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Organisation, Emergence and Cambridge Social Ontology

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Abstract

John Searle has mistakenly claimed that emergence is the central concept in the account of social ontology defended by Tony Lawson, the central figure in the project now regularly referred to as Cambridge Social Ontology. This is not the case. Rather, if any concept can be considered central for Lawson, it is organisation. In this paper, I explain how Searle could misunderstand Lawson and, in doing so, I bring out the importance of organisation for understanding how phenomena, both social and non-social, are constituted.

Keywords: Organisation, Emergence, Downward Causation, Causal Reduction, Ontology.

1. Introduction

Tony Lawson, the central figure in the Cambridge Social Ontology project, has devoted a substantial amount of research towards defending the idea that there is a level of commonality to the constitution of both social and non-social phenomena[2]. Fundamental here is the central role of organisation.

Unfortunately, on this point, Lawson has often been misunderstood. The key mistake has been to suppose that, for Lawson, the concept most central to the noted commonality is

that of *emergence*[3]. Perhaps surprisingly, given his sustained engagement with Lawson's contributions, this claim has been made most notably by John Searle[4]. Indeed, Searle thinks that Lawson interprets emergence as an explanatory concept.

However, for Lawson, the term *emergence* is interpreted as little more than a placeholder. It refers just to the appearance of novelty; its use marks the spot where something new arises out of what already existed. Indeed, Lawson considers that the term is regularly made to do far more than it is able to, obscuring the further explanatory work that remains to be done. Lawson does not make overly much use of the notion of emergence, and it is certainly far from being a central feature of his account.

How is it possible that Searle could so misunderstand Lawson? Perhaps confusion has arisen because Lawson regularly writes of how all phenomena emerge through the organisation of some set of pre-existing elements[5]. But it should be clear that the explanatory concept is not emergence but *organisation*[6]; Lawson's argument is that the emergence of phenomena at all levels of reality is explained by organisation[7]. Organisation, not emergence, is the central category in Lawson's account.

The aim, in this paper, is to bring out the importance of organisation for the conception of social ontology defended in Cambridge. In pursuing this objective, it is instructive to consider how a contributor such as Searle could come to misinterpret Lawson on the matters in question. I show that Searle's mistake of thinking that emergence is Lawson's key, and an explanatory, concept arises because of his own inadequate treatment of organisation as a causal factor.

After establishing that this is so, I devote the remainder of the paper to outlining the role that organisation plays in the framework advanced in Cambridge, showing how the notion, as used, serves to clarify debates relating to notions of downward causation and causal

reduction. I argue that, from the perspective of *Cambridge Social Ontology*, understanding the nature of organisation is essential for understanding how phenomena are constituted[8].

2. Searle on the Significance of Emergence for Cambridge Social Ontology

Searle argues that whilst "[t]he concept and the application of the concept of emergence is the centerpiece of Lawson's account" in fact "the notion of emergence plays no explanatory role" in Lawson's actual analysis (Searle, 2016, pp. 404-405)[9]. If Searle is right in identifying that emergence, for Lawson, is not explanatory, he is wrong to think that this is a critique of Lawson's position. Emergence is not the centrepiece of Lawson's account, and Lawson indeed acknowledges that the term is not explanatory. Lawson (2012, p. 348) even states explicitly that on his understanding: "Emergence […] is not an explanatory term, but rather one that marks the spots where (diachronic) explanatory work remains to be undertaken". Elsewhere Lawson elaborates:

> Emergence is simply a term that expresses the appearance of novelty, or something previously absent or unprecedented. [...] So understood the term itself indicates nothing about how higher level entities bearing causal powers have come into being. Nor in and of itself does it imply anything about any relationship that might hold between the causal powers of the higher level (emergent) entity and those of its components. (Lawson, 2013a, pp. 61-62)[10]

Lawson uses the term *emerge* as a synonym to *arise* or *come into being*. It is deployed to indicate that a process is occurring through which novelty appears. When Lawson refers to a totality as an emergent totality it is the same as saying a novel totality. Lawson has used the terms emerge and emergent because his arguments have been developed in debates regarding

emergence. Although he is focussed on how phenomena, and in particular, social phenomena, are constituted, he is not developing a theory of emergence as a causal factor. Rather, the key to understanding this constitutive process, Lawson argues, is *organisation*.

Although Searle is mistaken in his critique of Lawson's use of the term emergence, Lawson's comments are revealing of both the importance of organisation to his thinking, as well as the issues that arise when its role is neglected. Whilst Searle recognises the category of organisation, Lawson considers that Searle fails to appreciate fully its ontological status and import. And in downplaying the importance of organisation, Searle mistakenly 1) identifies emergence as the category vital to Lawson's assessment, 2) supposes that it is interpretations of emergence that divide them, and 3) imputes claims to Lawson that he explicitly denies.

Certainly, Lawson and Searle offer very different treatments of the notion of organisation. Whilst Lawson separates out organisation from the elements organised, Searle (2016, p. 406) treats organisation as always being bound up with the elements that get organised, noting that "[w]hen the physicist says the table can be reduced to the molecules, he means to include the organization of the molecules". Whether or not physicists consider things this way, Lawson's response is:

> Why do I not consign the organisation of the elements along with the latter to the 'base'? My answer is simply because the organising structure is, and is always, itself an emergent. Whether the focus is on the formation of physical liquids or solids, or social artefacts [...], the totality emerges along with, and through the emergence of, its organising structure. (Lawson, 2016e, p. 431)

Lawson's view is that organisation is always additional to the elements and comes into being at the same time as the novel totality. Therefore, it is not a part of the base, or the lower

level. Rather, pre-existing elements get organised to bring novel phenomena into being. And these novel phenomena arise at the moment at which the pre-existing elements are organised as components. Lawson argues that Searle, by neglecting the additional importance of organisation, largely misinterprets the causal relationships that exist between parts and wholes.

Searle claims that once a phenomenon is seen to be emergent then it is necessarily causally reducible (Lawson, 2016e, p. 430; Searle, 1992, p. 116). But Lawson, argues that once organisation is recognised as an emergent, as novel, then causal reducibility, in most cases, is proscribed. For the organisation makes a difference; it is an additional causal factor. I return to the causal relationships between parts and wholes below. It is important first to provide a more detailed account of Lawson's understanding of organisation and its role in the constitution of all phenomena.

3. Organisation

For Lawson, phenomena—both social and non-social—are everywhere constituted as organised systems. In other words, these systems, which Lawson refers to as totalities, are constituted through a process whereby some set of pre-existing elements become relationally organised as components of—and thus bring into being—novel phenomena:

> A *totality* is a system of organised, usually more basic and pre-existing, elements that reveals a coherence or integrity at the system level. Totalities emerge through the *relational organisation* (perhaps with some modification) of these pre-existing elements, the latter thereby being harnessed and organised as *components* [...]. (Lawson, 2014, p. 3)

As phenomena are everywhere constituted as totalities, the pre-existing elements that become organised as components of totalities are very often also themselves totalities. Indeed, totalities constituted through this process regularly become relationally organised as components of other totalities and so on[11]. Each new level of phenomena is constituted through arising out of, and remaining dependent on, previously constituted totalities that become relationally organised as components of new totalities. Lower-level phenomena become organised as components of higher-level phenomena. Social phenomena arise out of non-social phenomena. All phenomena are interlinked. Therefore, this conception is thoroughly naturalistic[12].

To be clear, by organisation, Lawson means the relational structure of a totality[13]. Different types of phenomena may come to be organised in different ways. In the case of social phenomena, for example, Lawson argues that the process through which elements get organised is social positioning[14]. But whatever the process, all phenomena are constituted through processes that result in organisation[15].

Even when organisation is recognised as a category, it is often neglected as a causal factor. But, for Lawson, the causal role played by organisation is key to understanding the causal relationships that exist between the pre-existing elements and the totalities that arise from their organisation. The difference that organisation makes is, following Lawson, perhaps most clearly illustrated using the example of the construction of a house:

> Consider briefly the construction of a house. The components include bricks, mortar, wood, panes of glass, cement, etc. Of course, there will be a context, a plot of land, and this will be prepared so that the various components can relate to it in an appropriate manner. At any stage in the process of construction, an observer will find not only the part of the building constructed so far, formed out of various components, but also the

> relational organisation of the latter […]. And this organisation will be essential to the house's construction and properties. As the house is completed, so is the relational organisation of the house's components; the two—the totality and the organisational structure—emerge simultaneously. Each are causal, but in different ways. [...] To appreciate the role of arrangement or organisation, imagine the house is taken apart and its various components bound together in a blind or random fashion. It is unlikely the outcome would have the causal powers of a house. The organisation or arrangement of the bricks and other components makes a difference. And on this criterion of causality, i.e., of possessing the power or ability to make a difference, the relational organisation is causal. (Lawson, 2013a, p. 64)[16]

A house is not a house until all of the constitutive components are organised in a particular way. A house would not be a house were its components arranged randomly. It is only when their organisation takes a specific form that the house possesses its causal properties, such as being able to provide shelter. The totality, in this case the house, and the particular organisation of its components come into being simultaneously. The house would not be possible were it not for its organisational structure and, therefore, the organisation itself makes a difference.

An important distinction that is prominent in debates concerning emergence and questions of causal and ontological reducibility is between lower-level and higher-level phenomena. Generally, the components are seen as the lower-level phenomena and the whole, or totality, as the higher–level phenomenon. Traditionally, debates have focussed on whether higher-level phenomena act down upon lower-level phenomena—downward causation—or whether the causal powers of higher-level phenomena can be reduced to those of lower-level

phenomena—causal reduction. Lawson argues that these debates are confused because they ignore the contribution of organisation.

If the higher level is that which is novel then it includes the organisation, and the lower level consists merely of the pre-existing elements (that will be organised to form components). Drawing on the house example, the lower level would therefore include all of the materials such as "bricks, mortar, wood, panes of glass, cement, etc." as well as the "context, a plot of land", before they get organised. The higher level would then include those novel features that come into being once those elements are organised as components, namely there would be a house and that house would have a particular organisational structure. Both the house and the organisational structure are novel. The higher level, therefore, would include the totality and its organisational structure with the pre-existing elements now organised as components. So, whilst the pre-existing elements can be considered lower-level phenomena, once they are organised as components, then, *qua* components, they are part of the higher-level.

What does this mean for how Lawson understands the causal relationships between these two levels? I start with downward causation.

4. Downward Causation

There are a number of different conceptions of downward causation[17]. The version Lawson (2013a, p. 79) "want[s] to contest understands 'downward causation [...][as] the concept that a system as a whole has a causal influence on its constitutive parts' […], that 'higher level entities causally affect their lower-level constituents'"[18]. Lawson (2013a, p. 63) "doubt[s] whether the conception of downward causation as formulated has any relevance whatsoever".

Wholes are not somehow separate from their parts. A totality is not separate from its organised components, "for the former is composed out of the latter" (Lawson, 2013a, p. 80). The whole is the organised components. A whole—a totality—can only act through the actions

or workings of its components. The whole does not act separately from its organised components. Therefore, the totality cannot act upon them. A totality that acts *through* its parts cannot simultaneously act *on* them:

> Wholes act through their parts acting and their parts are coordinated in their actions through the emergent irreducible relational structures that organise the lower level elements as (perhaps through modification) components of emergent wholes. Thus an army attacks through the actions of its soldiers (or guided weapons); a school educates through the interactions of its members; a football team scores through a player scoring. Parts of a whole though interact with, and relate directly to, not a whole but each other and the organising structure. An individual picks up a pen through the various interactions of the brain, nervous system, muscles, etc. (Lawson, 2014, p. 6)

Pratten (2013, p. 265), however, has noted that Lawson "at times [...] defend[s] an account of downward causation that respects the distinction drawn between emergent totality and organising structure"[19]. For there is a causal interaction between the elements that become organised as components and the organisational relational structure. Thus, when human individuals become organised say as components of a crowd, then, according to Lawson:

> The individuals in their interactions draw not on the crowd behaviour as a totality, but on the relational structures that organises individuals as components of the crowd. And it is through these same interactions of relationally organised individuals that the relational structures are in turn reproduced and/or transformed. In short, causal interaction is between individuals and organising structure. (Lawson, 2013a, p. 81)

And Lawson (2013a, p. 82) concedes that this interaction could perhaps be referred to as a type of downward causation, if the organising structure, being emergent is considered thereby to be 'higher level'[20]. Levels, after all, are a metaphor. If one were to consider the upper level to be the organisation and the lower level to be the items organised to form components, a form of downward causation would hold. But on the criterion of novelty, the higher level would include the totality, the organisation and the components. When a totality acts through its components acting, all of this occurs at the higher level, meaning that downward causation, in the specific sense Lawson was criticising, does not hold.

As Pratten notes, "Lawson's own preference is to avoid the current common confusions in the literature by dropping altogether reference to downward causation" (Pratten, 2013, p. 265). Indeed, it is easier to explain the causal relationship that exists between the items used to form components and the organisation without using the term downward causation. When totalities have a causal impact, it is always through its components acting. There is no sense in which the totality acts independently of its components, as they are parts of the whole and therefore the totality cannot act upon its organised components.

5. Causal Reduction

It would also seem unlikely that the causal properties of the totality and its organising structure could possibly be reduced to the causal properties of the pre-existing elements. Interestingly, however, Lawson is open to this possibility, but only in limited circumstances. There are two distinct theses regarding causal reduction that are of interest here. The first, which Lawson characterises as simplistic, argues in effect that the causal powers of an emergent totality are reducible to the causal powers of the items to be organised as components, considered apart from being so organised. This conception ignores the causal role of a totality's organising structure. When the whole is constituted through the relational organisation of pre-existing

elements as components, the causal influence of the organisation—in providing conditions of possibility—is something additional to the pre-existing elements. When they become part of the whole, through organisation, the resulting organisational structure has a causal influence. It is not a situation in which pre-existing elements are simply aggregated such that the causal powers of the whole are merely an addition of those elements. The causal properties of the whole are the product of the elements organised as components and the organisational structure. Therefore, this simplistic version of causal reduction does not hold.

Lawson, though, does consider that the second formulation—associated with Searle—could possibly obtain, in, perhaps, some types of non-social phenomena:

> Causal Reduction [...] is a relation between any two types of things that can have causal powers, where the existence and a fortiori the causal powers of the reduced entity are shown to be entirely explainable in terms of the causal powers of the reducing phenomena. Thus, for example, some objects are solid and this has causal consequences: solid objects are impenetrable by other objects, they are resistant to pressure, etc. But these causal powers can be causally explained by the causal powers of vibratory movements of molecules in lattice structures. (Searle, 1992, p. 114)

This is distinct from the more simplistic version where the idea is that the causal powers of the emergent phenomena are an aggregate of those of the items organised. On Searle's account, the causal properties of the emergent totality can be *entirely* explained by the causal properties of just the items so organised. Whilst Lawson does not agree with all of the examples that Searle provides above, he is open to the general argument that this type of causal reduction could be possible because:

> Searle is in fact advancing an epistemological notion of causal reduction; the latter is couched in explanatory terms. In consequence, it may be suggested that Searle is merely observing (correctly) that a diachronic explanatory account of all higher level entities can be provided. But in his suggesting that the existence and causal powers of the emergent entity are 'entirely explainable' in terms of the causal powers of the 'reducing' phenomena, Searle is advancing a more strongly reductionist position than this. If it is generally the case that [...] the organising structure of components makes a causal contribution to the powers of the whole (and I shall suggest that this is so), then Searle's notion of causal reduction seems to require that the organisational structure is also explained (produced) solely by the causal interactions of the lower level components. Only where this is so can it be held that Searle's notion of causal reduction is at least feasible. (Lawson, 2013a, p. 65)

On one reading, Searle's conception could be consistent with Lawson's. Lawson does consider that all phenomena are reducible diachronically—over time—in the sense that there is always a historical explanation for how phenomena have come into being. If this was all that Searle was arguing, then this would be no different to Lawson's view. But Lawson thinks that Searle's conception of causal reduction goes further than this to argue that the causal properties of the pre-existing elements that come to be organised as constitutive components can *entirely* explain the causal properties of the resulting totality. For this to be the case, the organisational structure would need to be entirely explained by the causal properties of the pre-existing elements that become constitutive components:

> One possible line of reductionist response is to suggest that the emergent organising structure is itself completely determined by the causal interactions of elements which

> get eventually to form the components of the emergent totality. But […] there are very few scenarios where such an argument is even *prima facie* plausible. It basically requires that the dynamics of interaction be isolatable [...]. (Lawson, 2016e, p. 432)

Lawson (2014, p. 3) does identify at least one instance in which he thinks this occurs, but he stresses that "even this version of the thesis [of causal reduction] does not hold in most cases and seems never to with respect to social causation". The sort of mechanism that Lawson has in mind here is one wherein a totality is formed out of pre-existing items via "processes of mutual cancelling" between these elements, that occasionally results in an organised entity as residue. In such cases it can be argued that any "organising structure of interacting elements that remains was brought about by the interaction of those elements alone as part of a constructive process of order creation" (Lawson, 2013a, p. 68)[21]. Lawson illustrates how this might occur using the example of surface tension:

> Surface tension is a property of the surface of a liquid matter whereby the latter gives resistance to an external object. It arises because similar molecules in a liquid are reasonably cohesive (albeit, of course, having more freedom of movement than when the matter is in a solid state). Specifically, similar molecules have the property of sticking together, of being mutually attractive. The reason for this is that the shape and structure of molecules is such that when two or more get close to each other, this affects the distribution of orbiting electrons in a manner that creates electronic attraction. And surface tension is one of the many properties caused by cohesion of similar molecules, resulting from a cancelling of equal and opposite forces. [...] In this example, then, there is reason to suggest that both the emergent property of surface tension, along with the emergent structure of the drop of liquid upon which the former depends, result from the

> interaction of the component molecules alone. Here Searle's notion of causal reduction seems relevant. Notice that the internal organising structure of the molecules emerges at the same time as do liquid properties like surface tension. (Lawson, 2013a, p. 69)

In the case of surface tension, the causal powers of the organisational structure are reducible in that they are entirely explained by the causal powers of the pre-existing constitutive phenomena—the pre-existing elements. In this case, the shape and structure of the molecules are such that when they get close to each other, surface tension is the seemingly automatic result of the cancelling of equal and opposite forces. Ontologically, the process is the same that has been described throughout this paper. The totality comes into being through the relational organisation of pre-existing elements as components. The organisation is additional to the elements organised as components and causal, which means that, even in this case, the simplistic causal reductionist thesis does not hold. However, one can understand how, from an epistemological viewpoint, the causal powers of the organisational structure could be entirely explained by the causal powers of the pre-existing elements. For the pre-existing elements have causal properties that make the organisational process occur. Therefore, causal reduction, when formulated as an epistemological thesis, can occur in some instances where non-social phenomena are organised through processes of mutual cancelling. But when the constitution of non-social phenomena involves a slightly more complex organisational process than cancelling, Lawson shows that causal reduction no longer occurs. Lawson illustrates this using the example of a snowflake:

> A brief consideration of the much discussed example of a snow flake should be sufficient to convince on this point. Although micro-forces at the level of water molecules will be at work whatever formation emerges, the eventual shape of any

> snowflake will depend on the range of external factors bearing on it from the dust particle that originally seeds it as a water crystal, through to its collisions with other crystals as it falls to the ground, the temperature variations experienced on the way, the vapour supply, and so on. In other words, the manner in which the ice crystals combine or become organised will depend on contingent factors that amount to its history. This is so at every stage of a snowflake's trajectory. But just as significantly, early developments of structure cumulatively restrict later ones. Early aspects of crystal growth facilitate and constrain later developments. The emergent momentary organisation of any falling snowflake feeds back into the lower level dynamics, inhibiting most once feasible molecular accumulations and points of expansion as it biases the flake towards specific still feasible paths of expansion. Mutually enhancing biases of molecular configurations and dynamics and the contingencies of the crystals historical path co-determine the final outcome. In short, we have a recurrent process of interactions wherein the impacts of contingent external events lead to biases of structure or arrangement that not only emerge with, and influence, the overall shape at each point, but constrain the manner on which new accretions or aggregations can occur. Causal reduction is not easily supportable here either. (Lawson, 2013a, pp. 74-75)

Here, it is not just the crystals coming in contact with one another that results in the emergence of a snowflake. There are a series of external factors that result in the organisational structure of each snowflake being distinct. In this case, the causal properties of the crystals do not entirely explain the emergence of the snowflake as the organisational structure is not entirely caused by the causal properties of the crystals. The second any external factors are involved in the organisational process, the causal powers of the pre-existing elements no longer

entirely explain those of the organisational structure and, therefore, causal reduction is impossible.

This would imply that causal reduction never occurs in the case of social phenomena because external factors are always involved in the constitution social totalities. Even when it seems as though the process through which a social phenomenon is constituted is broadly similar to that of surface tension, Lawson (2013a, p. 70), using the example of "crowd formation where the component individuals share a common or related goal" argues that "despite processes of cancelling being involved, [...] it is not the case that the resultant formation depends *solely* on the interactions of component individuals". This is because, when mutual cancelling occurs in the social realm, it is never the only process at play and, therefore, the organisational structure cannot be entirely explained by causal powers of the pre-existing human beings:

> Consider, as an illustration, a situation where very many mostly unconnected or uncorrelated individuals set off to watch a sports event or rock concert at a large arena, say at Wembley Stadium in the UK. As the individuals converge on one or more main roads leading to the stadium, the various individual paths of dancing and dawdling from one side of the road to the other etc., become effectively cancelled, leaving paths of least mutual incompatibility as non-cancelling practices of walking directly towards the stadium come to dominate. Here, as in the case of liquid properties, it is clear that a form of order emerges just because or where a structure or arrangement can withstand (or can best withstand) processes to disorder or destruction. (Lawson, 2013a, p. 70)

But in this instance, differently to the molecules in the surface tension example:

> There are pre-conditions of organisation […]. All individuals want to go to the same place, i.e. to the stadium, the road is of a restricted/finite width, with the two sides providing a symmetric set of constraints; individuals typically prefer not to offend others, and so forth. (Lawson, 2013a, p. 70)

This is because:

> Human beings [...] are not molecules. In addition to being reflexive and relatively autonomous, they are always culturally situated, and act in accordance with (including reacting to, or contesting) pre-existing community conventions, rights and obligations, and so forth. Certainly, the shape and nature of the formation that comes about, the rights and obligations that bind individuals in a particular crowd formation, will vary according to whether the individuals involved are, say, walking to a concert in the UK, undertaking a pilgrimage to Mecca, advancing as an army in a foreign land, representing their countries in an Olympic Parade, marching and playing as a brass band, demonstrating against some political decision or situation, and so on. Each crowd will experience the development of obligations specific to it. With any crowd, a somewhat novel organising relational structure emerges [...]. (Lawson, 2013a, pp. 70-71)

The difference for social phenomena is that even if processes of cancelling are involved, phenomena like crowds do not form *only* through the cancelling of opposite forces of attraction. There are processes of cancelling, but they do not happen automatically when a large group of individuals are in the same place. Each crowd is distinct, and it is clear in the examples given that the causal properties of the relational organising structure are therefore not only additional

to the causal powers of individuals but cannot be entirely explained by them either. Indeed, such social processes of mutual cancelling are always strongly influenced by the fact that the individuals involved exist already within a series of different social totalities:

> [S]pecific social structures out of which the emergent relational organisation of a crowd is formed, where an orderly formation is indeed the outcome, are not created by the component individuals and their interactions but in significant part pre-exist such interactions, even if through the latter they are in degree transformed as well as reproduced. Causal reduction does not hold, certainly as a generalisation, and does not apply even in this simplest of examples of first order non-recurrent dynamics, in the social realm. (Lawson, 2013a, p. 72)

Human beings are always human beings in social relations and that context always has an influence on the organisation that forms when a social phenomenon comes into being. Human beings do not automatically organise in certain ways when they approach each other. There are always other factors at play, as there are in the constitution of many, if not most, non-social phenomena. Indeed, the only context in which Lawson can conceive of causal reduction occurring is when molecules, or other such non-social elements, have causal properties such that a process of organisation, through mutual cancelling, occurs automatically whenever such molecules approach each other. But this is never the case for phenomena that are constituted through the involvement of human beings. Indeed, Lawson has argued at length that we are not isolated atoms[22]. Even the most basic forms of social phenomena involve more than just some automatic reaction to being close to another human being. Social phenomena, therefore, are always causally irreducible.

6. Conclusion

The importance of organisation for the conception of social ontology defended in Cambridge, and by Lawson in particular, has been neglected. This has resulted in researchers critically engaging with the Cambridge account, most notably Searle, mistakenly identifying emergence as Lawson's central concept. Rather, Lawson considers emergence to be a placeholder, identifying a gap where explanation needs to take place. This explanatory role is played by organisation.

For Lawson, phenomena are everywhere constituted where pre-existing elements, which are most of the time also constituted as totalities, become relationally organised as components of other totalities. This grounds the conception defended in Cambridge as thoroughly naturalistic and attributes a level of commonality to the constitution of social and non-social phenomena. In all cases, organisation and the totality come into being simultaneously.

Phenomena *qua* wholes have a causal impact through their components acting and so cannot simultaneous act back either on these components or on the elements out of which they are organisationally constituted. Nor can wholes be reduced to the elements that are to be incorporated as components, if considered apart from being organised. For the organising structure makes an ontological and causal contribution.

Lawson does though recognise that, in principle, there could be situations where the organising structure is produced by the interactions of the elements that come to be organised and suggests the production of surface tension as a causal power of a whole (a liquid droplet) as an example. However, he argues that scenarios in which this can happen are rare in the non-social realm and absent from the social realm entirely.

So, from Lawson's perspective, all questions of constitution of phenomena qua totalities of interest essentially reduce to questions of how these phenomena are, and have come

to be, organised. And in the case of social phenomena specifically, Lawson argues that the basic mechanism of organising is social positioning. The point here, though, is that organisation applies at all levels of reality. All phenomena come into being through organisation and this must be recognised if we are to understand how they are constituted.

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Endnotes

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[2] Social ontology—the study of the nature and basic structure of social reality—has been pursued in Cambridge for over thirty years. Research is conducted through the Cambridge Realist Workshop and, for the last twenty years, at the weekly meetings of the Cambridge Social Ontology Group. For more on the history of the Cambridge Social Ontology project, see, for example Dunn (2009); Faulkner, Pratten, and Runde (2017); Lawson (2009a); Pratten (2015). For the most recent developments the group has made, particularly in terms of their theory of social positioning, see Lawson (2019).

[3] Although it is not Lawson's focus, for an overview and history of the notion of emergence see, for example Cahoone (2013); Gibb, Hendry, and Lancaster (2019).

[4] Another example is Wight (2016, p. 417) who argues that "The manner in which Lawson treats emergence means that almost anything that comes into being through the interaction of one or more things can be said to be emergent. Thus, if I meet a friend in the street, the conversation we have emerges out of the chance meeting. The conversation was previously absent, it came out of, although it is still dependent upon, matters (myself and my friend) already in existence. This is a very loose and certainly not philosophically interesting use of emergence."

[5] For example, Lawson (2016e, pp. 429-430), writes "I use the term emergence primarily to capture any processes whereby some pre-existing elements become organised into a totality or system, a system that is novel or unprecedented in relation to those elements and their context. In addition, I use the term emergent in reference to the totality itself, its causal properties, and the organisation of the elements". A further example is where Lawson (2013a, p. 62) writes: "Emergence then, as widely interpreted, is ultimately a compositional term, and one that involves components being organised rather than aggregated". More recently he notes: "Reality everywhere (for the social and the non-social alike) is marked by specific processes of emergence. These are processes whereby various elements in existence at any given point in time become relationally organised to form components of some novel or 'emergent' totality, with the latter in turn perhaps becoming in due course itself organised as a component of a yet higher-level totality and so on" (Lawson, 2019, p. 12). It is also the case that in almost every instance in which Lawson has discussed organisation it has come under the heading of emergence. See, for example Lawson (2012, 2013a, 2013b, 2016a, 2016b, 2016c); Lewis (2015); Martins (2011); Porpora (2017); Pratten (2013); Searle (2016); Wight (2016).

[6] I acknowledge that in earlier work, Lawson presents the theme of emergence somewhat differently to the way he sets it out more recently. Indeed, in earlier contributions he seems to use the term emergence in a manner very much in line with its deployment in the broad literature on Critical Realism without too much elaboration. For example, Lawson (1997, p. 63) writes that "[e]mergence may be defined as a relationship between two features or aspects such that one arises out of the other and yet, while perhaps being capable of reacting back on it, remains causally and taxonomically irreducible to it". Or, in more detail: "[a] stratum of reality can be said to be emergent, or as possessing emergent powers, if there is a sense in which it (i) has arisen out of a lower stratum, being formed by principles operative at the lower level; (ii) remains dependent on the lower stratum for its existence; but (iii) contains causal powers of its own which are irreducible to those operating at the lower level and (perhaps) capable of acting back on the lower level. Thus organic material emerged from inorganic material. And, according to the conception I am defending, the social realm is emergent from human (inter)action, though with properties irreducible to, yet capable of causally affecting, the latter" (Lawson, 2003, pp. 43-44). These definitions are characterised not only by the idea of novelty but by the importance placed on the relationships that exist between emergent phenomena and their constitutive components, namely causal irreducibility. For more on the Critical Realist conception of emergence, see Bhaskar (2008 [1975], 2009 [1986], 2015 [1979]); Collier (1994). Moreover, when it comes to emergence Bhaskar and Critical Realist contributors more generally have been influenced by the work of von Bertalanffy (1950, 2015) and Polanyi (2009). For more on the relationship between Critical Realism and Systems Theory see, for example, Carchedi (1983); Hofkirchner (2019); Mingers (2011). There has also been a substantial amount of research on emergence conducted from other perspectives that are related to both Critical Realism and Cambridge Social Ontology. See, for example Archer (2013, 2014, 2015, 2016, 2017); Elder-Vass (2010, 2012a, 2012b, 2014).

[7] I acknowledge that term organisation is used in a variety of ways within many literatures, including a whole field of organisational studies. For a comparison of Lawson's use of the term with other similar uses, see Pratten (2019).

[8] I acknowledge that terms such as phenomena, totalities and entities, on the one hand, are often used interchangeably and, on the other, can carry different connotations within different literatures. I follow Lawson in employing the term phenomena as a generic ontological category, using it, in particular, when referring to all phenomena or when distinguishing between social and non-social phenomena. For example, in the opening paragraph of Lawson (2019, p. 3), he states "By 'social reality', or 'the social realm', I refer to all those *phenomena*

whose existence depends necessarily on human beings and their interactions" (emphasis added). The term totality is used to refer to a phenomenon constituted as an organised system. Whilst Lawson's argument is that phenomena are everywhere constituted in such a manner, this claim is fallible and therefore a distinction is warranted between the generic category phenomenon and the category totality. Finally, Lawson (2019, p. 44) "suggest[s] that a category such as *entity* is appropriately used just to express (or can be thought of as expressing) a *relatively stable* actualisation of a feasible emergent organisation or system of underlying processes".

[9] Searle has written extensively on emergence. Searle argues that emergence necessarily leads to both ontological and causal reductions, except in the case of consciousness where he argues that "the traditional account of consciousness as emergent, in the sense explained, cannot be made philosophically rigorous and coherent. But the picture is clear enough. Here is the brain with all its brainy features and here is consciousness with all of its amazing features. Consciousness is dependent on the brain and emerges from brain activities, but it cannot be reduced to the brain or brain processes. In this sense consciousness is emergent" (Searle, 2016, p. 405). Consciousness, he argues, is, therefore, distinct and unable to be *reduced* to the brain and those organised processes and therefore is ontologically irreducible. For more on Searle's conception of emergence and its relationship to questions of reducibility see Lawson (2016e); Searle (1992, 1995, 2016)

[10] This is a view that is seemingly shared, for example, by Piaget (1970) and Bechtel and Richardson (2010). For example, Piaget (1970, p. 8) writes that the "whole which this sort of critic of atomism posits at the outset is viewed as the outcome of some sort of emergence, vaguely conceived as a law of nature and not further analysed. Thus, when Comte proposed to explain men in terms of humanity, not humanity in terms of men, or when Durkheim thought of the social whole as emerging from the union of individuals in much the same way as molecules are formed by the union of atoms, or when the Gestalt psychologists believed they could discern immediate wholes in primary perception comparable to the field effects that figure in electromagnetism, they did indeed remind us that a whole is not the same as a simple juxtaposition of previously available elements, and for this they deserve our gratitude; but by viewing the whole as prior to its elements or contemporaneous with their 'contact,' they simplified the problem to such an extent as to risk bypassing the central questions—questions about the nature of a whole's laws of composition". Piaget (1970, p. 46) also argues that the "same holds for the theory of emergence defended by Lloyd Morgan and others; to note the existence of wholes at different levels and to remark that at a given moment the higher "emerges" from the lower is to locate a problem, not to solve it". For more see Santos (2015).

[11] Lawson (2016c, p. 447) writes, for example, that "reality everywhere, from quantum fields to the social domain, consists of emergent totalities formed as organisations of pre-existing elements, with such emergent totalities themselves in turn becoming very often organised as components of higher level totalities."

[12] The term naturalism has a variety of meanings. I follow Lawson (2012, p. 346) in using the term ontological naturalism to refer to "the widely accepted doctrine that everything can be explained in terms of natural causes. This is a non-dualist orientation that entails that even features such as life, choice and intentionality are integrated with the (rest of the) natural world and not composed of some separate (non-naturalistic) stuff". Lawson's explicit emphasis on ontological naturalism in his more recent contributions seems to have come about, at least in part, as a consequence of his intellectual engagement with Searle. A major concern for Searle (2010, p. 25) relates to establishing how "[t]he higher level phenomena of mind and society are dependent on lower level phenomena of physics and biology: Biology depends on physics. Neurobiology is a branch of biology. Consciousness and intentionality are caused by and realized in neurobiology. Collective intentionality is a type of intentionality, and society is created by collective intentionality". Lawson has acknowledged that in early work he had perhaps not been explicit enough in grounding the ontological conception he was developing as naturalistic. Lawson (2012, p. 348) writes that "[i]f [...] I have given insufficient explicit attention to ontological naturalism in previous contributions, the latter, as I say, is nevertheless a thesis I broadly accept. My previous neglect of a naturalistic assessment of my position is, thus, to repeat, something I seek explicitly to rectify here". In establishing the naturalistic credentials of his project, Lawson also seems to provide a fuller account than that which Searle offers by explaining that there are common features to the constitution of all phenomena.

[13] Lawson (2012, p. 352) discusses a possible ambiguity in the use of the term organisation: "I should perhaps quickly note here that the term organisation has two inflections. In processes of emergence the lower-level elements become organised as components of the emergent entity or whole, and so we can refer to the organisation of the components. But the category organisation is also regularly employed to refer to the totality including the lower-level elements that have become (re)organised. Hopefully it will be clear from context which meaning is intended here. When the term refers to the emergent entity or totality, i.e. when organisation is a whole or a system, then it includes not just the lower-level elements that (perhaps with or through modification) have become components, along with their context, but also an organising structure comprising emergent relations between components (as well, of course, others that bind these components to features in their environment)". Lawson (2014, p. 6) explains that this ambiguity in the use of the term has, in the context of discussions of the nature of

the firm, generated significant problems: "In fact the reference to the firm as an organisation itself encourages problems, just because the term 'organisation', when so used, denotes, for the contributions in questions, *both* the totality itself as well as its relational (organising) structure. As we have seen, the two, the totality and its organising structure, emerge simultaneously but are not identical. In social theory more widely the use of the term 'organisation' in this dual manner leads often to the two features (the totality and its relational structure) being conflated, usually with one or the other feature consequently being neglected". Here, I do not use the term organisation to refer to the totality. Organisation, as I state above, is used to refer to the relational organising structure of a totality.

[14] For more on the theory of social positioning developed and defended in Cambridge, see Faulkner and Runde (2013, 2019); C. Lawson (2017); Lawson (2014, 2016d, 2018a, 2018b, 2019); Pratten (2017)

[15] Though Lawson's view is that organisation, or the organisational structure, is the result of processes such as social positioning, he also maintains, that, in a general sense "[i]f emergent organisation is seemingly characteristic of all reality, and if features of reality are continually being reorganised (as well as de- or disorganised), it appears that everything is effectively in process" (Lawson, 2012, p. 357).

[16] Lawson has, at times, drawn on Aristotle's four causes to distinguish the type of causation he associates with organisation from that which he associates with the totality. Lawson has termed the way in which the totality and the organising structure are causal "efficient" and "formal", respectively. With regard to the house example, Lawson (2013a, p. 64) has argued totalities have powers of efficient causation in the sense that a house can "provide safety and shelter, […] facilitate family or other indoor activities, […] be bought and sold, and so on". In referring to the causal powers of the totality's organising structure as an example of formal causation, Lawson (2013a, p. 64) means how the organisation of the components "makes the house feasible". Whilst Lawson does not include material and final cause in this example, he has discussed them elsewhere. For a discussion of final causation see Lawson (2013a, p. 77). For his use of material cause see Lawson (1997, p. 31; 2003, p. 149). Other members of the Cambridge Social Ontology Group have analysed different ways in which the four causes can be used to understand social phenomena. For more, see Lewis (2000); Martins (2011); Pratten (2009).

[17] For other perspectives on downward causation and useful overviews of the literature and debates see Elder-Vass (2010, 2012b); Hodgson (2002, 2007, 2011); Hulswit (2005); Kim (1992, 1999, 2000).

[18] This definition is taken from Hulswit (2005, p. 261).

[19] Pratten (2013, p. 265) has also argued that interactivist conceptions of downward causation are perhaps compatible with Lawson's views.

[20] Lawson is careful not to imply that this interaction is deterministic and illustrates this relationship using the case in which human beings are the pre-existing elements organised as components of a novel totality. Lawson (2013a, p. 82) goes on to say that "Any causal bearing that even the organisational structure has on human practices is causation in the sense not of 'bringing about' individual practices such as, say, speech acts, but of shaping them through serving as conditions of their possibility. For, of course, organisational structures are not somehow able to bear down on the individual in some external unmediated fashion. It is human beings that do things, so that everything that happens in the social world does so through human activity."

[21] Lawson has characterised these processes as different "dynamics of emergence". I have chosen, due to the misunderstandings that have arisen in relation to the way in which Lawson has used the term emergence, not to use this terminology in the body of the text. It is important, however, to acknowledge that Lawson has identified three different dynamics of emergence: "non-recurrent dynamics of emergence; simple recurrent dynamics of emergence; and complex recurrent dynamics of emergence. Processes involving these dynamics can thus be, respectively, termed first, second and third order processes of emergence (and their products termed first, second and third order emergents)" (Lawson, 2013a, p. 67). First order, non-recurrent dynamics refer to processes of cancelling like surface tension. Second order, simple recurrent dynamics of emergence, refer to "processes in which particular features or biases do not cancel [...] but are amplified and/or propagated throughout the system" (Lawson, 2013a, p. 72). Third order, or complex recurrent, dynamics of emergence, take "the form of first and/or second order dynamics of emergence coming to interact with each other, in a manner that sustains or facilitates the development of the interacting lower order components as parts of an organised multi-part emergent totality. Effectively, the process I have in mind is one of 'natural selection' wherein selection is made from the set of possible relations (of reciprocity) between different emergents; and in the first instance between those that have resulted from first and/or second order processes of emergence. Any relation that remains, or is seemingly 'selected', where one does indeed survive, is simply one found to be less susceptible than others to certain prevailing pressures to go under, i.e., whose relata are least (or anyway not destructively) incompatible. Any such emergent totality is composed out of lower order emergent forms along with the constraining relations of their mutual dependence. Needless to say, in social examples of third order emergence, pressures that affect survival include the power-play of groups and/or situated individuals with different material interests, each continually

seeking to get the upper-hand, underpinning tendencies that may stabilise or destabilise any system that contains them, and so on. In all cases of third-order processes, the reproduction of higher level emergents depends on the simultaneous reproduction of first- and second-order emergents, just as the reproduction of higher level emergents can lead to lower level emergents being sustained" (Lawson, 2013a, pp. 75-76). For Lawson (2013a, p. 76) "[e]xamples of this more complex or higher order emergence are all forms of communities, [...] plant and/or animal eco-systems". For a similar discussion see Deacon (2006).

[22] Lawson argues that the problem with mainstream economics is that a general insistence on the use of mathematical modelling presupposes that human beings are isolated atoms. For more on Lawson's critique of mainstream economics, see Fullbrook (2009); Lawson, Latsis, and Martins (2007); Lawson (1997, 2003, 2006, 2009b, 2015); Morgan (2015a, 2015b); (Slade-Caffarel, 2019).