowles/Gintis, 1993, p. 83.

<sup>&</sup>lt;sup>30</sup> See Bates, 1987.

<sup>&</sup>lt;sup>32</sup> See Toye, 1995, p.63; North, 1995, p.18

<sup>&</sup>lt;sup>33</sup> See Hall, 1996, p. 952:Bates, 1995, p.44. Ad-hoc explanations about how collective action is brought about are not very convincing. Size effects in terms of large players providing the public good as it is advantageous for them to do so, ignore the continual nature of public goods: neo-classic theory does not suggest, that public goods are not provided *at all* but only that they are provided in a suboptimal amount, whereas the degree of suboptimality increases with the number of agents involved. Other ad hoc explanations such as *political entrepreneurs* (Olson, 1965), *internal moral constraints on behaviour* (Buchanan, 1978) etc. are considered below.

Mode of integration		Institutional influence	Modification of NCF	Examples
A) External to preference structure				
	A1) Monetary	Pay off structure	None	NCA
	External formal institutions with credible sanctions <sup>34</sup>	Monetary Costs of non- compliance are raised through formal sanctioning mechanisms	(Formal Institutions are implicitly assumed)	
	A2) Cognitive –	Mental Set	Imperfect Information and Bounded Rationality	North, 1995; Williamson, 1979
	subjective	Institutions influence the perception of the working of the world and thus the subjective expectations on the pay-off for each strategy		
B) Internal to preference structure		Internalised norms and values as part of preference structure in varying degrees		
	B1) equal	Social elements within preference structure equal to material goals	Social elements included ⇒ from NCA to NCF	Buchanan, 1978; Olson, 1965
	B2) meta	Social elements as <i>Meta-preferences</i> which structure material preferences		Sen, 1982
	B 3) constitutive	Social relations constitute identity and thus preferences	Dynamic instead of static analysis: Endogenous Preferences	Berger/Luck man 1966

The table is organised in ascending order of "social embeddedness". In other words it presents different interpretations of the agency structure relationship<sup>35</sup>, the degree of influence of social and structural factors on individual behaviour.

The starting point A1) is the sovereign and autonomous individual whose goals and motivations are untouched by institutions. Institutions in the sense of formal and informal rules and sanctioning

<sup>34</sup> It would also be possible to subsume external social constraints under this point. The difference to B1 is merely that social norms and values are not internalised and are still "felt" as constraints.
 <sup>35</sup> For an extensive discussion of the agency-structure problem see for example Wendt, 1987. For a very

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<sup>&</sup>lt;sup>33</sup> For an extensive discussion of the agency-structure problem see for example Wendt, 1987. For a very insightful application to institutional design see Goodin, 1996.

mechanisms only have influence on the pay-off matrix of available actions. The notion "institutional constraints on behaviour" in this context seems to imply that NIE theorists ignore the enabling character of institutions. In my view, however, this is to a certain extent a misunderstanding, since "constraints" only refers to the technical mathematical technique "Maximisation under constraints" which is applied to analyse this situation. This does not call into question however that institutions can work both ways. They can rule out certain options by making them too costly but they can also – even at the same time- make other options feasible and expand the choice. <sup>36</sup>

A2) introduces the concept of bounded rationality<sup>37</sup>, which is again a rather misleading phrase. Bounded rationality does not replace the assumption of instrumental rationality, it only relaxes the heroic assumption of perfect information. Being confronted with limited calculatory power, costly provision of information and a complex and uncertain world, the individual refers to institutions in terms of mental maps and proven routines to interpret, assess and select available options. This is where informal institutions such as ideologies, ideas, cultural, historical and social elements and even psychological factors gain influence, since they shape the subjective interpretation of the working of the world.<sup>38</sup> The analysis thus eventually has to leave the universal and abstract sphere and needs to specify its objects of study by carefully exploring the actual cultural and historical setting.

NIE slowly shades into sociological institutionalism<sup>39</sup> which goes in B) even a step further and accepts that the factors mentioned have a more substantive impact on individual behaviour.

Sociocultural elements might be integrated into the preference structure as elements of autonomous value (B1) as some kind of a normative "Meta-Structure" (B2) or as elements constituting the individual and its identity (B3). Following Hall one could say that, while B1 stresses the normative dimension B2 and B3 additionally recognise a cognitive dimension of institutional impact: "Institutions influence behaviour not simply by specifying what one should do but also by specifying what one can imagine oneself doing in a given context."40

This also means that the conception of institutions employed here is significantly broader than the definition presented at the beginning by North. Institutions do not only encompass the formal and informal rules of the game but also "the symbol systems, cognitive scripts, and moral templates that provide the 'frames of meaning' for guiding human action."<sup>41</sup>

#### VI. Beyond a Narrow Concept of NIE - the Link to Other Social Science Approaches

Does it make any sense to try to establish a logical continuity between NIE and other theories on institutions, even if they approach the problem from a very different perspective, abandon many assumptions of neo-classical analysis and explicitly reject some fundamental axioms, such as methodological individualism?<sup>42</sup>

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<sup>&</sup>lt;sup>36</sup> E.g. Legal sanctioning on the one hand constrains defection on a contract on the other hand it is exactly the confidence in non-defection created through the institutional sanctioning which makes contractual relationship possible in the first instance. <sup>37</sup> For a very good review on concepts of bounded rationality and their relevance see Conlisk, 1996.

<sup>&</sup>lt;sup>38</sup> At this stage only the "cognitive" and not the normative content of ideas and ideologies is relevant. For example even if the "ideas" of Keynsianism and Monetarism did not disagree on social goals they would still generate different strategies since their interpretation of the working and controllability of the economy differs significantly.

<sup>&</sup>lt;sup>39</sup> I here follow Hall, who uses this term as a collective label for sociological approaches to institutions. (Hall, 1996. p.947.

<sup>40</sup> Hall, 1996, p. 948.

<sup>41</sup> Hall, 1996, p. 947.

<sup>&</sup>lt;sup>42</sup> See for example Hay/Wincott, 1998.

Despite these obvious obstacles I will suggest that it is both possible and worthwhile to construe a continuity in the development of ideas.<sup>43</sup>

For this purpose the insufficiencies of the so far developed neo-classical approach identified above serve as a suitable point of departure.

As has been shown above, the attempt to eliminate the "ad-hoc" nature of suitable formal institutions by examining the process of institution building has just led to even more profound problems of how to explain collective action although public good problems and information asymmetries abound. This latter does not seem compatible with empirical evidence of institutionally embedded working markets, functioning political systems, suitable polities and various types of collective entities. Of course we do not observe perfectly efficient markets, formal institutions etc. Nevertheless societal organisation has reached a degree well beyond the social dilemmas neo-classical theory might suggest.

The approach employed by many NIE scholars to explain the existence of efficient institutions through a quasi-evolutionary selection mechanism based on Alchian's model of evolutionary competitions is not convincing. <sup>45</sup> There is no a-priori reason to presuppose the survival of the most efficient. The prerequisites for competition are not fulfilled by social institutions. <sup>46</sup> Moreover the implied automatism completely disregards the fact that actors can actually choose between institutions and that this choice crucially hinges on the power structure involved. <sup>47</sup>

In addition to that, in its desperate attempt to explain the generation of efficient institutions the evolutionary approach too readily gives up the fundamental neo-classical axiom of methodological individualism. The convenient benign state is replaced by the benign evolutionary power of a "transcendental" quasi-biological mechanism.

The fundamental cleavage between private and social interest that incites strategic behaviour and inefficient collective action simply cannot be theorised away within a narrowly defined neo-classical paradigm as it is commonly applied. Neither the naive notion of "doux commerce" nor the axiomatic questionable ad-hoc assumption of hyperrationality, nor a nebulous evolutionary mechanism are satisfactorily grounded in the neo-classical framework. At this point the orthodox neo-classical concept seems to have reached its limit and must relax some of its long favoured assumptions and at least resort to endogenous preference formation and the integration of social elements into the preference structure.

These difficulties had already been identified by prominent neo-classical thinkers. As a reaction Buchanan for example recognised the existence of "internal moral constraints on behavior". <sup>50</sup> Olson introduces "socio-economic status" as a motivational force. <sup>51</sup> Arrow even anticipated a great deal of NIE findings by stating: "Societies in their evolution have developed implicit agreements to certain kinds of regard for others, agreements which are essential to the survival of the society or at least contribute greatly to the efficiency of its working." <sup>52</sup>

These developments are remarkable in various respects:

1. The mainstream NCA is abandoned. The integration of social elements eventually makes better use of the potential of NCF, specifically the flexibility and openness of the preference structure.

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<sup>&</sup>lt;sup>43</sup> To emphasise this once more: The suggested continuity is merely logical and does not follow a chronological order. It is only attempted to show how the logical development from neo-classical economics to NIE leads to new problem sets, for which analysis elements from other disciplines and older findings might be used.

<sup>&</sup>lt;sup>44</sup> See Bates, 1995, p.44.

<sup>45</sup> See Alchian, 1950.

<sup>&</sup>lt;sup>46</sup> See Knight, 1992, p. 110.

<sup>&</sup>lt;sup>47</sup> See Toye, 1995, p. 61.

<sup>&</sup>lt;sup>48</sup> Proposed by Montesquieu; see Toye, 1995, p.63.

<sup>&</sup>lt;sup>49</sup> Which could be realised within the neo-classical analytical framework. As has been shown, the preference structure is in principle open and can include values, norms and other social concerns beyond individualistic and materialistic goals.

<sup>&</sup>lt;sup>50</sup> Buchanan, 1978, p. 367.

<sup>&</sup>lt;sup>51</sup> Olson, 1965, p.60.

<sup>&</sup>lt;sup>52</sup> Arrow, 1974, p. 26.

2. From an epistemological point of view however, the rather intuitive recognition of social and cultural elements are not satisfying. The ad hoc assumption of formal institutions is replaced by a set of new ad-hoc assumptions about informal institutions.

In theorising on these issues however, NIE cannot honestly claim any superior competence (if any competence at all). Once this insight has been reached, the economic theorists have to pass on the task of enquiry to more qualified neighbouring disciplines. Moreover, with accepting endogenous preference formation and social embeddedness the analysis has eventually to leave behind the neoclassical realm of formal universalism. It has to take into consideration the concrete, political, cultural and historical context which affect the change of preferences over time and on a macro level the development trajectories of societies.

This reflects the necessity of including other social and human sciences (e.g. politics, sociology, anthropology, history and for further microfoundations, social psychology) and indicates the potential for a more enriching analysis of social phenomena and social change. In sociology network analysis for example has developed the concepts of "brokerage around structural holes" and "closure" to investigate communication and information flows in organisational and social networks at the absence of perfect information and uncertainty. Economic transactions are re-evalued in the light of the thesis of *social embeddedness* has which emphasises the social dimensions underpinning any economic relation. Among political scientists the idea of "social capital" has gained prominence in the analysis of civil institutions and how they impact on collective decision making and rent seeking. Ideas and their role for decision making and institutionalisation as mental maps or component of organisational culture are re-examined. As these examples indicate, both sociology and political science are refocusing their attention on institutions and provide interesting insights on the very issues NIE concerns itself with. The basic belief that institutions holds sway across disciplines and the prospects for a co-operative multidisciplinary research agenda to appear to be quite realistic.

#### VII. NIE and the Omission of Power?

Beyond the inability to adequately explain how institutions are created, which makes it necessary to open NIE to neighbouring disciplines, many critics are accusing NIE of neglecting the role of power structures and politics.

Or as Abba Lerner has put it: "An economic transaction is a solved political problem. Economics has gained the title of queen of the social sciences by choosing solved political problems as its domain." This criticism on neo-classical theorising is put forward against NIE in a modified form.

Bates interprets the game-theoretic modelling of NIE as highly voluntaristic and limited in scope since only a pareto-efficiency improvement is negotiable.<sup>58</sup>

In contrast to that I would argue, that various concepts of power could readily be integrated into the NIE approach.

First of all the voluntary nature of contracting is not a necessary condition. As long as a credible sanctions for non-contracting<sup>59</sup> make the uncooperative party worse off compared to the status quo (and there is no reason why such a strategy should not exist) the weaker actor will have to enter the bargaining process and might even have to accept a deterioration in his welfare.

Bowles and Gintis present labour markets with high unemployment as an example and state poignantly: "The only thing worse than being exploited by a capitalist is to be exploited by no one at all."

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<sup>&</sup>lt;sup>53</sup> For a very comprehensive review of these approaches see for example Burt (Burt, 2000)

<sup>&</sup>lt;sup>54</sup> See Granovetter, 1992.

<sup>&</sup>lt;sup>55</sup> See Putnam, 1993.

<sup>&</sup>lt;sup>56</sup> See Berman, 1998.

<sup>&</sup>lt;sup>57</sup> Lerner, 1972, p.259 cited in Bowles/Gintis 1993, p. 86.

<sup>&</sup>lt;sup>58</sup> Bates, 1995, p.41; p. 46.

<sup>&</sup>lt;sup>59</sup> Conceptualised for example by Bowles and Gintis as the power of the short side in a constrained market (Bowles/Gintis, 1993, p.90).

<sup>&</sup>lt;sup>60</sup> Joan Robinson cited in Bowles/Gintis, 1993, p. 88.

Bates criticism on the limited scope<sup>61</sup> of outcomes conceivable through the NIE lens is therefore in my eyes not warranted.

Secondly I would rather see NIE as an approach to *bring power back* into economic analysis. NIE in connection with rational choice analysis addresses the fundamental question what happens if the assumption of the "impartial referee" (=the benevolent state) is dropped. In doing this, existing power structures and relations within and between negotiating stakeholders are shifted into the focal point of analysis and shape the results.<sup>62</sup>

Thirdly it must be asked if and how power could –at least theoretically – be formally modeled and integrated into the NCF.

I will try to outline some possibilities on the basis of the multidimensional concept of power advanced by Lukes. <sup>63</sup>

- 1. Unidimensional (1- D) Power: the power to get one's way through observable action (e.g. winning a vote) in an observable conflict of interest. (e.g. differing proposals to be voted upon)
- 2. Two-Dimensional (2-D) Power: the power of getting one's way in an observable conflict of interest by means of agenda setting power. (e.g. limiting the set of "legitimate" options to be voted upon).
- 3. Three-Dimensional (3-D) Power: the power of getting one's way by keeping a conflict of interest latent through influencing the subjective perception of interests. (e.g. manipulating perceived interests).

Strategic game-theoretic modelled interaction in NIE could be interpreted not only as the modelling of conflict of interest but also in more general terms as the modelling of interaction to *detect* areas of conflict. NIE enables the researcher to identify conflicts of interests.

This means, that on principle both 1-D and 2-D situations can be analysed, since they both deal with observable conflicts. Various techniques can be used in order to model the power structure, such as credible and non-credible threats, the introduction of asymmetric cost of time spent on negotiation, which will skew the equilibrium outcome in favour of the more powerful party.<sup>64</sup> Power allocation can even be taken into account through the mere choice of the underlying equilibrium concept.<sup>65</sup>

By putting the rules of the game on the agenda of strategic interaction (public choice) it is possible to model the 2-D agenda setting power, which might crucially limit the subset of available options in the actual, second step interaction problem.

These examples should illustrate, that the application of game theory within NCF does not necessarily preclude the inclusion of power structures.

In praxis however, a formal stringent integration of an encompassing concept of power does not seem very feasible. Complex games are often not robust but very sensitive to parameter changes and sometimes generate indefinite multiple-equilibria outcomes.<sup>66</sup>

On top of that the integration of 3-D power poses difficult problems to NIE since this would mean to drop the basic axiom of individual preferences as the ultimate yardstick for analysis.<sup>67</sup>

The modelling of complex real-world power relationships, which might act as hidden as a subtle and in some cases not even intended structural bias, is neither feasible nor desirable. This should not mean

<sup>64</sup> Knight, 1992, pp. 131-135.

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<sup>&</sup>lt;sup>61</sup> Considering NIE bargaining as voluntary leads Bates to the conclusion, that NIE can only bring about paretosuperior outcomes, since no one will voluntarily accept a deterioration in his welfare.

<sup>&</sup>lt;sup>62</sup> See for example Eggertson, 1990, pp. 317-353.

<sup>&</sup>lt;sup>63</sup> See Lukes, 1974.

<sup>&</sup>lt;sup>65</sup> E.g. the Cournot-Nash or the Stackelberg Equilibrium applied in basic micro-economic theory to analyse market structures with small and big companies. The more powerful firm (leader) can take into account the strategy of the smaller firm whereas the smaller firm (follower) does not know about the strategy of the leader. This distorts the strategic outcome somewhat in favor of the more powerful leader (see Gibbons, 1992a).

<sup>66</sup> Gibbons, 1992b, p.56.

<sup>&</sup>lt;sup>67</sup> On a very theoretical level it could be attempted however to get around this. by introducing false assumptions on means-ends relationships which would lead to the pursuit of false intermediate means to satisfy preferences.

however, that non-formal analyses based on NIE sideline power allocation and resort to the verbal depiction of simple strategic interaction problems.

On the contrary the challenge of integrating power provides a great opportunity to look beyond NIE and benefit from the insights of other institutional approaches, which are more suitable to handle this matter in their respective theoretical frameworks.<sup>68</sup>

Much of the critique on the alleged omission of power in NIE seems however justified. But again, it is wrong to direct this criticism to the analytical approach (game-theoretic analysis of rational utility maximising in strategic interaction) which is on principle capable of accommodating power. It is warranted however against some specific overdrawn statements of applied NIE, which too readily adopt efficiency increases as explanation, why institutions are created, and ignore the contentious political nature of institution building.<sup>69</sup>

## VIII. NIE and the Omission of the Possibility to Agree

Modifying the core assumption of exogenous preferences has far reaching implications for both neoclassical and neo-institutional analysis. Allowing for such a "socialisation" of homo-oeconomicus implies that individual preferences cannot any more be conceptualised as autonomous, given and fixed. They are to a certain extent moulded by the actual societal environment. This has far-reaching implications for NIE findings and statements and reveals in my eyes the most dangerous flaw in many NIE applications<sup>70</sup>: By accepting a causal linkage between institutions and individual goals (preferences) social action dilemmas cannot be assumed ex ante but they become a function of the institutional settings. This argument has prominently been advanced by discourse theorists.<sup>71</sup> Predefining individual interests only allows for strategic bargaining with a strategic equilibrium result. It denies the fundamentally important possibility for reaching a discursive agreement through communicative discussion. 72 If discourse can at least partly be viewed as a process for discovering reasons, empathy, and solidarity, and thus as a means to avoid or mitigate strategic dilemmas, this has to be taken into account by an ex-ante comparison of institutions with regard to their expected effectiveness in tackling a particular strategic action problem. The relative ranking of institutions will be potentially skewed otherwise. A comparative institutional analysis in an NIE framework ignores this very potential of democratic (participatory) institutions to moderate interaction problems. It only assesses expected institutional performance with regard to given conflicts. As Arrows has shown a democratic voting mechanism under these (the NIE) conditions will always sub-optimal from an efficiency point of view. 73 NIE thus runs the risk of being systematically biased against democratic allocation mechanisms. This has to be taken into account when applying NIE to derive normative judgements on institutional performance.<sup>74</sup>

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<sup>&</sup>lt;sup>68</sup> E.g. Hall assigns an important role to what he calls historic institutionalism in the analysis of power structures. (Hall, 1996, p. 938) This historic institutionalism is similar to the framework of eclectic institutionalism which should eventually be developed here. 3-D power might be captured by applying some elements of sociological institutionalism, which examine the influence of institutions (and their manipulation) on self-perception and identity.

<sup>&</sup>lt;sup>69</sup> See Knight, 1992, pp. 112-113.

<sup>&</sup>lt;sup>70</sup> A critique which even careful adherents of NIE seem to ignore (for example Bates, 1995).

<sup>&</sup>lt;sup>71</sup> See for example Habermas, 1984; Katterle, 1991.

<sup>&</sup>lt;sup>72</sup> This slapdash presentation might render the proposed discursive ideas rather naïve. Given the scope of this paper it is by no means possible to elaborate discursive arguments. It should be noted however, that, just as neoclassical economics, discursive theory should be viewed as an idealised template not an attempt to fully illuminate real world phenomena.

<sup>&</sup>lt;sup>73</sup> See the famous *Arrow's paradox* (Arrow, 1969).

<sup>&</sup>lt;sup>74</sup> This point can be taken even further. It is often proposed that the market mechanism in the long rung even intensifies strategic dilemmas by reinforcing the sense for competition and strategic behaviour. This means the reversal of the *doux commerce* argument. Although controversial it in my eyes seems to carry some weight and has been proposed by numerous scholars (see for an early example Hirsch, 1976).

### IX. Conclusion NIE and As-if Science

NIE deserves the attribute insitutional for its accomplishment to powerfully show the importance of institutions for any kind of collective action.<sup>75</sup> Moreover in combination with rational choice it has directed the attention to a broader encompassing concept of institutions beyond formal regulation.

- 1. By relaxing the heroic assumption of perfect information, NIE has beefed up the abstract carcass of the neo-classical framework. It has redirected formal economic theorising towards a greater regard of power and institutions and thus brought it back close to the aspirations of other social sciences and classical political economy, which opens the way for interesting interdisciplinary discussions with hopefully synergetic effects.
- 2. It has confirmed and underlined the crucial role of institutions in any kind of collective interaction. In my eyes the strength and foremost NIE contribution to institutional theorising is its powerful proof of the importance of institutions. By starting from the methodological framework in which institutions do not matter and are completely omitted, it is able to deduce their importance and desirability in a stringent formal manner. A claim which in my eyes could hardly be made equally powerful through inductive reasoning.

However, merely asking "what would happen if" is not sufficient.

The answer to this question –and this is exactly what deductive reasoning provides - can serve as a very important if not indispensable mental template for the examination of "what actually is". It provides an important "heuristic device" to structure and interpret observation and helps to avoid logical inconsistencies. Experience is always laden with theory. Thus developing a theoretical framework means to consciously assess one's preconceived ideas and to try to cast them into a systematic and consistent structure. Laying open the derived template and employing it, aware of its shortcomings is a prerequisite for scientific research.

Yet this approach is rather problematic and deceptive if stylisation slips into hermeneutic oversimplification and the derived mental map is hardly useful any more. In my eyes this has been the case with neo-classical thinking. NIE seems to somewhat correct for such errors and reinstates the claim of economic theorising to contribute its share in the attempt to understand the world.

<sup>76</sup> Harris/Hunter et al., 1995.

<sup>&</sup>lt;sup>75</sup> The attribute "new" is owing to the fact, that in the early decades of this century a school of economic institutionalists in the tradition of Veblen flourished, which did not employ the neo-classical framework. Some of the propositions come close to NIE thinking. A more extensive discussion is however beyond the scope of this paper (for further discussion see for example Street, 1987).

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