

Winter, 2006

Causality and Totality Revisited:

Analytical Marxism, Postmodern Marxism, and Critical Realism

Jae-Woo Kim

1. Introduction

There seem to be three Marxist camps that could be called “paradigm” although I admit the decline in the influence of analytical Marxism: analytical Marxism, critical realism, and postmodern Marxism. I intentionally do not count some other groups such as social structure of accumulation school in the US or regulation school in the Europe since one of the important criteria, besides research agenda or programs, is arguably their distinctive positions on what are social sciences and how theories can be constructed. In terms of the philosophy of knowledge, this inquiry is deeply rooted in the problem of ontology, epistemology, and methodology that constitute hard cores in Lakatos’s term.

From the viewpoint of constructivism or hermeneutics, critical realism has been sometimes regarded as one variation of post-positivism especially regarding its advocacy of scientific explanation. However, unlike post-positivism, critical realism shows another possibility of scientific explanation but in a very different way, carefully pointing out both the similarity and the difference between natural sciences and social sciences. In this regard, critical realists would argue that it is “possible” and “desirable” to investigate “social” phenomena as well as natural phenomena in a scientific way. Compared to the dissonance between noticeable contribution of critical realism to philosophy of knowledge and its disproportionate inability to guide down-to-

earth studies, analytical Marxism, although this school seems to have relatively weak foundation in terms of the scope and depth of discussion about the philosophy of knowledge, is acutely aware of how theoretical explanation should be constructed. By contrast, as postmodern Marxists see it, “Truth, in the sense of a singular comprehensive explanation, is a concept that can exist only within an essentialist framework.” (Wolff, 1996: 154)

Additionally, these three camps are marked by different strategies to save Marxism from any version of orthodox interpretation. Although “his(Althusser) epistemological lapse into the ideology and science dichotomy, on the one hand, and his affirmation of determinism in the last instance by the economy, on the other, suggest to us an unwillingness finally to free his own texts from determinist thinking,” (Resnick and Wolff 1996: 172) few would deny that “Althusser is especially important for those postmodernists who are serious about Marxism and those Marxists who are serious about postmodernism. His work is the first effort systematically to engage the project of integrating these two movements theoretically.” (Ibid: 189) Although earlier Althusser tried to restore the position of Marxism as science by emphasizing his epistemological break with Hegelian thought, critical realism or analytical Marxism seem to be regarded as the only way of giving Marxism as “science” more power especially for scholars that are serious about the pitfalls of postmodern perspective¹.

What leads to a big chasm among these three camps, then? In my paper, I contend that one of the important factors can be found in their different perspectives of causality that are inexorably connected to another important key concept, i.e., totality. As Cullenberg(1996: 120) addressed rightly, “One of the most important debates in Marxian theory has concerned the

¹ Outhwaite(1987: 16) interestingly mentions, “Marxists have never felt comfortable with relativism, and in the end it was the apparently relativistic consequences of the new philosophy and history of science which seemed more important and threatening. For whatever reason, many of the most significant recent contributions to realist philosophy of social science have been made by writers sympathetic to Marxism.”

manner in which the social totality should be conceived. Related to concerns over the structure of the social totality is the issue of causality.” However, there must be another important reason, that is, the lack of constructive criticism among them since I believe some typical criticism is pretty much based on misunderstanding, underestimation, or overemphasis. This is why I would like to lead productive debates by intentionally focusing on some similarities among them in addition to comparing their different positions on the philosophy of knowledge.

My provisional conclusion is as follows: First, analytical Marxism and critical realism have something in common with each other in the sense that both of them are well aware of serious limitations of the positivistic approach to causality while underlining the investigation of social mechanisms, but only critical realism is able to develop alternative perspectives and concepts to the fullest. Second, structural causality and over-determinism are powerful tools to correct mistakes any essentialism would produce, but these concepts are employed as sort of metaphors on the one side, and postmodern Marxism does not seem to fully understand why explanations of individual actions should be made in some situations to explore causal mechanisms on the other side. Next, critical realists, like postmodern Marxists, always have the risk that there is no agency in their structural analysis of social mechanisms by stubbornly arguing in favor of methodological holism. Lastly, positivism has received severe criticism from critical realism for a long time, but some of them seem to be proposed at the cost of the underestimation of a series of self-corrections within the camp of positivism. Especially, structural equation models, albeit still problematic for some reasons, are symptomatic of the upgraded understanding of causality post-positivists have achieved over the past decades.

2. Analytical Marxism

It is hard to find explicit and elaborated conceptualization of causality and its discussion in this school, to my meager knowledge. Fortunately, two books, *Nuts and Bolts for the Social Sciences*² and *Making Sense of Marx*, written by Elster give us some useful information of the overall position of analytical Marxism on scientific explanation. “To explain an event is to give an account of why it happened. Usually, and always ultimately, this takes the forms of citing an earlier event as the cause of the event we want to explain, together with some account of the causal mechanism connecting the two events.” (Elster 1989: 3) This paragraph alone does not tell us about how much close to empirical positivism his perspective is. His argument that follows is so a good starting point for discussion that it is worth quoting at some length.

He continues to argue, “Statements that purport to explain an event must be carefully distinguished from a number of other types of statement.” (Ibid: 4) First, causal explanations must be distinguished from true causal statements. To cite the cause is not enough: the causal mechanism must also be provided, or at least suggested. (Ibid: 4) Second, causal explanations must be distinguished from assertions about correlation. Sometimes we are in a position to say that an event of a certain type is invariably or usually followed by an event of another kind. This does not allow us to say that events of the first type cause events of the second, because there is another possibility: the two might be common effects of a third event (Ibid: 5).

The first point indicates that statistical approaches predicated on positivism seem to be satisfied with showing some statistical significance between variables without suggesting any social processes that lead to such result. Next, the problem of the possibility of spurious

² This book, although not well known, has attracted sociologists that especially are interested in the application of game theory or rational choice theory to social phenomena, regardless of their position on Marxism.

relationship leads us to pay due attention to controlling for other variables on the one hand, although that covariation is just one necessary condition for causality became common knowledge in positivism. On the other hand, this statement also connotes another important criticism of empirical positivism: there might be different ways to explain the same result. In other words, there might be different mechanisms that cause the same result. In this way, observable events should be regarded as the outcome of complicated combination of mechanisms, that is to say, the conjuncture of them.

Third, causal explanations must be distinguished from assertions about necessitation. To explain an event is to give an account of why it happened as it happened. Objecting to Hempel's argument that explanation amounts to logical deduction to the event to be explained with general laws and statements of initial conditions as the premises, Elster underscores the distinction between laws and mechanisms because general laws might reflect correlation not causation, and they, even if genuinely causal, might be preempted by other mechanisms (Ibid: 6-7). In this sense, casual explanations must be distinguished from predictions. "What they (social sciences) are more rarely able to do is to state necessary and sufficient conditions under which various mechanisms are switched on. This is another reason for emphasizing mechanisms rather than laws. Laws by their nature are general and do not suffer exceptions. One cannot have a law to the effect that 'if p, then sometimes q.' Mechanisms, by contrast, make no claim to generality." (Ibid: 9-10)

Lastly but not least, causal explanations must be distinguished from story-telling although he does not deny contributions of story-telling as a starting point to empirical research. A genuine explanation accounts for what happened, as it happened, while telling a story is to account for what happened as it might have happened. (Ibid: 7). It should not be ignored that story-telling in his context is description, exactly saying, "law-like generalization at a lower

level of aggregation” (Elster, 1998: 48) as opposed to causal explanation rather than telling the story used in postmodernism postmodern Marxism as opposed to the overarching explanation of reality and the preoccupation with truth, that is, a singular comprehensive explanation.

Put together, his overall statement of causal explanations seems to be far from orthodox positivism. Analytical Marxism has received the bitter attack from postmodern Marxism for several reasons, however. Above all, the mechanistic or linear concept of causality for analytical Marxists is very problematic (Cullenberg 1996: 129). “To understand the consequent motion of the billiard balls, one need only examine the initial conditions, or ultimate cause (i.e., the striking of the cue ball), along with the independently existing environment in which the billiard balls interact.” However, he does not provide enough evidences that the concept of causality for analytical Marxism is really based on ‘causes are separate from effects, causes being the properties of subjects, and effects the properties of objects.’ (Ibid: 129, originally from Levins and Lewontin(1985)) Indeed, he discusses the mechanical concept of totality proposed by Descartes, one of scholars who advocate the Cartesian totality, and then declares that analytical Marxism is on the same line of thought. Finally, after touching causality very shortly, his focus is moving on to the Cartesian totality analytical Marxism is rooted in where parts exist prior to and independent of wholes. In this sense, his primary concern from the beginning is about totality coupled with the issue on methodological individualism as opposed to methodological collectivism rather than causality, which is also ascribed to the fact that totality is actually the same with causality in the usage of postmodern Marxism: mechanical, expressive, and structural.

However, I cannot overemphasize that the concept of causality and the view of totality in analytical Marxism are tightly connected with each other in another sense. As I see it, Cullenberg also understands this point, but not fully or differently.

“What reasons have analytical Marxists given for the enthusiastic manner in which they have embraced methodological individualism? I have already explained how Elster and Roemer adopted methodological individualism in order, in their view, to avoid the functionalism and teleology of much of traditional Marxian theory... On one level, some analytical Marxists see methodological individualism as the obviously, exclusively correct approach for ‘modern’ social science... Elster also provides a rationale for methodological individualism based on a defense of reductionism. For Elster, ‘if the goal of science is to explain by means of laws, there is need to reduce the time-span between explanans and explanandum – between cause and effect – as much as possible, in order to avoid spurious explanations...’ In terms of the billiard ball metaphor introduced above... Not to do so would be tantamount to explaining the sinking of the billiard lab in terms of God’s will or as the teleological result of some pre-designed plan.” (Ibid: 131-3)

I have different ideas about the key point in what was quoted: it is Elster’s emphasis on the importance of causal inferences that leads to his preference for methodological individualism. In other words, it is crucial to comprehend why social scientists need to reduce the time-span between explanans and explanandum as much as possible. “The latter (spurious explanations) arise in two main ways: by the confusion of explanation and correlation, and by the confusion of explanation and necessitation... Both of these risks are reduced when we approach the ideal of a continuous chain of cause and effect, that is when we reduce the time-lag between explanans and explanandum.” (Elster, 1986: 5) Without getting down to this point, we cannot understand why he should care about placing methodological individualism at the center of causal explanations of social mechanisms in social sciences generally and Marxism particularly.

Taken together, although Cullenberg(1996: 131) contends that many other Marxists can escape the limitations of methodological holism without appealing for so-called micro-foundation approach, one of the justifiable reasons why Elster stresses the importance of methodological individualism is that “when we go from macro to micro, from longer to shorter time-lags,” (Ibid: 5) we are able to explain social processes, without being trapped in the pitfall

of explanations which still remain at the system level, especially functionalism or teleology very frequently found in traditional Marxism. Another, it would be exaggerating to say that analytical Marxists stubbornly argues that all of social structure as a (structured) whole without any exception can be reduced to or regarded as the sum of parts since they implicitly admit that the interaction among individuals always results in what is called in sociology emergent properties at the system level and institutional structures operate as both opportunities and constraints to actors, which could be summarized as the transition from macro-level through micro-level to macro-level.

Nevertheless, Elster's argument that methodological collectivism can never be a desideratum, only a temporary necessity (Elster, 1986: 6) does not pay careful attention to how to explain social phenomena at the macro level that has the huge scale of time and space, as I am going to discuss this later on from the vantage point of macro-micro link. However, when causal analysis moves towards macro level, or that analysis still remains at the system level, the issue lingers on about how to conceptualize the relationship between structure and agency: This problem, although Cullenberg(1996: 134) points out that the deployment of methodological individualism in formal Marxian analyses subverts the desired 'agency' of the individuals to a structural determination specific to their respective position in the model and thereby a tension still persists between the role of the agent and the role of structure in analytical Marxism, is also tough for postmodern Marxism and critical realism since both of them are on the same boat in the sense of criticizing methodological individualism particularly or explanations of individual actions generally. To summarize, for instances, how to tackle the relationship between structure and agency from the perspective of methodological collectivism without falling in any functionalism (e.g. the relationship between base and superstructures) or teleology (e.g. the transition from capitalistic societies to alternative societies)? Is it reasonable to attribute causal

power (in critical realism) or structural causality (in postmodern Marxism) to social structure (e.g. the contradiction between the force of production and the relations of production; recall thermal dynamics equations at the system level in physics and chemistry) separately from actors' practices (e.g. class struggle; the movement of atoms or molecules)?

3. Postmodern Marxism

Like Cullenberg, Balibar also emphasizes that the concept of causality is located at the heart of theoretical debates on Marxism.

“On the contrary, the kind of question that was at stake is: in which sense did Marx’s revolutionary standpoint open a new ‘continent,’ that of the historical process? Also, is there here a possibility of overcoming the classical alternative of the natural and the social sciences? But such a possibility exists only if the question is asked at a more basic level, the level of the nature and models of causality.” (Balibar, 1996: 114)

As is well known, there are three different concepts of causality according to those who follow Althusser. The first one, “the mechanistic system, Cartesian in origin, which reduced causality to a transitive and analytical effectivity, could not be made to think the effectivity of a whole on its elements.” (Jameson, 1982: 24, originally from Althusser and Balibar’s *Reading Capital*) The second approach to causality is expressive one, sometimes called Hegelian version of historicism. This overcomes the limitation of the mechanical concept of causality by taking into account the effectivity of a whole on its elements, but it is still problematic since “it presupposes in principle that the whole in question be reducible to an inner essence, of which the elements of the whole are then no more than the phenomenal forms of expression, the inner principle of the essence being present at each point in the whole.” (Ibid: 24, originally from the same book) The

last one, structural causality implies that “the effects are not outside the structure, are not a pre-existing object, element or space in which the structure arrives to imprint its mark: on the contrary, it implies that the structure is immanent in its effects, a cause immanent in its effects in the Spinozist sense of the term, that the whole existence of the structure consists of its effects, in short, that the structure, which is merely a specific combination of its peculiar elements, is nothing outside its effects.” (Ibid: 24-5, originally from the same book)

It seems to me that Spinoza’s concept of causality in particular and his philosophy in general deeply affect Althusser’s way of rethinking Marxism especially at the later stage. I do not have any enough knowledge of his philosophy, but, roughly summarizing, 1) infinite substances are the cause of all phenomena, either natural or social ones, 2) causes are always expressed in the form of effects, and thereby cause can exist without, outside, or before its effects. This concept of causality coupled with overdetermined contradictions and the structured whole is very different from Hume’s propositions on causality (especially, the constant conjuncture of events) prevalent in positivism or Hegalian version of contradictions, but it is similar to the critical realism’s standpoint since both of them fully regards structures as open systems characterized by infinity that are not irreducible to the sum of parts in terms of totality and causality as well.

“Althusser’s Marxist totality neither reduces the parts to an expression of the whole, as does the Hegelian totality, nor the whole to the aggregation of its independently constituted parts, as does the Cartesian totality. Instead, the Marxist totality is conceived to be thoroughly nonessentialist as the parts (contradictions, for Althusser) mutually constitute one another... The reflection, or mutual constitution, of each and every contradiction rejects any form of unidirectional, or one-sided, causality, whether of the form essence-and-appearance (Hegalian) or cause-and-effect (Cartesian). Instead, overdetermined causality is multisided, reflecting and absorbing the mutual determinations of all the totality’s contradictions.” (Cullenberg, 1996: 136-38)

Getting down to the question I raised before, let me begin with the postmodern Marxist's criticism of methodological individualism in analytical Marxism. "The main theoretical enemy that they shared was theoretical humanism or, as described above, the Cartesian totality. The dominant variant of theoretical humanism to which Althusser directed his attention is a form of methodological individualism, as it derives its social explanations on the actions of preexisting subjects." (Ibid: 135-6) How to theorize the interactive nature of individual and structure without invoking modern subjects generally or subjects with rationality particularly almost all of existing theories explicitly or implicitly assume, then? To put it another way, how to interpret the following propositions and making the two compatible with each other?: "The history of all hitherto existing societies is the history of class struggle." In this way, "Men make their own history, but not of their own free will; not under circumstances they themselves have chose but under the given and inherited circumstances with which they are directly confronted."

Although this problem is very important for non-reductionist explanation, I am afraid that postmodern Marxism does not have the exemplary solution in her school. For examples, Cullenberg, and Resnick and Wolff indeed avoid this problem, intentionally or not, by focusing on totality in some times and causality in some other times. That is to say, the meaning of parts when talking about totality, i.e., individuals as opposed to social structure as a whole, is different from the meaning of parts when saying about causality, i.e., contradictions or different levels of structures, which makes us to misleadingly understand as if the concept of overdetermination is the solution to the issue of structure and agency. However, overdetermination implies that different levels of structures with relative autonomy as a complexly articulated whole are intertwined with each other, influencing each other, in the ontological sense. Therefore, the lingering issue of the duality of action and structure still remains as untouched even though overdertermination helps to keep away from economic determinism.

Next, let us turn the attention to another important problem proposed by Wolff.

“The history of human efforts at explanation displays two broad sorts of presumptions about what explanation can (and should) be. Confronting the daunting infinite and fleeting factors that might possibly be conceived to constitute or cause the existence of any object of explanation, most people have responded with essentialisms. That is, they have structured their explanatory strategies around the following idea: one or a few essential causes lie within, at the bottom, beneath, or behind what is viewed as a merely ‘apparent’ multiplicity of conceivable causes... Beyond rank-ordering the effectivities of causes, essentialist explanation also included (a) justifying the privileged rank accorded to the ‘essential’ causes by showing the ‘scientific’ procedure used to find them and (b) demonstrating the precise mechanism whereby they were effective.” (Wolff 1996: 153-4)

In this regard, what overdeterminist explanation means and how it can be done is the acid test for postmodern Marxism. For anti-essentialists, instead of truth in the sense of a singular comprehensive explanation, alternative explanations that compete with each other or make up for each other, “each of which grasps parts of the infinitely complex linkages among possible objects of thought.” (Ibid: 155) This is why postmodern Marxists arguably contends, “Explanation gives way to the differently directed notions of ‘alternative interventions’ or ‘taking positions’ or, more simply, ‘telling stories.’” (Ibid: 155) Hence, postmodern Marxists underline that it is important to acknowledge that different world-views might have different entry points. “Thinking, like all other social processes, is overdetermined by all the other social processes. It is thus replete with the complex contradictions that such overdeterminism entails. One form that these contradictions can and typically do take is the coexistence of different theories, since differently overdetermined thinkers find different entry points into social analysis persuasive.” (Resnick and Wolff, 1996: 177) Aside from the issue whether choosing an entry point is more likely to induce any version of essentialist explanation or not given that this helps

to obviate pluralistic approach³(Cullenberg, 1996: 144), what makes postmodern Marxism different from other schools driven by the perspective of postmodernism, then? The answer might be that postmodern Marxism has ‘class’ or ‘class processes’ as its entry point⁴.

However, taking a closer look at the class analysis by postmodern Marxists, it feels like overdeterminist explanation that starts with class processes is still problematic. Let me give just one example. Postmodern Marxists’ criticism of existing approaches to class analysis is directed at 1) the definition of class as power, and/or property concepts, or a complex composite entity of several different elements including power and/or property, 2) the reductionism. (Wolff and Resnick, 1986: 104) Especially, with regard to the classical debates on what implications the emergence of joint-stock companies and professional managers has, they contend that prevalent theories, without finding another way of thinking classes, that is, class-as-surplus-labor theory, have oscillated between property-based approach and power-based approach. They advocate repeatedly the importance of non-reductionism drawing on Althusser, however they seem to assume that there are “reified” distinctive spheres or processes such as economic, political, cultural one, and then all of these processes are intertwined with each other in terms of overdetermination. “Power, property, technology, and consciousness are all social processes irreducibly different from one another and from the class process.” (Ibid: 115) Above all, one of the pitfalls of this reification is that power is not any more something that operates in class

³ In other words, the emphasis on overdetermination in the “epistemological” sense would lead to pluralistic approach, but postmodern Marxists argue that they are driving in the middle way between non-essentialism and non-pluralism with the help of entry points.

⁴ Is there any special reason postmodern Marxists insist in starting with “class”? Why class out of many other important heuristic concepts to better understand capitalistic societies? It seems to be that one of the primary reasons is arguably related to political alliance with new social movement and radical democracy rather than to theoretical concerns (e.g. through the lens of class) although I admit that the analytical framework of class processes in postmodern Marxism is consistently and closely connected to their positions on various issues such as alternative capitalism, justice, and so forth. In this sense, I think class as an entry point is different from, for example, gender as entry point in feminist theories.

processes. “This kind of theory of class does not reduce all the myriad non-class aspects of social life to mere effects of some ultimately determinant set of class processes. Nor do we reduce class processes to being mere effects of non-class processes such as interpersonal power/authority relations or consciousness.” (Ibid: 114) Then, what remains for class process? They are ready to say that class processes are actually connected to only economic process⁵? It is no exaggeration to say that postmodern Marxists seem to define class process in the narrower sense than other scholars, and then consider complicated interaction between class processes and non-class processes⁶.

4. Critical realism

Unlike classical empiricism or transcendental idealism, transcendental realism regards the objects of knowledge – knowledge produced in the social activities of science – as the structures and mechanisms that generate phenomena. These objects are neither phenomena (empiricism)

⁵ As I mentioned in the first term paper, equating class processes with the economic, in terms of surplus appropriation and its distribution, based on the quantitative concept of exploitation was destined by the lack of the qualifiable concept of exploitation.

⁶ This is why this line of thought, I am sure, makes their approach something similar to what is called contract-centered theory of corporations that regards them as a nexus for a set of contracting relationship among individuals such as shareholders, managers, financiers, and so on. In this sense, I cannot agree with their criticism of Bowles and Gintis’s theory of corporations. Wolff and Resnick said, “A critique of economic determinism propels its proponents to a political (power and domination relations) determinism instead. For Bowles and Gintis, class is certainly a composition relation of production involving power, ideology, and economics in the narrow sense of surplus labor appropriation. However, they proceed to reduce the extraction of surplus labor itself to an effect of power... For them, power is the essence of class, its determining component.” (Ibid: 111) However, Wolff and Resnick instead did not pay enough attention to political struggles in corporations over who controls labor process and how. In other words, corporations are not sort of contested arena for postmodern Marxists, which finally make their arguments about the appropriation and distribution of surplus labor, summarized by $SV=SC_I+SC_O+SC_C+SC_R$, something that is not that different from contract theory proposed by those who follow Jensen and Meckling or Alchian and Demsetz.

nor human constructs imposed upon the phenomena (idealism) but real structures which endure independently of our knowledge, our experience, and the conditions which allow us access to them (Outhwaite, 1987: 32) In this sense, the bottom line of critical realist approach is the question, “how science is possible” and its answer, “by rekindling our attention to ontology.” This is why Bhaskar raises the key question, “What properties do societies possess that might make them possible objects of knowledge for us?” (Bhaskar, 1998: 25)

How has critical realism tried to answer to causality and totality in a different way, then? Since critical realists do not explicitly mention analytical Marxism or postmodern Marxism, it is difficult to pick up some agenda for the dialogue with either of them from their criticism of positivism. Nevertheless, firstly regarding causality, “Realists, by contrast, analyze causality in terms of the natures of things and their interactions, their causal powers (and liabilities)... Unlike a constant conjunction analysis, which logically presupposes that the system within which ‘causal’ relations are observed is isolated from extraneous influences, a realist analysis of causality can account for the interaction of various causal tendencies within the complex and open systems among which we live, and which we ourselves are.” (Outhwaite, 1987: 21-2) On the realist view, causality concerns not a relationship between discrete events (‘cause and effect’), but the ‘causal powers’ or ‘liabilities’ of objects or relations, or more generally their ways-of-acting or ‘mechanism’. Casual powers and liabilities may thus be attributed to objects independently of any particular pattern of events; that is, not only when ‘C’ leads to ‘E’, but also sometimes when ‘C’ does not lead to ‘E’ (Sayer, 1992: 104-105). Based on this line of thought, they point out some erroneous assumptions in social sciences (Ibid: 126): 1) Causation is indicated by regularity – indeed that the latter is a necessary condition of the former; 2) Laws refer to universal empirical regularities, plus in many cases; 3) Reasons cannot be causes; 4) Hermeneutics can be eliminated so that the methods of social science are identical to those of

natural sciences; and 5) The task of social studies such as history is to understand the meaning of their objects and not to explain them causally.

When it comes to 1) and 2), critical realists think it important to investigate underlying causal powers behind social processes. It might be helpful to investigate causal mechanisms to find regularities of empirical phenomena in the sense of the constant conjunction of events, but it is necessary to make a distinction between correlation and causation since effects are produced by the combination of different causes (or tendencies). In this regard, "Since things happen in open systems, the constant conjunctions presupposed by the empiricist account of causation can only be the product of experimental closure: the isolation of the explanandum from extraneous influences." (Outhwaite, 1987: 31)

Critical realist approach to causality seems like similar to analytical Marxism in one sense and postmodern Marxism in another sense. On the one side, critical realism and analytical Marxism are well cognizant of unavoidable limitations of the approach of empiricism and positivism to causality although the latter does not seem to care about ontological assumptions. For instance, according to Elster(1998), the type B mechanism arises when we can predict the triggering of two causal chains that affect an independent variable in opposite directions, leaving the net effect indeterminate, while the type A mechanism arise when the indeterminacy concerns which (if any) of several causal chains will be triggered. In the similar vein, "Whether a causal power or liability is actually activated or suffered on any occasion depends on conditions whose presence and configuration are contingent... The relationship between causal powers or mechanisms and their effects is therefore not fixed, but contingent... To say that the relationship of a power to its conditions is contingent is not to suppose that the latter are uncaused, only that they are caused by different mechanisms." (Sayer, 1992: 107) This is called the generative concept of causality that is completely different from the concept of causality

suggested by Hume or Mill. In this way, for both of them, causes are regarded as tendencies that might or might not interact with other tendencies to produce effects at the empirical level.

On the other side, the departure point of critical realism in terms of ontology is that structures are expressed in observable effects through mechanisms, which is not that different from the concept of causality in postmodern Marxism. Just as critical realism emphasizes open systems, so causality in postmodern Marxism, especially affected by Spinoza, is based on the concept of structure as an infinitely complex whole. “No explanation can come close to grasping the infinity of causal relations constituting any object. The essentialist belief that its explanations can grasp the infinity, because it is governed by a finite (indeed, quite small) essential subset of causal relations at its core, is rejected.” (Wolff, 1996: 154) Furthermore, recognizing structures as open system helps to direct their attention to ontological overdetermination in critical realism. “Where the operation of two or more mechanisms each brings about the same effect simultaneously, the situation is sometimes said to be ‘overdetermined’. The low social position of an immigrant woman is overdetermined – by class position and racial and gender discrimination.” (Sayer, 1992: 108) Lastly but not least, at first glance, it seems that critical realists are completely different from postmodern Marxists in the sense that they think scientific explanation desirable and possible. However, it should not be ignored that critical realist approach has nothing to do with the preoccupation with truth in the sense of a singular comprehensive explanation in terms of “epistemological overdetermination”. Indeed, one of the virtues for critical realism is arguably ontologically bold and epistemologically cautious but open. “Things exist and act independently of our descriptions, but we can only know them under particular descriptions... Science... is the systematic attempt to express in thought the structures and ways of acting of things that exist and act independently of thought.” (Outhwaite, 1987: 20, originally from Bhaskar(1978: 250)) As Outhwaite points

out rightly, there is no philosophical concept of Truth which can provide the ultimate seal for a particular account from the perspective of critical realism. (Ibid: 33-34)

Next, in terms of totality, critical realism basically takes the opposite position on methodological individualism because structures cannot be reducible to individuals or their actions. Looking at the following paragraph, Bhaskar's argument is basically gives pretty much the same impression as Marx's.

The conception I am proposing is that people, in their conscious activity, for the most part unconsciously reproduce (and occasionally transform) the structures governing their substantive activities of production. Thus people do not marry to reproduce the nuclear family or to work to sustain the capitalist economy. Yet it is nevertheless the unintended consequence (and inexorable result) of, as it is also a necessary condition for, their activity. (Outhwaite, 1987: 51, originally from Bhaskar(1979: 43f))

He suggests four types of approaches to the duality of structure and agency: 1) The Weberian stereotype 'voluntarism'⁷; 2) The Durkheimian stereotype 'reification'; 3) The dialectical conception 'illicit identification'; 4) The transformational model of the society/ person connection. Whereas the structure/agency model of analytical Marxism is between the first one and the third one since analytical Marxism does take into account emergent properties, but it still does not actively consider the duality of structure in Giddens's term, in the last model Bhaskar suggests as the alternative to the first three, "People do not create society. For it always

⁷ "Weber combined a neo-Kantian methodology with a still essentially individualist conception of sociology. His break from utilitarianism is primarily at the level of the form of action or type of behavior he is prepared to recognize, not at the level of the unit of study." (Bhaskar, 1998: 31) I agree to his assessment, but as I see it, Weber also has much affinity with another version of methodological individualism proposed by analytical Marxism. One example frequently used in sociological literatures is about how to explain that Protestantism led to the emergence of the Western capitalism at the macro level through the aggregated effect of the economic behavior of individuals at the micro level, i.e., from macro through micro to macro.

preexists them and is a necessary condition for their activity. Rather, society must be regarded as an ensemble of structures, practices and conventions which individuals reproduce or transform, but which would not exist unless they did so. Society does not exist independently of human activity (the error of reification). But it is not the product of it (the error of voluntarism).” (Bhaskar, 1998: 36)

However, I am afraid that there are still some problems with critical realist’s critique of methodological individualism. The first one again is about how to overcome one of the inescapable limitations of methodological holism for the investigation of causal mechanisms that there is much more chance of falling in the error of spuriousness when explanations still remains at the system level. Another related important problem is that critical realism has the tendency to ascribe causal powers to the real structures separately from activities because of the emphasis on methodological holism as well as its ontological assumption. This issue again comes down to the old debate on the similarities and differences between natural sciences and social sciences: natural phenomena are significantly different from social phenomena by nature since the former is related to ‘cause’ and its effect, while the latter is connected to ‘reason’ and furthermore society is *sui generis* real.

Both the ‘hermeneutic’ and the ‘critical theory’ critiques of positivism had extremely little to say about its status as a philosophy of ‘natural’ science. As he sees it, the main initial impact of hermeneutics and critical theory was in stressing the distinctiveness of social sciences from natural sciences, while the realistic critique of positivism claimed that positivism had radically misunderstood the natural sciences⁸, and suggested that natural and social science may not, after all, be so radically different in their methods (Outhwaite, 1987: 14).

⁸ One of the most common examples might be about the principle of uncertainty in physical chemistry. It challenges the idea that the inquirer does not influence the phenomena even in natural sciences.

With regards to 3), 4) and 5) above, borrowing Weber's influential proposition, when sociology is a science concerning itself with the 'interpretive' understanding of social action and thereby with a 'causal explanation' of its course and consequences, how these seemingly contradictory two objects can be achieved? In other words, what does this mean by investigating causal mechanisms in social sciences?⁹ From the perspective of critical realism, reasons are certainly different from physical causes, it does not mean that they cannot be the causes of certain events since all activities "presuppose conditions such as material resources and social structures, including the conventions, rules and systems of meaning in terms of which reasons are formulated." (Sayer, 1992: 112) In a word, reasons can operate as causes in the senses that they are responsible for producing a change, which is supported by the transformational model of action and the duality of structure and agency from the vantage point of critical realism. Furthermore, Bhaskar qualifies his argument, suggesting three ontological limitations on a possible naturalism (Bhaskar, 1998: 38): 1) Social sciences, unlike natural structures, do not exist independently of the activities they govern, 2) Social structures, unlike natural structures, do not exist independently of the agents' conception of what they are doing in their activity, 3) Social structures, unlike natural structures, may be only relatively enduring (so that the tendencies they ground may not be universal in the sense of space-time invariant).

Nonetheless, the last problem is, given that critical realists are also concerned with the issue of structure and agency in terms of the unit of analysis or the macro-micro link, that critical realist's position on methodological individualism might be a little stiff, which is more likely to induce functionalism-based explanations inadvertently in spite of the transformational model of social activity and three ontological limitations above. Fortunately, exceptionally some

⁹ As Sayer asks timely, "Now it might reasonably be objected that many of my examples in this discussion have been of physical causes, with the consequence that the applicability of causal analysis to the study of society might still be in doubt." (Sayer, 1992: 110)

of critical realists are more open to the debate on methodological individualism and methodological holism. For example, Sayer is very careful about the pitfalls of critical realism particular and structuralism generally.

“While abstraction by means of structural analysis is useful it does not explain origins. The assumption that such inferences can be drawn purely from this kind of analysis is the prime error of functionalism... ‘Structuralist’ approaches drew much of their strength through countering the individualist and voluntarist view... At worst, the ‘subjects’ were ‘written out’ altogether, producing a dehumanizing social science.” (Sayer, 1992: 97)¹⁰

In this aspect, I could not agree more with his following advice: “If we recall our earlier warnings against functionalist explanations, it must be remembered that merely noting these necessary conditions is not sufficient to explain how they are met, if they are. To do this we must refer back to the level of actions. This movement also illustrates the interdependency of structure and agency, once again.” (Ibid: 113) On the similar vein, for another instance, Outhwaite seems to make a conclusion that the lingering issue on structure and agency comes down to the selection of appropriate level of analysis.

“Once we have correctly understood the terms of the ontological relations between action and structure, along the lines of Giddens’s conception of the ‘duality of structure’ and Bhaskar’s ‘transformational model of social activity’, we can see the issues of action-theoretical and individualistic reduction for what they are: namely, methodological questions about appropriate levels of abstraction, governed in each case by the pragmatics of the research process.” (Outhwaite, 1987: 113-4)

¹⁰ He has another important point. “There is an additional but more general risk in the over-extension of structural analysis and approaches which emphasize the rule-governed character of action; this stems from an unacknowledged effect of the observer’s standpoint on what he or she sees: another kind of intellectualist fallacy.” (Ibid: 97)

In this regard, as I see it, one of the convincing answers to the micro-macro link is proposed by Collins(1988). He suggests two dimensions, time and space, and then argues that micro and macro should not be taken as absolute categories, but as the poles of a continuum. For example, studies of long-term social change in the entire world system are located at the most macro level, while researches on very long changes in more compact structures such as particular states or institutions are regarded as less macro. In this sense, “the issue, ultimately, is not whether what is smaller is more fundamental, but what level of time and space contains the substantive mechanisms which drive the others. If we are to push for micro reduction or micro translation, to what level should the reduction take place?” (Ibid: 389) For instances, “the world system can be reduced to the behavior of particular states or economies; or more plausibly. Political structures ought to be reduced to a series of organizations, or even to informal networks within organizations.” In sum, what is the most important issue is to decide which level has the most powerful theory in its consequences for other levels.

5. In defense of statistical causal inference

Both analytical Marxism and critical realism, not to mention postmodern Marxism, do not have the preference to statistical inference of causal mechanisms. For instance, Elster seems to be skeptical about causal inferences based on statistics as follows.

“When opposing explanation by mechanisms to explanation by laws, I have assumed that the latter is invariably deterministic. Much social science, however, relies on statistical explanation, a procedure notoriously plagued by many conceptual difficulties. One cannot use statistical explanation to account for individual cases, although it is often used in that way. Also, in this mode of analysis, it is particularly difficult to distinguish causation from correlation. I believe the mechanism approach provides yet another reason why statistical explanations tend to be weak and unreliable.” (Elster, 1998: 69)

Similarly, critical realists argue that experiments are not always possible even though they admit that experiments are helpful for clarifying the effects of social structures since conditions are controlled. Additionally, they have emphasized the combination of qualitative methods and quantitative methods (e.g. triangulation), but “the value of statistics is depreciated as our knowledge of causal mechanisms becomes more complete, although statistical methods might be used to model the relative quantitative dimensions of a group of processes.” (Sayer, 1992: 192) Besides, if statistical causal inferences are to gain any plausibility, “they must be supplemented by realist appraisals based on qualitative causal and structural analysis.” (Ibid: 193)

There seem to be legitimate reasons why even both of them that advocate scientific explanation of causal processes do not have any preference to statistical approach to causal inference. Above all, positivistic researchers have been avoided the critical evaluation of their methodological assumptions by narrowing the debates to technical issues. For example, they should have answered to “what objects must be like for it to be possible to quantify them” or which social processes can be adequately represented mathematically.” (Ibid: 176-77) Besides, positivistic researchers have mistaken correlation for causation, which comes from the problematic propositions by Hume about the constant conjuncture of events. As is well known, the possibility of spurious relationship indicates that regularities are not sufficient conditions for the identification of causes (Ibid: 193). “Given the disjunction between mechanisms and events, a strong correlation need not imply causation, nor a weak one absence of a causal or structural relation.” (Ibid: 194) To the disappointment, they do not care about the investigation of social processes based on structural analysis so much as the detection of the correlation of observable variables. As the last example, Sayer pinpoints rightly, “Observations are supposed to be independent of one another so that one does not end up seeking statistical associations among

observations of the same individual or connected individuals. The independent variables used to ‘explain’ variation in the dependent variable of a multiple regression equation are supposed to be independent of one another and their combined effects purely additive.” (Ibid: 197)

I do not mean to deny the validity of the overall critique of positivism-based statistical approach, but there are some problems with common stereotypes of critical realism about statistical methods. My argument here is that critical realists as well as analytical Marxism have never listened carefully to the self-critique of positivism, the philosophy behind causal inference based on structural equation models (SEMs hereafter) is not that far from critical realism. In a word, SEMs is arguably one of the most promising solutions to how to explore causal mechanisms with quantitative methods while incorporating some crucial points proposed by critical realists.

Before further discussion, let me think about what graduate students learn about the concept of causality in introductory classes of statistics or methodology. “Indeed, at the heart of all scientific explanations is the idea of causality; that is, an independent variable is expected to produce a change in the dependent variable in the direction and of the magnitude specified by the theory... In practice, the demonstration of causality involves three distinct operations: demonstrating covariation, eliminating spurious relations, and establishing the time order of the occurrences.” (Frankfort-Nachmias and Nachmias 2000: 92-93)¹¹ These three conditions for causation are derived from Mill, but Hume suggested three conditions for inferring cause: 1)

¹¹ Here is another typical example, though more sophisticated. According to Stinchcombe (1968: 31-38), the causal law means the following statements. 1) A change in x (in some defined environments) is associated with a change in y – there is a correlation between the two variables. 2) One can produce the change in one variable by changing another variable, but not the other way around. 3) There does not have to be any change in other variables for independent variable to have its effect on dependent variable. In this way, most textbooks stress three conditions for causal relationship: covariation, nonspuriousness coupled with the problem of control, and time order (or casual direction: reciprocal (or inverse) causal relations) coupled with the problem of manipulation.

contiguity between the presumed cause and effect, 2) temporal precedence, in that the cause had to precede the effect in time, and 3) constant conjunction, in that the cause had to be present whenever the effect was obtained (Cook and Campbell, 1979: 10). Last but not least, textbooks do not forget about stressing that experimental control is much more effective for the test of causal theory than statistical control¹².

Back to the previous theme, what responses to the critique of positivism have been suggested? Blalock (1964)'s discussion about the concept of causality is the useful starting point since he is one of the positivistic scholars that came to realize that several problems arise when handling causal relations with statistical methods. At the beginning, he emphasizes that there seems to be considerable confusion of terminology and almost a conspiracy of silence in dealing with the problems of causality (Blalock, 1964: 38). Similar to Sayer who dubs mathematics as an acausal language, Blalock following another positivist, Bunge, points out, "this notion of a cause as a producing agent makes it difficult to translate the concept into abstract logical or mathematical languages. Producing refers to an ontological process, i.e., to what exists in the real world. It is something over and above what can be expressed in formal languages. Likewise, it has a reality apart from the observer and his perceptions." (Ibid: 9) In this aspect, this statement implies that positivism seemed to expect one of critical realism's critiques that they do not differentiate ontology with epistemology, which means they equate the world with what

¹² Chalmers (1990: 66-67) gives a good example about caveats in empirical positivism and its concept of causality based on one of Hume's arguments, so-called "constant conjunctions of events," that is, 'whenever an event of type A occurs, then an event of type B follows,' or 'whenever an event of type A is observed to happen, then an event of type B is observed to follow.' "There are few, if any, observable regularities to be discerned in the observable world around us, so that, for example, strong contenders for such generalities as 'objects denser than water sink in water' are violated by floating needles and water insects." However, the finding of anomalies does not seem to undermine positivism since this might not be problematic any more if the operation of surface tension is considered or controlled. Rather, the problem again comes down to whether the perfect control is really possible and how we can decide what to control without knowing relevant variables in causal mechanisms.

can be observed. Besides, just as Sayer(1992: 179) addresses, “ $y=f(x)$ say nothing about what makes y or x , only that quantitative variation in y is formally (not substantially) related in some way to quantitative variation in x ”, so he must be concerned that it is harder than expected to represent structural relations and forces in them with mathematics even though the concept of causality in positivism has been transformed from the deterministic view of causality predicated on Hume or Mill ($y=ax$: this means that x as cause is necessary and sufficient condition for y as effect) to probabilistic view of causality ($y=ax+e$: e is disturbance) (Bollen, 1989: 43). Blalock(1964: 10) also acknowledges, “The mere fact that X and Y vary together in a predictable way, and that a change in X always precedes the change in Y , can never assure us that X has produced a change in Y .”

When it comes to the problem of controlling for all other variables that might be sources of extraneous forces, Cook and Campbell question carefully dealing with open system as if it is closed system, admitting that the last one among three conditions, i.e., the constant conjuncture of events, is the most important and most positivistic. Borrowing Bollen(1989: 41)’s discussion on positivism, “Isolation is an unobtainable ideal. Isolation exists when y and x are in a ‘vacuum’ that excludes all other influences...Various experimental, quasi-experimental, and observational research designs attempt to approximate isolation through some form of control or randomization process. Regardless of the technique, the assumption of isolation remains a weak link in inferring cause and effect.” (Bollen, 1989: 41) Especially in terms of statistical control, positivists are so aware of several factors that threaten the condition of pseudo-isolation ($COV(x,e)=0$) that they are ready to admit the tentativeness of any claims for casual relations. Furthermore, positivists do not any more contend, from the common sense that no bivariate association can occur although a casual relation links two variables, that a lack of correlation does disprove causation. “It is only when we isolate the cause and effect from all other

influences that correlation is a necessary condition for causation. Thus, without isolation or without at least pseudo-isolation, correlation is neither a necessary nor a sufficient condition of causality.” (Bollen, Ibid: 52)

If we can never prove causation with any technique, what else can social scientists do? The only thing they can do is to see if the causal inferences of a researcher are consistent with the data. It sounds like very discouraging, but I do not think it is possible and desirable to construct causal mechanisms with qualitative methods alone, especially when social scientists have to infer causal mechanisms that can be generalized in many other cases.

In what aspects do I think that how to investigate causal mechanisms in empirical positivism culminated in SEMs, then? This would be clear when comparing several advantages of SEMs with critical limitations of multiple regression analysis used the most commonly in social sciences that has been very often implicitly mistaken for the method for causal inference.

First, SEMs can include latent variables, sometimes called factors or constructs, besides observable variables. This virtue helps to overcome the indifference of positivists to the distinction between ontology and epistemology, i.e., equating the world with what can be observed. Although structures cannot be equated with latent variables, social scientists are able to explore how structures are expressed in the form of events through mechanisms by combining observable variables and latent variables in the model of casual mechanisms and discovering latent structures underlying a set of variables. Second, SEMs can deal with reciprocal relationships. As is well known, one of the assumptions in multiple regression analysis is that dependent variables should not affect independent variables even if there are always chances of inverse causation in the reality. Besides, it is possible for the same variable to become the dependent variable and the explanatory variable for other variables at the same time in SEMs. Third, SEMs make causal models more realistic since it can include more than one

dependent variable, indirect effects, and measurement errors unlike multiple regression models. Fourth, SEMs can tackle the correlation between exogenous variables, while multiple regression models are sensitive to the problem of multicollinearity. Furthermore, SEMs can deal with the correlation between latent variables as well as the correlation between errors. To put it another way, SEMs make it possible to investigate the interaction based on overdetermination (e.g. the interaction between variables that are intertwined with each other can be explored at the outset) instead of the interaction based on reification (e.g. there should be no independence between each variable, and then the interaction between them can be checked) by overcoming to some degree this multicollinearity problem although multicollinearity could cause extremely small determinant of the covariance matrix in the SEMs. This virtue is also related to the problem of variable selection. In multiple regression, all of explanatory variables relevant to dependent variable should not be correlated to each other in principle because if some of them were included in the error term, then the assumption of pseudo-isolation could not be met. For this reason, even if researchers chose explanatory variables based on established theories and put all of them in the model, they have to get rid of or merge some of them when the serious multicollinearity problem happened. By contrast, this sort of ad-hoc modification of variables is not necessarily required in the SEM. In other words, researchers are able to let variables as they are in the model. In this sense, what is more important in the SEM is careful 'concept mapping' rather than ad-hoc correction of variables. In this sense, SEMs is the acme of multivariate analysis in the sense that it is theory-driven approach rather than experience-driven approach¹³.

¹³ For some other issues such as omitted and included variables bias, the test of goodness of fit, and the interpretation of model coefficients, see Pratschke(2003). Surprisingly, this article about SEMs was presented at the annual conference of critical realism.

<References>

- Althusser, Louis. 1979. "Contradiction and Overdetermination." in *For Marx*. Verso.
- Balibar, Etienne. 1996. "Structural Causality, Overdetermination and Antagonism." in *Postmodern Materialism and the Future of Marxist Theory*, edited by Antonio Callari and David Ruccio, Wesleyan Univ. Press.
- Bhaskar, Roy. 1998. *The Possibility of Naturalism: A Philosophical Critique of the Contemporary Human Sciences*. Routledge.
- Blalock, Hubert M. 1964. *Causal Inferences in Non-experimental Research*. University of North Carolina Press.
- Bollen, Kenneth A. 1989. *Structural Equations with Latent Variables*. Wiley.
- Chalmers, Alan. 1990. *Science and its Fabrication*. Open Univ. Press.
- Collins, Randall. 1988. *Theoretical Sociology*. Harcourt Brace Jovanovich.
- Cook, Thomas D. and Donald T. Campbell. 1979. *Quasi-Experimentation: Design and Analysis Issues for Field Settings*. Rand McNally.
- Cullenberg, Stephen. 1996. "Althusser and the Decentering of the Marxist Totality." in *Postmodern Materialism and the Future of Marxist Theory*, edited by Antonio Callari and David Ruccio, Wesleyan Univ. Press.
- Elster, Jon. 1989. *Nuts and Bolts for the Social Sciences*. Cambridge Univ. Press.
- Elster, Jon. 1985. *Making Sense of Marx*. Cambridge Univ. Press.
- Elster, Jon. 1998. "A Plea for Mechanisms". in *Social Mechanisms: An Analytical Approach to Social Theory*, edited by Peter Hedström and Richard Swedberg. Cambridge Univ. Press.
- Frankfort-Nachmias, Chava and David Nachmias. 2000. *Research Methods in the Social Sciences*. Worth.
- Jameson, Fredric. 1982. *The Political Unconscious*. Cornell Univ. Press.

- Outhwaite, William. 1987. *New Philosophies of Social Science: Realism, Hermeneutics, and Critical Theory*. Macmillan.
- Pratschke, Jonathan. 2003. "Realistic Models?: Critical Realism and Statistical Models in the Social Sciences." *Philosophica* 71.
- Resnick, Stephen and Richard Wolff. 1996. "The New Marxian Political Economy and the Contribution of Althusser." in *Postmodern Materialism and the Future of Marxist Theory*, edited by Antonio Callari and David Ruccio, Wesleyan Univ. Press.
- Resnick, Stephen and Richard Wolff. 1986. "Power, Property and Class." *Socialist Review* 86. March-April.
- Resnick, Stephen and Richard Wolff. 1987. *Knowledge and Class*. Chicago Univ. Press.
- Sayer, Andrew. 1992. *Method in Social Sciences*. Routledge.
- Roemer, John. 1982. "Methodological Individualism and Deductive Marxism." *Theory and Society* 11.
- Stinchcombe, Arthur L. 1968. *Constructing Social Theories*. Harcourt, Brace and World.
- Wolff, Richard. 1996. "Althusser and Hegel: Making Marxist Explanations Antiessentialist and Dialectical." in *Postmodern Materialism and the Future of Marxist Theory*, edited by Antonio Callari and David Ruccio, Wesleyan Univ. Press.