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Vocational Knowledge: Regions and Recontextualisation Capability

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Abstract This paper focuses on the constitution of vocational knowledge, and the development of an analytical framework that seeks to identify and characterise how that knowledge is constituted. Bernstein's concept of a 'region' is outlined as a socio-epistemic entity into which various aspects of disciplinary knowledge are 'recontextualised' to meet the requirements of practice. This leads to a discussion of both the 'internal' social relations that exist between organisations involved in recontextualisation, and the 'external' factors that influence the character of regions, including relations between occupations and the broader macro-context pertinent to vocational practice. Issues of 'recontextualisation capability' are considered particularly important for understanding the nature of regions. While it is possible to conceive this capability at a variety of 'levels' or in relation to various activities, how knowledge achieves validity in the vocational community and provides a basis for a curriculum is particularly foregrounded here. The discussion is bolstered with examples of regions and recontextualisation processes taken from recent studies of higher apprenticeships in England between 2012-4. In addition, there is some brief engagement with comparative research into vocational education and training systems in order to better understand how differing national contexts and policy-driven change may (re) orientate regions and their capacity to recontextualise.

1.1. Introduction

Research into vocational and professional education across a range of national contexts has customarily suggested that novice professional and vocational practitioners require exposure both to the knowledge of occupational practice and codified knowledge acquired through educational institutions that have a professional or technical orientation (Billett 2008). Of course, there are substantive variations on this that accent either more structured formalised educational phases to formation, or prioritise practice immersion (Beckett & Hager 2002). Whether an approach based on gradual release, concurrence or consecutivity is preferred, questions that relate to professional and

vocational knowledge remain pertinent. For example, there can be debate around the extent to which a body of vocational knowledge can meaningfully be 'acquired' by individuals, or whether knowledge or apposite 'knowing' is primarily realised through co-participation with experienced practitioners in the contexts of practice (Duguid 2005; Fuller et al. 2007). Equally, there is the suggestion that the nature of professional and vocational knowledge is changing rapidly as a consequence of organisational and technological developments, and thus what has been previously taught may have declining relevance to contemporary contexts (Clark &Winch 2004), and thus the occupational knowledge base needs to be continually updated . There are considerations around the extent to which a body of occupationally-relevant knowledge should relate to specific organisations and sectors as much as a given occupation, and which institutions, agencies and employers should be involved in establishing a shared knowledge base for that occupation. Additionally, the underlying problematic of the extent to which valuable knowledge for practitioners in formation can be sourced or accessed from current workplace practice also brings into focus questions around the value of knowledge from disciplinary origins exterior to the immediate field of practice.

Recent work in the sociology of professional and vocational knowledge has established an approach that foregrounds the importance of disciplinary knowledge in the constitution of the occupational knowledge base (i.e. Young 2006; Muller 2009; Young & Muller 2014), seeing professional and expert action as relying upon forms of abstract, conceptual knowledge that have been refined and validated through processes existent within professional communities. For Young and Muller (2014) professionalism and professional knowledge are linked, at root, with the emergence and iteration of bodies of 'sacred' knowledge that are prized within societies for enabling hypothesising, conceptualisation and the development of theoretical constructs. Such sacred knowledge, as Durkheim (1976) identified, fulfils a valuable role in all societies, signifying the conceptual resources and lessons learnt of previous generations, putting them to work on the 'problems' of the present, and helping to build new visions of possible futures. It can be argued that such knowledge has particular value by virtue of the particular social conditions of its production and iteration (Young & Muller 2014; Grace 2014), which are quite distinct from other forms of knowledge in production and use in society (Bernstein 2000). Professional education, knowledge and practice are thus inextricable from questions of professional values, roles and the social conditions of knowledge validation.

From this perspective, the prevalence of theories of professional judgement and action that foreground learning through workplace practice while neglecting the role of abstract, conceptual knowledge developed *at some distance from* that workplace practice is problematic. While there can be no doubt that professional forms of 'sacred' knowledge acquire their conceptual potency through a demonstration of relevance to contexts (Muller 2009), valuable forms of conceptuality are only guaranteed through social processes that recognise the fallibility and emergent nature of knowledge and take account of previous conceptual development (Young & Muller 2013; Young & Muller

2007). Engagement with the contextuality of practice is therefore vital for the development of the professional knowledge base, but this should not result in the assertion that it is only immediate contexts that stimulate the development of professional expertise.

While the recent work of Young and Muller (2014) has focused on the notion of 'the profession', it can be argued that such arguments have relevance to all occupations. While there may be something distinctive about those occupations ascribed with the 'professional' tag, all occupations are subject in varying degrees to similar pressures to perform work of a high standard and to iterate their knowledge base to take account of the changing topography of practice. Additionally, it is erroneous to consider any occupation completely in isolation, as the work of Abbott (1988) acutely demonstrates; occupations relate to each other within the context of industrial sectors in the ever-changing world of work. The development of forms of expertise that enable workers to execute tasks successfully in the wide variety of contexts that they may encounter within their practice is thus a concern for all occupations, whether they be considered vocational, professional or otherwise. Winch (2010, p. 164-165) identifies the importance of 'systematic propositional knowledge' for technical occupations. While many of those occupations classed as 'technical' may not enjoy extensive discretion in practice, technical work does rely on a capacity to make use of, and infer from, the body of knowledge underpinning the occupation. Practitioners in skilled technical occupations, such as electricians or plumbers, may need to be able to 'work out a plan of action' (Winch 2010, p. 166) to manage new contexts, taking account of specific conditions and constraints, and based on constructs derived from the collective experiences of those engaged in the occupation . It can therefore be argued that any occupational preparation that neglects a sound conceptual foundation is flawed. The inevitability of organisational and technological change in the world of work necessitates that practitioners of a given occupation have the conceptual resources to rethink their practice in unforeseen contexts. Concomitantly it can be argued that a foundation of core subject knowledge (i.e. such as that offered by Maths or Science), not related specifically to a given occupation, is a prerequisite for a successful working life, as it enables new occupational knowledge, often presaged on this purer disciplinary base, to be more easily and completely acquired.

The focus on both the sociality and the structure of knowledge implied by the work of Young and Muller (2014) and Bernstein (2000) invites scrutiny of knowledge recontextualisation, which can be described as the processes by which knowledge is selected, appropriated and transformed as it moves between different contexts to perform new functions (Bernstein 2000; Barnett 2006). Processes of recontextualisation may be socio-historically constructed, iterated, reviewed or radically reformed in accordance with the dynamics of given vocations, by policy initiatives or macro-economic change, and by the structures and types of knowledge foregrounded in vocational practice (Hordern 2014 a).Vocational knowledge may thus be shaped by the priorities of supra-national or national bodies, the cultures of professions or vocations, and by the relations between influential organisations, such as

employers, professional associations, and educational institutions. As part of an effort to develop an adequate lens to interpret aspects of these dynamics, and to understand the concomitant impact on the nature of vocational knowledge, this paper aims to discuss and illustrate the use of the Bernsteinian concept of a 'region' as a socio-epistemic entity (Bernstein 2000; Muller 2009) into which knowledge is recontextualised from disciplinary sources in accordance with the 'technological and organisational problems' of practice (Barnett 2006). In so doing, the paper also concentrates on an element of the 'work' of a region that could be considered particularly significant, that of the nature of the 'recontextualisation capability' that a given region accrues. While it is possible to conceive this capability at a variety of 'levels' or in relation to various activities (i.e. knowledge production, validation, curriculum, pedagogy, in workplaces, and by learners), issues of ascribing knowledge with validity and curriculum development are primarily foregrounded here. Recontextualisation capability is seen as multi-faceted, connected as much to the strength and quality of the relations between significant organisations and institutions as to attaining a sufficient consensus on what characterises apposite knowledge for practitioners of that vocation or profession.

To ground the discussion, illustrations of regions and aspects of their recontextualisation capability are provided from recent research into the development of higher apprenticeships in England from 2012-4 (Hordern 2015), with a particular focus on higher apprenticeships at levels 4 and 5 in Project Management, Human Resource Management, Construction and Engineering. The projects to develop new higher apprenticeships funded by the Coalition government in England provide interesting examples, particularly as they were often tasked with bringing together a diverse range of key stakeholders within their 'regions' to agree new apprenticeship frameworks containing knowledge and competence qualifications. Those involved in developing these apprenticeships, primarily professional associations or employer representative bodies, drew to differing extents on the involvement of educational institutions to provide the knowledge base of the apprenticeships. They engaged employers in decisions about the structure of the apprenticeship in contrasting ways, and were operating within different structures of progression and recruitment. The examples serve to illustrate how processes within regions can be differentiated. Furthermore, comparative research into skill formation systems is utilised to begin to explicate how differing national contexts and policy-driven change may (re) orientate regions and their capacity to recontextualise, and articulate with transnational conceptions of professionalism. This serves to introduce a macro-level framework to understanding the nature of differences between regions.

1.2 The 'Region' and the Constitution of Vocational Knowledge

The notion of the 'region' emerges from the work of the sociologist Basil Bernstein and his discussion of the nature of knowledge in higher education and its relation to the 'field of external practice'

(Bernstein 2000, p. 52). Bernstein described regions as 'the interface between discipline (singulars) and the technologies they make possible', providing examples from higher professional and vocational education such as 'engineering, medicine, architecture' and 'cognitive science, management, business studies, communications and media' (p. 52). The concept was further developed by Johan Muller, in a discussion of the development of professional and vocational knowledge and curricula, in which he suggests that the region is 'comprised of a cluster of disciplines now come together to focus on a supervening purpose' (Muller 2009, p. 213). Crucially important for understanding these conceptions of regions, it can be argued, is the notion of knowledge differentiation, as developed in Bernstein's (1999) distinction between vertical and horizontal discourses, with the 'vertical' representing conceptual disciplinary or specialised knowledge forms and the horizontal discourse the knowledge of the 'everyday', or that which is 'oral, local, context dependent' (p. 159). Arguably what is particularly distinctive about the 'vertical forms' is their systematic organisation (Winch 2010), and the strength of their boundaries, which gives rise to specific procedures, processes and identities (Bernstein 2000).

The distinction between vertical and horizontal discourse is particularly critical because it is said that it is only the vertical discourse which provides the 'rules' through which knowledge can be recontextualised for the purposes of practice (Bernstein 1999; Young 2006). This is because only vertical discourse provides a recognisable structure which provides each element of knowledge with a clear purpose and relation to other types of knowledge, a locus within a constellation of concepts, and a guideline for sequencing within the curriculum (Muller 2009; Young 2006). Vertical discourse can, importantly, be further differentiated between 'hierarchical' and 'horizontal' knowledge structures that represent different academic disciplines. Perhaps equally important for understanding the 'region' is to place some scrutiny on what Bernstein (2000, p. 33) outlined as the 'recontextualisation principle which selectively appropriates, relocates, refocuses and relates other discourses to constitute its own order', in order to better understand the processes by which knowledge is 'selected', 'appropriated' and 'transformed' for occupational imperatives (Barnett 2006; Hordern 2014 a). The region can thus be construed as a socio-epistemic entity, a space within which the knowledge base of a profession or vocation is assembled and struggled over by various actors and agencies, where forms of knowledge are treated with varying degrees of acknowledgement of their epistemic structure, and where recontextualisation is undertaken in its various forms.

Barnett (2006), writing within a Bernsteinian framework, has provided an outline of recontextualisation processes for vocational knowledge. Although his work does not specifically develop the connection with the notion of the 'region', what he outlines can be considered to be representative of key processes undertaken within a region. Barnett (2006) describes a process whereby 'disciplinary knowledge' is brought into relation with the 'organisational and technological problems' of practice, and then adapted and transformed through 'reclassificatory recontextualisation'
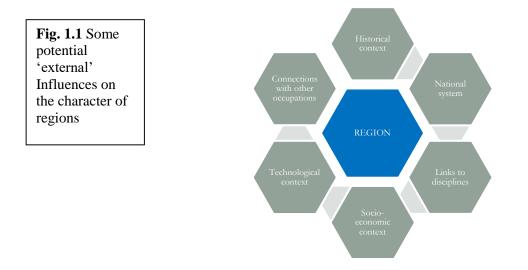
so that a 'toolbox of applicable knowledge' is developed which can then form the basis for a vocational curriculum (p. 146-147). This knowledge then undergoes a second transformation, a pedagogic recontextualisation as it is adapted within classrooms and workplaces within a vocational pedagogy (p. 147). Barnett's analysis draws attention to the potential for multiple processes of recontextualisation as knowledge is taken through curriculum, pedagogy, and workplaces, to eventually be made sense of by learners. Thus, as Guile (2010) outlines, and Evans et al. (2010) demonstrate, recontextualisation is multi-faceted and multidimensional. It also involves multiple actors and agencies, with differing combinations of actors and agencies coming together to influence and enact recontextualisation processes (Hordern 2014 a). While recontextualisation may have different character as the knowledge base is assembled, curriculum developed and pedagogy enacted, it is also possible for different internal relations within the region to have particular bearing on different elements of a recontextualisation process, in other words the 'selection', 'adaption' and 'transformation' of knowledge (Hordern 2014 a). The potential for the misreading of knowledge structure and 'errors of recontextualisation'(ibid., p. 35) occurring can, it could be argued, be exacerbated where different agencies with different objectives are involved in each element of a given recontextualisation process. This problematisation of the work of the region suggests the scrutiny of internal relations is fundamental to the understanding of vocational curriculum and vocational pedagogy, and particularly its knowledge content.

1.3 Internal and External Relations of Regions

Turning to illustrative examples, research into higher apprenticeships in England between 2012 and 2014 (Hordern 2015) demonstrates the contrasting internal relations that can be found in regions, and the consequences this can have for curriculum development. In the regions of human resource management (HRM) and project management, the development of higher apprenticeships was primarily led by professional associations, who engaged with multiple employers in an attempt to achieve consensus around the structure of the apprenticeship and the content of qualifications. The involvement of educational institutions was very limited, and the qualifications emerging from the process were strongly practice-orientated with minimal abstract and conceptual knowledge content with links to disciplinary origins. This perhaps reflects the nature of project management and HRM practice, with a strong focus on application and practice effectiveness. It may also reflect the cross-sectoral nature of these professionalising occupations, and their ongoing struggle to assert themselves in a corporate world where market competition allocates value and shapes professionalism. The development of a 'toolbox of applicable knowledge' (Barnett 2006, p. 147) requires strong validation from employers, but the necessity to engage employers across sectors makes establishing this validation problematic, often resulting in the professional association taking greater unilateral control

over establishing the knowledge base. Contrastingly, projects to develop higher apprenticeships in the engineering and construction areas were primarily led by networks of educational institutions, working in collaboration with employer representative bodies who, in turn, were involved in long established networks of employers. There is evidence of stronger and more stable internal relations in these regions, based upon the ongoing need for connections with a disciplinary knowledge base and patterns of practitioner formation that involve educational institutions and workplaces in partnership (Hordern 2015). The foundational elements of the 'toolbox of applicable knowledge' are more clearly and consensually defined where construction or engineering are concerned; a facet of the more hierarchical nature of the knowledge structures that underpin the knowledge base and provide clearer recontextualisation rules for curriculum design.

While 'internal' relations between agencies and institutions concerned with the occupation are important for understanding knowledge and curriculum in the region, it is also important to consider how the region has developed over time, how it relates to other regions and to underpinning disciplines, and how the occupation is affected by social, political and technological change. In other words, we need to consider the 'external' relations and socio-historical context of the region. It can be argued that how forms of knowledge have been valued within a region over time and the traditions that shape particular occupations have considerable influence over what is considered valid knowledge, curriculum and pedagogy for that occupation. Occupations always exist in relation to other occupations, and are often engaged in jurisdictional struggles for control over work (Abbott 1988), or engaged collaboratively on tasks that require multiple contributions. In the case of the higher apprenticeships discussed earlier, numerous construction related 'regions' such as those relating to Architecture, Building Surveying or Construction Management can be said to be strongly interconnected and affected by changes in each other's knowledge base and professional and vocational formation structures. Equally, these 'cognate' 'proximate' regions (Hordern 2014 b), members of the same industrial sector, draw on similar disciplinary knowledge structures from the mathematical and physical sciences, recontextualising these for the ongoing needs of the profession. Figure 1.1 below outlines some potential external influences on the character of regions.

Fig. 1.1 Some potential 'external' Influences on the character of regions

In the case of project management or human resource management, however, 'proximate' relations to other regions are less perceptible (Hordern 2014 b), as these emerging professions have less stability and cognancy in their relations with other occupations. Both could be said to have much in common with other 'corporate' professions (Muzio et al. 2011) in the valorising of 'professional service standards', 'capabilities' and 'industry experience' (p. 446) rather than a formal knowledge base, borne of a need to be responsive to changing market conditions. Project Management and HRM knowledge may well be valuable, but there is a greater risk that particular techniques and fads that have dubious value and utility become prominent in these types of regions. This is because such regions are more distant from the social conditions and 'arbitration' of knowledge value that define disciplinarity (Bernstein 2000; Muller 2009; Hamilton 2012).

1.4 Regions and the political economy of skill

At the 'macro' level, skill formation in professional and vocational occupations can be seen to be influenced by national context. It can be argued, for example, that the social, cultural and economic context of Anglosphere nations such as England or Australia has had considerable influence over the legal and institutional infrastructure underpinning professional and vocational formation. This has engendered a form of 'voluntarism' that limits the demand for certain skills and, arguably, reduces pressures to formally regulate occupations (Ashton et al. 2000). This can be contrasted with guarantors of occupational status that exist in many countries associated with a more 'corporatist' or 'social democratic' models in continental Europe, and also with 'state-driven' models where governments may have a greater role in stimulating demand for vocational skill and occupational development (Ashton et al. 2000).

Studies of built environment occupations provide useful illustrations of how this institutional infrastructure translates into occupational formation. Brockmann et al. (2010, p. 113-114) demonstrate

how apprenticeships for bricklayers in Germany, France and Scandinavia 'are comprehensive and represent wide-ranging occupational capacity' within the context of a 'regulated programme' that is a 'important precondition for labour market entry', while those in England are based on a 'narrow specialisation' and are 'dominated by high-levels of informal on-the-job learning', 'accreditation of existing skills' and 'narrow sets of activities …not linked to a curriculum' (p. 114). Essentially, in England, entry requirements for the occupation are much more flexible, anyone can start bricklaying work if they can demonstrate that they can perform a few key tasks to a prospective employer. In the same vein, there are no specific requirements for a particular licence to practice in England for occupations such as estate agency, surveying and construction management, even though in reality many practitioners in these fields are accredited by organisations like the Royal Institute of Chartered Surveyors (RICS). This contrasts with Germany or Switzerland, where formalised state and social partner involvement is underpinned by a legislative framework and licence to practice arrangements (Ashton et al. 2000). In nations where strong government-led strategies have been developed with the aim of re-orientating the economy towards higher skill levels, professional and vocational formation may be rapidly changing, and there may also be significant elements of 'borrowing' and recontextualising of vocational education training systems from other nations (Barabasch et al. 2009).

 But how does this relate to the notion of the region? While the political economy of skill formation in the nation state undeniably has considerable influence in shaping the socio-economic and policy context in which regions exist, this cannot be said to determine how regions operate. There are transnational notions of acceptable work practices and identities embedded in professional networks that transcend to some extent the vagaries of national context (Faulconbridge & Muzio 2012), and may therefore shape the nature of the regions of those occupations. Professional associations operating across national boundaries, in addition to transnational partnerships between employers and educational institutions, could therefore play a key role in creating isomorphism in regions in differing countries. Thus, for example, standards of engineering or construction practice, regulated by national and international professional and trade associations but shaped also by the changing context of engineering and construction work, may be adapted in-step with each other across national boundaries irrespective of the political economy of an individual nation state.

1.5. Recontextualisation Capability: Conditions and Conundrums

The nature of recontextualisation in operation within a region is, taking account of the discussion above, fundamental for understanding the character of vocational knowledge. Recontextualisation, or the selection, appropriation and transformation of knowledge, can be explored socially and epistemically. Crucially, from the perspective outlined in this paper, knowledge must be seen as

'differentiated' (Young 2006; Muller 2009), with particular types of knowledge belonging to specific knowledge structures that have particular characteristics. Thus the 'hierarchical' knowledge structure of physics, where the knowledge base develops through an integration of propositions into ever greater abstraction that is governed by the existing disciplinary structure and processes (Muller 2009), implies recontextualisation rules that have implications for how knowledge is transformed for its use in technical professions such as engineering. In other words, in terms of curriculum, the structure of physics guides the structuring of fundamental elements of engineering knowledge in the curriculum. The existence of particular forms of epistemic structure, but yet the reliance on actors and agents to select, appropriate and transform knowledge for a vocational knowledge base and curriculum, suggests the possibility of 'errors of recontextualisation' (Hordern 2014a, p. 35). These can come about when those actors and agents involved in the region fail to recognise the particular nature of a particular concept, how it is both located in a web of concepts relating to that occupation, and the nature of is relevance to the vocational practice (Muller 2009; Hordern 2014a). The potential for errors also suggests that recontexualisation can be qualitatively evaluated, in respect both of technical and scientific occupations, and also in terms of those occupations that make use of a knowledge base derived partially from the social sciences.

It can be argued that a particular prevalent type of error can be found in the recontextualisation of professional knowledge where links exist with disciplines that Bernstein (1999) termed 'horizontal knowledge structures' within vertical discourse. These knowledge structures consist of 'specialised languages and specialised modes of interrogation' (1999, p. 162) that offer differing ways of interpreting the world within certain boundaries, and thus are distinct from more 'hierarchical' structures such as those of the physical sciences which are characterised by 'integrating propositions' (p. 162) and a unified language. A typical horizontal knowledge structure might be that of sociology, where multiple theoretical perspectives or traditions exist to explain social phenomena, each forming a 'language' used by a group of adherents. A competent sociologist, while perhaps ascribing to a particular theoretical language, will be familiar at least with the existence and fundamental tenets of other prominent 'languages' within the discipline. She will not make the mistake of assuming that her 'language' is the only provider of 'answers' to the 'problems' posed by the discipline. Aspects of sociology are selected, appropriated and transformed by those involved in constituting a knowledge base for the 'regions' of many managerial, administrative and welfare occupations, including human resource management, teaching and social work. The recontextualisation of this knowledge is undertaken with the purposes of practice, however defined, in mind, and as this occurs a space is opened up 'in which ideology can play' (Bernstein 2000, p. 32). The potential for 'selectivity' may mean that certain languages from the contributing discipline (i.e. Sociology) are preferred by dominant actors within the region, perhaps for ideological reasons or to give authority to their claims for the professional knowledge base.

So, for example, those recontextualising knowledge for the HRM or general management curriculum may prefer to accentuate functionalist models of social organisation, or behaviourist psychological models, or 'borrow' certain sociological theories for application to management problems without reference to their disciplinary origins or original purpose (Oswick et al. 2011). The HRM higher apprenticeship discussed earlier includes some content that draws on theoretical constructs, but accentuates that which demonstrates the impact HRM can make in business contexts (Hordern 2015). Time constraints within the qualification structures in the apprenticeship mean that only a limited quantity of content can be selected, and inevitably there is pressure to make this as obviously relevant to practice as possible. The important wider point is that the recontextualisation process re-shapes and transforms the original disciplinary knowledge, and inherent in this is the risk that the nature of the knowledge structure is occluded. What is but one of a number of languages may attain a degree of prominence in the knowledge base of the 'region' of the occupation that is not representative of its locus within its original disciplinary context.

In a similar vein to the examples above, the selectivity inherent in a recontextualisation process leaves the potential for concepts with origins in contributory disciplines to be included within a professional or vocational curriculum without the opportunity for these concepts to be fully located within a wider spectrum of concepts. This points towards the importance of a set of key concepts underpinning vocational practice to be developed that can be located clearly in relation to each other and any contributory disciplinary concepts. It can be argued that this cannot be achieved without clarity over the 'organisational and technological problems' of practice (Barnett 2006). However, the social processes of defining the 'problems' of practice may be influenced by various imbalances in the internal relations within the region, with governments, dominant agencies, employers or educational institutions having particular bearing on how problems are conceived, with the result that recontextualisation proceeds in accordance with their perspective on those problems. Equally, 'problems' may be changing rapidly through organisational and technological change. Recontextualisation arguably needs to keep pace with these changes and to register the extent to which the changes have significance for the knowledge base and what constitutes the vocational curriculum. Such a challenge necessitates the ongoing gathering of intelligence about the nature of practice, and the use of this information for problem definition. In professions and vocations where practice is diverse or reaches across many types of organisation and sector, the gathering of useful intelligence and the definition of key problems may be highly problematic.

Winch's (2010) discussion of the importance of a 'normative basis' to vocational knowledge provides some insight into the nature of recontextualisation capability. Winch writes that 'mastery' of a vocational practice is demonstrated through 'facility with the normative structure that constitutes it' (p. 80), or in other words 'understanding what it is to participate in the typical normative activities' (p. 80) that constitute a practice. Thus, key activities such as 'habituation, training, instruction,

correction, explanation, interpretation and justification' (p. 80) are 'norm-governed (p. 87)', and participation within these activities, and awareness of the 'norms' that govern them, in addition to the 'purposes' of the occupational practice and the 'constraints' within which that practice is bounded, are essential for the development of 'know-how' appropriate to that occupation. It is only if these normative activities are purposeful and well-defined, and made available to new and existing practitioners through curriculum, pedagogy and workplace activity, that vocational practice can be sustained. Arguably, following Young and Muller (2014), these normative activities should support the differentiation and iteration of conceptual resources that practitioners can make use of as they manage, and act within, the contexts of their work. For the analysis of recontextualisation capability this has particular significance, as one can ask to what extent a 'region' conserves and sustains the 'normative activities' that constitute the occupation, the extent to which these normative activities enable the differentiation of useful knowledge for practice, and whether therefore actors within the region are able to select, appropriate and transform knowledge for practice purposes. Without a clear sense of the norms that relate to the occupation, and how practitioners can engage with the knowledge base and its ongoing pedagogisation, then it is difficult to see how recontextualisation can operate.

1.6. Evaluating Recontextualisation Capability

The potential for 'qualitative evaluation' of recontextualisation indicated by the differentiated structure of knowledge and the different ways in which is can be selected, appropriated and transformed suggests that the recontextualisation 'capability' of a given region can be evaluated. The capability of each region can be assessed in terms of (at least) the following categories:

(i)   Capacity of actors and agencies to recognise the structure of knowledge recontextualised to the region

(ii)   Whether actors and agencies are able to develop the forms of 'sociality' and procedural 'know-how' within the region that can successfully iterate, revise and agree the knowledge base in accordance with notions of knowledge fallibility and emergence (Young & Muller 2013, 2014), so that a normative basis for vocational practice (Winch 2010) is sustained

(iii)   Capacity of actors and agencies to 'inferentially' relate concepts developed specific for vocational practice to each other and to any contributory disciplinary concepts

(iv)   Capacity of actors and agencies to define the problems of practice in ways that can identify and produce requisite knowledge that can provide insight into or 'solve' those problems

(v)   capacity of actors and agencies to comprehend and gather 'intelligence' on the varied contexts of practice

It can be suggested also that recontextualisation 'capability' benefits from the opportunity for actors and agencies within the region to develop strong and mutually beneficial internal relations, perhaps without having to endure constant policy-related change in the environment affecting the region. There is evidence from England of some of the difficulties for vocational education of constant political attention and interference, and systemic fragmentation (Coffield 2007). It has proved very difficult in England to develop and sustain school and college based vocational pathways for 14-19 year olds for example (Issacs 2013), and promising initiatives have often been undermined by changes in government or political imperatives (Coffield 2007). Where certain objectives are 'set' for vocational education by politicians as part of a belief in the need of 'supply side' reform of skills provision, then interference may be ongoing, and endless 'tinkering' with the infrastructure in the vain hope that the next reform will provide the answer to perceived problems (Keep 2006). Of course, the role of the state can also be benign, although this can perhaps be better perceived as a consequence of close collaboration and agreed division of competences between employers, educational institutions, professional associations and government, sometimes also enshrined in legislation. It could be argued, therefore, that the depoliticisation of vocational education, or at least a clear and consistent role for government, may help foster forms of recontextualisation that better support the development of vocational curriculum, pedagogy and practice.

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