

Powers and Tendencies Re-visited¹

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Abstract. Whilst powers and tendencies are amongst the most fundamental concepts of critical realism, there are several problems with these concepts that have been ignored, avoided or glossed. The purpose of this paper, therefore, is to tease out these problems and provide clarification and consistency where possible. The first part of the paper sketches the existing critical realist conceptualisation of tendencies by identifying eight distinct moments in a causal chain, denoted tendency₁ to tendency₈. Part two asks: Is there a difference between powers and tendencies? The answer, controversially perhaps, is: 'No'. Part three asks: What is the difference between tendency₁ and tendency₂? The answer considers two possible arguments accounting for the difference, and initiates a re-think of some of the terminology used to discuss tendencies as distinct moments in a causal chain. The paper concludes by raising the possibility that tendencies or powers are not of an *either/or*, *discrete*, *dichotomous* or *discontinuous* nature, but are *continuous*. This raises the further possibility that powers or tendencies can come in stronger and weaker forms.

Introduction

A great deal of social science remains committed to some variant of positivist philosophy of science and some variant of the Hypothetico-Deductive method. At the heart of this positivist/deductivist approach is the concept of -regularity-based - law or some other variant on the theme of constant conjunctions of events. Whilst I could give countless examples, the following two should suffice:

As the 18th century Scottish philosopher David Hume put it, causality is about 'an object followed by another... where, if the first had not existed, the second had never existed'. This is precisely the kind of knowledge required to predict the effect of action, how behaviour changes the world. What do we really understand when we think we understand a mechanism? Presumably, at minimum, we have some idea about which inputs produce which outputs. We understand how the choice of inputs determines the outputs and that the reverse does not hold. The choice of outputs does not determine the value of inputs. This special and structured kind of knowledge requires that we understand that (1) changing X is likely to end up with a change in Y; (2) causes and effects are asymmetric: changing Y won't budge X; (3) causes and effects go together over time; and (4) Y does not occur before X. Believing that heat causes expansion requires believing that (1) changing the temperature will change the volume (of a gas, say); (2) changing the volume won't change the temperature; (3) certain temperatures are associated with certain volumes; and (4) new volumes aren't observed before new temperatures.²

¹ I wish to thank Paul Lewis, Martin Lipscombe, Jamie Morgan, Caroline New, Stephen Pratten and Brian Pinkstone, for insightful comments on earlier drafts of this paper.

² Steven Sloman, *Causal Models: How People Think about the World and Its Alternatives*, Oxford: Oxford University Press, 2005, p. 5. Unfortunately, Sloman is confused on the nature of mechanisms.

Ideally, you will develop a measurement system that lets you answer questions such as, how much will we have to change x in order to achieve our target in y? To illustrate, if you increase training by 20 percent, how much will that change employee performance and, ultimately, unit performance? ³

Not only do these examples presuppose an aetiology/ontology of constant conjunctions of events and, therefore, closed systems, they exemplify precisely the kind of thing that critical realists have rejected on the grounds that constant conjunctions of events are rarely, if ever, found in open systems such as the social world. If constant conjunctions of events are rarely, if ever, found in the social world; and if there is a certain degree of order or stability to the social world -which seems undeniable - then something other than constant event conjunctions must be at work here. Something must be governing the flux of events; something must be causing the certain degree of order or stability. The two main candidates for this 'something' are *causal powers* and/or *tendencies*. As Rom Harré & E. Madden put matters: The ineliminable but non-mysterious powers...of particular things...are the ontological "ties that bind" causes and effects together'.⁴

In the light of this, critical realists have advocated the replacement of (-regularity-based) laws and constant event conjunctions, with powers and/or tendencies. Doing this, however, places powers and/or tendencies right at the heart of social science which, in turn, demands an understanding of powers and/or tendencies that is sufficiently robust to withstand the weight placed upon them. Unfortunately, however, this is not the case. There are several problems with the understanding of powers and/or tendencies that critical realists -myself included - have ignored, avoided or glossed. Rather than these being deep-rooted ontological problems, many are caused by ambiguous and inconsistent use of terminology. A first step to obtaining the robust understanding of powers and/or tendencies demanded by their new role is, therefore, to carry out some ground-work on this terminological ambiguity and inconsistency. I made a start on this ground-work in an earlier edition of the *Journal of Critical Realism*, where I focused upon powers - along with things and properties - but did not mention tendencies.⁵ The objective of this present paper is to carry on with this ground-work, this time bringing tendencies into the picture alongside powers.

This present paper consists of three parts. Part one sketches the existing critical realist conceptualisation of tendencies by identifying eight distinct moments in a causal chain, denoted *tendency*₁ to *tendency*₈. Part two asks: *Is there a difference between powers and tendencies?* The answer, controversially, is: 'No: powers and tendencies refer to the same phenomenon – at least in the case of *tendency*₁ and *tendency*₂?' Part three asks: *What is the difference between tendency*₁ *and tendency*₂? Attempting to answer this initiates a re-think of some of the terminology used to discuss tendencies as distinct moments in a causal chain. The paper concludes by raising the possibility that tendencies or powers are not of an *either/or*, *discrete*, *dichotomous* or *discontinuous* nature but, rather, are *continuous*. This raises the further possibility that powers or tendencies can come in *stronger* and *weaker forms*.

³ Brian Becker, Mark Huselid and Dave Ulrich, 2001. *The HR Scorecard: Linking People, Strategy and Performance* (Harvard: Harvard Business School Press, p. 110. Much of the empirical work on the link between human resource management (HRM) and organisational performance, for example, boils down to a search for a statistical association between variables representing bundles of HRM and variables representing organisational performance. To date, no robust statistical association has been found. See Steve Fleetwood & Anthony Hesketh *Explaining the Performance of Human Resource Management*, (Cambridge: Cambridge University Press, 2010). On Humean ideas in contemporary social science, see Stathis Psillos, 2005. 'Scientific Realism and Metaphysics', *Ratio* (XVIII): 385-404.

⁴ Rom Harré and E. Madden, 1975. *Causal Power: A Theory of Natural Necessity*, Oxford: Basil Blackwell, p. 11.

⁵ Steve Fleetwood 2009. 'The Ontology of Things, Properties and Powers', *Journal of Critical Realism* 8(3): 343-366. I strongly urge the reader to acquaint themselves with this previous paper.

Before we get underway, however, it is important to note that whilst I suggest alterations to the terminology that critical realists use when dealing with powers and tendencies, not all these alterations involve changes to the underlying ontology. In most cases my suggestions involve choosing less ambiguous terms and advocating their consistent usage. Whilst I fully accept that this kind of approach can be a little tedious and on occasion, verge on 'logic chopping', without slowing down and taking time to reflect carefully upon our terminology, ambiguity and inconsistency will simply continue.

§1. The existing critical realist conceptualisation of tendencies

In what follows, I understand a tendency in a non-empirical realist and non-Humean way. That is to say, I do not confuse a tendency with a trend, a cyclical variation, a stochastically specified law, a counterfactual thing that would bring about an event in closed systems, or an imprecise, or under-elaborated regularity-law. I do understand a tendency as the transfactual way of acting of a thing.⁶

In 1975 Roy Bhaskar first introduced the idea of differentiating between two different notions of tendencies, which he denoted with a numeric subscript, tendency₁ and tendency₂. In his later work, he extended this to include tendency₃ to tendency₈, referring to these concepts as 'distinct moments in the causal chain'.⁷ Brian Pinkstone's entry in the *Dictionary of Critical Realism* also uses this schema.⁸ The general idea is that some tendencies are 'closer', as it were, to -transfactually - bringing about some event than other tendencies. What makes the difference is the conditions operating inside and outside the thing possessing the tendency. To be more accurate, what makes the difference is: (i) the internal or *intrinsic enabling conditions* of the thing possessing a tendency; (ii) the external or *extrinsic enabling conditions*; and (iii) the *external stimulating, and releasing conditions*. We can think, for example, of a tendency₆ as being closer to bringing about some event than tendency₁ because tendency₆ has the extrinsic, stimulating, and releasing conditions satisfied whereas tendency₁ does not. This will become a little clearer in a few moments.

The following section sketches Bhaskar's eight different concepts of tendency along with his interpretation of what each of these concepts means. I will use my terminology for tendency₁ and tendency₂ on the grounds that, later on, my more consistent use of terminology will become important. I take this as illustrating the existing critical realist conceptualisation of tendencies.

The existing critical realist conceptualisation of tendencies

Tendency₁ is 'exercised'. Bhaskar refers to this as the 'primary',⁹ or 'normal'¹⁰ concept of tendency and in one place he refers to it as *tendency_a*.¹¹ Pinkstone refers to this as the 'base'¹² concept.

- The intrinsic enabling conditions are ambiguous.

⁶ For an elaboration of this understanding, see Fleetwood, 2010. 'Causal Laws and Tendencies in Marxist Political Economy' - under review.

⁷ Roy Bhaskar, *Plato Etc: The Problems of Philosophy and Their Resolution* 1994. London: Verso, 1994), p. 78.

⁸ Brian Pinkstone, 2007. *Dictionary of Critical Realism*, ed, Mervyn Hartwig, London: Routledge.

⁹ Roy Bhaskar, 1978. *A Realist Theory of Science*, Harvester-Wheatsheaf, p. 229.

¹⁰ Roy Bhaskar, 1994. *Dialectic: The Pulse of Freedom*, London: Verso, p. 78.

¹¹ Roy Bhaskar, *Plato Etc.* p. 83.

¹² Pinkstone, p. 458.

Tendency₂ is '*actualised*'. Bhaskar refers to this as '*ready*'. For tendency₂ the:

- intrinsic enabling conditions are satisfied

Tendency₃ is '*prone*'. A tendency is prone when it is actualised and, in addition, has the extrinsic enabling conditions satisfied. For tendency₃ the:

- intrinsic enabling conditions are satisfied
- + extrinsic enabling conditions are satisfied

Tendency₄ is '*motivated*'. A tendency is motivated when it is prone, and, in addition, has the *intrinsic* stimulating or releasing conditions satisfied, but not the extrinsic stimulating or releasing conditions. The tendency may be prone motivated, but not lapsed. For tendency₄ the:

- intrinsic enabling conditions are satisfied
- + extrinsic enabling conditions are satisfied
- + intrinsic stimulating or releasing conditions are satisfied

Tendency₅ is '*lapsed*', '*lagged*' or '*late*'. A tendency is lapsed when it is motivated and, in addition, has the *extrinsic* stimulating or releasing conditions satisfied, but not the *intrinsic* stimulating or releasing conditions, satisfied. The tendency may be prone and motivated, but not realised. For tendency₅ the:

- intrinsic enabling conditions are satisfied
- + extrinsic enabling conditions are satisfied
- + extrinsic stimulating or releasing conditions are satisfied

Tendency₆ is '*realised*' in all 'normal' circumstances'. A tendency is realised when all the above extrinsic and intrinsic enabling, stimulating or releasing conditions are satisfied. When tendency₆ occurs the event that the entity has the power to bring about, is actually instantiated. For tendency₆ the:

- intrinsic enabling conditions are satisfied
- + extrinsic enabling conditions are satisfied
- + intrinsic stimulating or releasing conditions are satisfied
- + extrinsic stimulating or releasing conditions are satisfied

Tendency₇ is '*realised*' in a *closed system* such as an experiment, where an event regularity is artificially engineered.

Tendency₈ is '*realised*' in an *open system*,¹³ where an event regularity spontaneously emerges. It might, of course, turn out that no such systems have been found to exist, so tendency₈ would be a possibility.

Table 1 allows us to see the existing critical realist conceptualisation of tendencies a glance, showing what it means to conceive of tendencies as moments in the causal chain.

¹³ Bhaskar, *Dialectic*, p. 83. Bhaskar, also refers to tendency_a which is the base category and is synonymous with tendency₁. He also refers to tendency_b which seems to be tendency_a with directionality specified. Tendency_c is synonymous with tendency₃ and tendency_d is synonymous with tendency₄. I have to admit I am extremely unclear about all this, and it is by no means easy to understand.

Moments in the causal chain	Denotation	Enabling conditions		Stimulating or releasing conditions	
		Intrinsic	Extrinsic	Intrinsic	Extrinsic
Tendency ₁	exercised		x		
Tendency ₂	actualised	√	x		
Tendency ₃	prone	√	√		
Tendency ₄	motivated	√	√	√	x
Tendency ₅	lapsed lagged or late	√	√	x	√
Tendency ₆	realised in 'normal' circumstances	√	√	√	√
Tendency ₇	realised in a closed system	√	√	√	√
Tendency ₈	realised in an open system	√	√	√	√

(Table 1. The existing critical realist conceptualisation of tendencies)

When matters are put with this level of clarity, and usually they are not, we can start to see some of the problems with the way we currently conceive of tendencies and, for that matter, powers. What might these problems be? The progression from tendency₃, via tendency₄, and tendency₅ to tendency₆ and beyond are relatively unproblematic, except for one thing. Some entities do, and others do not, appear to require their tendencies to be intrinsically and extrinsically stimulated or released. I do not think this is a major problem, but it is something we need to bear in mind, especially when we are dealing with complex social entities. I will not delve into anything much beyond tendency₃ in this paper: elaborating upon tendencies further along the causal chain is something for the future.

Where I think serious problems do lie, however, are (i) within and between the concept of powers and the concepts of tendency₁ and tendency₂; and (ii) within and between the concepts of tendency₁ and tendency₂. These two problems can be illustrated, and then answered, via the following two questions: Is there a difference between powers and tendencies? Is there a difference between tendency₁ and tendency₂?

§2. Is there a difference between powers and tendencies?

Bhaskar uses the terms 'powers' and 'tendencies' widely, but if truth be told, he does not really make the distinction clear. He claims that 'powers must be seen as tendencies'.¹⁴ He often refers to 'a tendency as a power' and then goes on to make qualifications about the powers – i.e. they 'may be exercised without being fulfilled or actualised',¹⁵ they are 'held in abeyance'¹⁶ or some such. In other places he suggests that 'powers are more than tendencies'.¹⁷ The fact is, critical realists use these terms, and the terms used in conjunction with them, ambiguously and inconsistently. It is time to dig a little deeper. The following comments are extremely common within the critical realist literature.

Power' is a non-technical term, designating what something can do.¹⁸

While the word 'power' draws attention to the existence of unexercised powers, the word 'tendency' draws attention to the existence of exercised but unrealized tendencies'.¹⁹

¹⁴ Bhaskar, *A Realist Theory of Science*, p. 231.

¹⁵ Bhaskar, *A Realist Theory of Science*, p. 50.

¹⁶ Bhaskar, *A Realist Theory of Science*, p. 235.

¹⁷ Bhaskar, *A Realist Theory of Science*, p. 230.

¹⁸ Andrew Collier, 1994. *Critical Realism: An Introduction to Roy Bhaskar's Philosophy*, London: Verso, p. 62.

¹⁹ Collier, p. 63.

A simple power statement is...consistent with completely quiescent or dormant things or things that have a level of activity sufficient only for the retention of that power.²⁰

Now to describe a power is to suppose that there is a real basis for the possession of that power independent of whether the power is exercised or not.²¹

[W]hereas powers are potentials which may or may not be exercised, tendencies are potentialities which may be exercised or as it were 'in play' without being realized or manifest in any particular outcome.... [T]endencies are powers which may be exercised without being fulfilled or actualised...It is the idea of continuing activity as distinct from that of enduring power that the concept of tendency is designed to capture. In the concept of tendency, the concept of power is thus literally dynamized or set in motion.²²

Characteristic ways of acting or effects of mechanisms...are conceptualised here as *tendencies*...Tendencies, in short, are potentialities which may be exercised or in play without being directly realised.²³

There I also distinguish between my normal concept of a tendency₁, a power whose exercise was normically qualified -or to put it more affirmatively, one whose exercise was transfactually efficacious - from a tendency₂, a power whose intrinsic enabling conditions are satisfied, i.e. a power *ready* to be exercised.²⁴

Now if powers are possessed by things which act in open systems their existence must be normically qualified; and they must be seen as tendencies₁.²⁵

Whilst in one sense powers and tendencies are said to be different things, in another sense, powers and tendencies are said to be similar things. The similarity lies in the suggestion that tendencies *are* powers, but only when we are dealing with powers that are exercised but not necessarily actualised; transfactually acting powers. Powers that are exercised without being actualised are said to be tendencies₁. Powers that are actualised - in Bhaskar's terms 'ready to be exercised' - that is, powers whose intrinsic enabling conditions are satisfied, are said to be tendencies₂. But what if powers and tendencies are not just similar, but are synonymous, interchangeable or refer to the same thing? To explore this possibility, let us proceed beyond the terminology and probe the *ontology* of the distinct moments in the causal chain.²⁶

- i) Ontologically speaking, powers or tendencies can be exercised, in operation, in play, endure without activity; lack motion; be dormant, be quiescent, be held in abeyance, lack motion, be undynamized and so on. Terminologically speaking, having all these terms - and others - to refer to the same concept encourages ambiguity and inconsistency. I suggest, then, that we fasten on the term 'exercise' and use it consistently.

²⁰ Bhaskar, *A Realist Theory of Science*, p. 234.

²¹ Bhaskar, *A Realist Theory of Science*, p. 237.

²² Bhaskar, *A Realist Theory of Science*, p. 50.

²³ Tony Lawson, 1995. *Reclaiming Reality*, London: Routledge, p. 22-3.

²⁴ Bhaskar, *Dialectic*, p. 78.

²⁵ Bhaskar, *A Realist Theory of Science*, p. 231

²⁶ The following comes from Fleetwood 'The Ontology of Things'.

- i) Ontologically speaking, powers or tendencies can be exercised without being actualised, realized, fulfilled, manifest, in motion, or dynamised. Sometimes powers are exercised and, in addition, are also actualised, realized, fulfilled, manifest, acting, in motion, or dynamised. Terminologically speaking, having all these terms - and others - to refer to the same concept encourages ambiguity and inconsistency. I suggest, then, that we fasten on the term 'actualise' and use it consistently.

This means we can plausibly differentiate between powers *and* tendencies that are *exercised*, and powers *and* tendencies that are *actualised*. I suggest that something like this distinction is presupposed in all critical realist ontology, irrespective of whether the term 'power' or 'tendency' is used. Something like this distinction is presupposed in the crucial notion of transfactuality – see the last two comments from Bhaskar above. Sometimes critical realists use the term 'powers' (not tendencies - in which case they refer to powers acting transfactually. Sometimes critical realists use the term 'tendencies' - not powers - in which case they refer to tendencies acting transfactually. Indeed, the whole idea of distinct moments in a causal chain presupposes that tendencies act transfactually. Sometimes critical realists use both terms, to the effect that tendencies are normically qualified powers, which means, tendencies are transfactually acting powers.

We see this in examples that differentiate - say - between a car with the engine running and the gear in neutral, and this same car with its engine running *and* first gear selected. Most critical realists would agree that the car is in two different states or two different moments in a causal chain. What matters, crucially, is the ontic distinction between the two states that the car is in, not the terminology we use to describe these two moments. Of a car with the engine running and the gear in neutral, we might say that it has the *exercised* power *or* the *exercised* tendency to transport its occupants from A to B. Of that same car with the engine running *and* first gear selected, we might say it has the *actualised* power *or* the *actualised* tendency to transport its occupants from A to B. The difference between the two moments is that in the second case the power or the tendency is a step further along the causal chain.²⁷

Not only is it usual to differentiate between an *exercised* tendency and an *actualised* tendency, it is usual to refer to this using numeric subscripts, hence tendency₁ and tendency₂. It is not, however, usual to differentiate between an *exercised* power and an *actualised* power using numeric subscripts, but this seems to me more a matter of terminology than ontology. Ontologically speaking, it makes sense to differentiate between an *exercised* power and an *actualised* power. And if this is correct, then I see no reason why we cannot do for powers, what we do for tendencies, that is, use numeric subscripts to refer to *exercised* powers and *actualised* powers. To avoid confusion, I will use Roman numeric subscripts for powers and refer to *exercised* power as power_i and an *actualised* power as power_{ii}.²⁸

This point is very important so allow me to re-state it to make it crystal clear. I am officially recognising the existence of:²⁹

²⁷ In Fleetwood, 'The Ontology of Things' I used the example of an electricity generating station to make the same point.

²⁸ This should not be confused with Bhaskar's notions of power₁ and power₂. Power₂ refers to a notion of political power, whereas his power₁ refers to a notion of causal power in the sense I am using it here, although Bhaskar does not officially label these causal powers power₁ and power₂.

²⁹ Note well that whilst I may be the first critical realist to officially recognise this distinction between powers at distinct moments in a causal chain, and identify them with Roman numeric subscripts, I do so in the full knowledge

- An *exercised* tendency or tendency₁
- An *actualised* tendency or tendency₂
- An *exercised* power or power_i
- An *actualised* power or power_{ii}

At this juncture, something extremely controversial surfaces. We can now see clearly that *power_i* and *tendency₁* refer to the same phenomenon, they are synonymous or interchangeable. And the same goes for *power_{ii}* and *tendency₂*. This has not been spotted before in part because the terminology has been ambiguous and inconsistent, and in part because it is not usual to *explicitly* recognise the distinction between powers, and to formalise it using subscripts.³⁰

This claim is not entirely original. In their influential book entitled *Causal Powers*, Harré & Madden do not use the term ‘tendency’ at all, preferring to use the term ‘power’ instead. They go on to make arguments in terms of powers that Bhaskar makes in terms of tendencies. Interestingly, Harré and Madden’s choice of terminology is rooted in simple preference and linguistic implication rather than ontology. They write: ‘Our preference for the concept of ‘power’ rather than ‘tendency’ derives in part from the sense of passivity that seems to infect the notion of tendency in ordinary English’.³¹ The fact that Harré and Madden see this as a matter of preference strongly encourages the idea that they are dealing with concepts that refer to the same thing. This is also encouraged by Pinkstone’s claim that: ‘Causal or causal mechanisms may refer either to a power or a tendency, or both’.

Now, if this controversial claim is correct, then there are several ways of combining powers and tendencies or, indeed, choosing one term over the other.

First, we could try to retain the terminology of powers *and* tendencies. If we did, we would end up with the following scheme, which I illustrate below using the - extremely abstract - example of a capitalist company.³²

***thing with properties* → (*power_i* = *tendency₁*) → (*power_{ii}* = *tendency₂*) → *event*³³**

The moment a capitalist company is created, so too are its properties, powers and tendencies. It is a thing with an exercised power_i and exercised tendency₁ to - say - extract profit from its workforce. If this power_i and tendency₁ are actualised then the company also has an actualised power_{ii} or tendency₂ to extract profit from its workforce.

This would be a silly thing to do because power_i and tendency₁, and power_{ii} and tendency₂, refer to the same thing. To avoid this, we should abandon one pair of terms.

that this is often presupposed in critical realist ontology. All I have done is make the terminology reflect what critical realists actually claim.

³⁰ Incidentally, even if one disagrees with me, and wants to keep a distinction between powers and tendencies, to claim that a *tendency is a power actualised* (or some such) is to presuppose the distinction between exercised power_i and actualised power_{ii}. This distinction only makes sense if a power can be in an *unactualised* (i.e. unexercised) state.

³¹ Harré & Madden, p.100.

³² This is where the ontology of things, properties and powers developed in Fleetwood, ‘The Ontology of Things’ comes into its own – although I have added tendencies in this paper as synonymous with powers.

³³ This shorthand should be read as follows: some thing’s properties endow it with powers and/or tendencies to cause certain events. Whether or not an event or events actually occurs is not an issue, provided that we accept powers and tendencies act transfactually.

Second, we could abandon tendencies, and just use the concepts of $power_i$ and $power_{ii}$.

***thing with properties* → $power_i$ → $power_{ii}$ → event**

The moment a capitalist company is created, so too are its properties and powers. It is a thing with an exercised $power_i$ to extract profit from its workforce. If this $power_i$ is actualised then the company also has an actualised $power_{ii}$ to extract profit from its workforce.

Third, we could abandon powers, and just use the concepts of $tendency_1$ and $tendency_2$.

***thing with properties* → $tendency_1$ → $tendency_2$ → event**

The moment a capitalist company is created, so too are its properties and tendencies. It is a thing with an exercised $tendency_1$ to extract profit from its workforce. If this $tendency_1$ is actualised then the company also has an actualised $tendency_2$ to extract profit from its workforce.

Fourth, in situations where it is acceptable to generalise, making it unnecessary to differentiate between the two states of tendency and power, we could simplify this to either:

***thing with properties* → power → event**

Or

***thing with properties* → tendency → event**

No matter how we arrange the terms, we cannot avoid the conclusion that $power_i$ refers to the same phenomenon as $tendency_1$; and $power_{ii}$ refers to the same phenomenon as $tendency_2$. In answer to the question that motivated this section: No, there is not a distinction between powers and tendencies – at least when we are discussing $power_i$ and $power_{ii}$, and $tendency_1$ and $tendency_2$.

Now, if this is correct, it seems entirely reasonable to abandon one of the terms. But which one: 'power' or 'tendency'? Whilst this might appear reasonable, carrying it out would be a Sisyphean task not only because these terms have become embedded in the literature, but also because they have become embedded in two different literatures. Whilst there are always exceptions,³⁴ the fact is that the term 'powers' - or 'dispositions' - is used extensively in philosophy and philosophically oriented dimensions of disciplines like sociology and social theory, whereas the term 'tendency' hardly features. Conversely, the term 'powers' hardly features in economics and economically orientated disciplines like organisation and management studies, whereas the term 'tendencies' is used – albeit not extensively, and not consistently.³⁵ My suggestion is that we take a 'horses for courses' approach. That is, we should recognise that $power_i$ and $tendency_1$, and $power_{ii}$ and $tendency_2$, have become interchangeable, elaborate upon it, and then remain with whichever of the terms seems more appropriate for the literature we happen to be engaged with. Henceforth, I will refer to powers **or** tendencies.

³⁴ Nancy Cartwright, 2007. *Hunting Causes and Using them: Approaches in Philosophy and Economics*, Cambridge: Cambridge University Press, is a good example.

³⁵ This might be due to the fact that the term was introduced into economics (actually, political economy) by Marx and later J.S. Mill and gained a currency from then on.

§3. What is the difference between tendency₁ and tendency₂?

The astute reader might have noticed that, in table 1, there is no tick in the 'intrinsic enabling conditions' box for tendency₁. And yet, if there was a tick in this box, as there is for tendency₂, then the difference between tendency₁ and tendency₂ would become blurred. In the existing critical realist conceptualisation, the difference between exercised tendency₁ and actualised tendency₂ is that in the latter, but not the former, the *intrinsic* enabling conditions are satisfied. The snag is, it does not make sense to conceive of an exercised tendency₁ as a tendency that has no intrinsic enabling conditions satisfied. Clearly we need to be far less ambiguous about the initial moments in the causal chain, and the intrinsic enabling conditions that are in operation.

In a previous paper³⁶ I argued for an ontology of *things, properties and powers* or, because powers and tendencies are interchangeable, tendencies. Things, properties and tendencies *emerge* simultaneously to form a unity. The moment a thing emerges from other things - with their own properties and tendencies - so too do its properties and tendencies. Things have properties, these properties *instantiate* transfactually acting tendencies, and this ensemble of things, properties and tendencies generate any events that might occur. The properties I have in mind here are internal to the thing in question, they are *intrinsic properties*, properties that endow the thing with whatever tendencies it has. But notice that this is just another way of referring to a things' intrinsic enabling conditions. A things' intrinsic enabling conditions and a things' intrinsic properties, are synonymous. Henceforth, I will use the terms 'intrinsic enabling conditions' and 'intrinsic properties' interchangeably, selecting whichever seems most appropriate for the needs of the exposition.

Consider Bhaskar's argument for the difference between tendency₁ and tendency₂.³⁷

To say Tania pushed the door open completely explains why the door is open and implies that she can do it, i.e. has the power to do it. But to say that she *tends* to push the door open is to say something more; which cannot be analysed as when she exercises her power to push the door open, it tends to open (which is just to normically qualify the exercise of her power)...To attribute a tendency (in the second sense) is not just to normically qualify the exercise of the power; but to say that *some* of the intrinsic enabling conditions of a relatively enduring kind...are satisfied; that the thing is predisposed or oriented towards doing it, that it is in something of a state or condition to do it – emphasis added.³⁸

To sum up then, a tendency₂ statement says there is a level of activity...intrinsic to the thing, such that it is predisposed to perform an action of a certain type. Its chief function is to indicate a level of activity within the thing such that it is oriented towards some rather than other of the natural possibilities open to it. In this way it leads us to a more precise application of the natures of particular things - or groups - within kinds.³⁹

[T]he cause of a failure of a car to move when the gear is in neutral is not something distinct from, or extraneous to the mechanism responsible for its normal

³⁶ Fleetwood, 'The Ontology of Things'.

³⁷ In *A Realist Theory of Science*, p. 230, Bhaskar actually has another argument to account for the distinction between tendency₁ and tendency₂, an argument relating to the distinction between natures and kinds, species and genera, individuals and classes. This has, however, been questioned by others such as Collier, 123-126. I cannot pursue the matter here.

³⁸ Bhaskar, *A Realist Theory of Science*, p. 230.

³⁹ Bhaskar, *A Realist Theory of Science*, p. 235.

motion...Now the intrinsic offsetting causes may or may not directly interfere with the operation of the mechanism responsible for the satisfaction of the intrinsic enabling conditions. If they do, then we must say that the tendency₂ is no longer possessed...But not all offsetting causes are like that.⁴⁰

To 'say that a thing, X, has a tendency₂ to do \emptyset is thus to say...that *most (or the most important)* of the intrinsic enabling conditions for it are satisfied'.⁴¹

To 'say that a thing, X, has a tendency₂ to do \emptyset is thus to say...that (ii) X is in an enduring condition to do \emptyset , i.e. it is predisposed or oriented towards doing \emptyset '...It is the specific role of (ii), I suggest, to indicate the existence of level of activity...which is ensuring, or has ensured, the satisfaction of the intrinsic enabling conditions for \emptyset '.⁴²

Whilst this is by no means easy to understand, I interpret Bhaskar to mean that the difference between tendency₁ and tendency₂, has something to do with a difference *within* the intrinsic enabling conditions themselves. A thing with a tendency₁ has *some* or, *the least important*, of its intrinsic conditions satisfied, whereas a thing with a tendency₂, has *more, most, or the most important* intrinsic enabling conditions satisfied. Reference to 'some', 'least', 'least important', 'most' or 'the most important' of the intrinsic enabling conditions, implies:

- (i) A difference *within* the category of intrinsic properties or intrinsic enabling conditions themselves which differentiate tendency₁ from tendency₂.
- (ii) Intrinsic properties or intrinsic enabling conditions not of an either/or, discrete, dichotomous or *discontinuous* nature but are *continuous*.

I accept plausibility of these implications. But claiming that a thing with a tendency₁ has *some* or, *the least important*, of its intrinsic conditions satisfied, whereas a thing with a tendency₂, has *more, most, or the most important* intrinsic enabling conditions satisfied is just far too ambiguous to make any real sense of. Allow me to disambiguate this by re-stating the same point in different terminology.

Of any thing, there is a set of intrinsic properties or intrinsic enabling conditions - denoted ic_w and ic_x - that must be satisfied if it is to have an *exercised* tendency₁ to do \emptyset ; and if it does not have ic_w and ic_x , then it does not have this *exercised* tendency₁ to do \emptyset . Of any thing, there may be a further set of intrinsic properties or intrinsic enabling conditions - denoted ic_y and ic_z - that must be satisfied if it is to have an *actualised* tendency₂ to do \emptyset ; and if it does not have ic_y and ic_z , then it does not have this *actualised* tendency₂ to do \emptyset .

We have come across this before, in the example of a car with the engine running and the gear in neutral, and this same car with its engine running *and* first gear selected. A car with the engine running and the gear in neutral, has a set of intrinsic enabling conditions - denoted ic_w and ic_x - satisfied, giving it an *exercised* tendency₁ to transport its passengers. The same car with the engine running and first gear selected, also has a further set of intrinsic enabling conditions - denoted ic_y and ic_z - satisfied, giving it, in addition to the *exercised* tendency₁, the *actualised* tendency₂ to transport its passengers. I call this the '**new critical realist conceptualisation of**

⁴⁰ Bhaskar, *A Realist Theory of Science*, p. 233.

⁴¹ Bhaskar, *A Realist Theory of Science*, p. 231, italics added.

⁴² Bhaskar, *A Realist Theory of Science*, p. 231 and 234.

tendencies'. Let me reproduce part of the existing critical realist conceptualisation of tendencies outlined in part one, and then let us compare it to the 'new' version.

The existing critical realist conceptualisation of tendencies

Tendency₁ is 'exercised'.

- intrinsic enabling conditions are ambiguous

Tendency₂ is 'actualised'.

- intrinsic enabling conditions are satisfied

Tendency₃ is 'prone'.

- intrinsic enabling conditions are satisfied
- + extrinsic enabling conditions are satisfied

The new critical realist conceptualisation of tendencies

Tendency₁ is 'exercised'.

- a set of intrinsic enabling conditions - ic_w and ic_x - are satisfied

Tendency₂ is 'actualised'.

- a set of intrinsic enabling conditions - ic_w and ic_x - are satisfied
- + a further set of intrinsic enabling conditions - ic_y and ic_z - are satisfied

Tendency₃ is 'prone'.

- a set of intrinsic enabling conditions - ic_w and ic_x - are satisfied
- a further set of intrinsic enabling conditions - ic_y and ic_z - are satisfied
- + extrinsic enabling conditions are satisfied

To make it even clearer, consider table 2, a truncated version of table 1.

Moments in the causal chain	Denotation	Enabling conditions		Stimulating or releasing conditions	
		Intrinsic	Extrinsic	Intrinsic	Extrinsic
Tendency ₁	exercised	√ ic _w and ic _x	x		
Tendency ₂	actualised	√ ic _w and ic _x + ic _y and ic _z	x	x	x
Tendency ₃	prone	√ ic _w and ic _x + ic _y and ic _z	√	x	x

(Table 2. Truncated version of the new critical realist conceptualisation of tendencies)

We can now answer the question that motivated this part of the paper: What is the difference between tendency₁ and tendency₂? *The difference between exercised tendency₁ and actualised tendency₂ is based upon differences relating to a things intrinsic properties, or intrinsic enabling conditions.* Actualised tendency₂ is further along the causal chain than exercised tendency₁ because - in some as yet unclear sense that I will come back to in the conclusion - *more* of the things' intrinsic properties or intrinsic enabling conditions are present.

Now, let us put all that we have developed in the paper thus far into the following table.

Moments in the causal chain	Denotation	Enabling conditions		Stimulating or releasing conditions	
		Intrinsic ⁴³	Extrinsic	Intrinsic	Extrinsic
Tendency ₁ / power _i	exercised	√ ⁺	x	x	x
Tendency ₂ / power _{ii}	actualised	√ ⁺⁺	x	x	x
Tendency ₃	prone	√	√	x	x
Tendency ₄	motivated	√	√	√	x
Tendency ₅	Lapsed, lagged or late	√	√	x	√
Tendency ₆	realised in 'normal' circumstances	√	√	√	√
Tendency ₇	realised in closed systems	√	√	√	√
Tendency ₈	realised in open systems	√	√	√	√

(Table 3. The full version of the new critical realist conceptualisation of tendencies)

This table illustrates, graphically, that the previous problems of terminological ambiguity and inconsistency have been resolved. We now have a consistent set of terminology and subscripts. Ticks and crosses are no longer ambiguous and are now in the right place. We can see that power_i and tendency₁ refer to the same phenomena, as do power_{ii} and tendency₂. We can see that the differences between power_i / tendency₁ and power_{ii} / tendency₂ is based upon differences relating to a things intrinsic properties, or intrinsic enabling conditions. We can see that the difference between actualised tendency₂ and prone tendency₃ is due to the *extrinsic* enabling conditions being satisfied for tendency₃. And finally, although I have not elaborated in this paper, we can also see that the difference between motivated tendency₄ and lapsed, lagged or late tendency₅ is due to the satisfaction of stimulating or releasing conditions; and that the differences between realised tendency₆, realised tendency₇ and realised tendency₈ is due to the nature of the systems the tendencies operate in.

Conclusion: stronger and weaker tendencies or powers

I said above that I would come back to the claim that the actualised tendency₂ is further along the causal chain than exercised tendency₁ because - in some as yet unclear sense - *more* of the things' intrinsic properties or intrinsic enabling conditions are present. The term 'more' needs clarifying because it can easily mislead us into thinking this is simply a question of *quantity*. It might mislead us into thinking that the difference between intrinsic properties or intrinsic enabling conditions ic_w and ic_x , and ic_y and ic_z is that in the latter, a greater *quantity* of properties are present, or a greater quantity of conditions are satisfied. This is not the case. To see why, and to illuminate some interesting issues on the way, let us return to the example of the capitalist company.

The moment the owners/controllers of capital assemble some appropriate set of components, a capitalist company emerges. At the *same spatio-temporal moment*, the company's internal properties or intrinsic enabling conditions - e.g. having a workforce, plant, machinery, IT systems, semi-finished products, raw materials and socio-cultural management techniques - emerge, as do its tendencies - e.g. to generate profit. But, a capitalist company that does not have *all* of these properties, or maybe has them all, but of an inferior quality, or maybe has them badly co-ordinated, might still have this tendency. To keep matters simple, let us abstract from the other intrinsic properties or intrinsic enabling conditions and focus on the workforce. Let us also abstract from any changes in the extrinsic enabling conditions.

⁴³ The symbol '+' and '+ +' denote the continuous nature of the intrinsic enabling conditions. This will become clear in the conclusion.

In order to have a tendency - ignore whether this is tendency₁ or tendency₂ for the moment - to generate profit, those who own/control the company must pay attention to - at least - three things:

- The *quantity* of its workforce, ensuring that the shop floor is, broadly speaking, sufficiently staffed.
- The *quality* of its workforce, ensuring that the workforce has, broadly speaking, sufficiently educated, skilled and trained.
- The *co-ordination* between individuals is sufficient - i.e. individuals must be in the right place at the right time.⁴⁴

There must exist some minimal state, prior to which the company will *not* have achieved sufficiency in terms of *quantity, quality and/or coordination* to have an exercised tendency₁ to generate profit.⁴⁵ This state might be difficult, if not impossible to identify empirically, at least with any precision, but this does not mean such a state does not exist. Upon reaching this minimal state, the company will have achieved this sufficiency and this tendency₁ will be exercised. It is, however, entirely conceivable, that a company can go on to improve the quantity, quality and/or coordination of its workforce such that it can go beyond this minimal state. If so, then the exercised tendency₁ might become an actualised tendency₂ to generate profit. This follows from recognition - noted above - that (i) there is a difference *within* the category of intrinsic properties or enabling conditions themselves which differentiate tendency₁ from tendency₂; and (ii) intrinsic properties or enabling conditions are not of an either/or, discrete, dichotomous or *discontinuous* nature but are *continuous*.

It appears, then, that we have stumbled upon something that allows us to give a slightly more nuanced meaning to being 'further along the causal chain'. The difference between the company having an exercised tendency₁ and having an actualised tendency₂ is not that in the former the company does *not* have a tendency to generate profit and in the latter it *does*. Rather, if the company improves the quantity, quality and/or coordination of its workforce then it almost certainly will have a *stronger* tendency to generate profit. Again, this might be difficult, if not impossible to identify empirically, at least with any precision, but this does not mean that tendencies do not come in stronger or weaker forms. Indeed, the existence of stronger and weaker tendencies is entirely plausible.⁴⁶ We can say, therefore, that tendency₂ is stronger than tendency₁. If we accept tendencies and powers as synonymous, then the same goes for powers: *power_{ij}* is stronger than *power_i*.

If, generally speaking, a things' intrinsic properties or enabling conditions are not of an *either/or, discrete, dichotomous* or *discontinuous* nature but are *continuous*, then the same goes for tendencies or powers. Tendencies or powers are not of an either/or, discrete, dichotomous or discontinuous nature but are also continuous; there are stronger and weaker tendencies and powers. This could have significant practical implications. Most critical realists will be keen to establish empirically whether the tendencies or powers they are investigating are strong or weak. Indeed, when it comes to considering the interplay of several tendencies or powers - often

⁴⁴ Clearly, there must also be coordination between individuals and their means of production (i.e. individuals and plant, machinery IT systems and raw materials must be in the right place at the right time) but I am abstracting from anything other than the workforce in this example.

⁴⁵ Such a state might exist when the company was being set up and only some of the workforce was recruited and/or trained.

⁴⁶ The closest thing I can find is when Harré & Madden, mention the concept of 'capacities'. They use the language of powers, but because for them powers and tendencies are synonymous, we can refer, with them, to the 'impairment of capacities' or 'being incapacitated'. This idea of powers and tendencies being impaired seems entirely consistent with them being weakened or diminished.

couched in terms of tendencies and countervailing tendencies - it may be very important to try and get some idea of whether the tendencies are stronger than the countervailing tendencies. We now have the rudiments of an underlying conceptualisation that would be necessary for undertaking such empirical work.

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