

Samuel Alexander's Theory of Categories

A. R. J. FISHER

Abstract: Samuel Alexander was one of the first realists of the twentieth century to defend a theory of categories. He thought that the categories are genuinely real and grounded in the intrinsic nature of Space-Time. I present his reduction of the categories in terms of Space-Time, articulate his account of categorial structure and completeness, and offer an interpretation of what he thought the nature of the categories really were. I then argue that his theory of categories has some advantages over competing theories of his day, and finally draw some important lessons that we can learn from his realist yet reductionist theory of categories.

The Australian-born British philosopher Samuel Alexander (1859-1938) was one of the first realists of the twentieth century to defend a theory of categories. In *Space, Time and Deity* (published in 1920) he constructs a realist metaphysics that posits Space-Time as the one monistic entity that encompasses every entity and every feature in reality, including the world's categorial structure. According to Alexander, categories such as existence, universality, relation, order, substance, causality, quantity, and number depend on the intrinsic nature of Space-Time.

In developing his theory Alexander was reacting to a variety of contemporary and historical figures. He wanted to reject F.H. Bradley's view that causality, substance, attribute and other would-be categories are mere appearance and not real. He was keen to dismiss Hegelian attitudes one may have had at the time towards the categories such as the view that categories are mutable concepts or laws of thought. For Alexander, categories are real features of reality. He disagreed with the New Realists of America who shared much sympathy with his system such as Edwin B. Holt (1914) who thought that the categories were primitive features that could not be given any further explanation. Alexander insisted on explaining *how* the categories are grounded in Space-Time. He thus gave a 'reductive' account of their nature. He was also inspired by Plato's doctrine that the highest kinds of being (Sameness, Difference, Rest and Change) serve as the basis of the variable features of reality (*Sophist* 250a-260b). And, finally, he saw his view as a development of Kant's. For it was in Kant's doctrine of 'objective external experience containing the categories in correspondence with certain features of Time' that Alexander found the insight that 'Time begotten on Space' could be understood as the ontological source of the world's categorial structure (*Space, Time and Deity*, vol. 1, p. 191).¹

Alexander's metaphysics is mostly unknown in contemporary philosophy. Metaphysical speculation and his method of system-building fell out of favour by the

¹ Throughout this paper, references to *Space, Time and Deity* are abbreviated to (STD, volume, page number).

beginning of the Second World War partly because of logical positivism, ordinary language philosophy and the later Wittgenstein. Bertrand Russell and G.E. Moore's influence was also on the rise and overshadowed other philosophers from the early twentieth century. However, during his lifetime Alexander was a well-known figure and his metaphysics was widely read and closely studied. By 1924 Alexander was the leading philosopher in Britain (Muirhead 1939, 3). And according to some historians, he is regarded as the one of the greatest philosophers of his time and the chief proponent of realism in Britain in the early twentieth century (Metz 1938, 622-23).

In the 1910s, *Space, Time and Deity* was eagerly sought after by the philosophical community (Broad 1921, 25). John Laird said of the book that 'it is the boldest adventure in detailed speculative metaphysics attempted in so grand a manner by any English writer between 1655 (when Hobbes very nearly completed his trilogy by the publication of *De Corpore*) and 1920' (Laird 1939, 61).² G.F. Stout agreed with Laird's assessment (Stout 1940, 1). Bernard Bosanquet told Alexander that 'I think your book will be a classic'.³ F.H. Bradley called it 'a great work'.⁴ John Stuart Mackenzie said '[it] seems to me a magnificent achievement—worthy to be placed along with *Appearance and Reality*, and certainly in some respects more satisfactory'.⁵ Norman Kemp Smith remarked that *Space, Time and Deity* 'is likely to mark an epoch in British philosophy'⁶ and that Alexander's 'system demands, indeed, a re-writing of the whole history of philosophy'.⁷ Alexander's philosophy affected the work of C.D. Broad, Holt, Laird, William P. Montague, C. Lloyd Morgan, Kemp Smith, and arguably A.N. Whitehead.⁸ But more significantly, Alexander had a major influence on the Scottish-born Australian philosopher John Anderson (1893-1962) and the American philosopher Donald C. Williams (1899-1983).

Williams adopted Alexander's epistemological monism (the view that the datum by which we know is identical with what we know), his direct realism about perception (Williams 1934; 1944, 434-37), his view that colours are identical with physical properties (Williams 1930, 520-21), his analysis of cognition in terms of 'compresence' (Williams 1959, 208), and his view that 'every existent entity is located, extended, and composed in space and time' (Williams 1946, 580). Williams interprets this view as

² In a footnote (1939, 61-62, n. 3) Laird says that of course Locke and Hume were of a higher stature than Alexander. Laird's point is about "systematic speculative metaphysics," an enterprise Locke and Hume did not undertake. Bradley was also not in the business of presenting a metaphysical system (Bradley 1893, xi). So he is, technically speaking, not a candidate for doing systematic metaphysics either.

³ Samuel Alexander Papers, GB133 ALEX/A/1/1/30/5 (7 May 1921), John Rylands Library, University of Manchester. Hereafter, any references to the Samuel Alexander Papers is truncated to the call number within the archive and the date of the document.

⁴ ALEX/A/1/1/33/17 (28 April 1922). Courtesy of Royal Holloway, University of London.

⁵ ALEX/A/1/1/176/26 (12 December 1919).

⁶ ALEX/A/1/1/264/7 (19 August 1920). Courtesy of Special Collections, University of Edinburgh (EUL).

⁷ ALEX/A/1/1/264/9 (11 August 1921). Courtesy of Special Collections, University of Edinburgh (EUL).

⁸ Alexander and Whitehead both presented a logic of events or point-instants. Alexander thought that Whitehead's work superseded his own (see, for instance, Alexander's letter to John Anderson, 19 January 1930; John Anderson Archive, P.42, Series 21, box 54, item 001, University of Sydney Archives). There is disagreement about whether there was any direct influence between the two (Emmet 1992; Lowe 1949).

postulating that the world is a four-dimensional manifold of events or qualities spread out across space-time. Alexander defends the basis of this metaphysical picture in book 1 of *Space, Time and Deity*, although Williams is also influenced by (Montague 1912, 363-64). Williams also wrote a tribute paper (unpublished) on Alexander in 1960: 'Samuel Alexander and the Analytical Introverts'.⁹ Naturally, Williams does not accept all of Alexander's doctrines. Elsewhere, he criticises epistemic principles that Alexander employs (Williams 1933, 621) and articulates a distinctive ontology of tropes (Williams 1953a, 1953b). At Harvard University, Williams taught David Lewis and influenced in part what metaphysical doctrines Lewis came to adopt. Just like Williams, Lewis embraced four-dimensionalism, a Humean-inspired view of causation, unrestricted mereological composition, eternalism, and the possibility of time travel.¹⁰

Alexander's influence on Anderson is more pronounced. Anderson attended Alexander's Gifford lectures (1917-1918) while writing his MA thesis on William James at the University of Glasgow. In 1927 Anderson left for Australia to become the Challis Professor of Philosophy at the University of Sydney (he retired in 1958). He published several reviews of *Space, Time and Deity* (such as Anderson 1929) and other papers in the spirit of Alexander's realism (for instance Anderson 1927). In the 1940s Anderson developed his own system based on and in reaction to Alexander's metaphysics that stem from his days as a student and his correspondence with Alexander (Anderson 1944[2005], 1949-50[2007]).

Anderson taught *Space, Time and Deity* and his development and critique of it to D.M. Armstrong in 1949-1950 at the University of Sydney when Armstrong was a BA Honours student. As a result of this instruction, Armstrong inherits some of his metaphysical commitments from Anderson. Following Anderson, he adopted metaphysical naturalism—the view that all that exists is within a single world of space and time, direct realism about perception and the view that perception is propositional, certain insights regarding the singularist theory of causation, epistemological theses about relations, and the idea that metaphysical inquiry is legitimate. Anderson gets most of these views, which he passed on to Armstrong, from Alexander. Anderson may be the father of "Australian realism" (or as some would say "Sydney realism") but Alexander was arguably its foundation.¹¹

Alexander had a significant impact on the development of twentieth century metaphysics. His work was an important part of the foundation of the realism of Anderson and Williams who played their part in teaching their metaphysics to Armstrong and Lewis. Therefore, to better understand the history of twentieth century metaphysics we should at least understand some of Alexander's fundamental

⁹ Donald Cary Williams Papers, HUG(FP) 53.45, box 6, folder: 'Alexander', Harvard University Archives.

¹⁰ For explicit details on the connection between Williams and Lewis, see (Fisher 2015a).

¹¹ Anderson was a popular and controversial figure in Sydney as well as a great teacher. He taught Armstrong, J.L. Mackie, John Passmore, David Stove among many others in and outside philosophy. The work of P.H. Partridge, T.A. Rose, A.R. Walker, A.J. Baker, J.B. Thornton, and G.F. McIntosh all contain influences from Anderson (see Passmore 1957, 566, n. 10). For a survey of Anderson's philosophy, see (Baker 1986).

metaphysics. But there are further reasons to explore Alexander's metaphysics and his theory of categories.

First, systematic metaphysics is in vogue. It is therefore appropriate to revisit relevant theories by our predecessors so that we can learn lessons from what they had to say about the same metaphysical topics we are dealing with. As Javier Cumpa (2011, 44-63) has shown, historical research into theories of categories can show us where contemporary work has made mistakes and suffers from confusion. Looking at Alexander's theory as a genuine candidate and seeing how it interacts with some contemporary problems will help us move forward in our understanding of the metaphysics of categories.

Second, scholarship on Alexander is scant in contemporary philosophy and in previous decades where Alexander's work did receive attention his theory of categories was overlooked. After the initial flurry of discussion and reviews of *Space, Time and Deity* Alexander wrote in the 1927 preface to the second impression that his theory of categories was 'the least regarded part of my work' (Alexander 1927, ix). However, it is the heart of his metaphysical system. Therefore, his system should be judged on his theory of categories (Laird 1939, 63-64). Early commentators failed to appreciate this fact. We can remedy this situation by giving an intelligible interpretation of his theory of categories as it fits within his system.

In what follows, I outline the relevant parts of Alexander's epistemology, method, and theory of Space-Time (section 1). I explain how he grounds the categories in Space-Time, understands the relationship between the categories so as to account for the world's categorial structure, and describe how he thinks the categories he posits are complete (section 2). I then explore the nature of categories on his view, arguing that the categories are not really predicates or monadic properties of portions of space-time but rather, what he calls, 'concrete determinations' or situations (section 3). Finally, I discuss some advantages of his view, a challenge that his view poses for realist theories of categories, and one contemporary problem that his view evades. I end with the lesson that Anderson drew from Alexander's metaphysics and describe how Anderson posited 'states of affairs' as a theory-neutral concept that allows us to understand the world's categorial structure (section 4).

1. *Experience, Space-Time and Categorial Features*

Alexander's empirical metaphysics originated from his work on epistemology and psychology. Like Russell and Moore, he explicitly rejected idealism around 1904. Alexander independently thought his way to epistemological realism by giving a common-sense description of what he thought was presented or given in experience. He regarded his descriptive approach as presupposition-less or 'unprejudiced by assumption.'¹² He writes,

¹² 'A Metaphysical Sketch' (unpublished) 29 September 1909, ALEX/A/2/2/10. Alexander probably owes this approach to his reading of Richard Avenarius' (1888-90) *Kritik der Reinen Erfahrung*. For an exposition of Avenarius' theory in English, see (Bush 1905).

The method of description which I use... consists simply in the attempt to exclude philosophical presuppositions, and to state what is actually present in a given experience, so far, of course, as that experience has characters of metaphysical significance (Alexander 1909-10, 1).

Alexander applied this method to perception and ended up defending a form of direct realism. The facts of experience, according to Alexander, are such that there are two distinct things together in an ordinary case of perception. There is the object of perception, which is non-mental, and there is the act of perception. The mental act is something we *enjoy* as the object is *contemplated* by us. We see the tree over there (say) in virtue of contemplating it, and we experience our perceptual act of seeing the tree in virtue of enjoying the act. There aren't two mental acts, the act of seeing and the act of experiencing, but rather *one* mental act. In enjoying or experiencing a mental act we have before us an object that we contemplate or see.

There is no need for sense-data, impressions or 'mental presentations'; such things are not even part of the description of the situation of someone perceiving an object.¹³ His method further entails the realist hypothesis that *we* exist in a world full of finite entities of various kinds and differing complexity but of equal reality (STD, vol. 1, pp. 6-7). Mind is not ontologically privileged and reality is not ultimately mental, spiritual or idealistic (contra Bosanquet 1913). And since mind is not ontologically privileged, epistemology or the theory of knowledge is part of metaphysics and so not prior to it (STD, vol. 1, p. 196; vol. 2, p. 75). Our inquiry, therefore, begins with the constitution of the world.

Using his empirical method, Alexander argued, in opposition to Bradley, that space and time are real. Alexander writes,

We are to treat [the problem of what Space and Time are] empirically, describing Space and Time and analysing them and considering their connection, if any, as we do with other realities. We do not ask whether they are real in their own right or not, but assume their reality, and ask of what sort this reality is (STD, vol. 1, p. 35; cf. p. 46).

Alexander argues that Space and Time are actually one thing. Space and Time are mere attributes or aspects of Space-Time. Space is intrinsically temporal and Time is intrinsically spatial. Therefore he believes in a four-dimensional manifold of events (STD, vol. 1, ch. 1). His arguments for Space-Time being one unified thing are difficult to follow and obscure. They were discussed at length in the literature and his correspondence.¹⁴ I do not have space to address them here.

Alexander takes Space and Time as entities or things. They are not mere relations that hold between objects. He then reflects on what is given in experience when Space

¹³ For the debate between Alexander's direct realism and Stout's theory of 'mental presentations', see (Alexander 1909-10; Stout 1908-09).

¹⁴ His proofs for the three dimensions of Space mutually entailing the three features of Time were discussed in his correspondence with Anderson, Broad, T.P. Nunn and Leonard J. Russell. In print, they are discussed in (Anderson 1944[2005], 77-98; 1949-50[2007], 23-40; Broad 1921; Murphy 1927).

and Time are regarded as entities in their own right. He thinks intuitively that Space is extension spread out in three dimensions, and Time is irreversible transitive succession. Furthermore, he thinks it is empirical that Space and Time are infinite and continuous. Each region of space is part of a larger region and between any two points there is a third; *mutatis mutandis* for Time. Any event or temporal instant is part of a longer duration and between any two instants there is a third. Space and Time are therefore infinite and indivisible wholes.

Since Space and Time are really one thing, i.e., Space-Time, he concludes that Space-Time as an infinite and indivisible whole is a monistic entity. The ultimate constituents of Space-Time are point-instants or pure events. He also talks of point-instants as ‘motions’; a point-instant is the limiting case of motion. The point-instants insofar as they are metaphysical elements of Space-Time are not self-subsistent or ontologically independent things. All point-instants are connected in the ‘continuum of the manifold,’ although they are distinct in that each has its own character (STD, vol. 1, p. 325). It was the error of traditional atomistic empiricism to think that if an entity was distinct it must be separated from and so not connected to other things. Alexander is therefore a monist. Space-Time is his Absolute (STD, vol. 1, p. 346). But he is a realist, not an idealist. Alexander says the finite parts of Space-Time are as real as the monistic whole, whereas for Bradley only the whole is real and its parts are false, unreal and mere appearance (STD, vol. 1, pp. 7-8).

Alexander adopts the view that objects are constituted by regions of Space-Time. Space-Time is the ‘stuff’ (or prime matter) out of which things are made, just like the cloth is the stuff that constitutes a jacket (STD, vol. 1, p. 341).¹⁵ But Alexander says little about this relation of constitution. One clue to understanding his view here is that he also says in various places that things are ‘complexes’ of space-time or ‘modes’ of space-time in the same way that an accident for Descartes and Locke is a way that a thing is (STD, vol. 1, p. 38). He seems to be thinking that the relation of constitution does not entail that the thing constituted is ontologically distinct from the stuff that constitutes it and that a complex of space-time is not something over and above its constituents. Further, the relation of constitution is a place-holder for the concept of many-one identity. So we should interpret him as saying that ordinary physical objects such as my green water bottle just *are* complex configurations of space-time. He is then committed to what we call the doctrine of composition as identity.

Now Alexander thinks *among* all the features of empirical entities (i.e., things that can be experienced) there is a distinction to be drawn between their empirical and non-empirical or *a priori* features. The distinction between *a priori* and empirical features is drawn *within* experience, and not between what is inside and outside or separate from experience. So he has a non-standard understanding of the term ‘*a priori*’ (STD, vol. 1, p. 185). Empirical features of objects are ordinary qualities we are acquainted with in everyday experience. Empirical qualities are not pervasive. They vary from entity to entity. The property *being red* is had by some things and not others. Hence, it is

¹⁵ For discussion of stuff-ontology, see (Markosian 2004).

empirical. By contrast, the non-empirical or *a priori* features of reality do not vary from entity to entity; they are pervasive. Alexander takes these features as the categorial features of the world. The property *being self-identical* is instantiated by every entity. Hence, identity is a category. Elsewhere, he calls *a priori* or non-empirical features 'formal characters' (Alexander 1914, 29-31). He thus has in mind some kind of 'formal ontology'. In general he aims to give an account of (STD, vol. 2, pp. 74-75):

- 1) the categorial (i.e., formal, or *a priori*) features of things,
- 2) the empirical (i.e., non-categorial) features of things,
- 3) the relation between the categorial and empirical, and
- 4) the relation between empirical entities.

Working backwards, we can bracket 4) without comment as it is not the subject of this paper and won't affect what follows. Let us briefly consider 3) in order to clarify Alexander's broader project but then put it to one side. In volume 1 of *Space, Time and Deity* Alexander says the empirical features are, at a first pass, variations of categorial features. Empirical variations of categorial properties, according to Alexander, are primary qualities. Secondary qualities are correlated with the complexity and arrangement of primary qualities. For example, magnitude is a primary quality. If it is instantiated by a piece of beige wax, that piece of wax always has the property of magnitude even though the particular magnitude varies when the piece of wax is melted. The complex configuration of the wax's primary qualities gives rise to the quality of beige (STD, vol. 1, p. 185). In book 2 he says empirical qualities are 'correlated' with their spatiotemporal basis and their categorial characters (STD, vol. 1, p. 183). In volume 2 in book 3 he goes on to say the relation between empirical qualities and the categorial is the relation of 'emergence'. Empirical qualities emerge out of the complexity of portions of space-time instantiating variations of their categorial characters. Strictly speaking, there is no 'distinct' *entity* that emerges from a lower 'level' of reality. Alexander thinks there are merely emergent *qualities* (i.e., robust properties as opposed to logical properties) that emerge but are instantiated by complex configurations of space-time.

Recall that the empirical thing just *is* the configuration of space-time. Alexander must say this in order to provide a metaphysic where everything is a determination or feature of Space-Time. If there were emergent entities that were ontically independent, then Space-Time as the Absolute would not encompass everything. Alexander's theory of emergence is ontologically innocent in the sense that *things* are nothing but complexes of space-time. But the hierarchy of qualities had by complexes of space-time is ontologically robust. With respect to the mind-body relation, Dorothy Emmet confirms this interpretation,

So Alexander holds that in one sense mind is identical with an organized structure of physiological neural processes. There is no animistic or purely "mental" factor to be distinguished over and above these. But certain organizations of neural processes have

as a function a completely new quality, conscious awareness. In this respect, mind is a new emergent (Emmet 1966, xiii).

Alexander can thus be described as one of the first identity theorists of the twentieth century but at the same time is committed (perhaps oddly to some) to emergent mental qualities (albeit in a specific sense of ‘emergence’). Armstrong interprets Alexander’s theory of mind as ‘an Attribute theory, although one that comes very close to Materialism’ (Armstrong 1968, 12).

Regarding 2), we do not need to explain his theory of the empirical features of things beyond what I have already said. What we are solely concerned with is 1), i.e., with Alexander’s account of the categorial features of things. But only by understanding how 1) to 4) are related can we understand why Alexander’s theory of categories is the heart of his metaphysics.¹⁶

Alexander’s empirical method is his way of *identifying* what categories there are and what the world’s categorial structure is really like. The way we identify categories is through experience and in particular through an analysis of the facts of experience. This analysis is not a conceptual analysis or a reductive explanation, but rather a description of what is given or presented in experience. Also, definition and description come apart. The categories are indefinable but still describable because to describe something is to identify what the notion corresponds to in concrete experience. To illustrate, it is given in experience and therefore empirical that a point-instant is self-identical. Although a point-instant involves some conceptual idealisation or reflective thought, they are objects of experience (STD, vol. 1, pp. 40-41). It is *through* our experience of ordinary sensible objects that we can in conception experience portions of space-time and their fundamental characters. We apprehend by “intuition” these ideally constructed (although real) objects of experience by forgetting the sensible qualities of ordinary objects. As such, Alexander is employing ‘a kind of phenomenological reduction’ (Emmet 1966, xi).¹⁷ It would be incorrect, however, to say that his phenomenological reduction is a form of abstraction. He does not think he is working with mathematical or geometrical representations of Space and Time. He prefers to call his method ‘ideal discovery’ (STD, vol. 1, p. 153). Alexander also thinks “intuition” is prior to and underlies sense and sense-perception (Alexander 1927, x-xi). Here is one place where there is tension between his epistemological realism, which declares to be wholly empiricist, and his experiential method, which has idealistic connotations.

¹⁶ Another well-discussed part of Alexander’s system is his view on God and ‘deity’. I do not discuss these issues in this paper as they are not directly relevant. For recent discussion, see (Thomas forthcoming).

¹⁷ Metz (1938, 635) says there is a close resemblance between Alexander and Husserl’s phenomenological reduction. But, there is little evidence for any link between the two in this respect, despite the fact that Alexander was aware of and read Husserl’s *Logical Investigations* as early as 1913. Their projects have distinct starting points and different conclusions. For discussion of this issue, see (Brettschneider 1964, 3-5).

The goal of Alexander's project is to employ his empirical realism in giving a theory of categories that is based on an ontology of space-time. He thinks we 'enjoy' the categories as well as 'contemplate' them. We contemplate the fact that an entity is self-identical or is a substance. But we also enjoy such facts. In reflective experience, which is basically what enjoyment is, the mind can enjoy the fact that it is self-identical, is a substance, has causality, etc. The categories are 'present' in what is enjoyed and in what is contemplated. So his epistemological realism and experiential method underpins his theory of categories.

2. *Categorial Source, Structure and Completeness*

A theory of categories is about the principal divisions of reality. But this does not mean that a theory of categories is merely about providing a list of the most general kinds of things that exist. We also need an account of the relationship between the categories such that they make up some kind of categorial structure. The categorial structure will also determine the *extent* of what categories there are, just as the structure or "substantial form" of a house that helps makes up the house determines what is part of the house and what is not. In the table below we have Alexander's categories in their respective 'grades'. Some of the categories contain further categories in brackets that are to be thought of as expressing the original category. For instance, existence is understood, on Alexander's view, as the union of identity and difference. So he thinks identity is a category but it gets subsumed under or incorporated into the category of existence.

GRADE 1 (major)	GRADE 2 (minor)	GRADE 3
Existence (identity, difference)	Substance	Motion
Universality (particularity, individuality)	Causality (reciprocity)	
Relation	Quantity (intensity)	
Order	Number (part-whole)	

Alexander thinks Space-Time is the ontological ground of the categories. Why would one be motivated to say this? First, Alexander believes the categories are real. But he is after an explanation of what the precise notion of a category is and a description of what each notion of each category corresponds to in experience. It is hardly illuminating, he thinks, to take the categories as brute. Second, he is motivated by considerations of ontological parsimony. If we can explain everything that is experienced *in terms of* Space-Time, and this includes the categories, we have a very parsimonious theory indeed.

There is no space for a full description of all the details of each category and how they are grounded in Space-Time. Instead, I explain how the category of existence is grounded in Space-Time, which will serve as an illustration. In section 3 I partly describe other categories where they are relevant to understanding the nature of the categories.

Existence is a categorial character of the world. Following Pythagoras in Plato's *Timaeus* Alexander thinks existence just is identity in relation to distinctness. Alexander arrives at this view by understanding existence as occupation of portions of space-time. For entity e to be self-identical is for e to occupy a certain portion of space-time. For e to be distinct from f it must be occupy a different point-instant from f . If they both occupy the same point-instant, they are identical. He writes,

Identity, diversity, and existence arise out of the intrinsic nature of Space-Time as a continuum of its parts which are space-times, or rather it arises out of the nature of any space-time, as being a part of Space-Time and therefore connected with other space-times (STD, vol. 1, p. 195).

There are two things to note here. First, existence has a relational character. So the category of existence is mutually dependent on the category of relation. Hence, the two categories are part of the first grade in the table above. Second, if existence is, what Alexander calls, determinate being, then there is only one way to be, and that is to be spatiotemporal. There is no broader neutral being of which existence is a subset, *contra* Meinong, Holt and Montague. This doctrine greatly influenced Anderson who taught its significance to Armstrong.

Let us consider an objection against Alexander's procedure of reducing categories. You might object that his proposal is circular. It seems that if we describe a point-instant as being self-identical, then that concept is prior to any instance of the categorial feature of identity. If so, then in giving an account of the category of identity we have appealed to the very notion we are trying to explain. His reply is that this objection relies on the assumption that we begin with the content of our minds or mental acts, as opposed to beginning with the content of the world, which is external to our minds. For if we think we appeal to the concept of identity *prior* to describing the world and that therefore the concept cannot be identified with anything in reality, we have adopted the idea that epistemology comes before metaphysics. But he rejects putting the 'epistemological cart before the metaphysical horse,' to use a phrase from John Bigelow (1988, 6). If we begin with metaphysics, Alexander thinks we are entitled to say we have the concept of identity and distinctness *because* there are things out there in the world that exist in a certain way. The category of identity and distinctness exist not because the *concept* of identity and distinctness exist, but rather because there are point-instants and 'groupings' of point-instants. The fact that things are self-identical and distinct is grounded in the fact that there are point-instants and various 'groupings' in Space-Time. The same reply works for the other categories.

Let us turn to the 'structure' of the categories. Alexander talks of the grades of categories as being ranks of increasing complexity. Causation and quantity for instance are complicated aspects of objects occurring in complex situations with other objects that have relevant characters and empirical qualities. In an abstract sense, we can think of them as mereologically layered in order to better understand their overall

structure. The following figure, I think, is a helpful representation of the relationships between the categories.

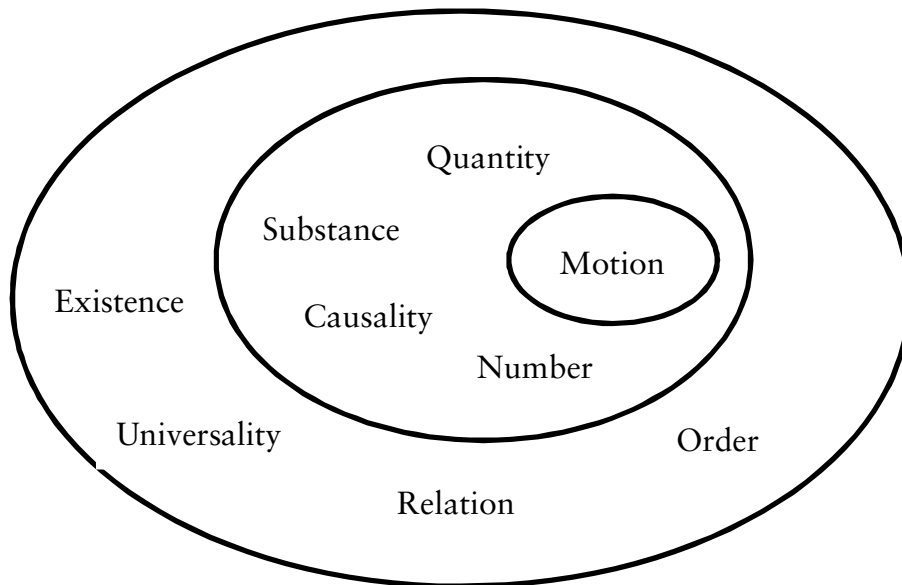


Figure 1: Relationships between categories

The circles represent mereological or part-whole connections. The categories of the first grade in Figure 1 entirely overlap each other. The second grade is included in the first but it does not entirely overlap the first. Every entity that exists is related to every other entity that exists, whereas the category of causality solely contains relations that are causal, but not all relations are causal. Alexander employs further notions to express the relationship between the categories besides the concept of overlap. Following Plato, Alexander calls the relationship between the grades of categories ‘communication’ (STD, vol. 1, pp. 322-24), and employs the concept of one category ‘presupposing’ another.

Every category within one grade communicates with every other category in that grade. Existence communicates with relation and *vice-versa*. And the second grade of categories presupposes the first grade. It cannot have causality without relation. The second grade also communicates with the first grade but the first grade does *not* communicate with the second in the sense that the first grade does not entail the second. Causality entails relation but relation does not entail causality because there are relations that are not causal. The same holds for the final grade: motion. It presupposes all the other grades and communicates with all of them but not *vice-versa* (STD, vol. 1, p. 323).

Motion is probably the most obscure category to posit. Alexander takes it as the all-encompassing category since every entity being either a point-instant or a complex of point-instants is motion. At the same time, it is the weakest of the categories or the least significant. It is often trivial and can turn out to be a variable and hence empirical feature of reality. So it stands on the vague boundary between empirical and categorial features. It can be indistinguishable whether motion is an empirical or a categorial

character. What there really is when it comes to the categories, determinately speaking, are the first two grades.

Alexander does not elaborate on the relation of communication beyond employing the same metaphor as Plato. But it is clear he has certain ontological entailment relations in mind that hold between the various categories. For they appear to be modal restrictions. These entailment relations get us his account of the categorial structure of reality. But do they allow us to explain categorial completeness? We need to answer this question because we need to explain why there are no more categories.

There are two ways to do this, according to Alexander. First, there are conditions that something must satisfy in order to be a category. Therefore, out of all the things that there are, if the above satisfy this condition, then those are the only things that count as categories. The main condition that an entity must satisfy to be a category is pervasiveness. *What it is* for something to be a category is for it to be pervasive, that is, to be a feature that is instantiated by every entity. Since the above features are pervasive, they are categories. All other features which are not pervasive are not categories. So only the above candidates are categories.

However, there are general features that one might think are categorial that Alexander has not included. For instance, ‘Quality’ seems to be a category because every entity has the property of *being qualitative* or *having quality*. The notion of quality that is being expressed here is a specific one. It does not express the looser notion of a property that would encompass logical or formal properties. Qualities, for Alexander, are robust properties that give the world genuine character. Point-instants do not have qualities in this sense, although they have logical properties such as transitivity and the property of motion (STD, vol. 2, p. 45). Another candidate is ‘change’ for it seems every entity undergoes change. So it should count as a category. A further candidate is pointed out by Harry Ruja: ‘His *Space, Time and Deity*, ..., erects the concept of Space-Time into the most fundamental category of reality’ (Ruja 1935, 188). The property *being spatiotemporal*, then, seems to be a categorial feature and so comprises an ontological category. Indeed, on Ruja’s interpretation, he thinks Space-Time is the most fundamental category and the rest are derivative. However, according to Alexander’s system, ‘quality’, ‘spatiotemporality’, and ‘change’ do not count as categories.

Alexander thinks we do not have empirical or experiential evidence to say that every determination of space-time has quality as such. We experience qualities as red, hard, etc but we do not experience qualities as such. So we cannot confirm that every determination of space-time has quality as such. We cannot reply that every point has the quality of motion because motion itself was said to be on the boundary between being categorial and non-categorial (STD, vol. 1, p. 326). Alexander thinks “Quality” is to specific qualities what colour is to particular colours such as red, green, etc. He takes colour and quality to be ‘collective names’. The plausibility of this explanation hinges on his idiosyncratic notion of a ‘quality’ as a robust property. There is a sense in which quality just means property and Alexander does think things like space and time have logical properties that are founded on the features of space and time. For

instance, the asymmetry of time as a logical property is founded on the experienced feature of the irreversibility of time. He seems to help himself to 'features' or 'properties' in the loose sense and then rejects a richer cluster of properties which he calls 'qualities' without justifying the distinction.

Regarding change, it fails to be a category for two reasons. First, he thinks it is possible for something to persist without changing. Thus change is not pervasive and so not a category. Second, change is essentially a fact about empirical elements and their empirical qualities, and since qualities are empirical so is change. Hence, it does not count as a category (STD, vol. 1, p. 328). This explanation also depends on his specific conception of qualities.

Let us consider spatiotemporality. Should that be taken as a category? And indeed as the most fundamental category on Alexander's view? No. Ruja's interpretation is incorrect. Space-Time does not constitute a category of spatiotemporality because it is the ontological *source* of the categories and the source itself is not subject to the categories. This restriction stems from Alexander's idealist heritage. Kant and some British Idealists held the view that the source of the categories cannot be a category or subject to the categories (STD, vol. 1, pp. 337-39). If it did, we would need some ground for why Space-Time is a category. It cannot be the source of its own explanation. Alexander has independent reasons as well. His monism entails the idea that Space-Time is not a unity or a 'whole' with parts, strictly speaking. Rather, it is the fundamental matrix that has point-instants within it in such a way that Space-Time lacks a part-theoretic structure. Since it is not really a thing, we cannot predicate any features of it as a whole, but only of the elements that it constitutes.

The second way to explain categorial completeness involves appealing to the entailment relations that hold between the extant categories. Alexander seems to think that these entailment relations—such as the fact that a thing has causality entails that it has relation—imply that there are no more categories than what Alexander has described in his experiential analysis. In his framework, he needs to explain how existence itself entails no more categories than the ones he thinks actually exist. One starting point is to say that there is a set of negative categories that stand as opposites to the categories that already exist. So, there would be the category of existence or being and its opposite: not-being. Similarly, there would be the category of causality and not-causality, and so on. But this does not seem parsimonious. A more plausible strategy would be to put all that was negative into its own category. Alexander hints at this suggestion as follows,

I may add that negation as a category is equivalent to not-being. Negation is not merely a subjective attitude of mind. That is only an instance of negation, in the region of mental acts. Negation or negativity is a real character of things, which means exclusion or rejection. Not-white is the character which excludes or is different from white. In this sense it is true that all determination is negation. For all definite occupation of space-time is other than other such occupation and excludes it (STD, vol. 1, p. 200).

I take Alexander's hint to be that whatever characters there are, whether they are categorial or non-categorial, they exclude their negation. So if something has causality, it entails that not-causality is excluded from being instantiated by that same portion of space-time. Since every entity has causality, every entity excludes not-causality, and so on for the rest of the categories. The category of negation or simply 'negativity' is able to account for the opposite of *every* category. But negativity, given Alexander's passage above, does not constitute its own category as such. There are no negative facts or negative states of affairs. What we have instead is 'not-being'. But not-being isn't a kind of being or existence. It is nothing at all and our experience of such a thing is merely through what exists because not-being is entailed by positive or determinate being (STD, vol. 1, p. 199).

The problem we are confronted with resembles the modern problem of finding truthmakers for negative truths. Objects having properties in our world suffice to ground the truth of ordinary claims such as 'the table is hard'. But what grounds the truth that there are no bunyips?¹⁸ Armstrong thinks we must posit a totality fact about the world itself that states that these are the *only* first-order states of affairs that exist (Armstrong 2004, ch. 6). As Jonathan Schaffer (2010a) has pointed out, if the world is the only fundamental thing, we do not need to posit totality states of affairs for negative truths. The world as the one fundamental object existing as it is suffices for negative truths.¹⁹ Since Alexander is a monist, he can help himself to this sort of explanation to exclude the existence of other categories and the opposites of the categories he thinks exist. Space-Time existing as it is with its derivative and incomplete elements, which are what they are in virtue of Space-Time, exclude and therefore entail the non-existence of any further categories. Each portion of Space-Time existing as it is within the matrix could not have had a different set of categorial characters. In contemporary parlance, given that Space-Time is what it is, it 'necessitates' or ontologically entails that each portion of space-time has the specific set of categorial features that it does. Alexander's theory can account for categorial completeness, something which many competing theories do not.

3. *The Nature of the Categories*

So far, in describing Alexander's view as realist and reductivist I have said that the categories are grounded in the intrinsic nature of Space-Time. I have demonstrated how they are grounded in Space-Time and explained how he thinks the categories are related and closed off. None of this says anything about their nature or what a category is. I have been saying that categories are fundamental *features* or *characters* of every portion of space-time. But this is only a gloss over their true nature. We need to elaborate on precisely what is meant by this suggestion in order to understand what type of theory of categories Alexander is proposing.

¹⁸ Bunyips are mythical creatures that allegedly lurk in the billabongs and creeks of Australia.

¹⁹ For discussion, see (Fisher 2015b).

If the categories are fundamental features of space-time, it seems that they can be understood as corresponding to categorial predicates. To illustrate, given the point-instant aA , where 'a' refers to the spatial point a and 'A' to the temporal instant A , the predicate 'exists', 'has universality', and so on applies to aA in virtue of it having the appropriate categorial properties. In short, categories are merely predicates (or properties) of things. Call this the *predicate interpretation of Alexander's theory of categories*.

This is a natural reading of what Alexander is saying about what a category is. Understanding categories as predicates or properties goes back to Aristotle. Some commentators have indeed interpreted Alexander in this way, such as Anderson:

[In] his doctrine of space-time as "stuff" and that of which things are made—in other words as the ultimate subject of which everything else—every term of a less general character—is a predicate—a position which, ... [is committed to the view that] ... space-time is the subject of which the various categories are predicates—that as space-time is the essential subject, so they are essential predicates (Anderson 1949-50[2007], 14).

Anderson thinks Alexander regards categories as predicates and essentially as predicates that must be predicated of portions of space-time or point-instants. I submit the predicate interpretation is incorrect. Alexander does not take the categories to merely be predicates or monadic properties of point-instants or complexes of point-instants. He says, for instance,

[the] categories [of identity, difference and existence] are but the conceptual shapes of real concrete determinations of things in their spatio-temporal character. We shall find this of all the categories. They are not as it were adjectives or predicates of things; they stand for the simplest and most fundamental features (in the sense in which red is a feature of this rose) of things, and have the concreteness of Space-Time (STD, vol. 1, p. 197; cf. p. 321).

Alexander is drawing a distinction between adjectives or predicates and concrete determinations or situations. The categories are really spatiotemporal situations. To illustrate, existence is a category but Alexander does not think it is a property or feature. Rather, it is the fact that a thing occupies a portion of space-time. Following William James, Alexander believes that relations are made of the same stuff as their terms. They are not things that 'hover' abstractly between what they relate. When two things are related the relation is what makes the terms into 'a connected whole' (STD, vol. 1, p. 239). We can describe relations as 'the whole situation into which its terms enter, in virtue of that relation' (STD, vol. 1, p. 240). It is a misinterpretation to think this is best captured by saying that every entity has relatedness.

Indeed, it seems that when we look closely at each category they are nothing more than particular ways spatiotemporal situations must be. Order is the *situation* of three or more (complexes of) point-instants standing in some kind of continuum such as a

series of pitches of sound. The term ‘order’ refers to this particular complex situation. It does not refer to a monadic property had by point-instants or is to be essentially rendered as the predicate ‘... has order’. Causality is reduced to space-time in virtue of causation being a spatiotemporally continuous relation that is grounded in the (primordial) continuity of Space-Time (STD, vol. 1, p. 290). The effect plays an important role by reciprocating in the complex causal situation. On his Humean-inspired conception, causality stands for the complex causal situations that consist of spatiotemporally continuous relations connecting substances. There is nothing adjectival about what is going on here.

But there is still tension given other things he says about what categories are, which I believe led Anderson to attribute the predicate interpretation to Alexander. The latter says:

[categories are] the most comprehensive of all universals..., which are *a priori* plans of configuration... In so far as relation or substance or existence, etc., is an *a priori* determination of Space-Time, these are forms or plans or patterns of configuration of Space-Time or motion (STD, vol. 1, p. 215).

From this passage it seems he is saying that categories are non-empirical universals. Empirical universals, in contrast, are variable properties like that of *being a dog*; non-empirical universals are invariably instantiated. We can reconcile the tension by looking at his theory of universals. Alexander says,

An individual is a particular as determined by its universal. Strictly speaking, there is no such thing as a particular or a universal. All things are individuals. But every individual possesses particularity which separates it from others of the same kind, or under the same universal; and it possesses universality which converts its bare particularity into individuality. Universality is thus a categorial character of all things (STD, vol. 1, p. 208).

He thinks individuals (or states of affairs) are particulars instantiating universals. Universals are not platonic entities in an abstract realm. There are only instantiated universals. And since they play this determining role by operating on particulars there are no particulars without universals.

Alexander argues, using his experiential method, that it is empirical that there is something about space-time that makes a ball retain its roundness: the ball has its roundness in virtue of a certain kind of ‘uniformity’ of Space-Time (STD, vol. 1, p. 209). More generally, entities that are identical in kind are that way because of the ‘constant curvature’ of Space-Time. They have a plan of construction that is preserved throughout Space-Time. In cases where we do not have perfect similarity Alexander suggests the uniformity of Space-Time extends to something like a ‘habit’ or general pattern (STD, vol. 1, p. 214). Universals as habits are localised in the structure of

Space-Time. Plans should be understood as laws or plans of configuration of Space-Time (STD, vol. 1, pp. 214-15).²⁰

On my understanding he is not arguing that there are these entities called 'universals' that are multiply located in the things that have them. Plans of space-time are not literally shared by various particulars in Space-Time. Rather, he is saying that plans are identical in kind and that the category of universality stands for this particular categorial character that is found throughout Space-Time. Alexander therefore believes in universals as abstracted from their similar instances in the world. This is a view developed from a different starting point by Williams (1959[1986]). Universals just are the similar particular configurations that occur across the fabric of space-time. But we account for the fact that the world has the categorial character of universality by grounding that fact in similar particularised properties of space-time. I won't judge whether or not Alexander is *entitled* to this position here. The point is that even if categories are universals, they turn out to be, on his view, habits of Space-Time.

When he talks about a category such as 'universality' and uses the abstract term 'universality' it stands for what he reduces the category to. In reducing a category he is identifying the category with what he reduced it to. So:

Universality is thus the name of the constancy of any existent in Space-Time, so far as it is constant, that is, its freedom from distortion wherever it is in Space-Time, and this is equivalent to the uniformity of Space (or what is the same thing, Space-Time). Just as existence is the name for occupation of a space-time in relation to other occupation (STD, vol. 1, p. 215).

For Alexander, categories are particular characters or determinations of Space-Time, and fundamental in the sense that they are not grounded in anything else except the fact that they are instantiated in various portions of Space-Time. *This* feature of self-identity had by this portion of space-time or point-instant is distinct from that feature of self-identity had by that portion of space-time or point-instant. This seems to suggest that what categories refer to are particular features like tropes or accidents of every point-instant and groupings of point-instants. There is some textual evidence for this claim. Alexander says 'they stand for the simplest and most fundamental features (in the sense in which red is a feature of this rose) of things' (STD, vol. 1, p. 197). Categories stand for or refer to the fundamental features in the sense that this rose has its *particular redness* or this rose has redness which is the *instance* of red in the rose. So categories are reduced to *particular* determinations of Space-Time.

To sum up, categories are universal in that they are pervasive; but they are not universals. They cannot be universals for otherwise they would rule out categories as complex situations. In addition, if the categories were universals, then existence would have to be a first-order property of things. But most philosophers think it is not. Existence does not instantiate the universal *existence* or is 'a case of the universal

²⁰ Alexander is influenced here in part by (Bosanquet 1912, 40).

‘existence’ (STD, vol. 1, p. 197). Alexander is not endorsing a classical Aristotelian account of the nature of categories according to which categories are just kinds or predicates of things. He is instead articulating a peculiar factualist understanding of categories.

4. *Advantages, Evaluations and Lessons*

What are some advantages of Alexander’s theory of categories? Alexander thought the justification of his view depends on its ‘metaphysical success’ (STD, vol. 1, p. 172). So one over-arching argument that can be extracted is that if fundamental facts about space-time ground facts about reality’s categorial structure and these facts then ground facts about reality’s non-categorial structure, that is, the variable features of the world, then Space-Time as the one monistic, i.e., fundamental entity can account for everything that we take to be worthy of explanation. Therefore, his system has great explanatory power and breadth coupled with theoretical unity and elegance. We need only grasp his notion of Space-Time and then see how everything else fits into it as a finite part, determination or feature. This sort of simplification and systematisation are reasons to assign some degree of credence to his view on top of it being a potential candidate. His general argument, then, is an inference to the best explanation—a common form of argument in contemporary metaphysics for the justification of the truth of one’s hypothesis.

A benefit of Alexander’s view is the challenge that he raises against fellow realists, even those who do not endorse some variety of metaphysical naturalism or physicalism. The challenge is that if you believe categories are real, you must give an account of the ontological source of their reality. For otherwise, these ‘real’ entities, things, or factors float free and fail to be explained or described in your theory. It doesn’t make sense to viciously abstract the categories such that they sit outside of the world as if they weren’t really entities. It would sound odd to Alexander’s ears to say “categories are real, but they are not entities.” Alexander would want to know what our notion of a category is *of*, for it must be a notion of something.

Alexander presented this challenge to Holt. The latter adopted a view according to which there are fundamentally ‘neutral elements’ that form a ‘neutral mosaic’ (Holt 1914, 135-36). These elements in their basic form are just identity, difference and number. It is then out of this combination of identity, difference and number we get *being spatiotemporal*, *being mental* and variable properties such as secondary qualities (Holt 1914, 154-56). The concepts of identity, difference and number come first and the notions of quality, space, time, etc come later. The world is in effect constructed out of the categories. Alexander explicitly rejects Holt’s primitivist view of categories (STD, vol. 2, pp. 114-15, n. 2; cf. STD, vol. 1, p. 201, n. 2). Alexander thinks that beginning with a ‘neutral mosaic’ and primitive categories is simply an ‘impossible procedure’ for it doesn’t meet the challenge of giving an explanation of what a category is and does not explain how derivative properties or qualities come about.

You might reply to Alexander’s challenge by saying that if one takes categories as primitive, then of course no explanation of their corresponding notions is available.

That is no objection, it is just the view! Further, as a *tu quoque*, you might say that Alexander has his own primitive, namely, Space-Time. But although Alexander does have a primitive, it is grounded in concrete experience. We experience space and time, whereas neutral elements are much harder to grasp. The notions of space and time are therefore more familiar to us than self-identity, difference and number, despite the fact that they are simpler as technical notions. Holt accepts Alexander's epistemology, so the argument here is quite pressing (for Holt). This is the reductivist challenge that primitivists about categories must address.

Alexander's theory can also shed some light on contemporary work on categories. One current issue centres on determining what category is the most fundamental out of all the categories we say exist. Interestingly, Alexander does not think this issue is legitimate. He thinks that if we admit the existence of categories and aim to give an account of the world's categorial structure, then the categories which endow the world with this structure are all on a par. He says, 'The attempt to look for a category more pervasive than other categories is in truth vain, for categories as such are all alike pervasive, and belong to all things' (STD, vol. 1, p. 201).

According to Alexander's framework, all categories are fundamental because they are all fundamental characters or determinations of every portion of space-time. If we accept that the issue is about finding out what is the most fundamental category, we have to tackle the further problem of explaining how it is a fact of the matter that one category is more fundamental or the most fundamental. We could say the category of states of affairs or factuality is the most fundamental category and that universality and particularity are less fundamental in virtue of being grounded in factuality. But equally universality and particularity can ground factuality or particulars and universals ground states of affairs. If both proposals are possible, what fact of the matter ensures that one hypothesis is correct and the other not? We could appeal to considerations of parsimony and then argue that states of affairs should be taken as most fundamental because it requires a commitment to just one fundamental category. But this proposal requires the assumption that theoretical virtues *in this case* are something more than epistemic or pragmatic rules. This assumption is often disputed. So we need more debate here to determine whether the application of parsimony in the case of categories is tracking something metaphysically. But if we chose Alexander's framework, we can sidestep these problems.

I end with some historical remarks pertaining to Alexander's legacy. Despite Anderson's critique of Alexander he drew heavily from his work. Anderson believed that Alexander's 'doctrine of space-time [should be taken] as the foundation of a thoroughgoing realism as a logic of events' (Anderson 1929, 68). With some qualifications, such as a rejection of monism, Anderson developed an ontology of spatiotemporal situations or states of affairs. But he was also influenced by the logical teachings of Robert Latta at Glasgow and so took logic and the study of propositions seriously. On one interpretation of Anderson, he thought that true propositions are to be identified with concrete situations (Birchall 1987). The proposition that *a* is *F* (if true) just *is* the concrete situation of *a being F*. Propositions are not abstract mediating

entities on this view. Situations and so propositions are also prior to their terms or constituents. The reason for this was that for every situation their constituents are further situations (Anderson 1962, 162). There are no simple entities. Every term in a proposition is complex. Anderson also thought we could avoid Bradley's regress if we didn't start with non-situational natures and attempt to determine how they enter into situations (Anderson 1949-50[2007], 41-42). Anderson arrived at the insight that we should study "the form" of propositions to reveal the categorial structure of the fundamental ontology he adopted from Alexander.

We have before us a separate tradition of two philosophers in the twentieth century defending an ontology of situations, states of affairs or facts. In no way was the connection between Alexander and Anderson affected by Russell's logical atomism or Wittgenstein's *Tractatus*. This separate tradition laid the basis for Armstrong's belief in realism and metaphysical naturalism, and the idea that metaphysical inquiry was legitimate so that by the time he went to Oxford for his BPhil (1951-54) he was never going to be converted to ordinary language philosophy.

An interesting observation to make about Alexander and Anderson is that they both endorsed a fundamental ontology of spatiotemporal situations or states of affairs. Bracketing the pluralism/monism issue, they believed that space-time was the ontological source or ground of the categories. In the year Anderson passed away he wrote,

It is because questions in all the categories are spatio-temporal, because they all arise within any region or "contour", to use Alexander's expression, that they are not *discontinuous* with one another but all form part of a common inquiry... Apart from such a common ground, there would be no such thing as logic, no sort of connection between one inquiry and another, and thus no inquiry (Anderson 1962, 172, his italics).²¹

Alexander and Anderson were both clear that by grounding the categories in space-time their metaphysics did not commit them to saying that space-time or more specifically spatiotemporal situations comprise the most fundamental category. This marks a divergence in the way that the metaphysics of categories is sometimes conducted today whereby the entities in your fundamental ontology constitute the most fundamental category. They simply didn't see the categories as functioning that way in our understanding of how to construct a systematic metaphysical theory. I think the main reason for this difference is the idea that categories must have an ontological ground or source. The categories are not meant to be the fundamental ultimates; instead, they characterise them. So there cannot be one fundamental category that grounds all the others. We can learn a lot from Alexander's insistence on

²¹ Of course, there might be some minor differences between Alexander and Anderson here insofar as Anderson rejected various aspects of Alexander's doctrine of space-time and developed his own, perhaps superior, substitute. These issues cannot be addressed here, however.

explaining the nature of categories and the method he employed in constructing his theory of categories.

Alexander's metaphysics is ambitious because he was a systematic and speculative philosopher of the highest order. His theory of categories has several advantages. It provides an account of the nature, ontological source, structure and completeness of the categories. His view is also ontologically parsimonious. It posits only one fundamental entity. If we can revise some of the difficulties surrounding his doctrine of Space-Time, the main price to pay is monism. Perhaps this shouldn't be that unappealing to us today. Quantum mechanics seems to suggest everything in the world is interconnected in some way, which lends support to some kind of realistic monism, and the view has recently been defended and is receiving more attention in contemporary metaphysics (Schaffer 2010b).

Alexander provides one of the best statements of how metaphysical realism can be taken to great explanatory lengths as a systematic doctrine. He also played a vital role in passing on serious metaphysics to the next generation that kept it alive for the re-birth of metaphysics in the latter half of the twentieth century. We should all acknowledge him as a historically important figure and realise that it was his theory of categories that was at the core of his metaphysics.²²

REFERENCES

- Alexander, Samuel. 1909-10. On Sensations and Images. *Proceedings of the Aristotelian Society* 10: 1-35.
- . 1914. *The Basis of Realism*. The British Academy: Oxford University Press.
- . 1920. *Space, Time, and Deity: The Gifford Lectures at Glasgow 1916-1918*. London: Macmillan.
- . 1927. Preface to New Impression. In *Space, Time, and Deity*, ed. S. Alexander. London: Macmillan.
- Anderson, John. 1927. Empiricism. *Australasian Journal of Psychology and Philosophy* 5(4): 241-54.
- . 1929. The Non-Existence of Consciousness. *Australasian Journal of Psychology and Philosophy* 7(1): 68-73.
- . 1944[2005]. *Space-Time and the Proposition: The 1944 Lectures on Samuel Alexander's Space, Time and Deity*. Sydney: Sydney University Press.
- . 1949-50[2007]. *Space, Time and the Categories: Lectures on Metaphysics 1949-50*. Sydney: Sydney University Press.
- . 1962. Empiricism and Logic. In *Studies in Empirical Philosophy*, ed. J. Anderson. Sydney: Angus and Robertson.
- Armstrong, D. M. 1968. *A Materialist Theory of Mind*. London: Routledge & Kegan Paul.
- . 2004. *Truth and Truthmakers*. Cambridge: Cambridge University Press.
- Avenarius, Richard. 1888-90. *Kritik der Reinen Erfahrung*. Leipzig: O.R. Reiland.

²² Thanks to Mark Weblin for comments. I am grateful for a Newton International Fellowship from the British Academy that supported this research. I also thank Harvard University Archives for permission to cite material from the Donald Cary Williams Papers, the University of Sydney Archives for permission to cite material from the John Anderson Papers, and the John Rylands Library at the University of Manchester for permission to cite material from the Samuel Alexander Papers.

- Baker, A.J. 1986. *Australian Realism: The Systematic Philosophy of John Anderson*. Cambridge: Cambridge University Press.
- Bigelow, John. 1988. *The Reality of Numbers: A Physicalist's Philosophy of Mathematics*. Oxford: Clarendon Press.
- Birchall, B.C. 1987. John Anderson and 'the False Proposition'. *Dialectic* 30: 97-110.
- Bosanquet, Bernard. 1912. *The Principle of Individuality and Value: The Gifford Lectures for 1911 Delivered in Edinburgh University*. London: Macmillan.
- . 1913. *The Distinction between Mind and Its Objects: The Adamson Lecture for 1913 with an appendix*. Manchester: Manchester University Press.
- Bradley, F. H. 1893. *Appearance and Reality: A Metaphysical Essay*. London: Allen & Unwin.
- Brettschneider, Bertram D. 1964. *The Philosophy of Samuel Alexander: Idealism in 'Space, Time, and Deity'*. New York: Humanities Press.
- Broad, C. D. 1921. Prof. Alexander's Gifford Lectures. *Mind* 30(117): 25-39.
- Bush, Wendell T. 1905. *Avenarius and the Standpoint of Pure Experience*. New York: The Science Press.
- Cumpa, Javier. 2011. Categoriality: Three Disputes Over the Structure of the World. In *Ontological Categories*, ed. J. Cumpa and E. Tegtmeier. Frankfurt: Ontos Verlag.
- Emmet, Dorothy. 1966. Foreword to the 1966 Reprint Edition. In *Space, Time, and Deity*, ed. S. Alexander. New York: Dover.
- . 1992. Whitehead and Alexander. *Process Studies* 21(3): 137-48.
- Fisher, A. R. J. 2015a. David Lewis, Donald C. Williams, and the History of Metaphysics in the Twentieth Century. *Journal of the American Philosophical Association* 1(1): 3-22.
- . 2015b. Priority Monism, Partiality, and Minimal Truthmakers. *Philosophical Studies* 172(2): 477-91.
- Holt, Edwin B. 1914. *The Concept of Consciousness*. New York: Macmillan.
- Laird, John. 1939. Memoir. In *Philosophical and Literary Pieces*, ed. S. Alexander. London: Macmillan.
- Lowe, Victor. 1949. The Influence of Bergson, James and Alexander on Whitehead. *Journal of the History of Ideas* 10(2): 267-96.
- Markosian, Ned. 2004. Simples, Stuff, and Simple People. *The Monist* 87(3): 405-28.
- Metz, Rudolf. 1938. *A Hundred Years of British Philosophy*. London: Allen & Unwin.
- Montague, William Pepperrell. 1912. A Realistic Theory of Truth and Error. In *The New Realism*, ed. E. B. Holt, et al. New York: Macmillan.
- Muirhead, J.H. 1939. Samuel Alexander. *Philosophy* 14(53): 3-14.
- Murphy, Arthur. 1927. Alexander's Metaphysic of Space-Time I. *The Monist* 37(3): 357-83.
- Passmore, John. 1957. *A Hundred Years of Philosophy*. New York: Basic Books.
- Ruja, Harry. 1935. Samuel Alexander's Concept of Space-Time. *Philosophy of Science* 2(2): 188-209.
- Schaffer, Jonathan. 2010a. The Least Discerning and Most Promiscuous Truthmaker. *Philosophical Quarterly* 60(239): 307-24.
- . 2010b. Monism: The Priority of the Whole. *Philosophical Review* 119(1): 31-76.
- Stout, G.F. 1908-09. Are Presentations Mental or Physical? A Reply to Professor Alexander. *Proceedings of the Aristotelian Society* 9: 226-47.
- . 1940. The Philosophy of Samuel Alexander I. *Mind* 49(193): 1-18.

- Thomas, Emily. forthcoming. A Partial Defence of Samuel Alexander's Spacetime Emergentist God. In *Alternative Concepts of God*, ed. Y. Nagasawa and A. Buckareff. Oxford University Press.
- Williams, Donald C. 1930. The Definition of Yellow and Good. *Journal of Philosophy* 27(19): 515-27.
- . 1933. The Innocence of the Given. *Journal of Philosophy* 30(23): 617-28.
- . 1934. Truth, Error and the Location of the Datum. *Journal of Philosophy* 31(16): 428-38.
- . 1944. Naturalism and the Nature of Things. *Philosophical Review* 53(5): 417-43.
- . 1946. Scientific Evidence and Action Patterns: Rejoinder to Professor Black. *Philosophical Review* 55(5): 580-86.
- . 1953a. On the Elements of Being: I. *Review of Metaphysics* 7(1): 3-18.
- . 1953b. On the Elements of Being: II. *Review of Metaphysics* 7(2): 171-92.
- . 1959. Mind as a Matter of Fact. *Review of Metaphysics* 13(2): 203-25.
- . 1959[1986]. Universals and Existents. *Australasian Journal of Philosophy* 64(1): 1-14.