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*On the Reality of Causes:
A Response to Ned Lebow*

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There are three basic attitudes towards causation. Radical empiricists have aspired to *dispose of causation-talk* entirely. Causes and effects are unobservable and non-reducible to numbers and logic. In the infamous concluding remark of *An Enquiry Concerning Human Understanding*, David Hume (1775/1777: 165) declared that only reasoning in terms of numbers and logic, and claims based on experience, can be valid. Any book exhibiting neither should be “put to the flames: for it can contain nothing but sophistry and illusion.” Whereas Hume did not necessarily realise that he was committing his own philosophical book to flames, some 20th century positivists took the paradox of Hume’s declaration seriously. They invented new metaphors to explain the task of philosophy, such as Ludwig Wittgenstein’s “ladders that can be used only once” and Moritz Schlick’s “rebuilding our ship on the open sea.”

Pragmatically minded empiricists, however, accept *causation-talk as useful*. They realise that something more is required for scientific explanations than observations of empirical regularities. We know that invariant regularities are notoriously difficult to find. We also know that when several forces or mechanisms interact in non-linear, complex, reflexive or open systems, the result can be messy. Many sequences of events and episodes may turn out entirely unique. Even though causation-talk is a human construct and abstraction, causal claims can be useful in guiding our enquiries, also in *International Relations*. By identifying regular connections or other uniformities, we can possibly make forecasts to facilitate engineering or policy-making. In other cases, we are limited to telling causal stories about unique sequences. In these cases the plot of the story implies lessons for practical action.

For a critical realist, however, the pragmatist-empiricist approach to causation is insufficient. While the idea of several forces and mechanisms interacting in open systems is right on the mark, nothing comes from nothing and *causation must hold everywhere*. The concept of cause is a metaphorical abstraction and causation comes in different forms, but it does not follow that causation is unreal. If the world is real it must also be differentiated (not just some sort of grey mass), struc-

tured (not consisting of mere atoms but forming relational and functional wholes), layered (new layers have emerged over time from the pre-existing material), open-systemic (systems are not isolated and can change also from within) and causally efficacious (nothing happens *ex nihilo*). Even unique sequences of events are generated by powers, dispositions, liabilities, and tendencies that endure across contexts. In a like manner, concept-dependent social structures too are trans-factually efficacious.

In his succinct and insightful book *Constructing Cause in International Relations*, Ned Lebow (2014) rejects positivism, endorses pragmatist empiricism and criticises critical realism sympathetically. This brief paper is a rejoinder to Lebow, written from a critical realist point of view. I continue our personal discussions on the nature of causation. A key issue concerns unobservables: is it impossible to specify causal properties and powers in open systems, as Lebow claims? Must we therefore see causation always as “inefficient” and singular, and reduce causal explanations to mere narratives? Furthermore, is it true that we should avoid attributing causal properties and powers to social structures and systems? What are mechanisms?

I argue that Lebow’s tacit empiricism has implications that make it difficult to prefer one explanatory story vis-à-vis another. If processes and mechanisms are just artifices of researcher’s mind, claims about them do not correspond to anything in the world. The rationale of empirical evidence becomes thereby ambiguous, leading to a theory/practice contradiction. What is more, Lebow’s individualism and theory of human nature may misguide research by encouraging one to search for explanations only from certain directions. This is clear for instance in Lebow’s account of the origins of the First World War, which downplays political economy explanations.

The Question of Unobservable Fields and Structures

In the first chapter entitled “The Concept of Cause,” Lebow reviews different theories of causation, concluding that “each of these approaches to causation has advantages and serious drawbacks” (2014: 38). Most of the criticism is directed against the Humean idea that science is about identifying universal regularities. Leaving some imprecise formulations aside, I mostly agree with Lebow’s diagnosis of positivism.

Here Lebow has only little to say about critical realism. He concurs that it is reasonable to frame causation in terms of potential (powers) and enabling conditions. “This two-stage formulation is appropriate to many physical and political phenomena” (2014: 42). He complains about realism’s complexity, however, and suggests that it may fall victim of circularity. If the causal properties or powers of things can only be inferred from their observable effects, then there is no independent basis for establishing what these properties or powers are. Lebow maintains that whenever laboratory experiments are possible, we may be able to specify causal properties and capabilities, but otherwise it is impossible. We can only see events as they happen. This is a fairly standard empiricist argument against the existence of unobservables.

Higgs boson, dark matter, electro-magnetic fields, genes

and social structures are typical examples of unobservables. In each case, the term “unobservable” is somewhat deceptive. Whether something is observable is a matter of practical capacity—and depends on what we mean by “observable.” The Standard Model of Particle physics has presumed the existence of Higgs particle for decades, but it is extremely hard to create excitations of the Higgs field. And yet on 14 March 2013, CERN confirmed that they are likely to have observed a Higgs boson. In the same way, the existence of dark matter has so far been inferred from its gravitational effects and not observed otherwise; yet there is no reason to presume that it will never be observed. Electro-magnetic fields can be seen and visualised in various ways, even though our eyes are limited to seeing visible light. Genes were posited in theory but unobservable until DNA was identified as the genetic material in the 1940s.

It is often said that while social structures and relations cannot be seen directly, they too are best seen through their causal effects on social behaviour. This is not false, but may also be somewhat misleading. The relationship between husband and wife is defined in law and conventions, and given meaning in multiple stories. We can easily *read* what marriage means and what kinds of behaviour it tends to generate in a given modern social context. We can understand those meanings partly because we have personal experience about married people and their ways. The manifest level can then be traced down to deeper processes through our explanatory models. We do not need laboratories to identify causal properties and powers of social beings and relations.

The same holds true also for those relations that are more distant from everyday lives of most people. For instance, the relationship between a state and multinational corporation is defined in various treaties, codes of conduct, national laws, and is given further meanings by various conventions and stories. Of course, explicit rules do not fully determine social relations and practices or their effects. Thus we must investigate actual practices, for example by participating in them or by asking people who participate in them, and obviously also by studying their causal effects such as foreign direct investment and other flows and stocks and their functions and effects. Behind the manifest and relatively easily accessible level, there are deeper structures of meaning generating rules and practices, such as understandings of self, value, ownership and freedom, which are constitutive of the explicit rules and laws.

The logic of science includes a push towards ever deeper layers of reality. What empiricism means is that in our understanding, we should stay at the level of currently accepted “observables” or, alternatively, confine our capacity to observe literally to seeing with our own eyes material things such as human bodies. That is, we should be conservative regarding science and individualist regarding society. Lebow is careful to temper the effects of his tacit empiricism, highlighting the role of artistic and scientific creativity and mentioning social structures every so often. He also stresses that “mechanisms and processes operate in contexts” (2014: 42). Lebow’s wide knowledge of history makes him step back from any simple

form of universalist, ahistorical individualism—which does not mean that there is no problem.

Lebow’s magnum opus, *A Cultural Theory of International Relations*, is premised on reducing social causation to “universal attributes of human nature that find expression in all cultures at all times” (Lebow 2008: 41). Although these universals are very abstract and subject to a lot of cultural and geo-historical variation, I think this is a problematic move (Patomäki 2009). Lebow’s methodological move follows logically from the premises underlying his empiricism. For him, there is a level at which society is constituted by ultimately unchanging individuals. Humans have potential only for a closed set of possibilities, occurring cyclically in world history.

Inefficient Causation and Aristotle’s Four Types of Causes

Chapters 2 and 3 of *Constructing Cause in International Relations* are entitled “Inefficient causation,” parts I and II. The term “inefficient causation” is taken (in a rather inverse manner) from the implication of Aristotle’s fourfold conception of causation, according to which efficient causes—which Lebow understands here as constant conjunctions—which Lebow understands here as constant conjunctions—are inadequate or insufficient for causal explanations (2014: 65). Lebow promotes the idea of singular causation, the idea that each explanandum has a unique combination of causes, closely connected to “inefficient causation”:

Inefficient causation is no silver bullet. It is a form of singular causation that eschews definitive causal claims. At best, it strives to offer defensible and rhetorically appealing accounts of events (2014: 69).

There are always multiple pathways, developments, mechanisms and enabling conditions. We must do process-tracing and intra-case comparisons, and use counterfactual reasoning, to identify the multiple causes behind any event or episode. What also matter are the conceptual frames in terms of which “actors understand themselves and others and make sense of the social world” (2014: 69). This may sound close to the critical realist account of causation and scientific explanation, but for Lebow “mechanisms and processes are configurations invented by researchers to impose causal narratives on events” (2014: 70). In other words, they are not real. Lebow explains further: “My principal substantive claims are nominalist; I regard cause as an artifice and emphasize reflexivity” (2014: 70). Abstract things do not exist.

I find the discussion in these two chapters somewhat confusing. By efficient causes, Aristotle did not mean constant conjunctions. Rather he relied on the *Causation is Forced Movement* metaphor (see Lakoff and Johnson 1999: 377–378, for a more detailed analysis). Aristotle’s best-known example is about constructing a statue. The efficient cause is the primary source of the movement, change or rest. It can be the artisan, the art of bronze-casting the statue, the man who gives advice, the father of the child etc, not just a single thing or actor (Aristotle *Physics* 194b–195; *Metaphysics* 113–114).

Moreover, material cause is not only the material such as bronze out of which the statue is made, as Lebow seems to

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think (2014: 64). It is also the subject of change, which can be material or non-material, depending on the context and what we mean by “material.” Thus for science, the antecedently established facts or theories, paradigms and models, and methods and techniques, are material causes (Bhaskar 1997/1975: 21). In general, geo-historical structures of meaning can be material causes whenever they are the subject of change; and efficient, when they constitute causally efficacious reasons for action. It follows that Lebow’s “conceptual frames” can be both material and efficient causes; whereas practices and institutions are material causes.

Moreover, Lebow tends to dismiss formal and final causes out of hand, although they too have an important place in science. These two are often closely connected, both in natural and social worlds. For instance, Einstein’s general relativity explained gravitation more in line with a mixture of Aristotle’s categories of material and formal causes, whereby mass and energy (parts) form the relevant spacetime fields (the whole) and thereby constitute the natural lines of non-forced movements of bodies. Thus Einstein’s explanation of gravitation does not follow the notion of active forces and generative mechanisms of nature that produce characteristic and well-defined effects. Einstein proposed the metaphor of field to replace that of forces and mechanisms. Indeed, the structure of a field or the organisation of an environment may be the cause of what is happening in it. An intrinsic condition is not necessarily an internal state (Harré and Madden 1975: 87; Bhaskar 1997: 85).

Aristotle treats the whole, composition and form of an entity as a chief category of causality (in 195a of *Physics* and 1013b of *Metaphysics*). Formal causes and ends are closely linked. Frequently, Aristotle grouped formal and final causes together, as when he argued that “since nature is for the sake of something, we must know this cause also” (198b). Organs are for a purpose, and so are the colours of fishes and animals. Modern social institutions are reflexively designed for a purpose. Positioned practices involve tasks and duties, imposing manifold purposes on those who occupy the positions. While unintended consequences of actions may often dominate, they too can be fabricated so as to serve a purpose, as in the construction of self-regulating markets. Obviously this kind of design too can have unintended consequences.

The point of my remarks is to say that wholes do matter. Lebow himself writes that “as Aristotle reminds us, every whole is part of a larger whole” (2014: 85)—and yet wholes are not real for Lebow. Wider structures and contexts matter for causal explanations because they are real, not just products of the observer’s mind. Therefore the methodological starting point cannot be individualistic: first accounting for individuals and their frames of reference and, then, for aggregation of the individual actions into collective outcomes (2014: 73). I agree that both are important and part of the causal story, yet Lebow is mistaken in excluding questions about the prior role of the whole in constituting and shaping its parts. Moreover, parts and wholes are evolving historically. A closed list of variation of human nature is incompatible with open systems and open-ended world history (but see also Patomäki 2014).

Science operates with abstract categories all the time. Instrumentalists and conventionalists may concur that these abstractions are useful, but cannot explain the ways in which the structures of the world guide and constrain our choice of abstractions. For example, copper is an abstract category. We have discovered that copper has a certain atomic or electronic structure and thus we can deduce its *dispositional properties*—such as capacity to conduct electricity—from a statement of that structure. Similarly, all biological species, such as electric ray or lion, are abstractions. We are not talking about individual fish or animals, but about the species as a whole. In life sciences our categories may be a bit fuzzy, but they are nonetheless based on the real causal properties and powers of complex organisms such as fish or animal. The most common starting point is to define a species as the largest group of organisms capable of interbreeding and producing fertile offspring.

Also social practices, institutions and systems have causal properties and powers. It is true, as Lebow writes, that “the effects of power in international relations are not independent of how actors conceive of it” (2014: 50–51). It is also true that “constitution has important causal consequences” (2014: 156). Meanings and constitutive rules are necessary features of any social structure, but social structures and powers and their causal effects are not reducible to those meanings and constitutive rules. Consider Lebow’s main example, balance of power:

The balance of power failed to prevent two world wars in the twentieth century and is largely alien to the international relations of East Asia. It must be considered a cultural artefact whose importance and consequences and norms vary across cultures and epochs. The same is true of markets. As thoughtful critical realists accept this variation, we must ask what is to be gained by insisting, as they do, that we treat balances and markets at the ontological level by assigning causal properties to them (Lebow 2014: 51).

Theories that take balance of power as an invariant regularity analogical to Newton’s third law (“when two bodies interact by exerting force on each other, these forces are equal in magnitude, but opposite in direction”) have failed to specify whether states are balancing or bandwagoning; whether uni-, bi- or multipolar system is the most stable one; or whether stability has anything to do with peace and war.

However, when we see power-balancing as a geo-historical social practice constituted, at least in part, by an analogy to Newton’s third law (the concept was used for the first time in the 1713 Peace Treaty of Utrecht, Newton’s book having come out in 1687), we can study systematically its causal properties, powers and effects in different geo-historical contexts. The point of power-balancing has been to preserve pluralism and oppose aspirations for a universal empire. Sometimes power-balancing may have preserved peace, sometimes it has constituted reasons for war. The causal powers of this structured geo-historical practice have depended on the wider context. Power-balancing practices have been internally related to

ternational law, state sovereignty, private property rights (sovereign ownership), possessive individualism and capitalist market society (see Patomäki 2002: ch 1). All these have gone through various transformations during the past 300 years.

Consider for instance Karl Polanyi's (1957) hypothesis: whereas in the 18th century power-balancing practices had resulted in endless wars, following the great transformation and industrial revolution the worldwide context became different. Given market and financial interdependencies of the 19th century industrialising world economy, the power-balancing system actually worked for peace—but only as long as it could be sustained. Lebow (2014: 76–77) attributes this change solely to the learning induced by classical political economists. According to Polanyi, the change was also due to industrialisation and the emergence of a global economy. It was widely concluded that trade and investments require peace at least among great powers. “[W]hile business and finance were responsible for many colonial wars” (2014: 16), it was “by functional determination [that] it fell to haute finance to avert general wars” (2014: 13). Apart from the carefully orchestrated strings of finance, the 19th century system of peace was also premised on stable exchanges (the Gold Standard) and free trade. The system premised on these pillars was fragile, however.

Polanyi explains further that in the age of industrial mass production free markets have detrimental social effects. He reasons that a pure market society is not sustainable, and without a well-functioning and common socio-economic basis, also the Gold Standard and balance of power system were bound to collapse:

[...] the idea of a self-adjusting market implied a stark utopia. Such an institution could not exist for any length of time without annihilating the human and natural substance of society; it would have physically destroyed man and transformed his surroundings into a wilderness. Inevitably, society took measures to protect itself, but whatever measures it took impaired the self-regulation of the market, disorganized industrial life, and thus endangered society in yet another way. It was this dilemma which forced the development of the market system into a definite groove and finally disrupted the social organization based upon it. (Lebow 2014: 3–4)

The 19th century power-balancing system was capable of preserving the relative absence of war in Europe as long as its market underpinnings were functioning in a reasonably reliable manner. Power-balancing implies, however, that each country is arming against its potential or actual enemies, and that countries form military alliances. In other words, power-balancing means developing causal powers for waging wars. Those powers are dependent on technological and economic capabilities. The World War I was the first full-scale industrial war.

In the 21st century, we may ask: what kinds of transformations may have occurred in the concept, practice and institution of power-balancing since the early 18th century? To what extent is power-balancing still practiced in the early 21st century? (Cf. Alker 1996: ch 5) Be that as it may, today at least

some power-comparisons are also about nuclear weapons and involve actors, who are so positioned that they have the power to unleash the destructive energy of nuclear weapons. Still with nuclear weapons, Polanyi's hypothesis remains highly relevant: worldwide markets have causal properties and powers that can alter—via their economic and social effects that may lead to securitisation of issues and engender escalation of conflicts among states (see Patomäki 2015)—the way nuclear deterrence functions or does not.

On Explaining World War I

It should be pointed out that I have learnt from Lebow's (2000, 2001) studies on WWI, adopting his argument that the rather exceptional conditions of summer 1914 would have been gone in a few years' time (Patomäki 2008). I also concur with Lebow that aristocratic and military honour and increased risk-proneness played a role in some of the key decisions that led to the Great War. The question is whether this means that we should treat the origins of the war as “singular causation” (Lebow 2014: 55).

The problem is that “singular causation” downplays the significance of structures, powers, dispositions, liabilities, and tendencies that endure across contexts. Lebow rightly lists class conflict, uneven economic developments and complex and poorly understood military command and control as part of the overall historical context of WWI (2014: 55), but does not thematise them or specify any of the relevant mechanisms. This is in line with his general methodological stance. Lebow specifies different types of mechanisms (2014: 93–95) but understands mechanisms in terms of regular or rare successions of events, which may or may not be connected (part of the same process). The emphasis on wide historical contexts notwithstanding, Lebow's ontology remains focused on events and individuals; other aspects are seen as less real.

The following four complex tendencies were part of the geohistorical processes that gradually assembled the conditions for WWI. All of them remain, in some form, transfactually efficacious in the 21st century world economy (see Patomäki 2008):

(1) Excessive acquisition of wealth in capitalist market economy leads over time to the return of the ideas of honour and inherent superiority (the original meaning of aristocracy). This tendency can be expressed partly in terms of Thomas Piketty's (2014) theory of wealth distribution: there is a tendency for $r > g$, where r is the average annual rate of return on capital and g is annual economic growth. This is especially likely for regimes of slow growth. Past wealth becomes increasingly important and inherited wealth grows faster than output and income. If this is combined with the inequality of returns on capital as a function of initial wealth, the result is an increasing concentration of capital. Following Veblen and other theorists of class and expressive manners, the new upper class will adopt similar or analogical ways of distinguishing themselves from the rest as did the old aristocracy or upper class.

(2) State-led industrialisation can change the previously established industrial division of labour in the world economy, while also furthering particular vested interests. The role of the state in uneven developments makes new rounds of industrialisation possible but also strengthens the tendency towards economic concentration and encourages territorialisation of economic competition.

(3) Economic cycles, involving a structural tendency towards insufficient efficient demand both nationally and globally, create a competitive search for, and utilisation, of external markets and financial outlets. This search is liable to becoming territorialised and transformed into a nearly zero-sum game.

(4) Structurally induced illusions—such as the fallacy of composition—about how the world works make actors resort to counterproductive measures. As Jon Elster (1985: 127) puts it, “to explain the economy, one must also explain how the economic agents—and, following them, the political economists—arrive at incorrect beliefs about how it works.” Given the interference of power and interests in social learning processes, and the tendencies towards regressive or pathological learning, it is important that geo-historical structures of meaning are seen as material causes too, that is, as the subject of change co-explained in terms of the structural properties and powers of wider wholes.

Mechanism is what a thing is capable of doing, or being acted upon, if it is triggered and not prevented by something else. The concept of mechanism is of limited applicability in social sciences because it is associated with mechanical forces and material-efficient causation, and with the standard analogy to the working of machinery. In my own works, I have used the generic term *causal complex* and restricted the use of the concept of mechanism to a few specific contexts.

Hence none of the multi-phase tendencies specified in (1)–(4) is mechanical, always leading from A to B if triggered and if not prevented by something else. As Lebow argues, meanings and constitution matter for causation. For the participants, the developments specified in (1)–(4) are often controversial. Different opinions about their inevitability or justification may be raised and countermeasures taken. Actors can be critically reflexive about the conditions of their own being and actions. Nonetheless there are structures, powers, dispositions, liabilities, and tendencies that endure across contexts. By ignoring them we risk repeating the mistakes of the past.

Conclusion

There is only one final point to be made. In every turn, Lebow is careful in trying to account for wide geohistorical processes and mechanisms, for the context in which individuals act and events happen. Yet he also argues that they are artifices of researcher’s mind.

It is unclear to me how we may then assess whether a particular explanatory story is true or not. In practice Lebow lists a variety of ways in which we may approach a given *explanandum*, from discourse analysis and archival work to

systematic comparative studies and explorations of counterfactuals. The problem is that at the level of his theory of causation, the rationale of empirical evidence becomes ambiguous. It seems to me that this is a case of a rather common theory/practice contradiction.

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