Chapter 2

Causality, Agency and Change

Stephen Pratten

Abstract Mainstream economists intermittently recognise a dilemma at the core of their project. On occasion they note that the widely accepted intuition that people have real choice and agency is inconsistent with their objective of increasing the explanatory power of economic theory. They worry that as causal explanations of economic phenomena are extended the more agency and choice must be recognised as ultimately illusory. The dilemma once recognised is typically set aside and the conventional modelling practices of mainstream economics persisted in without further delay. It is argued in this paper that the noted supposed dilemma is false and arises primarily because formalistic methods (and notions of explanation that accommodate them) tend to be adopted in economics prior, and without sufficient attention being paid, to the sorts of objects that constitute the subject matter of social inquiry. It is argued that the methods and forms of explanation that mainstream economists recognise as legitimate presuppose an ontology that is unable to either accommodate agency within nature or recognise possibilities for genuine change. In the constructive part of the paper a strategy for examining the dilemma that mainstream economists note that places ontology up front and centre stage is adopted. It is argued an ontology of real active powers, capacities, tendencies, dispositions and potentials supports a thoroughly naturalistic conception of agency and genuine change that can serve to inform the choices economists make about how best to pursue explanatory projects without generating tension or incoherence.

2.1 Introduction

Mainstream economists periodically pose what they take to be a dilemma. They note that human intentional agency, including the capacity for choice, aspects of human behaviour that they wish in turn to acknowledge and promote, seem to be threatened, or fundamentally undermined, the more successful economic

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explanation becomes. For example, Melvin Reder insists that economists must confront a dilemma between choice and the success of their explanatory projects:

Associated with the assumption of stable preferences, but logically distinct, is the 'thrust for endogenization'. A leading manifestation of this tendency is Stigler's attempt to explain – and constrain – the behaviour of political decision makers, but this is not the only one ... Successfully to endogenize a new variable is to enhance the explanatory power of economics, and there is much interest in such achievements. However, it must be noted that where variables are made 'endogenous', they can no longer serve as objects of social choice. To the extent that variables are endogenized ... choice is explained ... 'society's' freedom of choice is seen as illusory. Freedom appears to consist not in power of choice, but (pace Hegel) in recognition of necessity. This is not a likely conclusion for followers of Adam Smith, and surely not one they desire, but one from which they can be saved only by the failure of this direction of research (Reder 1982: 34–35).

From a mainstream perspective, any progress in formulating acceptable economic explanations would, seemingly inevitably, be accompanied by people increasingly being revealed to be merely propelled along by external events and conditions and exposed as lacking agency and choice. Moreover, given the template adopted by mainstream economics for screening appropriate forms of explanation, the only notion of change that can be salvaged is a severely impoverished one. Social life is reduced to a flux of events while change relates merely to alterations in the patterning of events.

In this paper this apparent dilemma of only being able to recognise real agency, choice and genuine change by giving up on explanation is considered from an explicitly ontological perspective. The argument advanced is that the noted dilemma arises primarily because notions of explanation in economics tend to be adopted prior, and without sufficient attention being paid, to the sorts of objects that constitute the subject matter of social inquiry. It is argued that the forms of explanation that mainstream economists recognise as legitimate presuppose an ontology that is unable to either accommodate agency within nature or recognise possibilities for genuine social change.

In the constructive part of the paper a strategy for examining the dilemma that mainstream economists note (only to then ignore) that places ontology up front and centre stage is adopted. It is argued that a structured ontology of real active powers, capacities, tendencies, dispositions and potentials supports a thoroughly naturalistic conception of agency that can guide the choices economists make about how best to pursue explanatory projects.¹ Once this alternative ontological position is sketched and its adequacy defended it becomes clear that economists do not face any necessary dilemma between explanatory progress and the recognition of human agency and choice. It is further argued that this ontology can productively inform initiatives aimed at bringing about rational, intentional social transformation.

¹The kind of structured ontology being referred to here is associated with the work of the Cambridge Social Ontology Group, (see Lawson 1997, 2003, 2013, Pratten (2015), and Faulkner et al. 2017) which itself is aligned closely with the work of critical realists such as Archer et al. (1998), Bhaskar (1978, 1979) and Collier (1994, 2011).

2.2 Mainstream Economics, Ontological Neglect and the Denial of Agency

Given the central place that choice occupies in mainstream accounts of the contribution economics makes, why do mainstream economists often end up positing a dilemma between explanatory progress on the one hand and agency and choice on the other? In order to understand why mainstream economists hit upon this dilemma it is necessary to clarify the metaphysical or ontological presuppositions underpinning their insistence that only certain methods and forms of explanation are legitimate within an appropriately scientific economics.

If research practices are to count as proper economics at all, mainstream economists insist that formalistic modelling methods (and forms of explanation that can accommodate such methods) need to be adopted. This stipulation is made without any assessment being provided of the ability of such methods to illuminate the social domain. For any method to be able to illuminate a domain of reality, the nature of the phenomena of that domain must be of a sort to render that feasible. The problems of modern mainstream economics, including the posing of a dilemma between explanatory progress and agency and choice, stem from a failure to recognise this insight and more broadly from profound neglect of ontological issues.²

Mainstream economists start with a particular type of method and presume mistakenly that it must be appropriate to all social contexts. The result is that in their conceptions mainstream economists end up distorting social phenomena so as to render them open to treatment by their chosen method. At times the distortion is such that the results and implications of the modelling exercises grate with the unelaborated intuitions that mainstream economists themselves have about basic features of the social domain and this tension is then manifest in the positing of dilemmas or conundrums that can be stated but not resolved or transcended.

The procedures of formalistic modelling characteristic of mainstream economics typically involve a reliance upon functional relations. When mainstream economists address phenomena such as consumption, investment, production or human well-being they characteristically seek to formulate consumption, investment, production and utility functions. It is this emphasis upon formalistic modelling and functional relations that is inappropriate to the analysis of most social phenomena and leaves economists unable to accommodate agency, choice and genuine change.

If an approach to economics that utilizes mathematical functions is to be viable and provide real insight, then it can be shown that it must be assumed that social events relate to each other in very specific stable ways. If a reliance on functions is to be an appropriate way to proceed in economics event regularities or event correlations must be commonplace in the social realm. The insistence a priori upon formal

²The critique of mainstream economics briefly set out in this section is elaborated at length by Lawson (1997, 2003, 2015b).

mathematical methods can be seen to carry with it a set of misleading and largely unrecognised ontological commitments. Specifically, the presuppositions implied by formal methods, understood as essential by mainstream economists, include that the basic ontological units are events, or states of affairs, that causation is to be analysed in terms of necessary connections holding between events and that all events including actions are strictly deterministically caused by prior ones according to laws in an essentially passive way.

Before proceeding it is worth considering further the conceptions of choice/agency, causality and social change implied by the mainstream insistence on the universal application of formalistic modelling methods.

The mainstream economists' models are, of course, essentially deterministic in the specific sense that human agency and choice are effectively denied. In a standard consumption function, for example, consumers expenditure is depicted as a stable function of disposable income, if amongst other things, so that a certain change in income or in its rate of change, triggers an adjustment in consumption by an amount that is fixed even before actual consumers know about any such change and whatever might have brought it about. Here it is far from obvious how the 'agent' can be interpreted as being actively involved in their own actions at all. The agent on such an account appears merely as a site of automatic adjustment rather than a subject capable of actively bringing about change.

Among heterodox economists it has long been recognised that the mainstream treatment is hostile to agency and choice. Veblen, in a famous passage that retains much of its relevance today, writes:

The hedonistic conception of man is that of a lightening calculator of pleasure and pains, who oscillates like a homogenous globule of desire of happiness under the impulse of stimuli that shift him about the area, but leave him intact. He has neither antecedent nor consequent. He is an isolated, definitive human datum, in stable equilibrium except for the buffets of the impinging forces that displace him in one direction or another. Self-imposed in elemental space, he spins symmetrically about his own spiritual axis until the parallelogram of forces bears down upon him, where upon he follows the line of the resultant. When the force of the impact is spent, he comes to rest, a self-contained globule of desire as before. Spiritually, the hedonistic man is not a prime mover. He is not the seat of a process of living, except in the sense that he is subject to a series of permutations enforced upon him by circumstances external and alien to him (Veblen 1919: 73).

Shackle argues that, given the framework they deploy, mainstream (or conventional) economists ought really to drop entirely any reference to choice:

Conventional economics is not about choice, but about acting according to necessity. Economic man obeys the dictates of reason, follows the logic of choice. To call this conduct choice is surely a misuse of words, when we suppose that to him the ends amongst which he can select, and the criteria of selection are given, and the means to each end are known. The theory which describes conduct under these assumptions is a theory of structure, not of creation of history. Choice in such a theory is empty, and conventional economics should abandon the word (Shackle 1961: 272–3).

2.3 Humean Causality and Event Focussed Conceptions of Change

In terms of causality the conception most straightforwardly reconciled with the mainstream modelling orientation is that of Humean causality. From this perspective the analysis of causality relates to the tracing of connections holding between events, so that the cause of some change is always a prior chain of events from which it follows according to a rule. Hume denied the possibility of establishing the independent existence of things or the operation of natural necessity. In Humean philosophy, the only properties of which we can have any knowledge are those which give rise to distinct impressions. These properties include the perceptible qualities of bodies, such as their shape, size, colour, etc. We can observe the speeds and directions of, say, two colliding billiard balls immediately before and after they collide, and we may identify a regularity in the way these speeds and directions are connected. What we do not observe is something beyond this that constitutes the capacity of one billiard ball to move another. On Hume's account of perception and causality, as traditionally interpreted, it is experiences, constituting atomic events and their conjunctions, that are viewed as exhausting our knowledge of nature. On such a view, generalities of significance in science must take the form of event regularities for these are the only sort of generalities that such an ontological position can sustain.

Mainstream economists from time to time acknowledge their Humean heritage. The celebrated econometrician Hendry R.F, for example, writes:

I think 'causality' is only definable within a theory. I am a Humean in that I believe we cannot perceive necessary connections in reality. All we can do is to set up a theoretical model in which we define the word 'causality' precisely, as economists do with $y=f(x)$. What they mean by that in their theory is that if we change x (and it is possible to change x), y will change. And the way y will change is mapped by f , so we have a causal theory. They could give a precise or formal definition of the mapping $f(\cdot)$. Empirically, concepts such as causality are extraordinarily hard to pin down. In my methodology, at the empirical level, causality plays a small role. Nevertheless, one is looking for models which mimic causal properties so that we can implement in the empirical world what the theorist analyses; namely, if you change the inputs, the outputs behave exactly as expected over a range of interesting interventions on the inputs (Hendry et al. 1990, p. 184).

Hendry, like so many mainstream economists, is restricted by his Humeanism to searching out correlations at the level of events and to sophisticated forms of data analysis (see Pratten 2005).

Finally the notion of change sustained by the mainstream is similarly impoverished. Consider, for example, the way econometricians typically partition relationships into endogenous and exogenous components. In drawing this distinction the possibility of retaining an, albeit limited, conception of change seems to be opened up. If some of the exogenous variables are interpreted as choice variables or understood as instruments that can be directly manipulated by government policy makers, it initially seems that an element of choice is afforded to this elite group in shaping or controlling the configuration of final outcomes. Econometric models are valued

as tools that can assist policy makers as they seek to fix or control future patterns of events. Yet from the perspective of contemporary mainstream economics with its emphasis on rational, near omniscient, individuals the assumption adopted here that the variables treated as exogenous, the instruments of government policy, remain unpredictable is difficult to justify. There is a persistent tendency within the mainstream project to endogenise ever more variables and an underlying belief that everything can ultimately be endogenised.³ Within the framework adopted by the mainstream economist there is neither provision, nor in consequence scope, for transforming any structural modes of determination. Social life is reduced to a flux of events. At most, any conception of change that can be sustained is the set of policy maker instigated adjustments to events and states of affairs.

Thus by adopting the conventional modelling practices of mainstream economics a host of metaphysical or ontological positions are thereby assumed that mean that agency, choice and change are at best little more than illusory.

2.4 Defending a Depth Realism

The ontological presuppositions of most methods of mathematical economic modelling are hostile to agency, choice and genuine change. Mainstream economists cannot coherently sustain the reality of people experiencing their power of choice even though the latter is an aspect of human behaviour they claim explicitly to acknowledge. It is the implicit ontology presupposed by their insisted upon methods that generates a dilemma whereby nature construed in terms of chains of events is a block on agency. Subjectivists in economics recognise the difficulties associated with accommodating agency that mainstream economists face. However, their own failure to decisively break away from the event-based ontology encourages in reaction an essentially voluntarist conception of human agency to be adopted and the acknowledgement of only a highly restricted role for social structure.⁴

In order to appreciate that the dilemma is a false one it is necessary to recognise that human agents are active causers of change in a world of active causers of

³The powerful tendency within mainstream economics to endogenise ever more variables is reflected where the advocates of the rational expectations hypothesis assert that changes in government policy instruments are in the final analysis predictable. Thus, Sargent and Wallace note: "The conundrum facing the economist can be put as follows. In order to have normative implications, it must contain some parameters whose values can be chosen by the policy maker. But if these can be chosen, rational agents will not view them as fixed and will make use of schemes for predicting their values. If the economist models the economy taking these schemes into account, then these parameters become endogenous variables and no longer appear in the reduced form equations for the other endogenous variables. If he models the economy without taking the schemes into account he is not imposing rationality" (1976: 183). For discussion and criticism of such developments, see Lawson (1994, 1997).

⁴Lawson (1994), argues that Hayek at least in his famous 'Scientism and the Study of Society' essay adopts such a subjectivist position and proceeds to pinpoint the problems and tensions associated with it.

change. It is an error to view nature as a block on agency since we are part of nature and what is required is a thoroughly naturalistic understanding of agency. This, in turn, requires the elaboration of a quite different ontological framework. A broader range of basic ontological categories needs to be elaborated upon that extends beyond events and fixed relations between them to include centrally real natures or forms, powers, capacities, tendencies, potentialities, processes.

An ontological conception opposing the dominant Humean event causal theory and seeing agency instead as involving the irreducible exercise of powers has recently enjoyed something of a revival in the philosophy of science (Bhaskar 1978; Cartwright 1992; Harré and Madden 1975) and the philosophy of action (Groff *forthcoming*; Steward 2012). On this ontological conception it is real things and their powers or ways of acting that are considered to be knowable and are taken to endure. Specific kinds of things have powers to act in definite ways in appropriate circumstances by virtue of certain relatively constant intrinsic structures or constitutions, or more generally, natures - which are discerned *a posteriori* in the process of science and general experience. It is these essential natures that designate what things are. Moreover, once we know what a thing is then, if certain 'activating' or 'triggering' conditions hold, we know how it will behave.

Without some such structured ontology, the absence of strict event regularities necessarily threatens the search for scientific generalities. With a structured ontology persistence and generality can obtain at a different level. It is worth briefly considering how an ontology that acknowledges the reality of deeper structures and mechanisms can render significant aspects of scientific activity, i.e., experimental activity and the application of scientific knowledge outside the experimental set-up, intelligible in a way that an event based metaphysics is quite unable to.

It is important to note that experiments are actively brought about, they are not spontaneous natural occurrences. Yet what they are designed to reveal is how nature acts when and where such active interventions are not taking place. If experiments only revealed how nature acted in the confines of the laboratory they would be of limited use.

What must the world be like for the kind of practical intervening associated with experimental practice to be, in fact, of assistance in understanding what happens outside of experimental contexts? Hume and many empiricists assume that by simply observing nature constant conjunctions of events can be discovered. Outside astronomy this does not happen. It is not the case that every time an object falls to the ground it does so with a constant rate of acceleration - an object such as a feather might be affected by all sorts of counteracting forces. The concept of cause is nevertheless applied in such cases, yet there is no constant conjunction which for the Humean is all that causality amounts to.

Outside astronomy the only way to be sure of constant conjunctions occurring is to carefully design and practically configure experiments. Every time we drop a heavy object in a vacuum it falls with a constant rate of acceleration. When an object is dropped outside of a vacuum all sorts of forces are likely to be in play preventing it from falling with a constant rate of acceleration.

A successfully designed experiment ensures that irrelevant forces which would influence the outcome are absent. If Hume were correct experiments would be superfluous but they are not because cause is accompanied by constant conjunction *only* when other things are equal and in nature, other things are never equal. The natural world is (what is referred to in the relevant philosophy of science literature as) an *open system* and experiment establishes a *closed system*.

In order for nature to be discoverable in its openness by artificially establishing closed systems it must be governed by many causal mechanisms, conjointly producing events. It is an open system because there are many of these mechanisms; it can be studied experimentally because we can in certain contexts isolate one of them, either by preventing others from operating, or keeping their operation constant, or making allowances for their operation. Successful experiments reveal the real working of natural mechanisms one by one, but in the spontaneous course of nature they are working conjointly to produce outcomes that are not, like the results of an experiment, predictable.

With an augmented ontology acknowledged then a central aim of the experiment can be recognised as being to help us understand causal mechanisms not simply identify event regularities. In well-controlled experiments, stable underlying causal mechanisms are insulated from countervailing causes, so that their unimpeded effects can be straightforwardly identified. Thus objects fall with a constant rate of acceleration in an experimental vacuum, because aerodynamic and other causal forces are prevented from affecting the outcome. So experiments are primarily concerned with underlying causal factors. The point of the experiment is precisely to insulate and thereby empirically identify stable causal mechanisms.

Since actual events or states of affairs outside the laboratory are co-determined by numerous often countervailing mechanisms the action of any one mechanism though real may not be precisely manifest or actualised. Characteristic ways of acting or effects of mechanisms which may not be actualised because of the openness of the relevant system can be conceptualised as tendencies. Tendencies are potentialities which may be exercised or in play without being straightforwardly realised or manifest in any particular outcome.

This kind of more expansive ontology suggests that if there is an essential moment in natural science it involves identifying and understanding causes of phenomena of interest. The practice of successful event prediction, and any attendant mathematical reasoning, may aid this process where it is feasible but is not an essential feature. The essential mode of inference in science is neither induction nor deduction but one that can be termed retrodution or abduction and explanatory, rather than predictive, power becomes the dominant criterion of theory adequacy, while the objective of assessing the reality of the posited mechanism has to be explicitly acknowledged. Once committed to knowable deeper levels of reality a priority becomes elaborating ways of identifying underlying causes.⁵

⁵For elaborations and defences of the depth ontology sketched here see Bhaskar (1978), Collier (1994), and Lawson (1997).

2.5 Situating Agency and Choice Within Nature

Once some such augmented ontology is acknowledged does it remain the case that economists must accept the apparent dilemma that increasing explanatory power can be achieved only at the expense of denying the possibility of human agency and genuine change? The short answer, of course, is no. By refocusing the analysis onto things and their potencies the pressure to construe nature's order in terms of sequences of events is removed and the dilemma of how to accommodate human agents in a natural world conceived metaphysically in terms of event chains simply does not arise. For reconceived as a world of objects, systems, totalities, mechanisms and their potencies there is no obvious tension between causal nature and active agency. Agents take their place in such a metaphysical framework as active exercisers of powers and capacities that are distinctive of the kinds of objects they are. Nature is not a block to agency, rather human agents need to be understood as being part of nature.

With this structured ontology adopted agency is not only recognised as real and an irreducible primary cause of change in the world but, importantly, also understood as being constrained by social conditions. It is part of our nature that we are essentially community beings. Modern social conditions are such that they distort our relation to our nature and often harm us. Ours is a social world based in large part on disregard for living human beings in which people's needs and well-being remain peripheral concerns. Nature, including the social world, is composed of totalities some of which have human agents as components. The organisation of social totalities determine individuals and their actions not by negating their agency but by working through it – shaping agents powers and capacities. Societal determination does not stop at external constraints but enters into the constitution of the agent's practical capacities.

A particular position in social ontology is being evoked here.⁶ Social reality is that collection of phenomena whose existence depends necessarily on human beings, including human interactions. There are two extreme opposing views about the nature of social phenomena. The first is a social atomist view that insists there is nothing to the social realm apart from a collection of human agents. The second extreme view – social holism – is that there is nothing to human agency except the positions individuals occupy in social totalities. However, there are no de-socialised human agents, that is people always exist in communities, and equally neither are there any depopulated communities. Individuals exist and each of us have our own relatively unique nature, but social totalities are not just the plural of these individuals: they too have their own nature, in the arrangement or organisation of relations in which individuals stand. Individuals do not lose their identity by standing in relations to one another within communities, but their identity is partly constituted by these relations. One is an employer, an employee, self-employed, a husband, a

⁶See Lawson (2013) and Collier (2011) for summary accounts of this position in social ontology.

mother and so on and acquires rights and obligations and follows collective practices as such positions are moved into.

Both extreme views – that is both social atomism and social holism – are unsustainable accounts of the nature of the social realm – what is needed is a relational account of the nature of the social domain. Social totalities are neither bundles of separate individuals nor are they mysterious collective subjects. Communities are organised sets of relations between individuals and their environment, relations that pre-exist any given individual and partly constitute the character and the powers of the related individuals. Society and communities exist in the sense that they are not a mere plural of person. On this relational conception of the social all social forms – the economy, the state, international organisations, trade unions, universities, households – are communities that depend upon, or presuppose social relations. And of special concern are the relational positions into which individuals essentially slot with their associated relationally defined collective practices, rights, obligations, prerogatives, etc.

A further feature of the social ontology being drawn on here is its transformational account of social activity. *Voluntarists*, while observing that making history is undertaken by human agents, exaggerate their ability to create social structure. *Structural determinists*, while acknowledging that human agents operate in conditions not of their own choosing but enabled and constrained by social structure, tend to conceive of structure as a fixed constraint. The insights from both perspectives need to be retained in a more encompassing *transformational model of social activity*.

On the transformational model the existence of social structure is the often unacknowledged but necessary condition of an individual's intentional acts, as well as a typically unintended, but inevitable outcome of, individual actions taken in total. Social structure is the unmotivated condition of our motivated productions, the non created but drawn upon and reproduced/transformed condition for our daily economic/social activities. One works to earn a living and thereby contributes to the accumulation of capital and reproduction of capitalist relations. One pays into a pension scheme so as to cover expenditures in old age and thereby helps to reproduce the financial system. The transformational model of social activity highlights both that the course of human history consists in a series of intentional actions of individual agents and their often unintended consequences and underlying this history there are relatively enduring mechanisms, which are constituted by the structure of relations between human agents and between those agents and their natural environment.

Let us consider more directly the notion of human agency and choice opened up once this relational understanding of the social and transformational account of social activity are adopted. Agency and choice if they exist must be powers that are irreducible to their exercise or manifestation in specific concrete acts. Although it has been argued that the concept of human intentionality entails the pre-existence of social structures which facilitate intentional acts, there is no necessity to suppose that such acts must be completely determined. Thus, although the structure of language facilitates speech acts it does not fix what is said – the status of human agency

is maintained. Similarly, the highway code enables safe driving without determining the journey undertaken; the market system promotes buying and selling without forcing any specific purchase to be made. Such examples emphasise action within structures. However, with social structures dependent on human conceptions and actions, the possibility also exists for both unintended and intended structural transformation.

What forms of consciousness are presupposed by human choice and action? Real choice, the ability to act or to have acted otherwise, presupposes both the transformational capacity of being able to make a difference and that action is in some sense and to a degree controlled by the agent. A significant feature of human action is that it is intentional in the sense that it is caused by reasons i.e., beliefs grounded in the practical interests of life - it is always directed towards some end. However, as Lawson (1994: 21) notes the pursuit of ends cannot be understood as a “simple, unitary, always reflected upon, discursive activity”. Consideration of the common everyday activities people engage in indicates that this cannot be the case. The complexity of human beings is of such an order that human powers extend beyond initiating changes in purposeful ways and include the monitoring and controlling of performances. The social activity that agents reflexively monitor constitutes a continuous flow – the individuals own acts, the acts of others, the socially constituted appropriateness of forms of conduct in particular contexts, etc. The reflexive monitoring of activity must also occur on an ongoing basis rather than in a piecemeal fashion. Since the monitoring of conduct is continuous then it must be tacit – moment by moment, explicit commentary and reflection would not be possible. Our ability to reflexively monitor activity presupposes a level of tacit consciousness. Beyond tacit consciousness a level of unconscious motivation can also be recognised as bearing on human praxis. In their actions, humans draw upon not only discursive thought and tacit and unacknowledged skills etc., but also unconscious needs and motivations.

2.6 Causality, Change and Social Transformation

With the status of human agency and choice preserved let me now turn to the issue of what conception of causality is presupposed by the proposed structured social ontology. The kind of ontological perspective sketched above conceives of causality as referring not to connections between discrete events but to systems actively exercising or displaying their powers and capacities. Reference to efficient cause is seen as needing to be supplemented - final, formal and material cause are understood as equally fundamental categories. Causality pertains to the powers and capacities that objects including human agents possess in virtue of their natures. On this view causality is construed as being objective rather than subjective.

The causal pluralism facilitated by the adoption of this ontological perspective makes it possible to conceptualise social determination in terms of final, formal and material causation rather than efficient causality alone. To elaborate with regard

formal causality specifically, a system can be understood as a set of elements that have an integrity when considered together as a totality, where the latter is formed via an organisation of those basic elements. The organising structure of a system emerges concurrently with the emergent totality that comprises the system as a whole. It not only renders the (organised) basic elements distinct components of the system but also accounts for any emergent causal powers of the emergent system. This organising structure also connects a subset of components to features of the environment; a system always exists in some context. The influence that this organising structure has is a type of formal causality. Lawson provides a useful example:

Consider the construction of a bridge. Here various items or materials may be brought together to form components of a totality, including, perhaps, pieces of wood, brick, stone, cast and/or wrought iron, mild, high-tensile and/or alloy steel, aluminium, steel-reinforced and/or pre-stressed concrete, glass-reinforced plastic, and so forth. These are organised or assembled, in a specific environment, and in a manner such that the resulting totality allows the crossing of a space, perhaps containing a river (whilst the resulting totality itself can survive potential stress caused by such factors as bending, compression, impact, oscillation, pressure, tension, torsion, vibration; contraction, corrosion, erosion, expansion, fatigue, friction, rain, river flow, sea-water, scouring, temperature changes, tidal flow, turbulence, waves, wind erosion, wind gusts, wind pressure etc.). The totality that is the bridge clearly emerges simultaneously with the organising relational structure of the materials enlisted as components, and, significantly, the latter organising structure makes a (causal) difference to the emergent causal powers of the totality. Were the resulting bridge to be taken apart again and the various materials assembled blindly, it is unlikely that any resulting outcome would possess the causal properties of a bridge. The arrangement matters; it is a type of *formal* causation. (Lawson 2014: 25)

Most social systems are continually reproduced through the everyday human interactions which they facilitate. In these systems human individuals are amongst the components. It is through the sum total of their activities, qua components, that the system is reproduced. Consider as examples local communities, firms, markets, tutorial groups, reading clubs, financial centres and workplaces. Each is an emergent form of organisation possessing novel emergent causal powers at the level of the emergent totality, but these causal powers can only ever be realised through the actions of its organised members. Each such system possesses an organising structure that facilitates certain individual actions of system components and is subsequently reproduced (or transformed) through those actions. The organising structure conditions, facilitates and constrains the development of individual's powers. The individuals are irreducible active causers of change yet the kind of change they can and cannot bring about, the kinds of actions they can and cannot perform, are conditioned by the organising structure of the totality.

The notion of change entailed by this augmented ontological perspective is not reducible to the minimalist account of discrete and exogenous changes in events and states of affairs encouraged by the mainstream economics approach. Significantly this broader metaphysical position can distinguish different kinds of change, including accidental from necessary. Developing into a dog is in the nature of a puppy

while, say, breaking a leg is not. The latter is an event due to contingent external factors, while growing into a dog is a necessary tendency given the kind of thing it is. It is our understanding of the nature of things that allows us to make judgements of particular cases. We do not alter our description of what a dog is when we come across one with a broken leg. Instead we make a judgement of this individual and recognise that it is lacking something. When we make such judgements about individual cases we are not making empirical descriptions or statistical generalizations but are assessing what is proper or essential to a particular individual given the kind it belongs to. The assessment of the individual is made in relation to an appreciation of the powers and activities a dog *qua* dog has and does, the parts it has and the life phases it passes through. These assessments are normative. When we make the assessment that the particular individual lacks something that is proper to its nature or *life-form* we thereby recognise that in the relevant sense it exists privatively. The category of life-form here plays an explanatory role in accounting for what happens in the course of an individual's life to the extent that things proceed as they should,⁷ while it is when things go wrong that appeal must be made to chance and accident.

This kind of ontological framework, once supplemented with insights from critical social science, can serve to inform emancipatory initiatives that are focussed on, not the controlling of variables so as to guarantee predictable outcomes, but, the bringing about of rational, intentional, social transformations that facilitate human flourishing. Given the natures we have we are creatures capable of flourishing in certain conditions and the flourishing of each of us depends on the flourishing of others and ultimately all.⁸ If we do not flourish it is not because our interests are necessarily opposed, nor is it that our nature is inherently alien to us but is due to problematic social conditions existing that distort our relation to it. Contingently existing social factors foster a wrong form of life that fails to facilitate human well-being and flourishing. Agency is irreducibly real but it is not sufficient for our flourishing.⁹ The good society remains a real potential that can be realised if different social arrangements, requiring significant structural transformations, can be brought into existence.

⁷For elaboration on the category of life form and its significance, see Thompson (2012) and Reeves (2016a).

⁸For an extended defence of the thesis that the flourishing of each is dependent on the flourishing of all others, see Lawson (2015a).

⁹Reeves (2016a, b) elaborates on a distinction between agency and freedom in the context of competing interpretations of Adorno's contributions. He clarifies that there is no contradiction between insisting on someone's agency and yet also recognising their unfreedom due to currently obtaining social conditions.

2.7 Conclusion

Mainstream economists, due to their mistaken assumption that the scientific credentials of the discipline hinge upon the deployment of formal mathematical modelling methods, are constrained by a host of implicit metaphysical presuppositions. By assuming that these methods are always relevant they take the social world to be constituted in effect by passive, isolated atoms. An appropriately formulated economic model, stipulating well specified functional relations, serves to filter out agency, choice and genuine change. This is a most distressing result for mainstream economists to acknowledge since they typically see choice as being a central, even defining, disciplinary concern. A fundamental dilemma between explanatory progress and choice is then posited and seen as inevitable.

Once an explicitly ontological orientation is adopted this dilemma can be shown to be false. An alternative structured ontology of things, powers, potentialities can be identified that is not only coherent but able to render intelligible key aspects of modern scientific practice in a way the implicit ontology presupposed by mainstream economists is quite unable to do. Both agency and choice can be recognised without either constituting a block on explanatory progress. Economists can accept the goal of seeking to improve the explanatory power of their theory and acknowledge the reality of agency, human choice and intentionality. The recognition that the dilemma is false follows from a direct engagement with ontology. Adopting a structured social ontology also allows a more adequate conception of social change to be accommodated which can inform emancipatory initiatives. Given the state of contemporary economics a renewed focus on ontology is urgently needed if sustained explanatory progress is to be facilitated.

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