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Title:

Knowledge, power and powerful knowledge re-visited

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Abstract:

This article extends the authors' earlier work (Young and Muller 2013) exploring the concept of 'powerful knowledge'. It first examines some of the origins of the concept and goes on to a brief consideration of how sociology, political theory and economics have traditionally represented 'power' and 'knowledge'. Two key senses of power are identified and two difficulties are next identified: how to retain both senses of power in a satisfactory account of 'powerful knowledge; and how to provide a satisfactory account of the 'power' of knowledge in the Humanities. By identifying three meanings of 'powerful knowledge', and making an argument for their interrelationship, the article aims to put the concept on a firmer footing and point to its potential implications for curriculum theory

Keywords:

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Biographical notes:

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Knowledge, power and powerful knowledge re-visited

A little knowledge is a dangerous thing;
Drink deep, or taste not the Pierian spring:
There shallow drafts intoxicate the brain,
And drinking largely sobers us again.

Alexander Pope *An essay in criticism*, 1709

Introduction

It is true to say that a considerable amount of attention has been paid to the concept of 'powerful knowledge' (PK), sharply distinguished by Young (2009) from 'knowledge of the powerful' (KOTP), since the concept gained traction in the sociology of education and curriculum studies in the early 2010s. The notion was launched as both a sociological concept and as a curriculum principle and has been used by a growing cohort of researchers, especially but not only among history and geography subject specialists (for example Slater, Graves & Lambert, 2016; Beneker & van der Schee, 2015; Beneker, 2018; Maude, 2016, 2018; Ormond, 2014; Counsell, 2011) and by schools in England who found themselves in a position to design their own curriculum. Young et al (2014) set out to offer subject leaders and Heads of English schools a framework for developing a curriculum that prioritised access to subject knowledge. Since then, schools have, in a variety of ways more or less consonant with the original concept, latched onto the notion and put it to work in a variety of ways (ASCL, 2018).

One consequence has been that the two concepts, KOTP and PK, became separated. For some, like Wrigley (2017), this meant that PK as a sociological concept had severed the connections established by the 'new sociology of education' (Young 1971) and with what Morgan and Lambert (2018, 36) called the 'social relations of contemporary schooling'. Whitty (2018) was later to point out that in the process of the widening appropriation of the concept, the knowledge-based approach to the curriculum lost its critique of the curriculum

that was part of the earlier sociological idea that the existing school curriculum represents the interests of those with power - KOTP.

This was not the only line of critique of the concept of PK. White (2018) had decried the attempt to place knowledge ahead of aims as the principal rationale of schooling, and Whitty in Whitty (2018) and Furlong and Whitty (2017) pointed to a gap in the theory of how PK articulates with other forms of knowledge and practice 'to produce really powerful professional knowledge and learning' (Furlong and Whitty ibid, 46; see also Clegg, 2016). This highlights for Whitty the necessity of pedagogy in any account of PK. This raises a host of important issues with which we will deal in a future paper. For present purposes, we wish to address the prior question: if knowledge can be said to be 'powerful', in what ways can it be said to have, or to exert, power? The impetus for this paper, then, arises in part from what we see as misconstruals of the concept of PK, in part from consequential challenges that the concept neglects the inter-relationship of all knowledge with power relations, and also in part because we had reason to re-read the insightful account of power by Lukes (2005). The question then became: what different senses of power are at play in PK?

'Powerful knowledge' as a concept first appeared in print in 2007 in an article by Wheelahan (2007), was fleshed out by Young (2009), later elaborated by Young (2013) and Young & Muller (2014) and popularised for a wider educational audience by Young & Lambert (2014). It has had a mixed after-life. Although it was taken up by school leaders, as we saw above, it has also been found wanting, for a variety of reasons which we will go into further below. Young (2013) has been at pains to explain that its main heuristic value is to draw a clear distinction between knowledge as a handmaiden to power (KOTP) and something which has its own power (PK). Nevertheless, this distinction has been recurrently misconstrued.

To focus briefly on the distinction: the first thing to note is that this is not a symmetrical opposition, describing two different kinds of knowledge. Only one of them is a kind of knowledge, namely PK. KOTP is a way of referring to its use or origins, and the interests of those originators or users (Young 2013, 195; see also Oates 2018, 160). The point about PK is to affirm that social interests do not exhaust what is educationally significant about knowledge.

The second thing to note is that the 'power' in KOTP is not the same as the 'power' of PK. In KOTP, power is not transferable from the power holder to those subjected to the power, unless the subjected actors manage to negotiate its transfer or wrest it back by force. In other words, this sense of power is a finite or zero-sum property – what the one has, the other cannot have. It is a rival good (Romer,1993). In PK, by contrast, the power is potentially available to all who

acquire it; it is a non-zero-sum property, a non-rivalrous good. Potentially, everyone can have this power, it is infinitely transferable, hence the fundamental democracy of PK and its conceptual link to social justice. This is not to say that PK is always transferable: those with power have, through the ages, imposed restrictions on the circulation of certain kinds of PK to confer advantages only to certain sections of society. It is this capacity to restrict access to PK that we call KOTP. For the moment we are not considering forms of cultural knowledge which more directly serve ideological purposes of domination.

The two senses of power differ in another way too. KOTP belongs to the domain of political structure and action and hence to political discourse: PK belongs to the socio-epistemic domain, and gestures towards characteristics of knowledge that are objective features of the knowledge in question, and can thus be identified. It also points towards a 'power', or at least a potential power, that can be conferred upon the actor (acquirer or producer) by the PK, as a benefit in itself or as a means to alter the properties and potentials of our environment. This distinction requires further attention, which we give it below. The burden of the original distinction was to point out that when speaking about 'power' and 'knowledge' in the same discursive space we had better make clear which power we were referring to.

None of this was initially unpacked clearly, although it was arguably at least implicit in the initial distinction. One aim of the present paper is to contribute to unpacking our earlier paper (Young & Muller, 2013). We saw our clarificatory task as being to lend substance to some generic features of power implicit in the idea of PK and to discuss some ways in which these features might also differ across disciplines and fields, walking here in the footsteps of Durkheim (1947) and Bernstein (2000), and alongside Rob Moore (2014), Leesa Wheelahan (2007, 2010) and others. From Durkheim, we adapted the notion of specialized knowledge; from Moore, the general features of specialized knowledge – its revisability, reliabilism, emergence, real-ness, materiality, and sociality. From Bernstein, we adapted the idea of the different features of different forms of knowledge. Following this path could lead to the equation of PK with what Bernstein (2000) called hierarchical knowledge structures, those with steepish piles of theoretical elaboration and robust relations of falsifiability with the world familiarly associated with the natural sciences.

We began to realize by the end of our earlier paper (Young & Muller, ibid) that if this was the main identifying characteristic of PK, as far as the curriculum was concerned we risked leaving the Humanities and the Arts out of the reckoning. However we might characterise them, they were not in the first instance marked out by hierarchical structures of concepts in the same way as were the sciences, or even by 'concepts systematically related to one another' (Young, 2015, n.p.), one of Young's criteria for PK, as White (2018) points out. Muller (2014) tried to

make the case that Bernstein himself thought that they had two different kinds of conceptual connection, and that these were not directly comparable, but this didn't answer the curriculum question: how best should we characterize the internal properties of non-scientific knowledge, in the absence of a system of interrelated concepts, so as to make it at least plausible that they could confer potential and power?

In retrospect, it is clear that our efforts have so far focused on clarifying the social conditions necessary for establishing truth and objectivity, or the properties of the knowledge that somehow 'carried' power, rather than on what the power, or its potential, was that was conveyed and conferred by the knowledge. In other words, our efforts at clarification had taken their primary task to be elucidating power as a 'socio-epistemic property' of knowledge, rather than on power as 'potential or capacity' for social actors to do something. This emphasis on the knowledge properties rather than on the power-conferral is wholly understandable, because the debates, and the founding distinction between KOTP and PK, grew out of attempts to contribute to curriculum theory and the question of what deserved to be available for learning, not to a more general theory of power. But an insistent refrain from some of our educational critics (Beck, 2013; Yates, 2018) suggested that this view was too restrictive, that it 'lopped off' parts of what were surely parts of the curriculum more broadly conceived. This paper is an attempt to address at least some of these concerns.

Power and knowledge in social theory

This section presents a brief review of how the questions of knowledge, power and value have been approached in the main traditions of social theory. We note the limitations of these traditions, and point to neglected opportunities for expanding the conceptualisation of knowledge and power.

The sociological tradition

Marx's concept of power has without question been the most influential in sociology, on account of its explicitness. Marxism remains relevant. First, it reminds us of the role of power in maintaining inequalities of access to knowledge and of the possible connections between the distribution of knowledge and the contradictions associated with capitalism. In other words, Marxism reminds us that power over knowledge access is ever with us. The negative side of Marxism's challenge is that it appears to lend support to those who dismiss the idea that there are forms of positive power associated with knowledge.

Mannheim wrestled with the problem of knowledge thrown up by both Marx and Weber, and opted for what he called a 'relationist' view of knowledge. He supplemented Marx's concept of social class with that of a distinct class of 'free floating intellectuals' who, because they neither had interests in nor were in principle against capitalism, could rely on their access to certain norms of objectivity and rigour in their claims to knowledge and truth (see Meja & Stehr, 1993; Merton, 1972). This group for Mannheim included natural scientists and mathematicians, and in principle, social scientists. Little is today heard of Mannheim's 'relationism' which is said to slip into 'relativism' despite Mannheim's vehement denials. While he retained the idea of a sociology of knowledge that took the question of power seriously, he was searching for a less determinist, less one-dimensional view than that of the critical theorists of his time. Mannheim's reminder of the importance of rigour and a non-absolutist objectivity could be on course for revival in a political culture that is sceptical of 'experts'.

Weber had a different approach that began in his historical study of the emergence of capitalism in Europe which inspired much empirical work, not the least Robert Merton's studies of the Puritan origins of science (Whimister, 2004; Merton, 1970 [2001]). Contrary to the economic determinism of then-contemporary German Social Democrats, Weber's historical studies argued that ideas themselves have an autonomy and causal efficacy in social change (see Weber in Whimister, 2004). This led him to a tripartite theory of power and powerful knowledge that took account of economic location, status and privilege; of the values underpinning them; and political standing. His work is better understood as an extension of Marxist ideas rather than a refutation of them, although he did oppose the more economic determinist forms of Marxism. This led him to focus more on how power and knowledge achieved legitimacy than on power itself. The sociological question for him was not how or why certain ideas are dominant, but how they become legitimised, how power becomes authority, and why the legitimacy of authority sometimes is fragile and sometimes seems beyond challenge. Some sociologists have given a less deterministic account of Weber's analysis of power and authority which points to the positive notion of power which, contrary to most progressive ideas, underlies all pedagogic relations (Murphy, 2009).

Parsons (1963) claimed membership of a sociological tradition that included Weber, Durkheim and even Marx. However, his analyses were driven by a particular interpretation of Durkheim that saw value consensus as the bedrock of any society. It followed that for him this led to a view of dominative power as being something of a social pathology. He gave emphasis to the positive dimension of power, as a means of achieving given ends, that had been so neglected by other sociologists. However, it led him to the reverse error of almost ignoring the traditional notion of power altogether and relegating it to contexts ruled by force alone. Parsons is almost the polar opposite to Marx. Whereas all modern societies

for Marx were capitalist until capitalism was overthrown and ruled by the power of one class over others, for Parsons, modern societies were governed by consensus on core values. Power then becomes the means or medium, like money in relation to exchange, through which shared problems are solved. Powerful knowledge in Parsons terms was the knowledge that embodied shared values.

Durkheim is usually taken to be the model that Parsons followed, and certainly his concept of the social and what social facts were was, like Parsons', one of shared values and norms. In breaking with philosophy, Durkheim saw himself as an empirical sociologist, especially in his three great works. He was not trying to build abstract systems as an autonomous enterprise. He was developing hypotheses or establishing social facts about society. His empirical studies of laws, suicide and religion were tests of his two major hypotheses. The first hypothesis was that there is a social reality, independent of, though constituted by, human being in history, and measured by forms of law. The second was that it is this social reality, expressed as shared values, that not only defines what it is to be human but, through how they are differentiated and change, represent the mechanism of social continuity and social change. The collective character of these shared values and norms are 'society', for Durkheim. Without them economies, families and states do not and could not exist. They are what distinguish us from animals. At the same time, they are subject to change by external factors and by uneven development, and may be weakened or strengthened, leading to conflicts and contradictions. It is in these processes that we find Durkheim's concepts of power expressed in the division of labour, but also in the growth of 'interdependence' and organic solidarity generated by specialisation (Durkheim, 1947). Unlike Parsons, he was not idealistic about the present, but unlike Weber, he was optimistic about the future. Unlike Marx, he did not see the division of labour as an intrinsic source of conflict, but conflicts as a temporary phase that would be resolved through the progressive extension of 'interdependence' supported by key mediating institutions such as professions and the state. History has not been kind to his prognosis.

The traditions of political theory

In political theory, power is, as we said above, most often read as domination, at least in the way it is 'borrowed' in educational writing. This entails that it is a zero-sum property which X exerts over Y, and, by definition, Y can't exert it over X. Power as domination is ubiquitous, something that can in principle restrict or diminish the agency of another. In this sense, PK can in principle have dominative power insofar as it can serve to underwrite or legitimate a power bid to influence events – say, the curriculum policy of a school. We will return to this point below. Power on its own can also exclude others from a given body of knowledge. In the age of the internet and smart technology, that power is increasingly 'fragile' as

Stehr & Adolf (2016, 42) say, since more and more previously inaccessible knowledge, or at least information, is shared in online groups, or simply available to be found by a search. In this sense, the KOTP of some knowledge-producers is consequently short lived and prone to technological erosion, but not their capacity to produce PK again.

We have said that dominative power is the sense of power that we mostly encounter in both politics and sociology, but it is not the only sense. Lukes' (2005) thesis about the three faces of power has been neglected recently and provides an alternative. These 'faces' are conventionally seen as on a continuum from empirical enactments of the exercise of power ('A exercises power over B') identified with the empirical study of power by political scientists like Dahl; through more indirect exercises of power where power can be seen as for the common good, identified with sociologists like Parsons; to a radical form, where power shapes preferences in such a way as to circumvent the affected agent's freedom and rational self-determination.

In revising his thesis in 2005, Lukes comes increasingly to lean on the distinction made by Spinoza in 1677, between *potentia*, which is roughly glossed as 'power to', or the ability and capacity to do something; and *potestas*, roughly 'power over', which is the traditional notion of power as domination of one agent over another. *Potestas* is always deformative, it withdraws, excludes or deprives, it places X in Y's power, constraining X's choices, securing X's compliance; *potentia* is productive or creative, it extends horizons, it imagines new futures. As Giddens (1979, 348) says, 'Power in this broad sense is equivalent to the *transformative capacity* of human action'. It involves the capacity to achieve something of value. In this sense, highly specialised knowledge as produced by universities confers a very specialised capacity to its holders.

Lukes draws several lessons from this seminal distinction. First, one may possess 'power to', but that is separate from exercising it. One may decide not to exercise it, or exercise it badly. Secondly, following Spinoza, *potentia* is the more encompassing notion; all power is a capacity, *potestas* or domination just a special case of it. In fact, Lukes would advocate that we shift entirely to what he calls a dispositional account of power, an account in terms of capacities, an account he aligns to Sen and Nussbaum's capabilities approach. A dispositional account can lead to power as something attributable to individuals, like human capital, a position which in our view neglects its relational character.

Castells disagrees that *potentia* can subsume *potestas*, that power is fundamentally dispositional. Although he cites the distinction between 'power over' and 'power to', which he attributes to Parsons (Castells, 2009, 13), he goes on to say that 'the power to do something … is *always* the power to do something

against someone' (ibid). In other words, 'power to' for Castells is also always 'power over'. Some of our educational colleagues have likewise been reminding us (Morgan, 2017; Whitty, 2018), that by stressing the *potentia* side of knowledge with PK, as we may be interpreted to have done, we should not forget its *potestas* face. What we would just add is that we recognise with Weber that although power is relational, it need not always be dominative.

Epistemic power, according to Audi (2008) is the ability to exert epistemic influence. It is, says Audi (ibid, 3), an intellectual virtue. It is this sense that Fricker (2008) says that it is experts as a social category who possess epistemic power. That is, experts have the power to persuade, to exert an influence over the reason of others by virtue of the capacity that makes them expert. This then raises the issue of the proper or improper exercise of epistemic power (epistemic injustice, Fricker, 2008). This is another way to describe Lukes' third face of power, the improper influence over the reason of others.

For Lukes, any attempt at persuasion that seeks to circumvent the rational faculties of others is an improper use of power and knowledge. This has echoes of Peters' (1963) distinction between the teacher being 'an authority' in her class, rather than simply 'in authority' over her class. Most recently, developments in behavioural psychology and economics have shed a troubling light on this, and the power of the internet and social media have considerably amplified the possibilities and reach of non-rational persuasion. For 'libertarian paternalists' like Thaler and Sunstein (2008), social policy that provides 'nudges' that fly beneath the radar of rationality could do enormous public good, a claim Lukes would probably dispute and Peters almost certainly would. Much here turns on whether one has faith in the expert's access to surplus truth or the power of reason, or whether the new behavioural economics persuades you that our 'rational' choices are frequently and systematically sub-optimal. More recently, with claims that big data companies now seek to manipulate public opinion, a far darker set of possibilities has emerged (Shaw 2017). One can be deceitful with specialised knowledge and with the truth, as Williams (2002) reminded us.

This brief dip into virtue epistemology underscores the fact that *potentia* projects a dispositional account of epistemic virtue that foregrounds the positive potentials of power. This in turn brings to the fore two points important to us as curriculum theorists. The first is that knowledge can be considered as powerful but still deformative. Insofar as we understand it, the demand to 'decolonise' the curriculum would seem to be a demand to rid the curriculum of its deformative properties, not its powerful ones – its generality, coherence and explanatory power, and above all, its capacity to extend horizons. Can they be so separated? This is not a question we will try to answer here. Secondly, we just note that philosophers would generally not speak in these terms: epistemic virtue is not a

property of the knowledge itself, but of knowers. It is agents who possess epistemic virtue, not the knowledge itself.

Are there no characteristics of knowledge itself that might be considered epistemically of greater worth? *Explanatory power* is possibly a contender; it refers to the 'strength' of an explanation (Schupbach & Sprenger, 2011) and its predictive reach, such that we can distinguish between strong and weak explanations. But not all disciplines aim at explanations or prediction (see Wheelahan 2010 for the distinction between the natural and social sciences). By the same token, we might refer to the imaginative power of the Arts, for example, how the teacher's understanding of Romeo and Juliet might enable a pupil to imagine love relationships in a new way.

Economic theory and the value of knowledge

Political theory is not the only discourse in which the potent power of knowledge can be described. Power in economics is leverage that allows the holder to gain advantage or control over others through the manipulation of economic assets – traditionally, land, natural resources but increasingly also knowledgeable workers and exploitable new knowledge. The master term in economics is *value*.. In the words of Rimes et. al. (2015, 154), 'the value of knowledge derives from the *intensity* and *range* of its use'. 'Use' can be interpreted narrowly – as in the oft-stated dictum that knowledge is a core determinant of economic growth in modern societies, which we return to below. It can also be more broadly interpreted as 'useful to the community of peers', as in Bourdieu's (2000) *libido sciendi*, the desire to be recognised for making a contribution to one's field. The conventional measures here are citation metrics. Whether we refer to a high citation index as a proxy for 'excellence' or 'power', it is certainly some kind of index of worth or value. However, while economists may talk about the non-economic value of knowledge – Rimes and her colleagues are an example – by far the dominant tradition in economics is to treat knowledge as a factor in the economic cycle, as either an input into production, as a factor of production, or as an output (like patents).

Knowledge in economics is most generally seen as a kind of asset which is either a form of capital, or can be converted to economic capital. Knowledge society theory assumes that the principal factor of production in a knowledge society is no longer capital or labour, but knowledge. The dominant paradigm is that of human capital, which is conventionally measured as years of education or schooling. Higher levels of schooling are routinely related via regression analysis to higher GDP or average earnings. This is an indirect measure of what it is assumed a person knows or can do, their knowledgeability. Schools would be in big trouble if there was no establishable link between schooling and external

tokens of value. The correlations are universally found, but it remains an indirect measure, and how the instructional input is translated into a productive factor is left unexplored – hence a 'black box'. Occasionally the relation between knowledgeability and earnings is more directly measured, and of course it correlates well (see Hanushek in Stehr & Adolf 2016), but whether directly or indirectly measured, the very notion of human capital as a conceptualisation of knowledge is sociologically problematic.

There are three main reasons for this. The first is that economics treats knowledge as something like an asset possessed by individuals, an investment, whereas sociology regards it as *social* and collective. Secondly, human capital as the primary economic concept for knowledgeability treats knowledge as a private good, where sociology treats it as a public good. Thirdly, as already alluded to above, knowledge is a non-rivalrous good, that is, it is free in the sense that everyone can benefit, say, from Pythagoras' Theorem, and its use does not diminish its utility or availability to others, all other things being equal. Knowledge in this sense is not a scarce good. There are two exceptions here. The first is if knowledge as a public good is privatised. The classical example is that of patents and copyright registration, which creates a monopoly around knowledge products in order to confer rents to the owner. Undesirable as this may be, the law around these things is well-established. More controversially, corporations place restrictions or a price of access on goods that many would regard as public goods, such as data bases of data about the public such as are now routinely collected by Google and their ilk. Perhaps more controversially, publishers increasingly place restrictions on access to scientific papers which they themselves don't produce. The second exception, and this is in some senses more intractable, is that as knowledge gets more specialised, so its distribution becomes more constricted; it becomes scarcer, and it moves from being a non-excludable good to being increasingly exclusive. Where economics speaks about nonrival goods becoming increasingly rival as a function of the workings of the market, we align ourselves with Durkheim who shows that it is the specialisation of knowledge itself that creates exclusivity, and the consequent division of labour.

Economists do not readily speak about specialised knowledge. They speak about 'novel', 'additional', 'residual' or 'incremental' knowledge, that is, the new knowledge generated from the existing stock of knowledge in a field. From the economic point of view, this is the asset that is at a premium. This is because it is the scarcest asset and at the point of production, it will be a private asset in a market context that the asset holder will want to exploit before it enters the circuits of circulation and becomes public knowledge.

Power, knowledge and curriculum theory

Ryle, 1945 (see also Lambert, 2018, who provides a similar example) has famously shown that a bald relay of curricular matter does not necessarily constitute transfer of knowledge. Ryle's hypothetical schoolboy can repeat the facts, but he doesn't grasp their import; there is still something missing which, arguably, constitutes its power. For Ryle, this is the ability to reason, by which he means the ability to negotiate the conceptual links that animate the curriculum matter and make the content listing meaningful. As he rather derisively comments: 'Rules, like birds, must live before they can be stuffed' (ibid, 11). He calls this animating conceptual or inferential ability *'know how'.*

Winch (2010) has helpfully elaborated two kinds of know how crucial for a meaningful curriculum and pedagogy. These two are:

- Knowledge of the inferential relations between the concepts. It is not enough to know the concepts in themselves. Neophytes, to be adept, must also know what the reach and power of the concepts is, and how to make their way around and between them. This involves knowing which normative rules are non-negotiable and which admit of latitudes of discretion (are defeasible). This is a capacity to work with existing knowledge;

- Knowledge of the procedures in assessing, testing and acquiring new knowledge. For any field of knowledge, this is knowing how warrants work, what their scope and limits are, and how to put them to work in judgments that produce something novel. This is facility with new knowledge.

William Schmidt is a curriculum scholar whose work follows a similar track to Winch's first kind of know how, but also includes elements of the second type. Schmidt together with his colleagues maintains that the systematic nature of systematic knowledge lies not in a listing of the content only, as too many of the drafters of the American National Content Standards seemed to have thought, and as the use policy makers like Nick Gibb (2015) have made of the work of E. D. Hirsch and his Core Knowledge Foundation in the English context displays. This results in a 'laundry list' of topics and items with no discernible order, and yields only a 'splintered vision' (Schmidt et al, 2007), and one devoid of coherence. This is knowledge without system, and Schmidt et al (2005) show graphically what this yields: content-topic lists without sequence or progression, no sharpening of the conceptual focus, an over-crowded curriculum, and one without clear signposts to either learners or teachers as to what is to be learnt, when, and what follows what. The main consequence is to sacrifice depth for breadth. The missing ingredient for Schmidt and his co-workers (2005) is *coherence*.

Schmidt assumes that there is a logic or structure to a body of systematic knowledge that the curriculum must respect, that the order must go from 'particulars to 'deeper structures': he aims for 'content standards (that) reflect the structure of the discipline' (ibid, 529). By 'structure' he means the principles of conceptual progression, and these differ by subject. In mathematics, for example, topics and concepts enter the curriculum, become subsumed by higher order concepts and so disappear: *topic progression* is dominant. In science, topics and concepts stay in the curriculum for longer, but they get progressively deepened. These key topics get tracked through the curriculum in greater and greater orders of complexity: they act as 'curriculum buttresses', or unifying elements that, within themselves, refract the order of the discipline: here, *within-topic progression* is dominant, say Schmidt et al (ibid). In neither case is a simple content listing any help in this regard. If the curriculum does not signal these different conceptual logics clearly enough, incoherence will be the result. The conclusion is clear: 'coherence is critical to learning for understanding' (ibid, 554; see also Muller, 2009). The value, and the power of the discipline lie in its animating principles which must be grasped by learners if they are to be empowered.

The discipline and the subject of History

The previous section has attempted to clarify what it is about knowledge that we might call 'powerful' or of special worth. The discussion has made clearer that it is this *inner dynamic property,* rather than a simple content list, that makes knowledge powerful. But where does this leave the Humanities? White (2018) has argued, for instance, that if History is to be regarded as PK, then it must have 'its own (*sui generis*) system of interrelated concepts' (ibid, 327), which it demonstrably does not. We address this argument by taking a closer look at how History teacher educators talk about discipline in their subject History.

There are two strands of History commentary we discuss below. The first strand draws on the notion of PK to help them make more explicit the aims of teaching History (Counsell, 2011; Burn, Chapman & Counsell, 2017); a second strand is sympathetic but also more critical, in the following sense: nothing intrinsic to the discipline of History dictates what specific historical content should be selected into a curriculum. (Bertram, 2012; Yates, 2018). They argue that external interests will always supervene and determine whether History contents should be selected to support an external purpose or interest, be it nation-building – the 'story of Australia' for example (Yates, 2018, 55), induction into a more cosmopolitan human rights culture, or simply to develop personal skills of empathy and historical curiosity. For Yates, this means that the everyday world cannot easily be insulated from the discipline and subject of History, and that PK

as a curriculum principle can never shut out the influences coming from the everyday world of politics and daily life.

Other educators interpret this characteristic of History to entail additional problems for those learning History. McCrory (2015) for example worries that emphasising 'knowledge' as the primary virtue of learning History will induce teachers to teach the factual content and to prioritise coverage – Ryle's problem - leading to a 'thin' notion of History at best, and at worst, to the 'knowledge illusion' that students have learnt what is essential in History, when in fact they have hardly scratched the surface (McCrory, ibid).

In this regard, History educators routinely distinguish between *substantive* knowledge or content – the 'substance of the past' (Bertram, ibid, 436), the historical facts so to speak; and *disciplinary* (sometimes called second-order or procedural) knowledge, or what Counsell calls the infrastructure or 'hinterland' of the discipline. History's hinterland is comprised of what Counsell (2018) calls History's 'distinctive pursuit of truth': how valid claims can be made, what constitutes evidence for a claim, it's degree of certainty, what passes for an argument, how to recognise and make valid 'attribution(s) of cause, consequence and significance'.

The quality of the argumentation and 'judgment-making' characterises what History is all about, closely coupled to fidelity to the evidence. The singular quality of historical argumentation is first, that it does not rely on laws, theorems or scientific regularities that might be treated as given, but must be constructed from alternative interpretations. Each answer that a pupil is required to give to a historical question must be freshly argued. Conclusions in History are arrived at. In Physics, conclusions are not, and are therefore not 'up for grabs' (Counsell, ibid).

This bears directly on how the curriculum should most optimally be structured. As we saw with Schmidt above, the curriculum of Physics is best ordered by within-topic progression and cumulation. This is not the case in History, which does not progress in the same way, though this does not mean that students cannot progress in their knowledge of history. These different progression-types follow from Bernstein's characterisation of their different knowledge structure, hierarchical for Physics, horizontal for History (Bernstein, 2000). History's principle of progression is thus a narrative one, or rather, lies in the progressive deepening of ramifications of the entailment of causal argument, a deepening of the appreciation of the 'network of "if … then" reasoning' (McCrory, 2015, 40) that sits behind the claims advanced. Although both Physics and History deal in abstract concepts, in History there is no conceptual ladder to climb, no succession of 'conceptual fields' to master (Vergnaud, 2009). This places a distinct and arguably larger burden on the History teachers who must constantly keep an eye

on both the requirements of a well-argued answer the pupils are required to give and how the pupils are assimilating and responding to this requirement. The power of both History and Physics as subjects lies in the augmentation of possibilities afforded by the progressive deepening of their distinctive disciplinary form of reasoning and argumentation that constitutes the discipline and that follows from their 'distinctive pursuit(s) of truth' (Counsell, 2018).

What does this all mean for PK?

Ever since the term 'PK' entered debates in the sociology of education and curriculum studies, there has been uncertainty about what exactly it designates and implies. To be more precise, it has entered diverse fields and contexts, and speaking generally, those that have used it in an academic register have been more faithful to its original intents than have the usages in policy or pedagogic arenas, with some exceptions (see for example ASCL, 2018). Like the proverbial sages who encounter an elephant in a dark room, there has been a tendency to focus on this or that part of PK, only rarely on the whole elephant. Hordern (2018c) has recently made a similar point. Our aim in this paper has been to try to shed light on the different facets of what has come to be a rather multifaceted educational object.

One of us (Young, 2009) started off with a clear distinction between PK and KOTP. The intention was to place conceptual space between PK as the prime object of schooling, and the ways in which the term knowledge has been used a in the messy world of contending interests where it becomes another asset in the arsenal of those exercising or seeking power. We wanted to focus on the phenomenon itself as a human right, not on its potential use or abuse. As we said in the introduction to this paper, this conceptual distinction has been taken to imply that we downplay the role of power in knowledge. That was not our intention, although it is true that we have spent less time focusing on it than on the positive powers of knowledge. Stepping back as we have done in this paper, we have tried to get the big picture more securely in focus.

A starting point has been the Spinozan distinction retrieved by Lukes (2005) between *potestas* and *potentia*. We understand *potestas,* following Weber, to be referring to the traditional meaning of the 'exercise of power', ranging from brute force to gentle persuasion. All such exercises are exercises of power. It should be clear that in very many instances such an exercise intimately involves access to, or lack of access to, knowledge, often PK. Lukes draws the distinction between influence by means of rational persuasion, which he suggests is not an exercise of power as such, and of which schooling is perhaps the best case; and influence that does not involve consent, or flies beneath the radar of our rational faculties. We are sceptical about this polarisation. Much of everyday life and educational

debates occupy a wide middle ground between these two poles. Educational policies, for example, rarely win the full consent of the educational community. The government of the day likes to think that their decisions are the result of democracy at work, but ordinary dissenters like school teachers may feel the new reform is being rammed down their throats. In our view, this is power by any other name.

Consider the case of the 'knowledge led' school. Many Free Schools in England justify their approach to the curriculum by appealing to PK or to one or other of our publications. This raises two pertinent issues. The first is that the intentions of those using PK to justify the approach they take to the curriculum in their schools are probably entirely honourable. We can rule out deceit. However, that does not mean that they use it in ways faithful to the sociological justification of it. Some manifestly do, like Christine Counsell (2018); indeed, her deployment of the term has augmented our own understanding of the ramifications of PK for the subject History and for the curriculum more broadly. Others have used it in more questionable ways. This is what a socio-epistemic approach to knowledge would expect, as Hordern (2018b) has shown. When concepts are extracted from their use in an academic discipline like sociology of education that is policed by peers and regulated by the protocols of the discipline, and then 'translated' into a setting like a school with its own embeddedness in specific histories and interests, they inevitably must undergo some amendment, perhaps even distortion. For Hordern (2018a), a concept probably also loses some of its power, in the sense of some of the resonances of its specialised use in the more restricted realm of academic discourse.

This does not exhaust all there is to say about PK and traditional concepts of power. Suffice to say that we recognise that no knowledge, including specialised knowledge, when used in the real world of contending interests, can remain innocent of power relations.

This brings us to *potential* as a meaning of power: we understand this not only in the restricted sense of a capacity to act, but also in the socio-epistemic senses in which it embodies positive or transformative power or potential power. We have touched on various senses of knowledge as *potentia* in this paper, such as power in the sense of its augmentative, enhancing and empowering capacity. In looking at the ways PK has so far been used by our academic colleagues, we see they are using it in one or at most two senses of 'powerful'. We have done so ourselves. It is useful to distinguish at least three senses:

1. *Power and academic disciplines*

Disciplinary power is referred to in two ways. First, the justification for disciplines as a community of self-governing peers is made on the basis that they produce specialised discourses that regulate and ensure reliability, revisability, and emergence (Moore, 2014). Disciplines pursue, though few attain, certainty and truth, in Counsell's (2018) sense used above. They represent the best that has been thought in that realm of ideas. Disciplines differ in how they do this. In Bernstein's (2000) hierarchical knowledge structures, they do this within a disciplinary structure where concepts, theories, and substantive content are tightly coupled and cumulative; in horizontal knowledge structures, these are far more loosely coupled. This has distinct entailments for curriculum structure are we will shortly discuss.

The second sense of disciplinary power is also best elucidated with reference to Bernstein (2000, 29 – 31). He discusses what makes context-bound knowledge of limited potential, that is, of limited projective power. This is because it establishes a *direct* relation between the meaning of a concept and a feature of the world. However, '(context-bound meanings) lack the power of relation outside a context because they are totally consumed by that context' (ibid, 30). This is not to say that such concepts lack worth, just that this worth is restricted to the context to which the concept refers. Disciplinary meaning is meaning that is generative, in that it establishes an indirect relation of meaning between the concept and an aspect of the world. Even at its most strenuously empirical, disciplinary discourse creates the possibility of meaning extending to other contexts. By virtue of being indirect, disciplinary meaning creates a gap, or potential gap, which 'can become (not always) a site for alternative possibilities, for alternative realisations' of the relation between the concept and the world. This 'site', Bernstein argues, is a space 'for the unthinkable, the site of the impossible … the site of the *yet to be thought*' (ibid). In other words, disciplines are potent because people with access to them can generate unpredictable possibilities. They can do this because of the way disciplines facilitate the making of meaning. That is their epistemic destiny, and their power.

2. Power and the school curriculum

Much ink has been spilt as to whether or not, or to what extent, subjects are determined by their parent disciplines. We agree with Counsell (2018) who has said that 'each school subject stands in a slightly different temporal relation to its real-world cognate of scholarly and professional production', in other words, to its discipline. Nevertheless, there is an undeniable epistemic relation between the substantive domain of a subject like History and historical argument. This relation can be impaired, and the power of the curriculum foreclosed as a consequence. This foreclosure can be of two kinds.

First, the curriculum can be represented as a list of substantive contents to be covered only, as a list of topics. This was the form of the curriculum in many of the states of the United States before its reform. Schmidt and colleagues (2007) decried this as a 'splintered vision' and McCrory (2015) referred to it as 'thin'. As she remarks, one can repeat the facts yet not know anything about the subject. The trouble with this is that the teacher, perhaps knowing no better, presents this as the knowledge to be learnt, 'treating the material presented as givens' (Counsell, 2018). What this forecloses is the opportunity to teach the substantive content as a set of questions with provisional answers which can be improved. In other words, the 'thin' curriculum may well not indicate that the 'gap' is what animates the material and what the learning is directed towards. By foreclosing the gap, the substantive content loses its potency and capacity to provide learners with a tool to augment their thinking.

Secondly, the 'thin' curriculum, by representing the knowledge to be learnt as a linear topic list, runs the risk of masking the disciplinary structure that animates the discipline and that must make sense of the subject. This raises the crucial principle of curricular progression. How should the content be sequenced and paced so as to represent the deep structure of a body of knowledge in its increasing complexity? The structural order differs between the different disciplines. We saw that Schmidt and colleagues refer to the requirement to respect between-topic progression in Maths and within-topic progression in Science. Both arise from the way that the discipline becomes more complex. Similarly, in History, the material must be sequenced so as to deepen the appreciation of claims, evidence and argument, so that the inferential reach of learners is progressively deepened. When this disciplinary order is disrespected, as it was in South Africa's first post-apartheid curriculum reform, Curriculum 2005, then teachers and pupils alike quickly became lost and their learning stalled (Hoadley, 2018). The curriculum must first provide signposts to the structure of the subject before adepts are empowered to generate new ideas. Without these signposts, the power of the curriculum to structure and expand the scope and reach of the pupils is lost.

3. Power as generative capacity: the capacity to generate new ideas

Powers in both senses we have described must be in place, in the curriculum and ideally in the teacher's own knowledge for augmentative learning to take place. Even if they are in place, there is no guarantee that the teacher will be a sure guide to the deep structure of the subject. Teachers are crucial mediators of the transformative capacity of PK in their subjects. When they are successful, and the pupils learn successfully, the pupils become empowered in a range of ways: in the quality of their discernment and judgment; in their appreciation of the range and

reach of the substantive and conceptual fields of the subject; and in their appreciation that the substantive detail they have learnt is only part of what the hinterland of the subject has to offer. They are able to make new connections, gain new insights, generate new ideas. That is why PK is at the heart of true schooling.

We have not addressed all the questions around the senses in which knowledge can be powerful. In particular, we have not addressed the thorny issue mentioned by Whitty above about how PK can best articulate with the lived world of meanings of all learners, making it accessible without boring or alienating them. We intend to address that in future. What we hope to have done in this paper is to sketch out some of the multidimensional senses in which knowledge can have power and create potential.

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