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CAUSALITY AND CRITICAL THEORY: NATURE'S ORDER IN ADORNO, CARTWRIGHT AND BHASKAR*

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Introduction

It is perhaps understandable that Adorno is usually thought to be sceptical of science and opposed to a realist view of causality. His hostility toward scientific thought in *Dialectic of Enlightenment*[1] has lead to the impression that Adorno's views of nature and natural science are either implausible or incoherent.[2] It seems that Adorno's generalised scepticism about instrumental reason and scientific rationality leads him to reject the reality of science's causal descriptions.[3] In fact, such an interpretation is misleading. It is certainly the case that Adorno's views on matters of causality are unclear, and he did not explicitly and systematically thematise it. But things look very different when we focus our attention on Adorno's mature work on the idea of freedom and consider Adorno's comments on causality in the context of the broader themes of his philosophy. I argue that Adorno's philosophy of freedom is implicitly committed to a picture of nature's order that is neither strictly determinist nor blindly chaotic. In order to make full sense of his arguments about freedom, we must appreciate that a view of nature's order is implicit even if un-worked-out in Adorno's philosophy, and that such a view needs to be reconstructed in order to see his arguments in their best light.

I explain how Adorno's philosophy of freedom takes us to causality (1-2), before asking what Adorno's picture of nature must roughly be like (3). The picture offered will have to be compatible with the idea of human freedom while avoiding the problems of Kant's approach. Unfortunately Adorno never gives a completely clear account of this himself.[4] He does offer a number of suggestions and insights into what sort of picture of natural order might be at work in the background though. I suggest that in light of his

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[1] Horkheimer and Adorno, *Dialectic of Enlightenment*, (Stanford: Stanford University Press, 2002)

[2] Vogel's *Against Nature* (SUNY, 1996), is probably the fullest such account., cf. Ch. 4, where he argues that for Adorno nature ends up being both something subsumed in reason, and an element of nonidentical 'immediacy' to which to appeal. It is quite unclear why Vogel assumes that the nonidentical has anything to do with immediacy – Adorno is clear that it doesn't; cf. P. Dews, 'Adorno, Post-structuralism and the Critique of Identity', in *The Limits of Disenchantment* (London: Verso, 1995)

[3] This is broadly the gist of H. Engelskirchen's 'Powers and Particulars: Adorno and Scientific Realism', *Journal of Critical Realism* 3, pp. 1-21. I remark on this below in part 8.

[4] Cf: 'As he never treats this subject very explicitly, it is largely a matter of reconstruction to formulate what exactly his solution looks like.' F. Freyenhagen, *Adorno's Negativistic Ethics* (Sheffield: Sheffield University, 2005), p. 83

deepest philosophical commitments and the nature of his overall project we must read him, even sometimes against himself, as having a broadly realist and non-positivistic view of causality (4-5). I then turn to consider two candidate accounts of his position: Nancy Cartwright's patchwork of laws and Roy Bhaskar's critical realism. Rejecting Bernstein's suggestion that Cartwright's position fits with Adorno's views (6-7), I suggest that Bhaskar's realism is compatible with and in some significant ways implicit in Adorno's position (8). Clearly Adorno is not a proto-critical realist, but given the need to present a coherent picture of natural order that is consistent with his position, critical realism provides the best account, at key points, of Adorno's basic philosophical intuitions. I conclude by remarking on the deeper affinities between Adorno's and Bhaskar's philosophical outlooks in the link between freedom, necessity and critique (9).[5]

1. The Idealist Concept of Freedom

Adorno's discussion of freedom takes off from a critical reading of Kant's philosophy,[6] in which freedom is understood by its insoluble contradiction with the concept of causal determination.[7] Kant's discussion poses 'causality in accordance with laws of nature'[8] and 'the absolutely spontaneous [ie., free] action' as equally necessary and yet mutually exclusive ideas.[9] This irresolvable contradiction is for Kant a limit concept for the application of pure reason marking out the 'bounds of sense,'[10] and helps fulfil his ambition to 'deny *knowledge* in order to make room for *faith*.'[11] Kant's approach delimits freedom to be compatible with external restrictions on freedom, because it is solely to do with the ability to determine one's own actions in accordance with reason, and thus independent of empirical circumstances. Adorno's criticism of Kant's theory of freedom is that it wrongly renders the conflict of individual freedom with the unfreedom of the world into an unchanging metaphysical fact. His argument is similar in approach to his rejection of Martin Heidegger's account of social alienation –

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[5] Although I don't have space to develop this thought fully, I see the argument of this paper as broadly part of a more systematic exploration of Adorno's naturalism, a position that he thinks can be shown by immanent critique to be a legitimate convincing alternative to idealism, cf. ND p. 299

[6] Cf. T. Adorno, *Negative Dialectics*, (London: Routledge, 1973) [hereafter ND], p. 246; T. Adorno, *Problems of Moral Philosophy*, (London: Polity, 2000), [hereafter PMP], Lectures 3,4,5; T. Adorno, *History and Freedom*, (London: Polity, 2006), [hereafter HF], pp. 195-9

[7] Cf. the famous 'Third Antinomy', in I. Kant, *Critique of Pure Reason* (Macmillan, 1929), pp. 409-417

[8] Kant, *Critique of Pure Reason*, p. 409

[9] Cf. Ibid., p. 412

[10] To use P. F. Strawson's well-known phrase, cf. his *The Bounds of Sense* (London: Methuen, 1973)

[11] Kant, *Critique of Pure Reason*, p. 29. Kant tries to do this by showing that the question of freedom cannot be answered in the perspective of theoretical knowledge, but rather requires the limitation of the dogmatic extension of metaphysical beliefs beyond their own 'territory'. Cf. Ibid., pp. 18-29. Ultimately Kant's answer to the antithesis is that only on the distinction between world-as-appearance-for-us and world-as-thing-in-itself can the necessary perspectives of both causality and freedom be maintained at the same time. As Allen Wood argues, he is a compatibilist about the compatibility of compatibilism with incompatibilism. Phenomenally everything happens in accordance with universal causal determination; considered noumenally, humans are absolutely free to intervene in causality. For Adorno 'Kant presses for the necessity of the contradiction, and at the same time, to the higher glory of reason, he stops up the hole by juggling away the necessity said to derive from the nature of reason.' This chimes with the worry that Kant's argument claims to be resolving a contradiction which, if it so easily evaporates in the hands of transcendental idealism, might perhaps have never been a real contradiction in the first place (cf. F. Freyenhagen, *Adorno's Negativistic Ethics*, (Sheffield, Sheffield University, 2005) p. 40)

'inauthenticity'[12] – in *Jargon of Authenticity*, where he criticises Heidegger for 'bemoaning and leaving in peace' a social form of alienation which 'can in fact be gotten rid of.'[13] What Adorno is saying is common to both Heidegger and Kant, is the mistaken assumption that features of the social – and hence historical – world are really unchanging, fixed features of 'nature' (or for Heidegger 'being'). Freyenhagen calls this argument the Misattribution Thesis, since the claim is that in idealism social barriers to freedom have been misattributed to nature's order, and spirited away.[14] Adorno rejects it not only because it is incoherent, but because it produces morally objectionable and politically conservative implications: the idea of absolute freedom can be used to insist unjustly on 'the *unconditional responsibility* of individual human subjects,' even when individuals are not *in practice* free.[15]

Furthermore, Adorno claims strangely that 'unfreedom is not just an impediment to freedom, but a premise of its concept.'[16] He means that freedom is historical insofar as the very *question* of freedom is a relatively recent one (the problem of 'free will' didn't occur to the Greeks, for instance), and for Adorno this is because the possibility of freedom presents itself primarily as a negative one in response to the *actual* experience of unfreedom – the social experience of limitations on freedom in modernity.[17] This is to say, along with Hegel, that the very problem of a free individual emerges with a certain form or certain features of social life, and as such is not itself a purely subjective question. This is revealing primarily because it suggests that we have not always experienced nature as a barrier to our freedom, and that the barriers to our freedom our historically changeable circumstances.[18]

2. The Idea of Causality

This explains why the idea of causality is important for Adorno's philosophy of freedom. It is in antithesis to the – for Adorno falsely – strictly deterministic[19] picture of

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[12] Cf. M. Heidegger, *Being and Time* (Oxford: Blackwell, 1962), Division 1.
[13] T. Adorno, *Jargon of Authenticity* (London: Routledge, 2003), p. 82
[14] F. Freyenhagen, *Adorno's Negativistic Ethics*, pp. 84-92. I follow Freyenhagen's sophisticated interpretation on this point and others, and agree with much of his reconstruction. Where I disagree with him will become clear throughout the discussion. I am grateful for helpful discussions with him about some of the issues explored here.
[15] HF, p. 197. As Lewis White Beck has remarked in *A Commentary on Kant's Critique of Practical Reason*, we are invited to 'insist on the freedom of the transcendental man but we hang the empirical one,' and likewise it can be little comfort to be told that although you are indeed a slave or prisoner of war, you are still, in the most important sense, absolutely free. Kant was liberal and opposed slavery, but his attitude to criminal justice was not progressive, and his position on freedom remains troubling in its denigration of the empirical content of freedom.
[16] ND, p. 265
[17] On this Adorno is close to Hannah Arendt; for her discussion of the history of the problem of free will, cf. Arendt, 'Some Questions of Moral Philosophy', in *Responsibility and Judgment* (New York: Schocken, 2003) and 'What is Freedom', in *Between Past and Future* (New York: Penguin, 1978).
[18] We might also add that the opposite is true – that the possibility of freedom is a premise of the experience of unfreedom. A dog cannot be unfree in anything like the sense in which humans can be; dogs can aspire only to negative freedom, whereas humans can and do aspire to something richer: self-determination. It is only because we feel capable of more freedom that we can experience so much unfreedom.
[19] I use the term 'strict determinist' here to refer to the positivistic 'causal chain of events' version of determinism that is common to Hume and Kant, and to be clear that Adorno does not seem committed to a

nature that Kant introduces his concept of freedom, but this strategy is troublesome. Adorno claims that causality and freedom 'intersect':[20] in Kant they *both* depend on strict lawful necessity,[21] and this is itself the result of a false separation of freedom and nature, order and chaos, in Kant's idealism.

Adorno argues that the strict deterministic picture of nature is an imposition of reason's formal characteristics onto nature. In effect, the causal deterministic picture on which Kant relies attempts to reduce nature to what can be said about it within the formal strictures of reason. But according to Adorno's account of reason, which he originally elaborated in *Dialectic of Enlightenment*, reason emerged as an instrumental capacity to facilitate the prediction and manipulation of nature for the purposes of self-preservation.[22] This self-preservative function is fully developed in the scientific enterprise which aims at the 'disenchantment of the world' as the condition of controlling it. It is against this backdrop that Adorno launches his attack. The 'formal Kantian definition of causality that whatever happens presupposes a previous condition "upon which it inevitably follows according to a rule"'[23] equates natural order with legality. Yet legality – strictly following according to a rule – is a feature of reason's cognition rather than of nature itself, and 'denotes no more than a subsumption [of nature] under rational unity.'[24] On the other hand, Adorno emphasises that Kant equates freedom with reason construed as a sort of necessity. This, Adorno claims, is in fact to reduce spontaneity to the determinations of instrumentality, since practical reason can never be 'pure', In light of this, freedom turns out to be, on Kant's account, nothing other than a determination of action based on the necessity imposed by the imperative of self-preservation,[25] an unconscious continuation of nature.

At this point the issue is clear. In claiming that the problem of freedom is not metaphysical (that nature and reason are not strictly opposed), Adorno seems to be committed to a metaphysical thesis of his own. The problem here is no superficial paradox. If his rejection of Kant's strict determinist picture of nature is to do much work, it will need an alternative account which shows what is false with Kant's. It doesn't seem enough to simply reject the question of nature's relationship to human freedom; if nature doesn't conflict with freedom, we want to know how that is so. Reformulating freedom

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simple dichotomy between determinism and chaos. My argument in later on (parts 8-9) is that Bhaskar's version of determinism which rejects the regularity view of causation is potentially compatible with Adorno's position.

[20] ND, p. 248

[21] ND, p. 247

[22] Cf. T Adorno and M. Horkheimer, *Dialectic of Enlightenment: Philosophical Fragments*, trans. E. Jephcott (Stanford: Stanford University Press, 2002), especially Ch. 1.

[23] ND, p. 247

[24] ND, p. 247

[25] Such a reading seems persuasive even in light of recent Kant scholarship, for example in the equivocations apparent in Andrews Reath's attempt to formulate the Kantian subject in a way that does not fall back on an instrumental or means-based motivation. Cf., A. Reath, 'Intelligible Character and the Reciprocity Thesis', *Inquiry* 36, 1993, pp. 419-430, where he argues that the individual must be seen as acting under the moral law because it is in his interest as a rational sovereign being to do so; such talk, though not conclusive, does seem to support Adorno's suspicions about the untenability of the equation of freedom with pure motivation (ie the for-its-own-sake attitude to the moral law) on the one hand, and the attempt to realise this through the equation of freedom with legality on the other. The talk of 'law', 'order' and 'sovereignty' also lends some support to the social-explanatory side of Adorno's account in which he traces the confusions in German idealism to the societal experiences of modernity.

requires reformulating both sides of the opposition – nature and freedom stand or fall together, and Adorno's response is ultimately to reject the very opposition on which Kant's theory turns by revealing the natural element in freedom and the affinity for freedom in nature: 'causality points to the idea of freedom as the possibility of non-identity.'[26]

3. Adorno on Nature's Order: Preliminary Considerations

What then might Adorno's own view of natural order be? It is crucial to see precisely what it is that Adorno rejects before attempting to reconstruct what he might accept. Adorno's basic objection to Kant's notion of causal determination runs parallel with his objection to Kant's notion of free will: *the underlying mistake is to conflate order with 'legality'*,[27] assuming that 'behaviour without any rules at all would be simply chaotic.'[28] In fact Adorno's suspicion seems to be that for Kant anything but a *total subsumption* under laws would be chaotic.[29] Adorno's claim seems to be that there is no good reason to assume that order (either in freedom or nature) requires strict lawfulness, since lawfulness is merely the form in which *reason construes* order – that which 'follows from rules'.[30] The view of causal order as a complete subsumption under lawfulness gets mirrored in the Kantian view of freedom, which also requires necessary determination according to rules.

Both moves, according to Adorno, are motivated by what he calls, following Erich Fromm, the bourgeois 'fear of freedom:'[31] the suspicion that whatever cannot be put into laws, whatever would be absolutely free, would be 'blind, amorphous force' and would be 'simply chaotic' and terrifying. This blind amorphous force represents in the Kantian system a totally uncontrollable – because lacking any law – vision of the state of nature prior to or in the absence of reason. This can be seen in two ways: on the one hand, it is for Kant a threat to freedom, since without laws freedom would lack all guidance and relapse 'into the natural chaos of a purely arbitrary state of affairs';[32] but what Adorno is pressing is that it is unwarranted to assume that nature without laws would be chaos and arbitrary in the first place.[33] On this assumption 'causality approximates the principle of reason as such, of thinking in line with rules,'[34] such that causality appears as an attempt to impose the order of reason on what would otherwise be chaotic nature. This view is motivated, on the one hand, by the identifying drive of the

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[26] ND, p. 269
[27] ND, p. 269
[28] PMP, p. 54
[29] Although this is a difficult point of interpretation, cf PMP p. 64: 'Because if there is just the tiniest amount of freedom, just a little corner, then this must mean that the entire business of a chain of cause and effect has a hole in it[…] for in that event it is quite unclear why there should not be an element of freedom in countless other places. But this question[…] is simply swept under the table.' Adorno's suggestion seems to be that Kant's interpretation of order as lawfulness simply doesn't admit of any gaps, or another way of putting this is that order on Kant's lawful causal chain model is an all-or-nothing affair. If there is the 'tiniest amount of freedom', this opens the gates to utter chaos. This is still a tentative interpretation; I am grateful to Fabian Freyenhagen for instructive discussion.
[30] ND, p. 248
[31] A reference to Fromm's *The Fear of Freedom*, (London: Routledge, 2001), HF, p. 196.
[32] PMP, p. 57.
[33] PMP, p. 57.
[34] ND, p. 247.

narcissistic but vulnerable and scared subject to subsume all possible difference within its own cognitive terms (and thus power) lies behind this insistence on seeing natural order as a strictly lawful affair. At the political level, Adorno traces this basic worry that without lawfulness we would have chaos to the bourgeois 'plea for order'[35], which feared that the extension of freedom beyond the limitations of formal or abstract legal personhood would undermine its own privilege, and thus came to see freedom as problematically presupposing law.[36]

To take stock: the underlying problem for Kant is a mistaken *conflation of order and legality*, motivated by the primordial fear of enchanted nature which comes across to the subject as blind chaos and thus as mortally dangerous.[37] It is this assumption that an absence of law would equal chaos that accounts for the way in which 'freedom and causality intersect.' Adorno's thesis seems to be that the assumption that order is equivalent to law, that an absence of law would be chaos, is false. Now there are two key and interconnected insights which will guide the discussion, but it is useful to introduce them now: 1) Adorno's rejection of the legalistic understanding of order amounts to a rejection of the positivistic regularity view of causal relations as chains of events; 2) Adorno is not rejecting causality, but is rejecting the subjectivist understanding of causality as something projected onto the world. In other words, Adorno wants an objective understanding of causality, something which should be unsurprising given his continual insistence on the preponderance of the objective.[38] These two moves obviously go hand in hand, and will shape the overall discussion.

Whilst I am suggesting that Adorno needs a picture of what the world is like, it is important to reiterate that this is not a face-value metaphysics. His naturalistic position emerges immanently from the internal incoherence of idealism. The whole movement of his argument against Kant's conception of freedom and causality is that they are unstable, and cannot be strictly separated on Kant's own terms. As we have seen, freedom and necessity get entangled at their heart. Spontaneity from nature's necessity can only be consolidated by autonomy, which itself is a (normative) form of necessity. Of course, Adorno is aware that the necessity of causal law and the necessity of normative law are supposed to be quite distinct, but his argument is that the distinction cannot be sustained

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[35] ND, p. 249

[36] 'Thus bourgeois society always possessed this dual proclivity: on the one hand it postulated freedom, and on the other it tended to restrict freedom, especially any demands that threatened to go beyond the bourgeois order.' Cf. HF, pp. 195-96. The prevalence of the phrase 'law and order' itself illustrates the prejudice Adorno is criticising – that order would require subsumption under laws. We could put it like this: the positivistic view of science represents a metaphysical equivalent to the bourgeois political attitudes (especially the commitment to the 'rule of law' as an inherent good, of the Enlightenment.

[37] The use of the explanatory account invoked by the term 'motivated' here may seem strange. It seems to lie somewhere between speculative anthropology, fictional genealogy and phylogenetic psychoanalysis. I discuss the role of metacritique in Adorno's theory in part 4, although a proper exploration of these issues is obviously beyond the scope of this article. Cf. J. Bernstein, *Adorno: Disenchantment and Ethics*, pp. 257-261.

[38] ND, p. 183; cf 'It is not true that the object is a subject,[…] but it is true that the subject is an object.' ND, p. 179. These and similar passages demonstrate the objectivist strain in Adorno. The term preponderance has a specialised meaning in weaponry: '**b.** *Gunnery*. The amount by which the weight of the part of a gun behind the trunnions exceeds that of the part in front of them.' (OED) Taken in this way, the preponderance of the object is not the absolute priority, but rather the *relative weightiness*, of the objective side of the dialectic.

because at the source of both lies the same principle of identifying reason which refuses to accept that there can be any order which it cannot reduce to its own cognitive processes.[39] This disintegration of the central distinction between necessity and freedom in transcendental idealism Adorno takes to licence an alternative, naturalistic account which makes more sense of idealism's internal tensions. We are now in a position to clarify what exactly the problem is alleged to be with the Kantian assumption that without laws we would have chaos, and I take it to be this: that on such a conception freedom collapses into what it was supposed to be opposed to: determination 'according to rules'.[40] This internal collapse is the symptom of deeper problems with Kant's picture, and discloses the need for an alternative account.

4. Metacritique

Adorno's argument is supported by explanatory accounts about how the question of freedom may have mistakenly come to be seen as metaphysical, forming a two-sided metacritique or 'error-theory' that both identifies and explains a mistake.[41] These suggest how restrictions on individual freedom experienced in the socio-political and psychological domains may seem, phenomenologically, to be ahistorically invariant.[42] The experiential context of bourgeois society is such that

> the law of value comes into play over the heads of formally free individuals. They are unfree, according to Marx's insight, as the involuntary executors of that law…[43]

At one level, the experience of social unfreedom in the 'universal dependence' of modern society gets mistaken for a natural state of affairs.[44] In a similar vein, but at the psychological level,

> The empirical irresistibility of the super-ego, the psychologically existing conscience, is what assures [Kant], contrary to his transcendental principle, of the factuality of the moral law…[45]

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[39] Cf. R. Pippin, 'Negative Ethics: Adorno on the Falseness of Bourgeois Life' in *The Persistence of Subjectivity: On the Kantian Aftermath* (Cambridge: CUP, 2005), in which he wrongly argues that Adorno simply confuses the different sorts of necessity involved in causal and moral law.

[40] Cf. PMP, p. 57

[41] A metacritique involves both a philosophical part and an explanatory part, and is the characterstic mode of critique in critical theory. The philosophical and explanatory dimensions of the argument reinforce one another, since it is an advantage to be able to explain not only *that* someone is mistaken, but *how they came to make the mistake*. Cf. F. Freyenhagen, *Adorno's Negativistic Ethics* (Sheffield: Sheffield University, 2005) who characterises Adorno's two-stage critique as a Mackie-style 'error-theory', in which the identification of a mistake and the explanation of how that mistake came to be committed form mutually reinforcing dimensions of an argument, pp. 83-4. I would suggest that the notion of an 'error-theory' is close to the notion of 'explanatory critique' which Roy Bhaskar develops in detail in *Scientific Realism and Human Emancipation* (London: Verso, 1987), pp. 176-223; I discuss this further in part 5.

[42] Cf., F. Freyenhagen, *Adorno's Negativistic Ethics*, where he refers to this argument as a Misattribution Thesis, pp. 84-92.

[43] ND, p. 262

[44] ND, p. 267, cf. ND, p. 354-6.

[45] ND, p. 271

So while the individual's experience of the restriction of his freedom by *social* laws becomes transmuted into the causal determination by *natural* laws, the subject's experience of the internal limitations on his natural inclinations represented in the psychoanalytic concept of the super-ego is transmuted likewise into subjective freedom, which appears as a limitation on the subject's interests, in the form of the moral law.[46] Adorno wishes to show that, at both social and psychological levels, there is a tendency for particular experiences to seem transcendent of their instances and circumstances. The subject is always sensuous, embodied, and so in a real sense isolated, but its experiences always *seem*, at least given antagonistic social arrangements, to be transcendent of the particular circumstances in which they obtain. The actual experience of unfreedom in modernity has been assumed to present a real problem for freedom regardless of historical context, rendered in the deterministic structure of nature: 'something like a supreme metaphysical principle has been created out of the idea of the emancipation of the bourgeois individual – the idea of bourgeois autonomy.'[47]

5. Nature, Freedom and Critique

What would a picture of natural order have to be like in order to be adequate for Adorno's critical theory? What we have seen so far is that *there are two pictures of nature that he rejects: nature as total conformity with laws; and nature as blind chaos.* This is another way of expressing Adorno's rejection of the Enlightenment view that nature and reason are distinct domains, which is the driving force of his insistence that subjectivity must be seen in the context of its natural history, or that history is always natural history.[48] In this light, the nature of what is at stake in giving an adequate account of natural order for Adorno's position becomes clear: his criticisms of the Kantian view of subjectivity as structured in accordance with reason will only be persuasive if he can offer a way of coherently thinking about subjectivity beyond the divide of reason and nature.

Now given that Adorno rejects the conception of nature as determined according to rules, there is a potential problem, as Freyenhagen notes, which is the worry inherited from the compatibilist tradition, that 'in the absence of determinism there is just chance. If everything is underdetermined, if things just happen, then freedom seems to be excluded as well.'[49] This is the problem of the unintelligibility of freedom in the absence of determinism. However, I have doubts about Freyenhagen's view that Adorno 'possibly never considered this objection.'[50] It seems to me that Adorno's repeated insistence that nature abstracted from reason would be no more free than reason in abstraction from the natural element, is aimed at precisely this point.[51] As we have seen, Adorno rejects the idealist distinction between chaos and order as incoherent. When he claims that 'the fact that the sphere of the human can exist neither in absolute conformity to law nor in

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[46] Here Adorno draws on Marx's theory of ideology, and Nietzsche's reflections on the epistemic constraint imposed by the *principium individuationis*.
[47] PMP, p. 71
[48] Cf., T. Adorno, 'The Idea of Natural-History', in T. Hullot-Kentor, *Things Beyond Resemblance* (Chichester: Columbia University Press, 2006); ND 300-360. See my discussion of this issue in 'Exploding the Limits of Law', *Res Publica*
[49] Freyenhagen, *Adorno's Negativistic Ethics*, p. 98
[50] Ibid., p. 98
[51] ND, p. 236

absolute freedom, is the true and profound' insight in Kant's philosophy,[52] Adorno shows that he is alive to the problems of both compatibilism and incompatibilism. If it is to be intelligible, 'freedom calls for reflection which rises above the particular categories of law and chance.'[53]

This is one reason why Adorno is just as dismissive of the chaotic and strictly determined conceptions of nature,[54] and I suggest that if we are to give a proper account of what Adorno means we must give full weight to his rejection of the distinction between rationality and chance. Adorno's argument seems to be that *neither a strictly determined nor a fully chaotic picture of the world is coherent*, in that neither can make freedom intelligible, which I think amounts to saying that Adorno's response to the choice between compatibilism and incompatibilism is to reject the choice between the two as a false one premised on a false opposition. Moreover, the role of the natural impulse – or 'addendum'[55] – in Adorno's account of freedom explicitly invokes the role of natural causality in a way that could not in principle be reducible to strict determinism.

> With that impulse freedom extends to the realm of experience; this animates the concept of freedom as a state that would no more be blind nature than it would be repressed nature,[56]

This is so because the choice between blind and repressed nature – between chaotic or lawful nature – is a false one which is forced on philosophy by the actual historical process of abstraction and domination of nature. This is what Adorno is getting at when he says that 'causality [understood as strict or regularity determinism] is the spell of dominated nature' – the Kantian view of nature's order is itself a product of the way in which we have approached and appropriated nature and construed it in certain instrumentally useful terms.

There is, however, a second 'intelligibility' issue, which I think is particularly significant and perhaps the chief motivation for Adorno's conception of nature. This is that if nature minus cognition were really 'chaos', then *science* would be unintelligible. It is this that accounts for Adorno's rejection of the undetermined picture of nature. Of course, Adorno's concern is not especially natural science, but the critical social and human sciences. As we have seen he relies on various explanatory accounts, of society, and of psychology, to explain the contradictions in idealism. We might press the point: the very idea of a metacritique presupposes the intelligibility of *explanations*, which just is to say, of *causality*. To *explain* how a conception of causality came about would create a contradiction unless it could posit an alternative conception of causality that was able to ground explanatory claims whilst avoiding the conception of nature as strictly determined by laws. Bhaskar's theory of 'explanatory critique' articulates the structure of what Adorno calls metacritique very well, and can do so because Bhaskar supports it with an

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[52] PMP, p. 54
[53] ND, p. 237
[54] Here I use the term 'determined' in the 'strict' or 'regularity' determinist sense. I explain this later in the discussion, but this point already pre-empts an important point – that
[55] Cf. ND, pp. 226-230
[56] ND, p. 229

elaboration of the philosophical ontology that would make this kind of critique – at once explanatory and evaluative – intelligible.[57]

The third consideration to take account of is the intimate relationship between the two already considered. The fact that neither freedom nor science can be made sense of on the basis of what I have called 'the Enlightenment view that nature and reason are distinct domains', has a further implication and links the issues under discussion to the broader themes of Critical Theory. That is, a proper conception of science is intimately connected with the possibility of bringing about human freedom, insofar as such science is conceived as critique. This comes through throughout Adorno's work, but moreover is a basic presupposition of the intelligibility of critical theory as a practice.[58] This of course is important when we turn to consider Bhaskar's critical realism, and the latter's work on the link between science, critique and freedom crystallises rather concretely the view that critical realism should be understood in the tradition of Critical Theory.[59]

It follows, then, that neither the blind nor the repressed picture of nature will be good enough to make intelligible the possibility of real freedom. Again, Adorno reaffirms my interpretation when he says that 'the absolute split between freedom and chance is as arbitrary as the absolute split between freedom and rationality,'[60] the bite of which is that the separation of the realm of chance and rationality, on which the Kantian objection rests, is illicit: 'freedom calls for reflection, which rises above the particular categories of law and chance.'[61] Nature and freedom do not occupy different domains but, as we shall see later, are absolutely essential to one another, which is why science as critique can be a vehicle of freedom. That is, while 'causality points to the idea of freedom as the possibility of non-identity,'[62] 'causality itself makes sense only in a horizon of freedom.'[63] An adequate account of the conception of natural order that Adorno needs will have to show how it rises above the options of chance and law and links to freedom.

I consider two candidate pictures of natural order from recent contributions to the philosophy of science. The first is Nancy Cartwright's 'patchwork of laws'.[64] Jay Bernstein and Fabian Freyenhagen have both recently suggested that Cartwright's position offers a plausible interpretation of Adorno's picture of natural order.[65] The

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[57] Cf R. Bhaskar, *Scientific Realism and Human Emancipation*, (London: Verso, 1987), pp. 176-223; for his social ontology, cf. *The Possibility of Naturalism*, 3rd ed., (London: Routledge, 1998). It is worth noting that Bhaskar also develops a theory of metacritique^1 and metacritique^2 in his later *Dialectic*, although that is a separate body of work beyond the scope of this paper.

[58] This is quite an ambitious claim, but the basic idea is I think right: that critical theory is committed normatively, and thus it is committed to the idea that critical theory is capable of having an appropriate relationship to the right sort of practices. This idea plays an important role in Horkheimer's work (cf. 'Traditional and Critical Theory'), but originates with Socrates, whose normative theory involved a conception of itself as intimately connected with the right life, cf. Williams, *Ethics and the Limits of Philosophy*, ch. 1, for a critical discussion of this idea.

[59] I return to these issues below at part 9..

[60] ND, p. 237

[61] ND, p. 237

[62] ND, p. 269

[63] ND, p. 268

[64] N. Cartwright, 'Fundamentalism vs The Patchwork of Laws' in *The Dappled World: A study of the Boundaries of Science* (Cambridge: CUP, 1999).

[65] J. Bernstein, *Adorno: Disenchantment and Ethics*, (Cambridge: CUP, 2001), p. 255; F. Freyenhagen, p. 85f, and p. 97

second is Roy Bhaskar's critical realism.[66] Bhaskar's picture of nature, which emerges from an immanent critique of the empirical realist and positivist traditions, attempts to give an account of natural order without 'strict determinism'. I argue that Cartwright's picture of nature is unable to give full expression either to Adorno's worries about the reduction of causality to law-like causal chains (rejection of positivism), or to his commitment to the reality of nature's order beyond the descriptions of it given in causal laws (rejection of subjectivism). The apparent tension between Adorno's rejection of causal chains, and his commitment to the reality of nature's order beyond reason's cognition, can be made sense of in Bhaskar's realist anti-positivist conception of natural necessity. When causes are understood tendentially, there is no need to accept strict causal chain determinism to accept natural order, and more chance of seeing the possibility of reconciling nature and freedom through critique.

6. Cartwright's Patchwork of Laws

In her influential *How the Laws of Physics Lie*, Cartwright argued that the laws of physics, which are paradigmatically *ceteris paribus* laws, do not, and are known to not, actually 'tell what the objects in their domain do.'[67] The thrust of her argument was against the 'realist' view that scientific theories provide access to independently existing entities and processes in the world. The *ceteris paribus* clause in causal laws expresses, on this view, more about our commitments as to what counts as a legitimate explanation than it does about the true nature of the world.[68] Causal laws, which express a regular relation between particular events or types of events, seem clearly false in light of the *ceteris paribus* clause which stipulates that the law only holds in the 'right' conditions.

Here Cartwright interprets the failure of causal laws to express true empirical regularities as an indictment of realism. This line of thought seems at first sight, as Bernstein suggests, to chime with Adorno's suspicion of the reduction of natural order to the lawfulness of reason in scientific cognition, since both positions express the concern that the picture of nature as determined by causal laws is accepted not because this is how nature's order really is, but because it suits the instrumental projects of scientific rationalisation and its attempt to predict and control nature. Thus Cartwright's suggestion that scientific laws express less about nature than about our methods of explaining nature is anticipated in Adorno's worry, expressed more provocatively, that 'what human beings seek to learn from nature is how to use it to dominate wholly both it and human beings. Nothing else counts.'[69]

More recently, Cartwright has significantly amended her position: 'Nowadays I think that I was deluded [in *How the Laws of Physics Lie*] about the enemy: it is not *realism* but *fundamentalism* that we need to combat.'[70] Of course it is rather trendy these days to talk about combating fundamentalism,[71] but beyond the rhetorical flourish

[66] R. Bhaskar, *A Realist Theory of Science* (Brighton: Harvester, 1978)
[67] N. Cartwright, 'Do the Laws of Physics State the Facts?' in *How the Laws of Physics Lie* (Oxford: Clarendon, 1983), p. 55
[68] Cartwright, 'The Truth Doesn't Explain Much', in *How the Laws of Physics Lie*
[69] M. Horkheimer and T. Adorno, *Dialectic of Enlightenment*, p. 2
[70] N. Cartwright, 'Fundamentalism vs The Patchwork of Laws', in *The Dappled World: A Study of the Boundaries of Science* (Cambridge: CUP, 1999), p. 23
[71] Fundamentalism is an enemy that everyone is happy to denounce, since it tends to mean something like 'a firm commitment to something that we don't agree with'. That is, it means completely different things,

Cartwright's argument in her more recent *The Dappled World* is that the instances of causal laws, their holding in certain circumstances, gives us no warrant to assume that they hold elsewhere, and so it follows that the picture of nature as determined by laws is without warrant, a sentiment which echoes Adorno's own. Indeed, she goes further, following Rom Harre, in admitting of capacities (or causal powers in Bhaskar's terms) as real.[72] This is a modification of her rejection of *ceteris paribus* laws as false, since it admits the truth of those laws in certain circumstances, and the reality of the powers they describe, but holds that their application is much more limited than the causal-deterministic picture of nature would have it. 'To grant that a law is *true*… is far from admitting that it is *universal*, that it holds everywhere and governs in all domains.'[73] It is a mistake, on Cartwright's picture, to assume that the areas of 'law-like items of knowledge' that are 'legitimately regimented in theoretical schemas' are 'exemplary of the way nature is supposed to work' and that the whole of nature's order should be seen as conforming to this model.[74] Instead, the laws that we have should be understood as limited to certain specific, structured and manufactured environments. 'In the nicest cases they may be treated as claims about natures'[75] (or powers), but 'we have no grounds for taking our laws as universal.'[76] The metaphysical picture which Cartwright urges can make best sense of this state of affairs is that 'reality may well be just a patchwork of laws.'[77]

I think it is clear why this picture might, on the face of it, seem to give voice to Adorno's concerns about the imposition of causal determinacy on nature, and his scepticism about the instrumentalising processes of scientific cognition. How would we understand Adorno's position through the lens of the Patchwork of Laws? This picture gives an account of how the conception of nature as determined by laws can be rejected, since if nature is a patchwork of laws, there is no warrant to assume that the whole of nature is subsumed under laws. The laws that exist are limited in their scope and validity to specific conditions which, for the most part, we create. Wherever laws are *ceteris paribus*, this is to say that they are not universal, that they only hold for certain cases and not others. Thus nature's order need not be understood as identical with or reducible to 'the principle of reason as such, thinking in line with rules.'[78] Such rules only describe the way in which the otherwise 'open-ended' capacities of nature behave in certain manufactured situations.[79] The patchwork of laws would in the same stroke also give an account of how the nature as chaos picture could be rejected, since nature need not be seem as amorphous or totally undetermined on this picture. Rather it consists of patches of determinism, specific domains and environments in which certain laws hold within particular 'local' limits. Such a conception would offer a picture of 'causality with gaps',

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or in other words, means very little at all, and because of this, can mean almost anything you want it to. I think Cartwright is unwise to resort to this rhetoric; often a fear of 'fundamentalism' can mean un unwillingness to place your bets.

[72] 'Nomological Machines and the Laws they Produce', in *The Dappled World*, p. 49

[73] Cartwright, 'Fundamentalism vs The Patchwork of Laws', p. 24

[74] Ibid., p. 25

[75] Ibid., p. 33

[76] Ibid., pp. 33-4

[77] Ibid., p. 34

[78] ND, p. 247

[79] Cartwright, 'Nomological Machines and the Laws they Produce', p. 59

which would seem to resist both nature's 'total subsumption under rational unity,'[80] and the view that in the absence of such a total subsumption we would be left with chaos.

7. Critique of Cartwright's Positivism

Yet there are difficulties with Cartwright's position. To begin with, it is hard to know exactly what to make of the idea that laws could be true but not universal.[81] To say that laws only hold for the objects that they describe (the laws of biology only hold in the biological domain) is uncontroversial because vacuous, but is Cartwright claiming that laws hold only sometimes, not all the time, even for the objects they describe? This seems to be a strained use of the concept of a law. Part of the confusion here arises simply from the ambiguities in the term 'law',[82] and part arises from the deeper problem with Cartwright's fundamentally positivistic understanding of causal laws themselves.

Now there is a curious tension in *The Dappled World*: sometimes Cartwright seems to be committed to realism (her insistence on Harre-style 'capacities'), and at others she seems tied to positivism (her insistence that laws only hold when we create them). In arguing that causal laws can only be said to hold where the *ceteris paribus* conditions are fulfilled, she seems to accept that causal laws just are empirical regularities – constant conjunctions of events – whilst her talk of capacities runs against this. The problem I think, is the attempt to bring together a realist idea of capacities with a tacit acceptance of the positivist 'regularity view of causation'.[83] Bequeathed by Hume, this view holds roughly that causal relationships are constant conjunctions of events,[84] such that whenever event *A* occurs it is followed by event *B*. This is how Cartwright conceives of a law, but she also wants the law to be grounded in a capacity that is transfactual. Whilst allowing for both in her picture, Cartwright seems to founder on exactly how laws and capacities link together; if laws are created by 'nomological machines'[85] (experimental conditions), what role are natural capacities playing? It seems that the natural capacities recede to a sort of 'thing-in-itself' status, something that must be presupposed, but that exerts no practical influence on what we find out (since we create the laws we discover). Capacities are a bare background, and laws a free-floating construction. Now the *ceteris paribus* conditions of causal laws are generally experimental conditions of the sort which established the causal law. But if causal laws hold only in experimental conditions, it is hard to see how science could say anything about the world outside of the laboratory, since laws allegedly 'tell us absolutely nothing' about the capacities that supposedly account for them, outside of the *ceteris paribus* conditions (the 'nomological machine').[86] But then it would be difficult to see what the

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[80] ND, p. 247
[81] Cf. 'Fundamentalism vs. The Patchwork of Laws', and 'Nomological Machines and the Laws they Produce', *passim*.
[82] I return to this issue; Bhaskar makes clear that there are two possible senses of law, the causal process itself, and the description of that process, both of which are operative in his theory (cf. Bhaskar, 'Postscript', *A Realist Theory of Science*). One way to put my objection to Cartwright is that the former is sometimes lost, making the latter hard to make sense of, and making the relationship between the two difficult to grasp.
[83] Cf. S. Psillos, *Causation and Explanation* (Chesham: Acumen, 2002), p. 19
[84] Ibid., pp. 27-9
[85] Cartwright, 'Nomological Machines and the Laws they Produce', p. 67
[86] Ibid, p. 59

point of scientific explanation is, or even how it is intelligible. Furthermore, it would be difficult to account for the relatively successful project of controlling and manipulating nature through technology (as opposed to manipulating just the technology itself).

Unfortunately, the Patchwork of Laws picture of nature turns out to be in deep conflict with Adorno's most basic commitments. It is inadequate to interpret his rejection of the picture of nature determined by laws with the narrowness that the patchwork of laws would allow it. To allow some laws, with some gaps, would still be to allow the Humean understanding of causal relationship, but Adorno explicitly rejects the Humean constant conjunction analysis,[87] which Kant adopts, on at least two different grounds. The first is that a constant conjunction cannot account for the difference between accidental and necessary conjunctions of events: 'it would be quite possible… to devise legalities for successions without anything to remind of a causal connection.'[88] This is revealing since it shows that when Adorno rejects the idea of a nature determined by laws, it is the positivist – constant conjunction – conception of causal law itself that he is rejecting. The second ground on which he rejects the constant conjunction interpretation of causality is that not only is constant conjunction insufficient to establish a causal – as opposed to accidental – connection, but it is also unnecessary, since according to Adorno causal processes are coming to be understood by science as operating in 'networks' rather than chains,[89] such that 'no necessitating chains of events can be identified.'[90]

The Patchwork of Laws picture does not reject this positivist (constant conjunction) understanding of causal relations; it merely limits the applicability of constant conjunctions to certain artificial circumstances. The interpretation of causal laws as regularities seems to Adorno to see the causal connection as 'exterior' to the objects involved, and 'a causality rigorously insulated against the interior of objects is no more than its own shell.'[91] It remains merely a shell because it is unable to account for the 'simplest meaning' of the idea of cause, that there is something necessary about it, something which distinguishes it from merely accidental conjunction. But on Hume's analysis, this cannot be found; Hume's positivism rejected the 'constitutive' element of the causal relation in its reduction of that relation to empirical, which is to say experiential, regularity.[92] And whilst Kant makes the causal connection a condition of

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[87] Cf. ND, pp. 247-9
[88] ND, p. 248
[89] ND, p. 266
[90] Freyenhagen, *Adorno's Negativistic Ethics*, p. 94. Adorno is referring to developments in quantum physics and relativity theory (ND, p. 269; PMP, p. 64). I find this line of argument unconvincing since the general strategy of arguing from current scientific knowledge to philosophical or ontological claims is illicit and vulnerable to the sceptical meta-induction. Bhaskar avoids this problem by arguing from the possibility of science as a practice, rather than from the truth of any of its particular claims. Moreover, the interpretation of what the ontological implications of quantum physics – if any – actually are, is unsupported and certainly not straightforward, and it seems unlikely that Adorno understood the debates in theoretical physics well enough to speculate, cf. H. Engelskirchen, 'Powers and Particulars', p. 19. For discussion of the ontological implications of quantum physics see C. Norris, *Quantum Theory and the Flight from Realism: Philosophical Responses to Quantum Mechanics* (London: Routledge, 2000)
[91] ND, p. 248
[92] Cf. G. Buchdahl, *Metaphysics and the Philosophy of Science*, (Lanham, MD: University Press of America, 1988). This all follows from Hume's simplistic atomistic epistemology of ideas and impressions. Since we can have no isolable impression of the causal relation, all we can identify is the experienced conjunction of impressions. But this phenomenology of inner experience is not very plausible.

cognition of objects, even with him 'causality is to arise, not in the objects and their relationship, but solely in inescapable subjective thought.'[93] Once again the insistence on the need to locate causality in 'the objects and their relationship' highlights that Adorno's point against the deterministic picture is not simply that laws must not be exhaustive, but rather that the positivistic, Humean understanding of causality as epistemic, or 'subjective', which Kant carries forward, misses something vital to the concept of cause, the constitutive element which marks out causal connections as necessary. While she wants to ground the laws we produce in capacities that we don't, it is unclear in what sense there is any grounding going on at all. The capacities show no signs of necessity except when a 'nomological machine' produces it, and the necessities that capacities give rise to seem to be arbitrarily contingent on the 'nomological machine'. Whence the grounding?

In this light, Cartwright's metaphysical commitments seem strikingly at odds with the spirit of Adorno's project. Indeed Cartwright's conviction that '*when* [and only when?] we can spray them, then they are real,'[94] reveals that her rejection of the positivist picture of a determined world rides on the back of positivism's own most cherished commitment: the constant conjunction view of causation. Where a predictable empirical regularity does not obtain, Cartwright doubts that entities or laws (but not the capacities that supposedly ground them) can be thought to continue to exist. In fact she goes further than this: she is only willing to accept that causal laws exist in circumstances where we find ourselves able to control and manipulate them. Such a view, in the context of the present discussion, comes across as a parody of Adorno's view of science according to which causal relations are primarily understood in terms of their ability to facilitate domination. Furthermore, it is doubtful whether the conception of 'causality with gaps' is, in itself, coherent. How do those gaps fit into the causal chains which surround them? The image conjured is of an ocean of causes with dotted islands of chance. Yet, presumably, in pre-Socratic Athens there was an ocean of chance containing perhaps a few tiny islands of causality. The point here is that this picture makes the extent of the causal determination of nature dependent on the current state of science; Cartwright's maxim might be inverted into 'when we were unable to spray them, they didn't exist.' That is, the existence of natural order (its causal laws) is made dependent on the history of science, and this does not seem to be robust enough to account for the intelligibility of scientific knowledge or practice, nor even to satisfy the internal pull of the concept of causality toward something irreducible to thoughts. Thus while Cartwright's position

[93] ND, p. 248

[94] Cartwright, 'Fundamentalism vs The Patchwork of Laws', p. 325, in a provocative modification of I. Hacking's much less objectionable 'If we can spray them, then they are real,' in *Representing and Intervening* (Cambridge: CUP, 1983). Its less objectionable because it is simply saying that if it happens that we can manipulate particles/structures etc, then its legitimate to say they are real. This avoids conflating the real with the domain of things that we can manipulate, which for Adorno denies the 'nonidentical' or irreducible parts of nature, and for Bhaskar conflates the domain of events with that of structures. Reformulating the slogan, Cartwright seems to invite the reading 'if and only if we can manipulate things, they exist'; or all that exists is what we can manipulate successfully. But we can only manipulate successfully in relatively closed systems such as those that we make or partially control, so what exists is in danger of being collapsed into the domain of nomological machines. Thanks to an anonymous reviewer for prompting me to clarify this.

seems at first sight to offer refuge for Adorno, at its foundations it clashes with the spirit of the critical theorist's project.

8. Bhaskar's Critical Realism

The deeper impetus for Adorno's rejection of the strict deterministic picture of nature is his intuition that causality is turned into a contradictory concept on the positivistic interpretation of it as constant conjunction, and his insistence that if causality is to be given its full *meaning* it must consist of the 'constitutive' element banished by Hume, or in his terms, it must surely have something to do with 'the interior of objects.'[95] One argument for this is that without this internality, it is impossible to distinguish between necessary and accidental conjunctions; the broader context for it is Adorno's general worry that 'the object' is, under the auspices of subjective reason, reduced down to a cognitive schema as part of a project of control and manipulation. When he says that 'Kant's effort to raise causality *as a subjective necessity of thought* to the rank of a constitutive condition of objectivity was no more valid than its empiricist denial,'[96] Adorno is not, as Engelskirchen seems to suggest,[97] rejecting the idea of objective causality; he is saying that the necessity can *only* make sense if it is objective and not merely a 'subjective necessity'. Causality cannot be understood in a way that does not bar freedom 'as long as it coincides with the subjective principle.'[98] But it is not in itself coherent on the subjectivist understanding either:

> If causality as a subjective principle of thought has a touch of the absurd, and yet there can be no cognition quite without it, the thing to do is to look for a moment that is not cogitative.[99]

The solution is not to abandon causality, since there can be no cognition without it; it is to look for the objective, nonidentical element, the cut off element not reducible to experience or reason.[100] This concern with the constitutive element – the 'interiority' – of causality, dispelled by Hume and Kant, anticipates Bhaskar's realism.

For Bhaskar, the intelligibility of scientific practices, in particular experimental activity, presupposes as its necessary conditions 'the intransitive and structured character of… causal laws,'[101] where 'intransitive' means 'that they exist independently of all human activity,' and 'structured' means that 'they are distinct from patterns of events that occur.'[102] The latter resists the strictly determined picture of nature, while the former resists the chaotic picture of nature. The intelligibility of experiments is claimed to presuppose the intransitive and structured nature of causal laws because 'in an

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[95] ND, p. 248
[96] ND, p. 268, emphasis added.
[97] Engelskirchen, 'Powers and Particulars: Adorno and Scientific Realism', p. 6
[98] ND, p. 249
[99] ND, p. 269
[100] Thus I am in disagreement with Engelskirchen's view that Adorno has no room for the idea of powers or objective causality (p. 8), although no doubt he is right to point out that Adorno did not think this topic through. Although I go further in the direction of a naturalistic realist reconstruction, Norrie's view is slightly closer to mine, even-handedly seeing some realist leanings and some irrealist ones in Adorno, cf Norrie 'How Does Freedom Lie? Adorno, Negative Dialectics and Law' in *Law and the Beautiful Soul*.
[101] Bhaskar, *A Realist Theory of Science*, p. 35
[102] Ibid., p. 35

experiment we produce patterns of events, but we do not produce the causal law identified.'[103] We can see how Bhaskar, like Cartwright, takes the *ceteris paribus* nature of laws as a launch-pad, but whereas Cartwright refuses to relinquish the positivist understanding of causal law, Bhaskar takes the phenomenon of *ceteris paribus* laws to necessitate a radical departure from the Humean analysis of causality. It is true that constant conjunctions only hold in experimental circumstances which we create; but rather than assume that this means that causal laws only hold in experimental circumstances too, Bhaskar's move is to suggest that this can only be made sense of if we accept that 'laws *cannot* be the regularities that constitute their empirical grounds.'[104] On this view constant conjunctions are neither sufficient nor necessary for a causal law, since laws are not patterns of events at all, although they are evidenced by patterns of events. Only if causal laws are seen as independent of constant conjunctions can either scientific change or the scientific explanation of things existing outside of experimental conditions be made intelligible. Whereas for Cartwright natural order only holds only in certain carefully controlled conditions, for Bhaskar natural order must be seen as independent of the subjective reason of human beings.

Both the rejection of the constant conjunction view of causation, and the rejection of the subject-dependent picture of causation, are present in Adorno's position. But if causal laws are not constant conjunctions at all, and are nevertheless, or moreover, real, what are they?[105] For Bhaskar, the intelligibility of scientific activity depends on seeing causal laws as *tendencies*, which can be without being actual.[106] Now Bhaskar holds that this analysis licences an ontological basis for causality; that is, causality should be seen as something which exists in nature independently of attempts by science to describe it. This ontological basis is that of 'generative mechanisms of nature [which] exist as the causal powers of things.'[107] A generative mechanism simply means 'a way of acting of a thing,'[108] and it is this which provides the real basis for causal laws: 'laws are nothing but the tendencies and ways of acting of things.'[109] Unlike Cartwright, Bhaskar insists that the capacities or generative mechanisms are what the laws are describing – there is no arbitrariness about the connection, and we don't produce the law – and that the law should be understood *tendentially*, and so is transfactually true. Contrary to Cartwright's view, laws do tell us about the powers they describe outside of the experimental closure – they tell us what things tend to do.

How does Bhaskar's picture of nature's order fit Adorno's implicit commitments? Firstly Bhaskar's picture of nature allows us to see how we might cash out Adorno's rejection of the strict deterministic conception of nature. What Adorno rejects as

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[103] Ibid., p. 34
[104] Ibid., p. 34, emphasis in original.
[105] It is important to note that Bhaskar uses the term 'law' in a double sense; in the transitive domain, it is the theoretical description of the tendency of a thing, and in the intransitive it is the tendency of the thing. In the transitive domain the law is a description of a generative mechanism's tendency; in the intransitive domain, it is the tendency to which the description refers. In this passage I use the term in both sense, but which one is being used should be obvious from the context. cf. Bhaskar, 'Postscript', *A Realist Theory of Science*.
[106] That is, without producing the events that would be produced given the satisfaction of the *ceteris paribus* conditions. Ibid., p. 50
[107] Ibid., p. 50
[108] Ibid., p. 51
[109] Ibid., p. 109

determinism, Bhaskar calls 'regularity determinism,' to indicate that it is a concept that presupposes the positivist conception of causality as empirical regularity.[110] Now the assumption that nature is entirely determined in accordance with *laws understood as empirical conjunctions of events* presupposes – falsely – that the world is closed, as if the laboratory conditions for every *ceteris paribus* law were ubiquitous in nature.[111] But the ubiquity of *ceteris paribus* laws demonstrates this to be false, for if those conditions obtained generally in nature, laws would not be *ceteris paribus*, but would be universal regularities. The rejection of the strictly determined picture of the world, then, does not lie in denying that causality is ubiquitous, or asserting that there are gaps in causality,[112] but lies rather in distinguishing between causal powers, which are ubiquitous but not strictly deterministic, and causal chains, which alone make for predictability. One suggestion Bhaskar makes for understanding the non-strictly-deterministic nature of ubiquitous causal powers is that 'laws situate limits but do not dictate what happens within them,' such that they 'leave the field of the ordinary phenomena of life at least partially open.'[113] We might think of this as functioning in the way that the rules of chess entirely determine what the possible moves are at all points throughout every game, but they do not determine which of those possible moves will, at any point, be made.[114]

The vital point here is that Bhaskar's argument attempts to establish a strong distinction between natural necessity and strict (regularity) determinism, such that a robust conception of natural necessity can be sustained without the need to see this necessity as law-like in the positivist sense of conforming to universal empirical regularities, 'the principle of reason's own identity.'[115] So whereas Freyenhagen attributes to Adorno a commitment to causality but a rejection of necessity, and so holds to the distinction between causality and necessity,[116] the critical realist interpretation would distinguish between necessity and regularity determinism, retaining the view of causality as natural necessity, but rejecting that this implies the empirical law-like determinism of positivist 'causal chains'. The sense in which nature's order can be causal without being determined is the sense in which the patterns of events can be 'out of phase' with the causal-generative mechanisms that create them. It is the former that is linked with the interest in prediction, whereas science should not be understood as primarily concerned with prediction but rather with explanation. It is because natural necessity is to do with the constitutive or ontological aspect of tendencies and mechanisms that predictive power is insufficient to establish an explanation. Of course, it is not even a necessary criterion for an explanation on Bhaskar's account; for where there

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[110] Ibid., p. 108

[111] Cartwright's position seems to be an acceptance of this idea, married with the insight that causal regularities do not hold outside of the laboratory, from which she infers that causal laws must only hold in nomological machines.

[112] This is not to suggest that there are no 'spaces' in being. In *Dialectic: The Pulse of Freedom* Bhaskar argues that absences are real; but moreover, they are causal too.

[113] Ibid., p. 111

[114] Bhaskar uses the example of cricket, but chess seems to offer a much better analogy for the complete yet open and non-predictive picture of nature's causes. This is obviously not the place to go into the fine grain of Bhaskar's argument against regularity determinism; all I wish to show here is that the overarching themes of Bhaskar's position are contiguous with the concerns and implicit commitments of Adorno's own position.

[115] ND, p. 247

[116] Freyenhagen, *Adorno's Negativistic Ethics*, pp. 99-100

are no necessary constant conjunctions, there is no reason to anticipate predictive power, but no necessary reason to doubt explanatory power. This distinction runs in the same grooves as Adorno's suspicion of science 'which finds causality in nature wherever it controls nature,'[117] but is able to distinguish more carefully the positivistic expression of causality in the dogmatic picture of nature as entirely subsumable under rules stating empirical regularities, from the picture of causality as existing in the nature's of things.

Secondly the picture of natural order as consisting of generative mechanisms with their own tendencies fits nicely with Adorno's intuition that rejecting strict determinism need not leave us with chaos. Bhaskar's emphasis on the importance of the constitutive or ontological basis of causality for making sense of necessity, and thus the intelligibility of explanation,[118] provides a way of understanding Adorno's intuition that nature's order must be independent and irreducible to the descriptions given in covering laws. If causal laws are real tendencies which do not normally manifest themselves in universal regularities, the irreducibility of nature's order to subjective cognition is in fact the condition of seeing that order as really *natural* order at all, as opposed to a merely 'subjective principle of thought.'[119] Adorno's insistence on the *non-identity* implicit in causality, which goes beyond 'causality *qua* legality' towards a 'cognitively critical sense of causality,' gestures toward the necessary element of nature that cannot be reduced to the formulations of subjective reason. Adorno is suggesting here that the 'surplus-element' in causality that distinguishes necessary from accidental connections, which formal or deductive law-like statements of causal laws do not capture, must be seen as an element of non-identity, something cannot be captured in legalistic or deductive terms. That is to say, an element in the object, in nature's own order, which is lost when that order is described in legal deterministic statements of empirical regularities, precisely because nature's order is not of the strictly deterministic sort. This is, of course, strikingly similar to Bhaskar's argument that the crucial element of necessity comes from the transfactually active generative mechanisms in nature, which are themselves sometimes revealed by but not reducible to regularities. We can now make sense of Adorno's view that order should not be confused with law-like regularity. Nature is not chaotic, although it's order is not of the same sort as the formal strictures of instrumental reason.

9. Critical Realism and Critical Theory

Throughout Adorno's philosophy runs the idea that the object has priority over the subject in the structure of experience,[120] which gives expression to his worry about the reductive tendencies of identifying reason. For Adorno it is the element interior to objectivity, the non-identical element of opaque to instrumental reason, which contains the *meaning* of causality,[121] and it is precisely because instrumental reason is content to sacrifice meaning for control that the element of natural necessity is stripped away in the regularity view of causality. What Adorno argues for as immanent in the concept of causality, Bhaskar argues for from the intelligibility of the practice of science, but these

[117] ND, p. 269
[118] Bhaskar, *A Realist Theory of Science*, p. 46
[119] ND, p. 269
[120] Cf. B. O'Connor, *Adorno's Negative Dialectic: Philosophy and the Possibility of Critical Rationality* (London: MIT, 2005), pp. 45-70
[121] 'Once causality is as thoroughly disenchanted as it would be by tabooing the inner determination of objects, it will disintegrate in itself as well.' ND 248

strategies converge towards a picture of natural order in which causal relations are to be found, not in the epistemic legalistic formulations of regularity or constant conjunction, but in the 'interrelation of objects' themselves.[122] Bhaskar spells out what this might mean – that order resides in the tendencies and potentialities possessed by the real structures of the world which remain accessible to but irreducible to the unifying organisation of reason.

Now in claiming that 'causality can teach us what identity has done to non-identity,'[123] Adorno is highlighting the violence done by the reduction of non-identical nature to reason's principle of rational unity: in reducing order to reason's lawfulness, the essential element of that order that would separate it from coincidence, the element of natural necessity, is left out and suppressed. It is this violence that accounts for the positivistic difficulties in accounting for causality, on Adorno's view. Bhaskar is also preoccupied with this process of reducing what is different and real to what can be epistemically formally congealed, and attributes to this tendency the anthropocentrism characteristic of the philosophical tradition. Specifically, Bhaskar identifies the anthropocentric urge in the 'epistemic fallacy,' which is the mistake of assuming that questions about being can be reduced to questions about knowing or what can be known – 'that ontological questions can always be transposed into epistemological terms.'[124] For its part, Adorno's understanding of subjective reason's intolerance of anything other than itself, its tendency to negate everything different and reduce it conceptually to its own principle of identity, provides a broader philosophical narrative within which the epistemic fallacy may be situated, since such on his view the epistemic fallacy would be an example of 'identity thinking', that subjective principle that boils everything different to a schema it can handle and denies the remainder. it is only because of reason's narcissism that it has transformed its fear of the unpredictable and unmanipulable into the positivistic dogma of an empirically regular determinism, whilst consigning whatever does not conform to this sterile view of causality to chaotic wilds of an unintelligible 'blind nature'.

If, by way of concluding the discussion, we are to try to give a content to the idea of freedom that emerges, we might consider the recognition that freedom is not set against natural order and would not require us to 'cheat science,'[125] but is indeed part of it, and a condition for our knowledge of it.[126] Adorno's attitude to science is, throughout his entire oeuvre, tortuously ambivalent. The critical realist conception of explanation as distinct from prediction also offers the resources to formulate the emancipatory potential of science whilst retaining the Adornian insights about the coercive and dominating tendencies built into *positivistic* scientific thought, that is, thought which takes as its guiding interest the ability to predict and manipulate. In this light critical realism sheds interpretive light on Adorno's elliptical claim that 'the chance of freedom increases with the objectiveness of causality; this is not the least of the reasons why he who wants freedom must insist on necessity.'[127] That the social world is the source of restrictions on

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[122] ND, p. 248

[123] ND, p. 269

[124] Bhaskar, *A Realist Theory of Science*, p. 36; Cf. 36-8 and *passim*. Psillos affirms the status of this move as a fallacy in *Causation and Explanation*, p. 40

[125] Bhaskar, *A Realist Theory of Science*, p. 112

[126] Ibid., p. 117

[127] ND, p. 250

freedom is certainly part of Adorno's overall argument. But Bhaskar's account of how it is possible to reject regularity determinism but retain natural necessity makes sense of how it might be interpreted in a more naturalistic vein: it is necessary, in order to break through the positivist illusion of a legalistic empirical determinism, which would exclude freedom, to insist that causal relationships are objective, and that the objective element, which is shorn off in positivistic abstraction, is the element of necessity. The insight of Bhaskar's conception of natural necessity is that only if regularity determinism is rejected can necessity be accommodated; without a non-identical 'surplus' element, necessity drops out of the picture of determinism altogether. The element of natural necessity does not negate freedom, but rather is the condition of a world in which human freedom is a possibility, but it is only as objective, as in the objects, and not as subjective – the principle or rational unity – that we can see natural necessity, constituted by the real, changing and differentiated generative mechanisms in the open world, as making possible human freedom. This would make out the position I attributed to Adorno, of rejecting the options of compatibilism and incompatibilism, by showing how the world need *not* be seen as *either* strictly determined *or* chaotic.

Such a conception of natural order would give some sense to what might be involved in a reconciliation of reason and non-identical nature. Such a reconciliation presupposes the recognition that it is not nature's order, but our own that suppresses our freedom. This is true in a double sense: at the level of social unfreedom, we suppress our own freedom unconsciously; but that state of 'universal dependence' is perpetuated so long as we remain under the spell of causality that convinces both that social necessity is natural, and that natural necessity is strict and unchangeable. It is the dependence of necessity on our own activity, the administered social totality, that provides the key to freedom, since our freedom depends on our breaking the spell. This can only make sense if nature's order is real but not strictly determined. When Adorno says that 'once man, the subject, knows his own equality with nature, he will desist from merely equalizing nature with himself,'[128] he gestures toward the possibility of reconciliation between freedom and nature, which would depend on man 'knowing his own equality with nature' because it requires us to see that the strict separations between order and chaos, reason and nature, freedom and necessity, are merely ours. In other words, Adorno's naturalism insists that, since we are part of nature, and since modernity's supposed freedom has so far consisted in a deluded suppression of our naturalness resulting in progressive domination of the whole of nature including ourselves, we can only escape this dialectic of domination once we see that our potential for freedom is, in the deepest and broadest sense, natural. Finally it may be worth noting how Bhaskar's dialectical work takes him more explicitly closer to Adorno's naturalism. In his conception of freedom as flourishing he tries to show how our nature and reason converge in freedom – that autonomy is implicit in our naturalness, necessarily connected to our real needs and implicates universal solidarity in the most egoistic acting out.[129] These are ambitious moves, but their credentials as ideas of Critical Theory are striking.[130]

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[128] ND, p. 269

[129] R. Bhaskar, *Dialectic: The Pulse of Freedom* (London: Verso, 1993), pp. 279-298, and *passim*.

[130] These are ideas to be developed elsewhere. Here I am merely suggesting that in *Dialectic* Bhaskar can be seen to move toward the sort of all-encompassing naturalism that underlays Adorno's thought.

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