Socialisation in multi-ethnic schools: Toward a critical realist explanation of the elaboration of socio-ethnic inequalities

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1 INTRODUCTION

During the last half of the 20th century Belgian society has reached a specific multi-ethnic character. Especially large labour force immigrations from Morocco and Turkey have ‘coloured’ the Belgian society in a specific way. It is now held that the ever-present multicultural character\(^1\) of our society has got a new scope because of “the presence of cultures that are most easily recognized by their ethnic visibility” (Timmerman, Janssen and Vranken, 2000). In their report ‘Nieuwkomers in Vlaanderen’ (Newcomers in Flanders), Timmerman et al. present the “evolution of the Belgian society from an emigration country to an immigration

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\(^1\) Multi-cultural is a concept that points to the existence of a far greater multitude of cultures than the presence of groups of people from different ethnic backgrounds or national origins (Vranken & Henderickx, 1996). As such it is not a new phenomenon, since every society can be said to contain different ‘cultures’ according to the various ‘cultural’ differences one wants to stress, like those between men and women, youth and adults, people with different tastes of music etc…, people who belong to different religious denominations, people living or originating from different geographical regions in the same state, inhabitants of cities and inhabitants of the country, workers and employees, lower class, middle class, upper class people, etc…
country” and “towards a multi-ethnic society” (Timmerman, Van der Heyden, Ben Abdeljelil and Geets, 2000).

The lower educational opportunities of immigrant children in Flanders are in line with those found in the international education literature. More immigrant children are streamed towards special education and more of them have higher leeway in school years than indigenous children. They also participate less in comprehensive secondary education and in tertiary education (Ministry of the Flemish Community, Department of Education, 2000-2001). The question is whether in the long run, this educational deprivation will prove to be a transitional situation, due to factors going along with the immigration process (as for example Veenman et al. (1990) emphasise), or whether it will turn out to be a more persistent social inequality, due to other social causes at work.

Some (like Van ‘t Hof & Dronkers, 1992) argue that the opportunity structure of immigrant children equals the opportunity structure of poor indigenous children. In statistical analysis it is difficult to distinguish between the variables ethnic origin and socio-economic status (Latuheru & Hessels, 1996). Dutch research shows further that it is the concentration of minority children and children with poor indigenous parents in the same schools that accounts for the lower opportunities of all the children, immigrant as well as indigenous, in these ‘black’ schools (Dronkers & Meijnen, 1997). However, analysis shows also that non-indigenous children form a very heterogeneous group and that there are large differences in educational attainment between children from various non-indigenous ethnic origins (e.g. Ledoux, 1996; Ogbu, 1994). Furthermore, in societies with an emerging middle class among ethnic minorities, like the USA, middle-class children from different ethnic origins do not perform equally well at school (Ogbu, 1994). The question is ‘what is going on behind these, statistical patterns?’ How to explain them? Of what complex social reality are they indicative?

These questions cannot be answered by mere statistical analysis. Statistical models certainly are able to provide essential information about sources of variance in the behaviour of students, and through multivariate analysis provide an investigator with a shrewd idea of the various social processes through which it has been generated. But the interpretation of any statistical pattern without any direct knowledge of the social processes by which it was generated does not provide the evidence required by deep explanation (Nash, 2000: 409). As Nash interestingly argues, this should not rule out statistical modelling to find out the contribution of particular factors in a model of reality. If I understand Nash correctly, the incomplete character of statistical modelling can rather be overcome by a conscientious ‘exploratory’ intensive analysis, to get insight in the actual functioning of the possible causal
powers of the various agents, their reasons and intentions, and the structural and ideational forms in which they are embedded and which they reproduce or transform by their actions and practices. Ethnographic analyses and other intensive research methods (to borrow a term from Sayer, 1992(1984): 242) can provide access to the actual functioning of these causal powers. The insights they provide can then be used to construct adequate measurement instruments for the construction of statistical models.

Of course, a complete overview of all the relevant practices, reasons, intentions, ideas and structures cannot be gained from one analysis alone. Reality is far too complex to be observed in detail at once, even at one particular time and place. In order to solve this problem (at least up to a certain amount), and thanks to the fact that much intensive research is already pursued in schools, we can use the insights from these intensive analyses to gather as much information about the complex underlying causal process as we can. The complexity of reality not only precludes us from getting a complete detailed overview, but it also urges us to construct theoretical models as reasonable conceptualisations of this complexity. These models should be built upon the insights of detailed qualitative research into the actual processes and practices that are going on and accounting for the empirical observable facts or correlations, not conflating bearers of causality, causal powers and actual causal processes.

In order to be consistent and coherent, this strongly inter-paradigmatic enterprise cannot be undertaken from a mere eclectic point of view. It requires a strong underlying notion of causality that takes into account the causal powers of the various bearers of causality in social reality. It needs a strong argument for analytical dualism to enable the analysis of the respective contributions of the various bearers of causality and not to confound them, taking time into account. And, last but not least, it requires a realist ontology as a starting point for this whole enterprise. A realist ontology that does not locate causality on the level of empirical correlations, but that locates causality at the level of the actual, as the concrete actualisation of real possibilities of real emergent properties of underlying structures.

In this paper I will argue that critical realism provides an interesting alternative notion of causality, both useful to analyse so-called social structural and agential causal powers, especially when re-taking into account the full four causes model of Aristotle, and that it gives way to a strong argument for analytical dualism, underpinned by a radical ontological turn. Critical realism provides a way to cross the boundaries of both positivism and interpretivism, and the related boundaries of quantitative and qualitative research, and a real reconciliation of both becomes possible (cf. Patomäki & Wight, 2000). It offers a broader understanding of the interpretive insights, a strong authorisation of their lines of empirical research, as well as an
adequate understanding of the power of quantitative analysis, and a possibility for interparadigmatic dialogue (Porpora, 2000: 260-266). Within the sociology of education, it can serve “the construction of models with a reasonable semblance to the complex social processes that generate observed inequalities in educational settings.” (Nash, 2002: 297).

This way we can gain insight into the various ways in which agents are socialised and actively socialise each other into existing structural and ideational forms which they, by their very actions, elaborate, thus elaborating their own agency, i.e. elaborating the rules and the allocation of positions and distribution of resources that constitute their possibilities of action, and the weight of their respective contributions.

2 CRITICAL REALISM: RETHEORISING ONTOLOGY, CAUSALITY, STRUCTURE AND AGENCY

In the positivist-Humean account of a cause, constant conjunctions of events (empirical regularities) are the empirical criterion for the inference of causal relations between them. Regularity between independently observed events is necessary and sufficient to establish causal relations. This regularity approach entails the presumption of ‘closure’ between causes and effects (even when, in more sophisticated positivist accounts of causality, it is acknowledged that there is no unique A that is a sufficient condition for B, that the relation between A and B is always conditional, or even multistage, and it is recognised that the same phenomenon can be caused by alternative causes). This presumption of closure however has proved to be false: social reality is not a closed but an open system. At the same time, the causal relations in the deductive-nomological model are only assumed (logically derived) connections. That means that the conclusion can be logically right, even if the premises are false. Furthermore, it is little more than vacuous to argue that children from specified social class and ethnic groups are over-represented in special education because the empirically proven risk factors are more common among their families. Moreover, the model does not allow the prediction of the actual risk each particular child from that social class or ethnic group runs (free after Nash, 2002: 409). And last but not least, the model cannot distinguish between necessary and contingent relationships. In an open system, a correlation between empirical events, does not point to anything more than to the existence of this very correlation. Whether this correlation reflects a necessary or a contingent relationship between
its elements cannot be retrieved from the statistical correlation as such, even if this empirical relationship appears to pop up on a regular basis. The interpretation of statistical patterns without any knowledge of the social processes by which they are generated lacks the evidence required by a deep explanation of why and how the empirical patterns come about. Intensive research methods provide the only access we have to forms of action within social practices (Nash, 2002: 410).

Critical realism argues for a deep explanation of empirical events and phenomena. The observation of some more or less regular statistical pattern, some more or less recurrent correlation between events, or even a unique event, is the starting point for a deep analysis of why and how these things came about, i.e. an investigation into the underlying causes of the empirical phenomenon, event or correlation. In contrast to the flat ontology of empiricism (which distinguishes only the observable events in the empirical) critical realism describes a three-layered reality, consisting of the empirical, the actual and the real. The empirical is what we can observe. But what we can observe does not encompass everything that exists. Together with the rationalist assumption that reality is dependent on what we can think and the idealist assumption that reality is dependent on what and how we conceptualise, the empiricist line of reasoning commits the ‘epistemic fallacy’: they reduce reality to that what can be known, they reduce ontology to epistemology (Bhaskar, 2000(1979): 38). In contrast, critical realism replaces the problematic epistemo-logical argument for the postulation of a causal relationship by an onto-logical one. Contrary to the rationalism of positivism and the idealism of interpretivism, critical realism grounds its vision on causality in a philosophical inquiry into that what is logically prior to the development of social ontology and methodology: reality itself. The world we study is not just the world we can observe (empiricism), the world we can think of (rationalism), or the world we can talk about (idealism). It is a world ‘out there’, existing prior to our scientific observation, thinking or talking. Indeed, we can only observe it, think about it or talk about it and our observation,

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2 As Patomäki and Wight argue, every theory of knowledge must also logically presuppose a theory of what the world is like (ontology) for knowledge (epistemology) to be possible. Now, the question is not whether to be a realist, but of what kind of realist to be. Humean positivists de facto tend to be empirical realists and anti-positivists tend towards linguistic realism. Critical realists are transcendental realists, in that they take the possibility of a deeper realism to be the condition of possibility for all scientific knowledge, including both empirical and linguistic realism (Patomäki & Wight, 2002: 223).

3 This is what Bhaskar (2000(1975): 21-24) calls the ‘intransitive dimension’ of reality. With respect to social reality, this ‘naturalist’ stance needs to be qualified, accounting for the important causal role of intentions, reasons, ideas, concepts, definitions, interpretations, etc. This qualification is to be central to critical realist social ontology, but from a philosophical-ontological point of view, existing ideas, intentions, reasons, concepts, definitions, interpretations, etc. also can be studied as intransitive objects in the social world (Bhaskar, 1979; Gijselinckx, 2002b). As we will further see, Bhaskar’s equation of the intransitive dimension or reality with
thinking or talking can be absolutely wrong and will certainly always be incomplete. But even so, this does not mean that the world is not as it is. It only means that we can’t see it, know it, or conceptualise it adequately as it is. Critical realism argues that the causes of the empirically observable effects lie behind the empirical and effects come about because of the operation of a complex network of underlying causes that can only be actualised by virtue of the nature of social reality. The actual thus refers to what actually happens (actuality) and the real (sometimes also called the trans factual) refers to the nature of reality, by virtue of which things can happen (possibility). To discover and conceptualise causes, means to dig into the nature of reality and to discover and conceptualise possible tendencies and their actualisations, not to deduce causal relations between empirical events.

In critical realism, the observation of a regular statistical pattern or a recurrent correlation between empirical events is seen as prima facie indicative for the “occasional actualisation of a tendency over a definite region of time-space” (Lawson, 1997: 204). Regularity, however, is not a necessary nor a sufficient criterion for causality. The criterion of regularity is no longer a prerequisite for observing causality. It can perfectly be so that an event happens only ones. Even a single event is ‘caused’. Following Scriven, Bhaskar defines a cause as “that factor which, in the circumstances that actually prevailed, so ‘tipped the balance of events as to produce the known outcome’” (Bhaskar, (1979): 106). Causes generate their effects in complex networks. They can counteract or reinforce each other. Thus a cause will not always lead to the same observable result, and the same observed effect can be caused by different causes.

So, causal necessity is not understood as logical necessity, but as natural necessity. We can think and talk about causes not simply because we follow strict logical rules, but we can think and talk about causes because they exist outside our thinking and talking. They are really there, by virtue of the nature or structure of social reality. The world consists of more than the actual course of events and experiences and/or discourses about them. It is composed of complex objects that, by virtue of their structure, possess certain powers, potentials, and capacities to act in certain ways, even if those capacities are not always realized. It is the continuing emergent result of the complex interplay of the actualised powers, potentialities, and capacities to act in certain ways, existing by virtue of the nature of the objects the social

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world is composed of. To know these powers, potentialities, and capacities, we have to know the nature/structure of the objects of which they are a property.

An object is composed of different elements and (necessary, internal) relations between them. And as the world does not exist of atomised objects, each object is also related to other objects in the world. Relationships between objects are not necessary, nor internal, but contingent and external. So the various actual relationships between specific social structures and particular agents are contingent and external. Social structures are objects in the social world, but they do are not substances in themselves, nor are they mere ‘aggregates’ of agents (for in aggregates the constitutive elements are unrelated and unchanged in relation to each other). Social structures define and exist through material and formal contexts. They exist and are transmitted through agency, but not through agency alone. With Scalszas (2001), social structures could be seen as ‘related wholes’ of material and ideational/relational contexts and the human action that is enabled and constrained by and mediates that context. Related wholes embody our understandings about forms of relations, they define and are shaped by underlying material potential/resources and they are transmitted through the actions and intentions of agents. They are in themselves not agents that have intentions or that undertake efficient actions. They are composed of relations (Scalszas in: Kurki, 2003: 13). Agents, on the other hand, can also be seen as objects in the social world, owning the capacity to reflect and act upon the world. Their practices and actions are shaped by and shape the social structures in which they are embedded. On the individual they do have a substance and form (in this sense they are different objects than social structures), which constitute their capacities, their powers and liabilities. On the corporate level, they are emergently constituted by the joined capacities of the individual agents. An adequate understanding of the relationships between social structure and agents and the influence they have upon each other is largely facilitated by an elaborate understanding of causality.

According to Milja Kurki, a consistent engagement with Aristotle’s four causes account of cause will help to clarify the vexatious relationship between social structure and agents/agency. A clear understanding of what efficient causes are (usually associated with agency) and what material causes are (usually adjusted to social structures), along with an adequate accounts of final and formal causality, are the essential prerequisites for an adequate analysis of the structure-agency relation (Kurki, 2003).

In the Aristotelian account of causation material cause refers to ‘that out of which a thing comes to be’. It refers to the passive potentiality of matter - primarily prime matter, i.e. the substantial principle found in all bodies and substances, secondly secondary matter, the
bodily substance of things, and lastly a *particular form of matter*, i.e. secondary matter that is shaped into a particular thing and by its constitution has material properties. Material causes have no determining power of their own, they are passive potentialities that are actualised according to formal causes.

*Formal causes* are the determining factors that shape matter into secondary matter or substance (substantive form). They make or define a substance, its structure, its qualities and properties. They can be ideational (referring to ideas, rules, norms and discourses) as well as structural (forms of a structure). They are constitutive rather than active causes. They are not efficient in themselves, but they delimit and enable the operation of efficient causes. They are the ‘according to which’ something is actualised. Along with the material causes, formal causes are intrinsic causes. They are causes within the thing being caused that continue to be present in a thing through constituting it. The other two types of causes, efficient and final causes, are extrinsic causes, i.e. causes not within the thing but which lends an influence or activity to the producing of the thing. The latter are active causes rather than constitutive causes.

*Efficient causes* are the primary movers or sources of change. They do not guide things in themselves. This guidance comes from material, formal and final causes. But they are the substances, bodies or things, which actively actualise material and formal causes.

*Final causes* then are the crucial elements in explaining why something has happened. Even when actions are not ‘planned’ and spontaneous they guide the actual flow of actions. They stand in a close causal pair with efficient causes in that they presuppose a relational/ideational context that defines meanings and contexts of intentions. However, they also presuppose an efficient causality (an agent to act on it), and a material causality of the mind as well as of the world to act upon (Kurki, 2003: 8-12).

*Social structures* thus can be said to *carry* or *bear* causality. They are not causal, but they have certain capacities that accord them *causal efficiency*. This causal efficiency is not confined to material causality. In fact, social structures are related wholes, constituted by a conglomeration of four kinds of causes. They are a mesh of material and ideational/relational contexts (constitutive causes) and the human action that is shaped by and shapes that context (active causes). They bear defining formal causality in terms of understandings about forms of social relations. They bear material causality in the sense that they are defined by and in turn define the form of materiality and material resources that are available. They pre-exist agents and have a relatively enduring quality in that they shape and exist also through the material and relational context of human actions, but they remain dependent upon human agency and
human action for their activation. They bear both formal and material causality (Kurki, 2003: 12-15).

Agents then are the extrinsic causes of social structures. They efficiently work upon them (with more or less result, depending on the harshness of the material and ideational/relational elements they elaborate), according to their intentions, and reasons.

Reasons, when embodied in social structures, are internal, formal causes, but when individually expressed in the actions of agents, they are external, final causes of social reality.

This Aristotelian account of causality allows us to conceptualise the emergent properties of both social structures and agents. Both social structures and agents bear material and formal causes. Their properties emerge from their multi-levelled material essence-substance-form.

As human beings, agents have a particular material (bodily) substance of which their physical and psychological properties emerge that together constitute their human capacity to think, act, communicate, etc. Thus, we can say with Archer that the personal emergent properties (PEPs) of agents are their ability to reflect upon their social context, to search for alternatives and to cooperate with other agents in order to change them (Archer, 1995: 326).

Social structures both have a structural (relational) and a cultural (ideational) form, enabled by their material potentiality from which structural and cultural properties emerge. As Archer defines them, structural emergent properties (SEPs) are distributions of resources, allocations of positions, organisations and institutions. Cultural emergent properties (CEPs) are presuppositions, ideas, theories and doctrines. Both set the conditions in which the agential interpretation, the search for alternatives and the influence upon the elaboration of the pre-existing structures can take place (Archer, 1995: 326).

The concept of emergence is a slippery one because it can be conceptualised from two opposing perspectives: methodological individualists and methodological collectivists (Sawyer, 2001). Indeed, in his famous critique on Archer, the known methodological individualist Anthony King (1995) acknowledges emergence in social reality, to indicate that collective social phenomena are collaboratively created by individuals, yet possess emergent properties that cannot be reduced to individual properties. However, he locates the source of emergence in the activities of individual actors solely, the only real entities in the social world. Sawyer (more in line with Pettit (cf. Cuypers, 2002)) prefers to tackle the problem in terms of ‘supervenience’: that higher-level entities and properties are grounded in and determined by the more basic properties of component units in the system (Sawyer, 2001: 555). He combines this term with two others: ‘multiple realisability’ and ‘wild disjunction’, thereby indicating many different lower level supervenient bases can result in the same observed higher state and that many realities can emerge from the same lower level supervenient bases, in order to account for dependency and contingency (Sawyer, 2001: 557). Supervenience can indeed be an interesting concept to describe the relationship between two layers and their emergent properties. The question is whether this supervenience idea should be underpinned by a realist ontology (like that of critical realism) or by a non-reductive physicalism (as Sawyer and Pettit argue). I think that this problem can be solved by going back to Aristotle’s realist account of causes (cf. infra).
These emergent properties are not revealed by pointing to observable social patternings at the level of events (the empirical reality). They are only revealed by real but non-observable, underlying relational terms. “Any emergent property is held to be something quite different from an overt and relatively enduring patterning in social life. That is, in the structural domain, they are something other than observable features such as specific ‘institutional patterns’, ‘social organisations’ or ‘socio-economic classes’. Each type of observable reality like the above is heterogeneous, (...) whereas what distinguishes an emergent property is its real homogeneity, namely that the relations between its components are internal and necessary ones rather than seemingly regular concatenations of heterogeneous features” (Archer, 1995: 172-173).6 This reality of the empirically observable has to be discovered in a deep analysis.

The discovery of the respective influences of the different causes in relation to the existence, maintenance or transformation of a given social phenomenon, is largely facilitated by introducing the idea of temporality – not only in the sense of acknowledging the relative endurance of the social phenomenon, but also in the sense of the sequentialisation of the structure-agency relationship that reproduces/transforms it. In her morphogenetic approach Archer (1995) elaborates this idea methodologically. So, the period between time 1 (T1) and time 2 (T2) is the time of social conditioning. At time 1 (T1) prior structures exist, which are the emergent consequences of previous morphogenetic/ morphostatic cycles. At time 2 (T2) they form the perceived and unperceived conditions within which the process of structural elaboration will take place. The period between time 2 (T2) and time 3 (T3) is the period where prior structures are gradually transformed and new ones slowly elaborated. It is the period of social interaction (not to be restricted to interpersonal interaction). The period between time 3 (T3) and time 4 (T4) is the period of structural elaboration. And time 4 (T4) is the result of this process, which can either be morphogenesis (transformation of the original structures) or morphostatis (reproduction of the original structures (Archer, 1995: 157-158).

The morphogenetic cycles are thus based on two simple propositions: (1) that structure necessarily predates the actions which transform it and (2) that structural elaboration necessarily postdates these actions. Archer’s morphogenetic cycles point, not so much to empirical diffusion and contingency, but to real necessity under empirical conditions. By choosing a point in time as the starting point of an investigated stream of actions and by

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6 Emergent properties are not to be confused with ‘unintended outcomes’, of which they are but a sub-category. This is so because the latter can prove to be influential but in a wholly contingent (non-necessary) manner and not every unintended consequence is irreducible, enduring and involved in internal and necessary relations (Archer, 1995: 177).
presupposing that the structures, at a certain point in time, are pre-existing and only afterwards interpreted, evaluated and elaborated by agents, the process of social interaction between agential and structural causes, and the relative contribution of both, can be examined.

This sequentialism relies upon the central critical realist principle of analytical dualism. One can argue, as Giddens for example does, that in reality (on a long enough timescale) our actions form a constant flow and that the elaborated social structures at the time of their elaboration are already prior social structures for subsequent actions. Theoretically, however, it is necessary to adopt the principle of analytical dualism in order to obtain purchase on those processes which are accountable for determinate social changes (Archer, 1995: 158).7

Archer underpins this analytical dualism by an ontological dualism. This is a much criticised position (see e.g. Sawyer, 2001), but turning back to Aristotle’s realist account of causes may clarify the link between analytical and ontological dualism. Social structures and the agents (that exercise agency) are both objects, constituted by material and formal causes. From these emerge their properties. Agency thus is not an object or an essence, but an emergent property of agents: it is the capacity to act intentionally, resulting from the human constitution. Behaviour or action and intentionality are emergent properties of the human constitution (itself an emergent related whole of underlying causes). By their intentional actions, agents influence the form of social structures, elaborating pre-existing social structural and ideational forms and materials. In contrast to social structures, agents have a material substance and form which is not only brought about by human action and from which their capacities arise. They have prime matter, whereas social structures immediately have secondary matter (or even matter of a particular form), shaped by the activities and practices of agents. Thus, agents are not the same kind of object as social structures and social structures cannot be reduced to agents. (Re)New(ed) social structures emerge from the work of agents, and the work of agents is enabled and constrained by existing social structures that are themselves elaborations of previous structures, mediated by human agents, etc... By elaborating social structures according to the existing structural and ideational forms and their

7 Thus Archer’s central critique on Giddens’s idea of the ‘duality of structure’ that “only permits the artificial bracketing of structural properties and strategic conduct by placing a methodological epoché upon each in turn. Yet, since these are two sides of the same thing, the pocketed elements must thus be co-terminous in time (co-existence of the epochés confines analysis to the same époque) and it follows from this that the temporal interplay between structure and agency logically cannot be examined” (Archer, 1998: 202). The same holds for Layders definition of acausality, pointing to mutually-simultaneous relationships between the different loci in a generative network (see my contribution in the Sosiologisk Arbok/Yearbook of Sociology, 2002, pp. 95-122).
own reasons and intentions to reproduce or transform them, agents not only elaborate the social structure, but also elaborate their own agency.

At first, agents only have what Archer calls ‘primary agency’ (i.e. the agency of human beings sharing the same life chances), but by uniting and acting together, they develop ‘corporate agency’ (agency of agents who are acting deliberately together with reasons for attempting to bring about certain outcomes), and so transform themselves from mere human beings into ‘social actors’ (Archer, 1995: 257-265).

This complex social ontology, build upon the philosophical ontology of critical realism, offers an important conceptual framework for a critical realist sociology of education and sociology of societal change, since it conceptualises the complex interplay between social structure and agents, it suggests where we have to look to discover its properties and causal powers, and it indicates how we can analyse the respective contribution of each causal power in the actual working of the complex network of generative causes.

3 Critical Realism: abduction, retroduction and the possibility of secondary analysis

The mode of reasoning that enables to leap from the level of the empirical to the level of the actual and the real is *abduction*. Abduction is a much discussed mode of inference. In traditional logic, it is considered as a fallacy (the *fallacia consequentis*). The move from effects to causes, i.e. from antecedent to precedent, was not considered to be a proper one. However, effects are the only observable traces of possible underlying causes. C.S. Peirce has rightly understood that point. In science one cannot but start from a surprising fact (a unique event or a strange pattern of correlations) and one has to form an explanatory hypothesis about why and how this strange fact came about. The main distinguishing characteristic of abduction, compared with induction and deduction, is the relationship between the premises and the conclusion. As we saw earlier, in deduction the conclusion is a logical necessity given the premises. In induction the conclusion is the generalisation of a rule. In abduction, the conclusion concerns a possibility. In other words, induction shows that something is actually operative, deduction proves that something must be, abduction suggests that something may be (Fischer, 2001: 369).
The content of the abduction is always dependent on the fundamental premises one adheres to, i.e. the wider (meta-)theoretical conceptual framework. In critical realism it is dependent on the deep, stratified ontology, which invites us to see behind what we can observe at the level of the empirical and to dig into the actual and real reality, and on the concomitant account of causality, which states that empirical regularities are no necessary nor sufficient indications of a causal relationship and that one has to look, in a true Aristotelian way, for multiple and multi-levelled causes of social events and phenomena. The critical realist use of abduction here advocated, is also called *retroduction*, the move from the description of concrete phenomena to the reconstruction of the basic conditions for these phenomena to be what they are (Danermark et al., 1997: 80).

The retroductive mode of reasoning does not relate theory to data in the way that induction does (generalising a rule over more cases), or deduction does (presupposing a causal law of which the existence will be verified or (not) falsified by the observation of particular cases). Critical realism guides the creative moment of abduction in empirical investigation. Critical realist research starts from the empirical observation of a strange case, event, correlation or phenomenon and invites us to see it in a different way. Its meta-theoretical conceptual framework provides the glasses through which we see the data, explicating the relation between an empirically observable event or phenomenon (a ‘case’) and the underlying ontological layers of reality in which its cause(s) have to be found. Retroduction thus can be interpreted as the reasoning underpinned by critical realist ontology and methodology, which in turn underpins (Bhaskar speaks about ‘under labourers’) the creative moment of abduction in empirical analysis.

Data can be newly gathered observations analysed in primary analysis, but it can also be secondary data gathered in previous research and analysed in secondary analysis. Secondary analysis, however, is a much criticised approach since it is now generally recognised that data (all kind of data) are conditioned by the theoretical concepts that have guided their collection (Hanson, 1965). Thus, secondary analysis of available data will tend to perpetuate the conceptualisations that were employed in the original data collection and may hinder improvements in abstraction and reconceptualisation. It runs the danger of reproducing, rather than correcting chaotic concepts (Sayer in: Skinningsrud, 2003: 3). This suggests that a given set of data is inextricably bound to, and relevant only for one theory: the theory that has informed its collection. However, Hanson, in his “Patterns of Discovery” (1965), has suggested that the same empirical data can be read (and explained) in different ways, depending on the context of experience, knowledge and theories. One can ‘see’ things
differently. And this precisely is what abductive reasoning does. Abduction, according to Hanson, points to a Gestalt-switch, it means to see the same datum differently. “Physical theories provide patterns within which data appear intelligible. They constitute a ‘conceptual Gestalt’. A theory is not pieced together from observable phenomena; it is rather what makes it possible to observe phenomena as being of a certain sort, and as related to other phenomena. Theories put phenomena into systems. They are built up in reverse – retroductively.” (Hanson in Skinningsrud, 2003: 9). It is important here to recognise that there is no symmetry between seeing and interpreting. One can see a thing in the same way and nevertheless interpret it differently (both Brahe and Kepler saw a rising sun, but Brahe thought it was the sun turning around the earth (a mobile sun) and Kepler saw the earth twisting around its axe (thus a static sun)). Vice versa, one can see two different things and nevertheless interpret them equally (one person can see the sun rising in the morning and setting in the evening, but in both cases he can interpret this ‘movement of the sun’ as a result of the twisting of the earth). The power of abduction lies in its creative moment: it allows us to see what we didn’t see before (according to our theory of the earth and the sun, we see a moving earth in stead of a moving sun, although we observe the sun setting or rising at the horizon). The power of retroduction, understood in the critical realist sense, lies in providing an ontological and methodological guide to the creative moment of abduction: it invites us to move from the level of the empirical to the underlying levels of the actual and the real, using an alternative concept of causation in this deep explanation of empirical phenomena. Like Kepler, who searched for a pattern (underlying the empirical data) that could accommodate all Brahe’s observations, not from induction by enumeration nor by deduction from higher order propositions, but in reality. He worked towards the solution by going from explanandum to explanans (Skinningsrud, 2003: 8). He started from the many data gathered by Brahe, conjectured them and tried to discover a pattern in it which he tried to explain theoretically.

For Hanson to see a thing differently means to creatively develop a new theory. For Danermark et al. (1997) it means to see data through the lens of a theory, not necessarily a new one, but generally a theory that has already been developed. It means the considering of alternative explanations, the redescription of data in the light of another theory, or the recontextualisation of a data. This can be a social theory (like structuration, praxeology, system theory, structural functionalism, symbolic interactionism, rational choice theory, etc…), but, and in this sense it must be interpreted in critical realism, it can also be a deeper lying meta-theoretical framework. In both senses it can be useful as a method for secondary analysis, and especially in the latter sense it becomes compatible with seeing transcendental
questions and immanent critique as the method for generating theory (Skinningsrud, 2003: 9), adjusting theory, or interparadigmatic dialogue. By actively practicing philosophy as a sociological method (Porpora, 2000: 264), we can develop creatively new transitive objects, i.e. new productively methodological understandings of causality and new productively social ontological understandings of structure and agency, guiding the way we see and analyse concrete empirical events and phenomena, in primary as well as and especially with regard to secondary analysis. This secondary analysis can, in turn, guide our construction of quantitative models of reality, pointing to the ‘epidemiology’ of a problematic phenomenon, counting and locating its instances, determining its rates of incidence, correlating it with a great many other variables in order to control it, and determining the respective contribution of the various factors involved.

A conscientious secondary analysis of studies in the sociology of education and especially of studies with respect to the elaboration of socio-ethnic inequalities in educational settings, starting with an immanent critique of the meta-theoretical positions of these studies and resulting in a recontextualisation of their data, can force an important move forward.

4 SOCIALISATION IN MULTI-ETHNIC SCHOOLS: THE QUANTITATIVE AND THE QUALITATIVE VISITED.

In 1979 Karabel wrote, in an influential discussion of the “possibilities and perils of the sociology of education”, that the problem of the sources of class and ethnic differences in educational achievement remains almost as vexing as ever” (Karabel, 1979: 86). In the meantime, a lot of work has been done. The many researches conducted in the interpretive tradition indeed offer interesting insights into the production, reproduction and transformation of social inequalities in specific daily practices of social interaction in schools, and of racial or ethnic inequality more specifically (e.g. Piestrup, 1973; Ogbu, 1977; Au & Jordan, 1980; Philips, 1982; Foster, 1989, 1995; Heath, 1986; MacLeod, 1987; Gillborn, 1990). In some of these intensive researches the focus is on linguistics (e.g. Labov, 1978; Mehan, 1979; Shuy & Griffin, 1978; Sinclair & Coulthard, 1975; Piestrup; 1973; Bernstein, 1973) and styles of interaction and cooperation (e.g. Philips, 1982; Foster, 1989; Au, 1980; Tharp & Gallimore, 1988), while others point to the differences in resources and networks parents and children from different socio-economic and ethnic backgrounds can rely upon and the different ways
parents and children actively cope with these resources and networks – or various forms of capital, in Bourdieu’s sense (e.g. Lareau, 1987, 1989; McDermott, Goldman & Varenne, 1984; Verhoeven & Kochuyt, 1993), or focus on the different strategies children who, as active agents resist or conform to the culture of schooling. Some emphasise the importance of extra educational factors, e.g. differences in social backgrounds of the pupils (e.g. Stinchcombe, 1964; Willis, 1977; MacLeod, 1987), others stress intra educational factors, e.g. the effects of streaming (Hargreaves, 1967; Lacey, 1970). An important body of intensive research analyses the role of constitutive rules, of institutional practices of schools, especially rules concerning the testing (Cicourel et al., 1974; Marlaire & Maynard, 1990; Mehan, 1978; Mehan et al., 1985), the tracking (Cicourel & Kitsuse, 1963; Hollingshead, 1949; Oakes, 1982, 1985; Rosenbaum, 1976), or the counselling of students (Cicourel & Kitsuse, 1963; DiMaggio, 1982; Erikson & Schulz, 1982) and their placement in ability groups (Allington, 1983; Brophy & Good, 1974; Cazden, 1986; Cole & Griffin, 1987; Collins, 1986; Eder, 1981; Gumperz & Herasimchuc, 1975; Henry, 1975; McDermott, Godspodinoff & Aron, 1978; Michaels, 1981; Rist, 1973; Wilcox, 1982) or in special education (Mercer, 1974), as well as rules used by actors in managing appearances in public settings (Goffman, 1963, 1971), rules concerning gender-appropriate behaviour (Mahoney, 1985; Lees, 1986), rules of typing behaviour as deviant (Hargreaves, 1984) or rules of racial stereotyping (Mac an Ghaill, 1988). Also the impact of governmental policy on producing racism in the schooling system was also analysed (Troyna, & Carrington, 1990; Gillborn, 1997).

In an important state of the art of interpretive research in educational settings, Mehan argues that the interpretive tradition has made three interrelated contributions to theories that attempt to account for social inequality. (1) Cultural elements have been introduced into highly deterministic macro-theories. Culture is not merely seen as a pale reflection of structural forces, but as a meaning system that mediates social structure and action. (2) Human agency has been interjected into theories accounting for social inequality. Social actors are no longer perceived as passive role players, shaped by structural forces beyond their control. Instead, they became active sense makers, choosing among alternatives in often contradictory circumstances. (3) The black box of schooling has been opened to reveal the reflexive relations between institutional practices and students’ careers. Schools are not perceived as the black boxes through which students pass on their way to predetermined slots in the capitalist order. The vibrant life in schools has been described as a composition of processes and practices that respond to competing demands that often unwittingly contribute to inequality (Mehan, 1992: 1).
Corson (1991) argues that many of these intensive researches in the sociology of education have emerged from the same post-empiricist Zeitgeist that produced Bhaskar’s theorising, and so in a way they were already ‘doing’ critical realist research. Both give a central place to human reflexivity and the reasons and accounts that actors offer to explain social effects and to constitute social mechanisms. They provide evidence for uncovering the reality of the accounts and the reasons which constitute processes of social elaboration (Corson, 1991).

However, I think the critical realist contribution to the sociology of education does not stop by merely evaluating the methodology of these intensive studies in a positive way. Rather than just extolling the qualities of qualitative research, we should ask how their information about specific social practices and processes at different sites and times can be causally linked with system effects that are only detectable by statistical analysis, thus making an inter-paradigmatic move forward (Nash, 2002: 410)? In other words, how to cross the micro-macro bridge that bothered the sociology of education for so long (as it bothered many other sociologies and social theory in general) (see e.g. Hammersley (1983) for a critique in the sociology of education). In other words, how can the insights of these intensive studies in the sociology of education be incorporated in a model that accounts for social as well as system effects? I.e. a model that describes the active (re)production of the cultural meaning system through the practical work of the various social actors and corporate and primary agents, who, by their continuous actions and interactions, reproduce/transform the pre-existing (previously elaborated) structural and ideational forms and their own positions within them, according to their reasons and intentions, and who are constrained and enabled by the existing structural and ideational forms they continuously elaborate.

Chris Shilling (Shilling, 1992) argues for a research program inspired by Giddens’ theory of structuration, with its notion of ‘duality of structure’ that points to social and system integration as two sides of the same coin. Robert Willmott (1999) breaks a lance for Archer’s analytical dualism in order to analyse the relative interplay of agency and structure. Rob Stones (Stones, 2001), however, pleads for a combination of Giddens’s and Archer’s theories. For, Giddens’s ‘duality of structure’ says little about the direction of social change and the relative contribution of structures and agents. Archer’s conceptual framework and analytical tool for the study of social reproduction and change on the other hand, though grounded in an explicit ontology of social structure and agency, does not explore what Stones calls the “duality within context”, i.e. the duality of structure within the context of action. Giddens’s elaboration of the duality within agents takes more into account than the pursuing of vested
interests by agents. It emphasises the pre-reflexive drawing of agents upon structures, in ‘practical consciousness’, leaving a large place for habits, pre-reflexive routines and background assumptions. It takes into account that agents do not themselves have any reflexive apprehension of the temporal divide that constitutes the key to analytical realism. Giddens more adequately stresses the mediation and crystallisation of structures in the form of interpretive frames and norms within the memory traces of the agents, not being just representations of costs and benefits for agents (Stones, 2001: 185-186). Roy Nash (2002, 2003) defends a realist version of Bourdieu’s structure-disposition-practice model, aimed to construct a quantitative model that is composed of indicators of system properties (structure), individual disposition, and action within social practices, interpreted as specific levels of the explanatory scheme (Nash, 2002: 410-411).

I think the various social theories mentioned all stress important aspects of the structures-agents relationship and a conscientious combination of interesting insights of Giddens, Archer and Bourdieu can do the job, provided that it is guided by Aristotle’s four causes model and that it is led by a realist ontology. One has to make sure that the social theory and the model that one tries to construct take into account the four different types of causality, not messing up substances and properties and conflating one object with another, in order to discover qualitatively the causal powers of social structures/systems and agents, as a prerequisite for the quantitative analysis of their relative contribution.

The scrupulous building of an explanatory model with respect to the elaboration of socio-ethnic inequalities in schools, underpinned by the outlined critical realist perspective, informed by the insights of intensive research and aimed to guide the adequate construction of a measurement model “with a reasonable semblance to the complex social processes that generate observed inequalities in educational settings.” (Nash, 2002: 297) is the final aim of my doctoral dissertation.

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8 By combining Giddens and Archer, it becomes possible to overcome Benton’s critique on Archer’s conception of the morphogenesis of agency (Benton, 2001: 36-38).
REFERENCES


