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Basil Bernstein

Code Theory and Beyond



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Basil Bernstein

Code Theory and Beyond

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*Dedicated with love to my wife Claire and
our daughter Lily*

Preface

You want an open concept? I'll give you open concepts. (The Tragically Hip, 2002)¹

Why, in an era where calls for representation and decolonization have rightly become more widespread, should you read about a proverbial “dead white guy?” And why take it from me, a middle-class white guy from the Global North, that you should do so? My hope is that the material put forth in this book does something to answer these essential questions. In short, however, it is worth engaging with Basil Bernstein’s sociology of education because it carries with it possibilities for grappling productively with some of education’s thorniest and most-enduring problems, including those having to do with equity and social justice.

Bernstein was a white, working-class, Jewish man who, over the course of a career that spanned nearly half a century, became Professor of Sociology of Education at the University of London’s Institute of Education. Like any ideas, Bernstein’s were doubtlessly shaped by the social and historical contexts of their production. He recognized this himself.² But their usefulness cannot be completely reduced to these contexts. Indeed, many concepts introduced by Bernstein continue to be employed and developed by scholars from a vast range of backgrounds and perspectives. They are restricted neither to method nor ideology. They can be applied to analyses of education across contexts, from the international to the local; across levels, from the macro to the micro; and to various points of focus, including curriculum, pedagogy,

¹ “All Tore Up” (Fay, Johnny/Downie, Gordon/Baker, Robert/Sinclair, Robert Gordon/Langlois, Joseph Paul) Copyright © 2002 Little Smoke Music c/o Southern Music Pub. Co. Canada Ltd. All Rights Reserved. Used by Permission.

² For example, Bernstein noted that: “Sociologists are creatures of their time, and the range of approaches to their subject is in part a realization of the political context and the sociologist’s relation to it” (1977, p. 149). For an account of the influence of Jewish religious and cultural traditions on Bernstein’s work (as well as on the work of Lev Vygotsky, which itself informed Bernstein’s in various ways), see *Vygotsky and Bernstein in the light of Jewish tradition* (Castelnuovo & Kotok-Friedgut, 2015).

and assessment. They have proven to be exceptionally and, as this book will argue, rather uniquely generative.

Bernstein's concepts and many of those inspired by them are very often "open;" they aim at theorizing organizing principles of practices that, when actualized, can be captured empirically in any number of "conceptually specifiable" (Moore, 2004, p. 135) manifestations, including the previously "unthinkable and the not yet thought" (Bernstein, 2000, p. 31). These practices are contingent upon social, historical, and political conditions—relations of power and control, as Bernstein would have it—but they are not fully determined by them. Others can be imagined, developed, and implemented in efforts toward social and educational equity. Bernstein's ideas can be used not only to explain how social inequalities are reproduced through schooling but also to think about what sort of interventions might work in *challenging* these processes as well as those that, sometimes counterintuitively, might not. It is for these reasons that Bernstein should be considered a theorist "not of deficit but of *enhancement*, not of reproduction but of *interruption* and of the possibilities for and structuring of *change*" (Barrett & Moore, 2015, p. 58, emphasis in original). And it is for these reasons that I argue in what is to follow that his work is as vital, relevant, and necessary today as it ever has been.

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Acknowledgements

This book was originally meant to be a collaboration between the late Rob Moore, a student and contemporary of Basil Bernstein, and Karl Maton, the founder of Legitimation Code Theory (LCT) and, like me, a student and contemporary of Moore. Following Rob's untimely death, Karl graciously asked if I would be willing to partner with him to see the project through. Karl soon became increasingly involved with the establishment of the LCT Centre at the University of Sydney and the prolific scholarship that has followed. He eventually suggested that I complete the project on my own, demonstrating a faith in my capacity that I am not sure I shared at the time or possess even now. Thank you, Karl. I hope that my efforts in this book go at least some way in honoring that faith as well as the memories of Basil Bernstein and Rob Moore, the two people most responsible for inspiring it. Any errors or shortcomings are, of course, my own.

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Abbreviations

C	Classification
ER	Epistemic relations
F	Framing
LCT	Legitimation Code Theory
NSOE	New sociology of education
ORF	Official recontextualizing field
PRF	Pedagogic recontextualizing field
PA	Positional autonomy
RA	Relational autonomy
SD	Semantic density
SG	Semantic gravity
SR	Social relations
SRU	Sociological Research Unit
ESSA	Sociological Studies of the Classroom Project
SFL	Systemic functional linguistics
VET	Vocational education and training

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Chapter 1

Introducing Basil Bernstein



Education can have a crucial role in creating tomorrow's optimism in the context of today's pessimism. But if it is to do this then we must have an analysis of the social biases in education. These biases lie deep within the very structure of the educational system's processes of transmission and acquisition and their social assumptions. (Bernstein, 2000, p. xix)¹

Basil Bernstein (1924–2000) is perhaps the most underrated sociologist of the past century. Over the course of nearly fifty years, he developed a sophisticated sociological approach that reached from the macro level of social structures and symbolic systems through the meso level of institutions and to the micro level of identity and consciousness. This ambitious framework was not an abstract conceit. It has offered the basis for a formidable body of empirical research and established firm foundations for continued development by others. As Rob Moore, a former student and sociological contemporary of Bernstein, has proclaimed: “he was a thinker of immense originality and creativity. He should stand as one of the most inventive modern thinkers in the social sciences and as amongst the most inventive in British sociology” (Moore, 2013, p. 1).

However, some of Bernstein's early ideas became the subject of heated and confused controversy that has for too long overshadowed this achievement. During the late 1960s and early 1970s, widespread misunderstanding of his work in the sociology of language saw Bernstein labeled by some influential critics as a deficit theorist who denigrated the working class. Even a cursory review of Bernstein's work suggests that nothing could be further from the truth. Nonetheless, this false depiction has never been entirely exorcized.

Further complicating his legacy, Bernstein did not easily conform to the categories into which sociologists are routinely assigned. He was a British theorist at a time when sociology in Britain was dominated by a tradition of empiricism and theories were typically imported from overseas, especially France; his concepts were often capable of being enacted in empirical studies, bridging the divide between theory and

¹ *Pedagogy, symbolic control and identity: Theory, research, critique*, Basil Bernstein. Copyright © Basil Bernstein 1996, 2000. Reproduced with permission of Rowman and Littlefield Publishing Group Inc through PLSclear.

data characteristic of much sociological research on education; and, in contrast to the regular shifting of fads and fashions that has long typified the field, he consistently extended and enhanced his core framework over many decades. As the renowned anthropologist Mary Douglas once put it: “Neither fish, flesh nor fowl—some tribes reject and fear anomalous beasts, some revere them. In sociology Professor Bernstein is to some a fearsome scaly monster, cutting across all the tidy categories” (1975, p. 174). Whether because of the misrepresentation of Bernstein as a deficit theorist or the way he resisted easy categorization, much of the theoretical framework he developed has remained underappreciated despite its originality, analytical power, and potential to help address some of education’s most deeply entrenched problems.

Promisingly, however, there are signs of a growing interest in engaging with Bernstein’s theory afresh, without the mistaken baggage of the past. Bernstein published his key ideas in five volumes entitled *Class, codes and control*.² Volumes 1 (1971), 3 (1975, 1977), 4 (1990), and 5 (1996, 2000) comprise collections of solo-authored papers; volume 2 (1973) is an edited collection of empirical studies using Bernstein’s concepts.³ A secondary literature of commentary on and studies using Bernstein’s ideas has grown steadily. Bernstein’s enduring significance has also been recognized in major accounts of his work and collections of papers arising from conferences on his theory.⁴ Further, his work has proven productive in its capacity to be engaged with and built upon from numerous intellectual directions. For example, since at least the early 1970s, a significant body of research has brought Bernstein’s theorizing together with systemic functional linguistics (e.g. Hasan, 2009; Christie & Martin, 2007). From the late 1990s, sociological scholars have drawn upon Bernstein’s ideas to articulate an approach to analyzing education that became known as social realism (e.g. Maton & Moore, 2010; Barrett & Rata, 2014; Barrett et al., 2017; Hoadley et al., 2019; Hordern et al., 2021). Bernstein’s framework has relatedly served as a central inspiration for Legitimation Code Theory (e.g. Maton, 2014; Maton et al., 2016). Bernstein’s theorizing has also been brought into dialogue with intellectual traditions including feminism (e.g. Arnot, 2002; Singh et al., 2018), activity theory (e.g. Daniels & Tse, 2020; Daniels, 2004), post-structuralism (e.g. Dowling, 1998), and many others.

Such widespread engagement with Bernstein’s ideas is testament to their ongoing relevance and demonstrates how the framework he left offers powerful possibilities for further development. Bernstein’s theory will thus continue to be enacted and enhanced to analyze and address his central problematic: social inequality and the potential of education to disrupt its reproduction. This book offers a brief introduction to his theoretical framework. It focuses most extensively on Bernstein’s code theory, his account of the construction of pedagogic discourse, and on different trajectories

² The fifth is actually titled *Pedagogy, symbolic control and identity* but is referred to as “volume 5” by Bernstein in his preface to the revised edition (2000).

³ The second editions of volumes 3 (1977) and 5 (2000) include additional or changed chapters.

⁴ A selection of major accounts includes Atkinson (1985), Sadovnik (1995), and Moore (2013). Conference volumes include, among others, Morais et al. (2001), Muller et al. (2004), Moore et al. (2006), Frandji and Vitale (2011), Ivinson et al. (2011), Singh et al. (2010), and Vitale and Exley (2015). Chapter 8 of this book offers a more extensive guide to further reading.

of research—most particularly social realism and Legitimation Code Theory—that have endeavored to extend his project. It does not provide a comprehensive account of the project or of the varied research by numerous scholars across the world who have used it; no brief introduction can fully embrace such a range of concepts and studies. Rather, the book is intended for a broad audience and aims especially to entice those new to Bernstein's uniquely powerful ideas to delve deeper as they develop their own questions, understandings, and conclusions. It is a starting point, a first step and, above all, an invitation to engage further.

Bernstein evokes strong emotions. Alongside venomous hostility from critics, his work has often engendered fierce loyalty among his advocates. Both can prove inimical to understanding Bernstein. Unstinting hostility fails to present a rounded picture of his ideas. Unqualified loyalty prevents that fairer account from appearing. While this book is premised on a deep appreciation of Bernstein's work, it is not intended to be uncritical; yet critical engagement with his theory should not be read as a dismissal of it. A key motif of Bernstein's was that scholars should aim not merely to criticize but also to create better ideas that move understandings forward, a process of knowledge-building that is never finished. However, as Bernstein (2000) has noted, a work-in-progress is rarely discussed as such in the sociology of education. More often, published work is treated as if proclaiming itself the last word on its subject and then dismissed for failing to embrace everything with definitive finality. This all-or-nothing response can hinder possibilities for continued theoretical advancement. In contrast, Bernstein's work was always undergoing revision and was not intended to end with his death in 2000. This book endeavors accordingly to identify some areas of his theorizing that have required amendments or that await development.

1.1 Bernstein's Project: A Brief Overview

1.1.1 *Language and Education*

Educational inequality represented the heart of Basil Bernstein's problematic. The issue first struck him as a teacher in London's East End during the 1950s. In taking initial steps towards understanding this problem, Bernstein developed his "sociolinguistic thesis" (1971, p. 239). Put simply, he proposed that people develop different orientations to meaning and communication—those underpinned by what he termed "restricted codes" and those based on what he termed "elaborated codes"—by virtue of differences associated with their social upbringings. As a central component of his theory, codes for Bernstein exist below the empirical surface; they point to the organizing principles of enacted social phenomena such as speech.

Different codes are elicited by different forms of social structure and organization. With regard to communication, restricted codes assume shared understandings and experiences; the meanings they convey tend to be more implicit and context dependent. Elaborated codes, on the other hand, do not assume shared experiences

or identities and therefore convey meanings that need to be unpacked rather than taken for granted. Bernstein suggested that, as a result of their basis in common understandings and shared experiences, everyone is likely to develop some familiarity and dexterity with restricted codes through close relationships in the family, community, and elsewhere. However, he added that “*One of the effects of the class system is to limit access to elaborated codes*” (1971, p. 176, emphasis in original).

Bernstein posited that middle-class children were more likely than those from the working class to develop a familiarity with elaborated codes because the occupations held by their parents (especially those of the new middle class)⁵ often involve greater variety, offer more opportunities for participation in decision-making, and require considerable linguistic dexterity. According to Bernstein, these qualities translate to family relationships involving frequent discussion and negotiation so that meanings, rules, and decisions tend to be explained and unpacked. Crucially, Bernstein argued that elaborated codes are valued by formal education and serve as the basis for academic success. Differences in students’ familiarity with elaborated codes, he explained, can be exacerbated by the way teachers often fail to provide explicit access to them. Therefore, Bernstein attempted to explain unequal achievement among students from different social backgrounds in terms of the orientations to meaning they derive from their upbringings and how these orientations to meaning relate to those rewarded in schools.

Though Bernstein clearly and repeatedly emphasized that it is the education system (rather than his personal opinion) that values elaborated codes and devalues restricted codes, some critics wrongly labeled his approach a deficit theory that viewed working-class families as lacking something of inherent value. The resulting controversy not only overshadowed the extensive work he went on to produce but, by virtue of its occurrence at the high-water mark of Bernstein’s public renown, it also resulted in his approach becoming viewed as “sociolinguistics” long after he had left the analysis of language behind. The portrait of Bernstein’s theory found in textbooks and commentaries has thus at times remained inaccurate and stuck at an early point in its history.

This is not to say that Bernstein was uninterested in language: both the first and second volumes of *Class, codes and control* include “sociology of language” in their subtitles. However, his foremost concern was sociology and his principal interest had to do with *sociological* questions about relations between social structures (such as family and the division of labor), symbolic systems (such as language and curriculum), and the formation of consciousness and identity. Bernstein sought to understand how power and control could be relayed through forms of communication and the ways in which they are (or are not) deemed legitimate by institutions such as schools. His overarching concern was less with language in itself than with

⁵ These occupations are most often located in the field of symbolic control—education, media, culture, and so on—and involve the manipulation of symbolic resources rather than the more direct, managerial relationship to economic production characteristic of the “old” middle class (Moore, 2013). The attention Bernstein paid to relations, reproduction, and change *within* the middle class (rather than *between* the middle and working classes), for example, was rather unique within the sociology of education of his time (Power, 2006).

its role as a symbolic system in the reproduction and change of social inequalities, a complex process involving numerous factors. The problem of social inequality remained central when Bernstein shifted his focus during the early 1970s to the analysis of practices within an institution central to that complex process: education.

Bernstein argued that the curricula, pedagogies, and assessments used in classrooms are not neutral media for relaying knowledge but rather serve as “message systems” (1977, p. 85) that convey far more than content. For Bernstein, the *structures* of curriculum, pedagogy, and assessment each offer lessons in themselves: they shape the ways in which students come to see and act in the world. As Mary Douglas has written, for example:

Basil Bernstein says of the curriculum that it is a scheme for fitting together bits of knowledge. As they are connected in the curriculum so they enter the minds of the pupils, and, though the details of the content will fade, the connections are likely to guide their judgements and perpetuate the system of power which the curriculum represents. (1970, p. x)

In other words, the forms taken by how educational knowledge is “fit together”—how it is taught and how it is assessed—embody different ways of seeing, thinking, and being. Relations of power and control in society are deeply embedded within classroom practices.

Bernstein developed his key concepts of classification and framing to explore the forms taken by curriculum, pedagogy, and assessment. Though focused on educational practices, these concepts remain concerned with exploring how inequalities at the level of social structures are reproduced, interrupted, and changed through people's practices and dispositions. Despite a shift in focus towards education, Bernstein's project therefore retained an ongoing concern with the nature of society as a whole.

1.1.2 Theoretical Inspirations

Bernstein was open-minded in developing his theory. He drew regularly from Marxist, Weberian, symbolic interactionist, and other sociological traditions as well as on work in anthropology, linguistics, psychology, and more. He was wary of a tendency in intellectual fields towards the policing of theoretical purism: “epistemological botany” (2000, p. 192) whereby scholarly work is labeled (functionalist or critical, for example) as if that is sufficient to evaluate (and often dismiss) its contribution to the field. Instead, Bernstein repeatedly emphasized that research should be driven by “less an allegiance to an approach, and more a dedication to a problem” (1977, p. 171). Recognizing that reality is complex and that no single theory can adequately capture everything, he promoted the mobilization of a pragmatic range of theoretical resources to confront deep problems such as social inequality (Moore, 2013). Bernstein read the work of others for how it could help address his problems rather than engaging in the sort of epistemological botany he came to critique.

Nonetheless, there was always a guiding light that was most fundamental in inspiring Bernstein's project: the French sociologist Émile Durkheim. From early on, Bernstein credited Durkheim with offering "a truly magnificent insight into the relationships between symbolic orders, social relationships and the structuring of experience" (1971, p. 171). He stated that: "I have yet to find *any* social theorist whose ideas are such a source (at least to me) of understanding of what the term *social* entails" (1977, p. 17, emphasis in original). Like Durkheim, Bernstein asked "How does the 'outer' become 'inner?'" How does the social come to shape people's thoughts and practices and how do they in turn come to shape society? Both hypothesized that education plays a crucial role here. Durkheim and Bernstein were each concerned with social changes related to an ever more complex division of labor within a diversifying and increasingly individuated society that they saw as being paralleled by changes (to curriculum, pedagogy, and so on) in schools (Atkinson, 1985).

Bernstein understood that Durkheim placed the possibility of change at the center of his analysis. Building on Durkheim's distinction between the sacred and profane, Bernstein argued that this potential for change can spring from the unique forms of knowledge (the sacred) that can support students in transcending their immediate contexts (the profane)⁶ and to which schools provide unequal access. Like Bernstein, however, Durkheim has long been subject to widespread misrepresentation. He has commonly been constructed within the sociology of education as "that which 'we' are not—Durkheim as the arch positivist 'other'" (Moore, 2013, p. 11). This characterization has flowed from the portrayal—popularized in the 1950s, especially in the USA—of Durkheim as a structural functionalist. This "Durkheim," widely taught in textbooks, ignores most of his work. In contrast, Bernstein came to Durkheim not through structural functionalist sociology but rather via the British school of social anthropology. As Moore has explained: "Bernstein followed Durkheim in approaching education systems in modern societies as equivalent to religious systems in premodern societies, in that both are the primary sites of symbolic production and control and also as potential sites of change—of thinking the 'unthinkable'" (2013, p. 13). As a result, Bernstein's understanding of Durkheim was different from that commonly promulgated within the sociology of education even today.

1.1.3 *A Unique Focus*

Though he shared with his critical contemporaries in the sociology of education a deep commitment towards explaining and working to ameliorate educational inequality, Bernstein was ultimately skeptical of the potential that their methods offered for fully addressing the problem. This is because, according to Bernstein,

⁶ This is not to infer that these students should be expected to *renounce* their immediate contexts or that these contexts cannot be usefully drawn upon in the processes of teaching and learning (see Chap. 2).

they tended to focus exclusively on what he termed “relations to” education. These “relations to”—such as relations *of* social class, race, gender, and so on *to* curriculum, pedagogy, and so on—were not dismissed by Bernstein. They represent an essential focus for the field. However, he argued that, when they are all that is analyzed, the accounts they generate tend to construct education solely as a “relay for power relations external to itself; a relay whose form has no consequences for what it relayed” (Bernstein, 1990, p. 166). That is, they take for granted that education is a medium through which social inequalities are reproduced but they are unable to address the features internal to educational practice that make it “work” in this way. It is as if the forms taken by educational practices themselves are irrelevant. For Bernstein, critical analyses of “relations to” education must also account for “relations within” education to make visible the “intrinsic features constituting and distinguishing the specialized form of communication realized by the pedagogic discourse of education” (1990, p. 157).

Bernstein explored these intrinsic features of education through a novel set of ideas centered on his conceptualization of the pedagogic device. Among the insights this concept offers is its capacity to reveal and clarify the complex set of activities that constitute education. For example, Bernstein distinguished three fields responsible for: producing new knowledge through research; selecting and re-arranging that knowledge to become a curriculum; and selecting and transforming that curricular knowledge for pedagogical practices in classrooms. Each field, he argued, has its own ways of working and must be explored in itself. The production of knowledge in intellectual fields is very different from the creation of a curriculum ostensibly representative of that field. In turn, a curriculum is not the same as the teaching and learning practices meant to be based on it. Here Bernstein explored the heart of what is “educational” about educational knowledge: it is knowledge that has been de-located from the site of its production as specialist knowledge and transformed for teaching and learning as a subject in schools. Importantly, he argued that this process always involves social struggle as whoever controls the pedagogic device controls the means for transforming educational knowledge in ways that can favor their own dispositions.

Exploring the process whereby new knowledge (such as fresh discoveries in science or new interpretations in history) comes to be transformed into curriculum and instruction led Bernstein to focus on the nature of that new knowledge by circling back to an earlier concern and recasting the issue with new ideas. One of his final major intellectual contributions involved the exploration of different intellectual fields and, specifically, their knowledge structures. In the early 1970s Bernstein characterized the sociology of education as being represented by a series of incommensurable paradigms that prevented dialogue and cumulative development. This was echoed over twenty years later in a distinction he drew between horizontal knowledge structures, which develop through the addition of segmented approaches within a field of inquiry, and hierarchical knowledge structures that develop through integrating knowledge into more general and abstract theories to explain an expanding range of empirical phenomena (Bernstein, 2000). This suggestive conceptualization made visible features of intellectual fields, particularly the different ways they develop over

time, which the sociology of education had to that point largely ignored. It revealed the effects of different kinds of research practices and offered a model of how to build a more holistic and cumulative understanding of education and society.

1.1.4 Looking Forward

Bernstein's ideas have proven fertile for sustained engagement and further development. His legacy is not simply an account of education, society, and language, nor merely a set of concepts. He also offered a way of seeing, thinking, and working that emphasizes problems over approaches, deep explanations over shallow descriptions, a relational mode of theorizing that foregrounds the significance of the organizing principles that underlie appearances and empirical manifestations, and the aim of cumulative knowledge-building rather than the trench warfare that can hinder advancement in the sociology of education. As Mary Douglas wrote of Bernstein: "the power and originality of his thinking should have made a much bigger impact. He was firing the first shots in a revolution in the social sciences" (quoted in Maton, 2014, p. 148).

Further shots have been fired in seeking to increase that impact. A vast range of efforts have aimed to both employ and expand upon Bernstein's concepts. For example, scholars in what has become known as social realism have engaged critically and productively with Bernstein's ideas, especially his later conceptualization of knowledge structures. This work has aimed to position knowledge as central to understanding education and thereby to emphasize and illustrate the significance of exploring "relations within" it. Legitimation Code Theory has worked in part to extend key aspects of Bernstein's framework by enabling research to explain more empirical phenomena within a more economical and cohesive model resembling the kind of knowledge structure that Bernstein viewed as a basis of cumulative knowledge-building. Bernstein's legacy continues to bear fruit.

A central argument of this book is that Bernstein's theorizing offers for the sociology of education a uniquely penetrating and epistemologically powerful framework for analyzing inequality, its reproduction, and the potential for its disruption. It stands in key respects as a running critique of other approaches, including the "new sociology of education" as well as various forms of critical theorizing that have followed it (Moore, 2013). However, Bernstein stressed that his critiques "should not be read as acts of dismissal" (1990, p. 168), especially of the field's aims for equity and social justice. He shared those aims. As the epigraph opening this chapter highlights, he was concerned with how education can create "tomorrow's optimism in the context of today's pessimism" (2000, p. xix). His framework demonstrated how this in turn requires understanding that the "social biases" in education "lie deep within the very structure" of educational practices (2000, p. xix)—they are embedded in "relations within" education that concepts such as educational knowledge codes, the pedagogic device, and knowledge structures work to reveal. Thus, in highlighting that the limitations inherent in the forms of theorizing dominant in the sociology of education have

compromised its ability to effectively address its concerns with inequality, Bernstein endeavored to extend their conceptual and explanatory power and therefore strengthen their ability to achieve their objectives (Barrett & Moore, 2015). This is a key reason for continuing to engage with Bernstein's theory today.

1.2 Contents of This Book

Bernstein's early work in the sociology of language is introduced in Chap. 2. It was in exploring language that Bernstein first began grappling with the wider issues that became his enduring focus, particularly the question of how different social groups achieve different degrees of access to opportunities, knowledge, and symbolic power. As mentioned earlier, the misrepresentation of this work largely overshadowed the subsequent development of Bernstein's theory. His general approach, as well as specific concepts (especially restricted and elaborated codes) from his nascent sociology of language nonetheless served to underpin the framework he developed over the decades that followed. Thus, grasping Bernstein's sociology of language is a valuable avenue into appreciating his way of thinking as a whole.

Chapter 3 follows Bernstein's shift in focus from language towards educational practices, one that involved the development of two more of his most influential concepts: classification and framing. These concepts represented a significant step forward for educational research. They have provided a means of analyzing different forms of curriculum, pedagogy, and assessment in terms of the principles—the codes—underlying their empirical manifestations.

Chapter 4 is focused on Bernstein's concept of the pedagogic device, which he developed in exploring how knowledge changes through the social struggles and processes working to "pedagogize" it for teaching and learning. Bernstein's model of the "arena" of education addresses how knowledge is selected from intellectual fields of production and recontextualized to become a curriculum that is then reconfigured again within classroom practice: the construction of pedagogic discourse.

Chapter 5 outlines Bernstein's late career theorization of the intellectual fields that produce the knowledge that is "pedagogized" through the operation of the pedagogic device. Here, Bernstein provided what have proven to be highly suggestive models of the different knowledge structures characterizing different intellectual fields and helped refocus the issue of knowledge for the sociology of education.

Chapters 6 and 7 address some significant ways in which Bernstein's ideas have been appropriated and advanced by others. Chapter 6 discusses how they prompted a loose coalition of scholars to work towards recovering knowledge and its implications for teaching, learning, and equity as an object of study in the sociology of education. The perspectives and assumptions guiding this work have come to be known as social realism. Chapter 7 discusses Legitimation Code Theory, a framework for analyzing and changing educational practice that has built on a number of key aspects of Bernstein's theorizing.

Social realism and Legitimation Code Theory are far from the only efforts to engage with and extend Bernstein's project in novel and impactful ways. As such, Chap. 8 concludes the book by providing a guide for readers wishing to further explore the work of Basil Bernstein. This includes an annotated list of key works by Bernstein, commentaries and research by scholars using his concepts, and key texts aimed at extending the framework in new directions.

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Chapter 2

Establishing Code Theory: Towards a Sociology of Language



Between language and speech is social structure. (Bernstein, 1990, p. 95)¹

Basil Bernstein's concern with the basis of educational inequality developed initially from his observations as a school teacher. He noticed that the performance of his working-class students matched that of their middle-class peers on non-verbal tests but was significantly lower on tests of verbal proficiency. Bernstein explicitly rejected the deficit perspective that would locate these differing levels of performance within some essential characteristic of working-class students and families. Instead, he explored the relations between each group of students and the forms of communication rewarded in schools. As Bernstein later recounted:

Between 1954 and 1960 I was teaching in a school in the East End of London and I was aware of the discrepancy between the forms of communicative practice required by the school and the form of communication which the pupils spontaneously moved towards. It was clear that these were oppositional forms. I saw the issue as requiring an explanation of the principles which generated these opposing forms of communication and their social basis. For at that time in the 1950s their basis was seen to lie in an inherited, unchanging attribute, "IQ." My first studies attempted to show that "IQ" was not responsible for these forms of communication. (1990, p. 94)

This observation helps to establish two points that are crucial to Bernstein's project overall. First, from the outset of his career it was evident to him that unequal educational outcomes cannot be attributed solely to differences in merit or ability between students; far from it. For example, the class-based differences in students' performance on verbal "IQ" tests that he observed as a teacher seemed to Bernstein to relate to the degree of fit between the forms of communication rewarded on the tests and those that students employed most naturally as a result of socialization in their homes and communities. Second, Bernstein's reference to "the principles which generated these opposing forms of communication and their social basis" underscores the *sociological* nature of his project; he identified a relationship between social structure

¹ *Class, codes and control: Vol. 4. The structuring of pedagogic discourse*, Basil Bernstein. Copyright © Basil Bernstein 1990. Reproduced with permission of Taylor & Francis Group through PLSclear.

and the principles underlying the different forms of communication he observed as a teacher. Bernstein located the unequal educational outcomes that resulted within social structure—the space between the rules and resources of language and the speech enacted by his students suggested in the epigraph to this chapter—rather than in students’ innate abilities or merit.

For Bernstein, people “speak” the social. The forms taken by their communicative practices reflect the forms taken by their experiences, especially their primary socialization in the family. However, this is not a reductive process whereby people’s current practices simply repeat their past experiences. The long arc of socialization—the iterative, cumulative, innumerable encounters of everyday life—shapes people’s dispositions and the manner in which they make sense of their place in the world (Singh, 2020). Bernstein conceptualized this as their coding orientation. When faced with any specific context, these orientations to meaning influence the way that individuals understand and react to it.² Bernstein conceived of communication as reflective of socialization at the deep level of its organizing principles or “codes.” It is Bernstein’s conceptualization of these generative principles, these underlying codes, that serves as the basis of his code theory.

While this chapter focuses most specifically on the codes Bernstein conceptualized as underlying communication, his understanding of language was broad and the concepts that inform code theory can be applied to analyses of diverse practices. For example, Bernstein also considered curriculum, pedagogy, and assessment to be “message systems” (1977, p. 85) that can be analyzed in terms of their underlying codes (see Chap. 3). Indeed, if he had been writing today, Bernstein might describe these ideas as working “towards a sociology of semiotics” rather than language (Hasan, 2004; Tyler, 2004). Still, his enduring efforts to explain inequalities in educational outcomes centered initially on the relations between social structure and language. This served as the focus of the first two volumes of *Class, codes and control*, the subtitles of which state respectively that they comprise “theoretical studies” (1971) and “applied studies” (1973) “towards a sociology of language.” The work offers a gamut of conceptual development as well as empirical research, a full summary of which is beyond the scope of this chapter.³ The specific focus here is on the concepts most foundational to Bernstein’s sociology of language and the subsequent development of his theoretical framework: restricted and elaborated codes.

² For readers familiar with the sociology of Pierre Bourdieu, Bernstein’s notion of coding orientation might appear similar to Bourdieu’s concept of “habitus.” It is. However, a key difference between them is that Bernstein’s codes enable the different structurings of habitus to be explored; they reach beneath surface descriptions to reveal the principles underlying practices (Maton, 2012, 2018).

³ For more see, for example, Atkinson (1985), Bernbaum (1977), Hasan (2009), and Holland (1981).

2.1 Restricted Codes and Elaborated Codes

In volume 1 of *Class, codes and control*, Bernstein linked social class and its reproduction with communication, suggesting that “if we look into the work relationships of [a] particular group, its community relationships, its family role systems, it is reasonable to argue that the genes of social class may well be carried through a communication code that social class in itself promotes” (1971, p. 143). Noting that the comparison with genetic code here is “more than a handy simile or metaphor,” Paul Atkinson has commented that genetic codes (rooted in biology) and communication codes (rooted in social structure) “are formally equivalent in that they are mechanisms for intergenerational transmission whereby structural properties of similarity and difference are systematically reproduced” (1985, p. 61).

This analogy can be taken further. In biology, the same basic constituents of DNA underpin an enormous diversity of physical characteristics such as height and weight among living beings. The genetic code refers not to these diverse characteristics themselves but to something generative that underlies them. Similarly, Bernstein’s codes do not refer to surface realizations (enacted speech, for example), for expressions of the same code may take many forms depending on the context of communication, its purpose, participants, and so on. Rather, codes for Bernstein conceptualize the principles from which people’s uses of language can be derived (Atkinson, 1985; Moore, 2013). Codes work “below the surface,” so to speak. In the real world, they are actualized in a variety of forms that are responsive to social structure and context. Thus: “People do not speak codes” (Atkinson, 1985, p. 82). Instead, their speech represents *realizations* of codes; word choice, syntax, and other features are surface expressions of principles that can be understood as codes.

The analogy to genetic codes should not be taken too literally, however: Bernstein’s concepts are sociological, not biological. Codes are shaped by social structure and relations of power as they regulate speakers’ orientations to meaning and the manner in which they communicate it. It is necessary to labor this point because one of the most significant misunderstandings of Bernstein’s sociolinguistic work reflects a failure to grasp that codes represent the generative principles underlying communication, not its surface features such as dialect. As Atkinson has emphasized: “Bernstein was *never* engaged in the identification and description of . . . contrasting dialects. Language—and this cannot be said too often—is subsidiary, in that it is a means to understanding social relationships, structures and processes” (1985, p. 67, emphasis in original). Bernstein was less concerned with the products of speech than with the principles that generate it in different contexts and between different people as well as with the relation of these principles to social structure, its reproduction, and change.

Bernstein’s sociology of language centered on two forms of code: restricted and elaborated. Restricted codes originate in “a form of social relationship based upon a range of closely shared identifications” held by members of a group (Bernstein, 1971, p. 108). Such groups may take many configurations; Bernstein’s examples included, among others, army combat units and married couples in long-established

relationships. The point is that the members of the group are likely to possess implicit understandings rooted in shared interests and experiences that negate “the need for subjective intent to be verbally elaborated and made explicit” (1971, p. 109). In other words, as the meanings generated by restricted codes are based in common experiences and understandings (of the battlefield or home, for example), they are typically implicit in form and dependent upon particular contexts. Communication here tends to be oriented to the individual instance, the specific context of a particular social interaction, and relies on meanings that need not be expounded upon. This allows for them to be expressed economically. Bernstein suggested for example, that “If we think of the communication pattern between married couples of long standing, then we see that meaning does not need to be fully explicit; a slight shift of pitch or stress, a small gesture, can carry a complex meaning” (1971, p. 147). A familiar story recounted between one of these couples would require the provision of additional context if they were to be joined by others unfamiliar with its plot. Importantly, one’s ability to grasp the message carried by a restricted code is “restricted” not in terms of their cognitive ability. Rather, it is restricted to those that share in a particular experience or understanding or who have enough context to comprehend it.

In contrast to restricted codes, elaborated codes are “generated by a form of social relationship which does not necessarily presuppose shared, self-consciously held identifications with the consequence that much less is taken for granted” (Bernstein, 1971, p. 108). The meanings they carry tend towards the more universalistic and context-independent. They require speakers to more fully and explicitly articulate their points in order to be understood. Elaborated codes convey meanings when shared experiences and understandings cannot be assumed.⁴

Hypothesizing a link between social structure and primary socialization, Bernstein suggested that people’s coding orientations reflect the forms taken by the relationships they experience in their families. He added that these relationships are shaped by the nature of the different kinds of occupations held by family members, their place in the social division of labor. Put crudely, compared with middle-class occupations, working-class jobs tend to provide less variety, offer fewer opportunities for participation and negotiation in decision making, and involve more manual than linguistic dexterity. Communication in working-class occupations accordingly tends to be more reflective of restricted codes while communication in middle-class occupations is more frequently based in elaborated codes.

In theorizing how these characteristics can be echoed in the forms taken by family relations—how social structure ultimately comes to be internalized as different communication codes—Bernstein (1971) distinguished between positional and personal modalities of authority. In positional forms, the roles of family members are clear-cut, based on position (such as father or eldest child), and involve less explicitly verbalized negotiation. Personal forms are characterized by more discussion and negotiation of relationships so that meanings, rules, and decisions tend to be explained and made more explicit. For instance, “Because I told you to” or “Because

⁴ The parallels between this process of unpacking meaning to help someone develop an understanding that may not have been there before and *teaching* are noteworthy (Moore, 2013).

I'm your mother" represent positional authority while "Because the vitamins in your kale will boost your memory and keep you healthy and strong" represents a personal form.⁵

Bernstein suggested that restricted codes are "used by *all* members of society at some time" (1971, p. 128, emphasis added). Everyone develops experience with the shared and condensed meanings characteristic of restricted codes. However, not everyone gains as much experience with elaborated codes through their primary socialization in the home or community. Thus, he argued that while children socialized within working-class environments typically become very familiar with and responsive to restricted codes, children socialized within middle-class environments often become comfortable with *both* restricted and elaborated codes. This was not an essentialist claim: Bernstein was not stating that this is always the case simply by virtue of one's social class position. Social class is only a predictor of coding orientations (one that can interact with other variables, such as race and gender, in shaping them). It is not the case that all middle-class children are socialized into a familiarity with both restricted and elaborated codes or that all working-class children are socialized to move only towards restricted codes. Social life is far too complex for simplistic claims like this. Rather, Bernstein was highlighting a tendency: one that seemed to align with his experiences as a teacher as well as with the empirical studies included in volume 2 of *Class, codes and control*.

Bernstein concluded that, because schools value the capacity to reach beyond individual instances, to generalize and abstract, educational success was "predicated upon elaborated code and its system of social relationships" (1971, p. 186). As not all students are initially socialized into the elaborated coding orientation implicitly valued and rewarded in schools, he saw their educational opportunities and outcomes to be far more reflective of social structure and class positioning than of ability or merit. The picture is more complex than it is possible to fully detail here. For example, Bernstein argued that variations *within* classes, particularly between members of the managerial (industrial) and professional (cultural) middle classes, can be just as great as differences *between* classes.⁶ However, the core of what he sought to highlight was how socialization experiences tend to be differentially distributed in society and to relate to different orientations to meaning among different social groups empirically and at the fundamental level of codes.

⁵ There are significant parallels here with the influential scholarship of contemporary researchers such as Annette Lareau and Lisa Delpit. Both make references to Bernstein's sociolinguistic work in some of their most widely-read publications. In *Unequal childhoods* (2011), Lareau cites volume 1 of *Class, codes and control* (Bernstein, 1971) while Delpit, in *Other people's children* (2006), refers more specifically to "Social Class, Language and Socialization," a chapter from within that volume.

⁶ Bernstein's most explicit focus was often on differences within the middle class. For more here see, for example, Atkinson (1985), Power (2006), and Moore (2013).

2.2 Not a “Deficit Theory”

As misrepresentations of restricted and elaborated codes were the primary source of controversies that became attached to Bernstein’s work, it is important to be very clear about these concepts. Though he perceived a link between coding orientation and unequal levels of educational success among students from different social class backgrounds, Bernstein did not make value judgments when contrasting the two codes. Again, he did not use the term “restricted” to refer to some kind of cognitive limitation. He was not suggesting that working-class culture was deficient or that working-class children were lacking. It is unfortunate that the word has so often been interpreted in this way, but even a cursory glance directly at Bernstein’s work reveals that it is a misreading. For Bernstein, “restricted” referred instead to meanings that need not be elaborated because they are dependent upon context and based on shared experiences and understandings (and are thus restricted to those that share them).

Similarly, “elaborated” for Bernstein referred not to something ornate or fancy, but to a process of unpacking meanings to make them explicit; “elaborate” should be understood here as a verb, not an adjective. The meanings underpinned by elaborated codes are less limited than those carried by restricted codes in the range of contexts in which they can apply and be understood. Moore (2013, p. 63) has noted that “condensed” and “expanded”—terms that Bernstein occasionally used in place of “restricted” and “elaborated”—perhaps better capture the concepts’ principles. Bernstein was almost certainly aware that his choice of terminology ultimately contributed to the confusion that came to develop around restricted and elaborated codes. It is therefore essential to emphasize that Bernstein did not himself suggest that restricted codes are somehow inferior to elaborated codes. Schools, not Bernstein, value the two codes differently. He suggested from the outset of his project that: “*Clearly one code is not better than another; each possesses its own aesthetic, its own possibilities. Society, however, may place different values on the orders of experience elicited, maintained and progressively strengthened through the different coding systems*” (1971, p. 135, emphasis added).

Again, Bernstein related coding orientation to context and social relations, not to measured intelligence or academic potential. He was highly critical of those who equated “restricted code” with “linguistic deprivation” (1971, p. 194), emphasizing that “because the sub-culture or culture through its forms of social integration generates a restricted code, it does not mean that the resultant speech and meaning system is linguistically or culturally deprived, that the children have nothing to offer the school, that their imaginings are not significant” (1971, p. 199). Moreover, rather than calling for compensatory education to make up for the perceived cultural deficits of some students as was commonplace at the time (e.g. Jencks et al., 1972; Moynihan, 1965), Bernstein called for the creation of an educational environment that begins by affirming that “the social experience the child already possesses is valid and significant” (1971, p. 199) and proceeds by introducing them to the more generalizing and

context-independent meanings characteristic of the educational knowledge realized through elaborated codes.

Bernstein's central thesis in the early work described here was that educational success requires that students are familiar and able to engage adeptly with elaborated codes. This can, in principle, be accomplished in any dialect (a failure to grasp this point lies behind much of the deficit criticism aimed at Bernstein) as long as students are able to explicate and articulate meanings that are not context-dependent (Moore, 2013). However, if some students have extensive experience with elaborated codes and others do not, the former will be placed at a distinct advantage in school. This point has been demonstrated empirically by scholars (e.g. Bautier, 2011; Grignon, 2011; Painter, 1999; Williams, 1999) using Bernstein's ideas as well as in the findings of studies conducted during the late 1960s and early 1970s by Bernstein's colleagues at the University of London Institute of Education's Sociological Research Unit and collected in volume 2 of *Class, codes and control*. Bernstein emphasized that students with more limited access to elaborated codes were no less gifted, creative, or intelligent than others. The task at hand is to instill in all students the means to recognize when an elaborated coding orientation is called for at school and the means for expressing that orientation in their work.

Nonetheless, critics imposed their own understandings of restricted and elaborated codes to claim that Bernstein's concepts portrayed deficiencies in working-class language. Bernstein was labeled as a deficit theorist by a number of influential scholars. William Labov, a founding figure in the field of sociolinguistics, claimed for example that Bernstein held a "strong bias against all forms of working-class behavior" and viewed "middle-class language as superior in every respect" (1972, p. 204). Writing over a decade later, Bourdieu (1991, p. 53) accused Bernstein of fetishizing scholarly discourse and assessing other linguistic practices from the viewpoint of deprivation. Even a brief acquaintance with Bernstein's work reveals such assertions to be baseless. Space precludes extensive discussion of these and other misrepresentations, many of which rely not on direct quotation or engagement with specific ideas, but on descriptions by other critics.⁷ They are highlighted here simply to help explain why Bernstein became one of the most underrated sociologists of the past century, the point that began this book. A central concern of post-war sociology has been the promotion of equity and social justice. Describing Bernstein's ideas as deficit theory suggests he has little to offer this agenda. This is simply untrue.

2.3 Studies

An underappreciated yet crucial characteristic of Bernstein's nascent sociology of language was that his ideas were not simply theoretical conjectures but rather provided the basis for empirical studies. Much of this work came from a productive engagement with scholars of systemic functional linguistics (SFL), an international

⁷ See Atkinson (1985, pp. 82–101) for a fuller discussion.

intellectual community that has generated a highly sophisticated theory of language and an enormous tradition of empirical research. This engagement began with discussions between Bernstein, Michael Halliday (the founder of SFL), and Ruqaiya Hasan in London in the 1960s. Dialogue between code theory and SFL has continued for decades and collaboration has broadened and flourished.⁸ The first phase of dialogue centered on exploring the distribution of coding orientations across social classes and the linguistic forms generated by restricted and elaborated codes; this later came to be known as “semantic variation” (Hasan, 2009).

SFL offered Bernstein a potentially fertile means of grounding his ideas in empirical studies of the forms taken by language in use. Bernstein consistently attempted to explore communication in relation to its detailed linguistic characteristics. Early in his career, for example, he distinguished “public language” from “formal language” through the relative complexity of syntax and the frequency of conjunctions, adverbs, and adjectives expressed in each (1971, p. 31). This focus on formal features such as categories of words, with minimal reference to meaning, reflected the available resources of dominant approaches to linguistics at the time.

However, by the end of the 1960s Bernstein and his colleagues at the Sociological Research Unit (SRU) in the University of London’s Institute of Education were engaging with the meaning-based grammar that Halliday was developing nearby at University College London. Using these tools, SRU researchers were able to generalize across quantitative data that began exploring the nature of communication codes. This work is illustrated by the studies collected in volume 2 of *Class, codes and control*, the most overlooked of the five volumes. For example, Hawkins (1973) used newly developed concepts from SFL to systematically code and analyze a large set of data, revealing statistically significant differences in language use between working-class and middle-class children. In effect, Hawkins used SFL as a means of translating between code theory and empirical data to begin to uncover the kinds of systematic differences in language use across social classes predicted by Bernstein.

Although Bernstein turned to focus more specifically on education after the early 1970s (see Chap. 3), the empirical work based on his sociology of language did not end and continues today. Subsequent work in SFL built on his ideas, though this took time to emerge. Halliday (1995, p. 135) later suggested that, in the early 1970s, the SFL framework was unable to address the subtle features of grammar critical to the nuanced distinctions necessary for responding to sociological concerns with the distribution of coding orientations among different social class groups. However, by the late 1970s the SFL framework had developed significantly. In terms of Bernstein’s ideas, Hasan maintained a focus on the social distribution of different communication codes (semantic variation) through a major study of mother–child interactions. Semantic networks were developed that built upon those created at the SRU (Turner, 1973) to be generalizable across language contexts (Hasan, 2009). These networks drew upon the rich functional grammar that had been developed by Halliday and colleagues (e.g. Halliday & Matthiessen, 2014), allowing Hasan to

⁸ For more on the relations between code theory and SFL, see Maton and Doran (2017), Martin and Maton (2016), and Maton et al. (2016).

elaborate the semantic description in ways sufficiently sensitive to explore relations between coding orientations, social class, and gender.

Using these tools in a major study of naturally occurring interactions between mothers and young children, Hasan (2009) found significant differences between the meanings made by mothers depending on whether the household's main income-earner experienced higher or lower autonomy in their occupation. These differences reflected Bernstein's distinction between elaborated and restricted codes and offered significant support for his argument that orientations to meaning were differentially distributed across social classes. Analyses of the language used by kindergarten teachers with young children revealed further that the ways these teachers expressed meaning often resembled an exaggerated form of the ways middle-class mothers communicated with their children; the school was thus a place characterized by elaborated codes. Such studies have continued. They now amount to a sustained and significant collection of empirical evidence that has been used to support, refine, and extend Bernstein's earliest work on restricted and elaborated codes.

2.4 Conclusion

It is roughly fifty years since Bernstein (1971, 1973) started working "towards a sociology of language." Yet, as the studies mentioned above illustrate, these early ideas have continued to directly inspire research into language and its role in social reproduction and change. A considerable body of research has been built over this time that offers support for Bernstein's thesis: that there are different principles (codes) underlying the ways that people use language; that people have different experiences with these codes through their socialization within the family and community; that this differential experience is related to social class; and that the differential experience places people in different relations with a system of formal education that values some codes more than others. This work has shed light upon some of the nuanced characteristics of the codes that people bring to educational settings. As the 1970s wore on, Bernstein began focusing less on communication codes and increasingly towards the codes underpinning educational practice itself. Nonetheless, the fundamental features of his sociology of language, and particularly the notion of codes, remained central to his developing framework.

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Chapter 3

Turning to Educational Knowledge: Classification and Framing



Behind the research is an attempt to create a language which will permit the interaction of macro and micro levels of analysis: the recovery of the macro from the micro in a context of potential change. (Bernstein, 1990, p. 112)¹

A central issue animating Basil Bernstein's developing conceptual framework concerned the relationship between education and social inequality. The efforts of Bernstein and his colleagues "towards a sociology of language" (1971, 1973) involved an attempt to explore why children from varying social backgrounds often experience schooling so differently (Chap. 2). That work analyzed the different orientations to meaning that students bring to school and related those orientations to their socialization experiences in the home and community. During this time, Bernstein identified—and research using his concepts was beginning to demonstrate (Bernstein, 1973)—that all children arrive at school familiar with concrete, context-dependent meanings that can be assumed among speakers with shared experiences (restricted codes), but not all have interacted extensively with more abstract, context-independent meanings that require explicit articulation where shared experience cannot be assumed (elaborated codes). This contributes to unequal educational opportunities and outcomes between them as academic success is typically premised on familiarity and dexterity with the latter.

Bernstein turned in the later part of the 1970s towards a focus on the various forms taken by elaborated codes as "pedagogic relays" (2000, p. 89) within schools. This was to become an enduring concern for the remainder of his career. In the introduction to volume 3 of *Class, codes and control*, Bernstein (1977, p. 1) signaled an "evolution" from the "sociolinguistic thesis" introduced in volume 1 and tested empirically in volume 2 towards the ways in which educational knowledge is institutionalized as elaborated codes. He suggested that social class relations play an important role in regulating the manner in which the educational knowledge carried by elaborated codes is selected, taught, and evaluated in schools. That is, he posited

¹ *Class, codes and control: Vol. 4. The structuring of pedagogic discourse*, Basil Bernstein. Copyright © Basil Bernstein 1990. Reproduced with permission of Taylor & Francis Group through PLSclear.

a relationship between the macro level of social structure, the meso level of educational institutions, and the micro level of classroom practice that shapes what gets taught, how, to whom, and with what consequences (Singh, 2018). In adopting this focus, Bernstein concluded that education plays a significant role in the reproduction of social inequality. He was far from alone in doing so within the sociology of education at that time; this has remained an abiding interest since its inception. However, Bernstein's approach to addressing this perennial issue was unique within the field.

While Bernstein appreciated the sociology of education's efforts to explore the ways in which the structure and practice of schooling contributed to unequal opportunities and outcomes for different groups of students, he felt that its explanations too often tended towards superficiality. Bernstein's code theory endeavored to dig below the surface and reveal the principles underlying the relationship between schooling and inequality. His focus on the nature of educational knowledge and on how its various forms are taught and assessed in schools led to the development of concepts with an unusual degree of analytic precision and explanatory power. Chief among these concepts are classification and framing as well as the educational knowledge codes and the pedagogic codes that they can be used to analyze.

3.1 Analyzing Educational Practice

In setting out some key differences between Bernstein's theoretical approach and those more commonly applied in the sociology of education, it is important to begin by recognizing that his conceptualization of the knowledge that children encounter at school was expansive. He argued that there is always more here than meets the eye; there is more to the curriculum than content, more to pedagogy than the teaching of that content, and more to evaluation than the assessment of students' understanding of that content.² To help underscore this simple but powerful point, Bernstein introduced the concepts of instructional and regulative discourse.

3.1.1 Instructional Discourse and Regulative Discourse

Instructional discourse has to do with curriculum content and how it is organized and taught: what knowledge is (or is not) included in the curriculum and how it is sequenced, paced, and evaluated once there. Bernstein suggested that instructional discourse is always embedded within a regulative discourse: a value system that is meant to promote, among those who encounter it, a particular way of seeing and

² Further, Bernstein's conception of pedagogy was "somewhat wider than relationships that go on in schools;" it represented a "fundamental social context through which cultural reproduction-production takes place" (2000, p. 3) that would include the relationships between doctor and patient, architect and planner, and so on.

acting within the world. He cast regulative discourse as a moral discourse aimed at maintaining a certain social order by governing student conduct, character, and even posture at school: “it tells the children what to do, where they can go, and so on” (2000, p. 34). According to Bernstein, regulative and instructional discourse are always intertwined; they cannot be separated. Nonetheless, regulative discourse is dominant. It is in some ways akin to what has been termed the “hidden curriculum” (Jackson, 1968) to refer to the unstated norms and values transmitted in schools. Regardless of whether it is made explicit or left implicit, however, regulative discourse is always present and serves to shape the identity and practices of the teachers and students engaging with it.

Bernstein posited that instructional and regulative discourse combine to provide the ordering principles for three “message systems” (1977, p. 85) through which educational knowledge can be communicated: curriculum, pedagogy, and evaluation. Respectively, these message systems encompass what knowledge is taught, how that knowledge is taught, and what counts as a successful demonstration by students of having learned it. The three message systems can (and, often depending on the social backgrounds of the students at which they are aimed, do) take various forms. To move beyond surface-level descriptions of these forms, Bernstein required analytical tools that could identify the deep structure or “inner logic” (1990, p. 64)—the codes—underlying them. To help accomplish this, he developed the concepts of classification and framing.

3.1.2 *Classification and Framing*

Classification and framing emerged from Bernstein’s attempt to resolve a problem he initially encountered in developing his conceptualization of restricted and elaborated codes (Chap. 2). He recounted that:

I was dissatisfied with the models ... because the relations generated did not bring me close to the basic principles ... at the micro level of pedagogic practice. Nor was it within the potential of the models to do this. In other words, I had no language to write codes of transmission, pedagogic codes, and so no language to distinguish precisely between modalities of elaborating codes, and even less of a language for describing macro-contexts. In the previous models there was no separation of discourse from the form of its transmission and evaluation. (2000, p. 99)

Bernstein recognized that the elaborated codes of schooling could take different forms that required further theorizing. So too did the ways that these codes can convey different modalities of curriculum, pedagogy, and assessment. To address these issues more accurately, he conceptualized the forms taken by classroom practices as embodiments of power and control. For Bernstein, power establishes, legitimizes, and reproduces boundaries *between* different categories (of social groups, discourse, and so on) and control establishes, legitimizes, and reproduces interactions and forms of communication *within* these categories. He conceived of power in terms of classification and control in terms of framing.

Classification refers to the degree of boundary maintenance or insulation between different contexts or categories. The strength of classification is reflected in the relative permeability of these boundaries. Bernstein emphasized that classification “does not refer to *what* is classified but to the *relationships* between contents” (1971, p. 205, emphasis in original). Classification (C) can be applied to just about anything. For example, in terms of education, classification may refer to the degree of insulation between the school and factors external to it (C^e), such as students’ everyday experiences. It can also refer to relations internal to the school (C^i), such as the strength of the boundaries between subjects in a curriculum. Similarly, classification can be applied to the analysis of education at the macro level (e.g. relations between the education system and the economy), the meso level (e.g. relations between a school and its locale), and the micro level (e.g. relations between teachers and students in classrooms).

Framing refers to the locus of control within contexts or categories. As with classification, framing (F) may be applied to external relations (F^e), such as communication between families and schools, or to internal relations (F^i), such as communication within a classroom. Like classification, framing can also be applied to the analysis of macro, meso, and micro levels of educational practice. When applied to contexts of teaching and learning, framing conceptualizes the relative “degree of control teacher and pupil possess over the selection, organization, and pacing of the knowledge transmitted and received in the pedagogical relationship” (Bernstein, 1971, p. 206).

Classification establishes and relays power relations; framing relays the principles of control that work to sustain or to alter those power relations. Put another way, classification establishes contexts or categories and framing regulates the practices constituting those contexts or categories. Classification and framing may each be relatively stronger (+) or weaker (–) and may vary independently of each other. The structures of what Bernstein (1977, p. 90) termed “educational knowledge codes” are realized through relationships between classification and framing. Of four possible modalities of educational knowledge code (+C, +F; +C, –F; –C, +F; –C, –F), Bernstein (1971) highlighted two as commonly present in the curricula adopted by schools: collection codes of stronger classification and stronger framing (+C, +F) and integrated codes of weaker classification and weaker framing (–C, –F).

3.1.3 *Collection Codes and Integrated Codes*

Remember that, for Bernstein, codes operate below the empirical surface; they are generative of a diversity of real-world practices shaped by context and social structure (Chap. 2). With regard to the curriculum, collection codes (+C, +F) underlie curricula expressed in schools as subjects that are strongly bounded and insulated from one another. Mathematics and Biology, for example, would be taught and assessed separately in this curriculum modality. Likewise, a collection code would entail a strong and explicit boundary between the educational knowledge taught at school (the

knowledge of the teacher) and students' everyday knowledge (the knowledge of the taught).

In contrast, integrated codes (–C, –F) underlie curricula characterized by weaker boundaries between subjects. A curriculum underpinned by an integrated code might, for example, bring aspects of different subjects such as English and History to bear on an integrating theme such as “Work” or “Citizenship.” The classroom serving as home to such interdisciplinary investigations might also emphasize less insulation between the knowledge of the teacher and the knowledge of their students. Here, for example, the teacher might “facilitate” students' understanding of curriculum content that they have chosen to engage with on the basis of their own interests and experiences.

In short, educational practices underpinned by collection codes (+C, +F) are based on the notion that “things must be kept apart” and those underpinned by integrated codes (–C, –F) are based on the idea that “things must be put together” (Bernstein, 2000, p. 123). The brief examples presented here are intended simply to illustrate the concepts of collection and integrated codes. The larger takeaways are that Bernstein: (a) highlighted two educational knowledge codes (collection and integrated) as providing the inner logic for two different forms of curriculum organization, and (b) developed concepts (classification and framing) capable of revealing the principles underlying these and many other possible modalities of curriculum organization. The ability to link a vast range of both observed and imaginable educational practices with concepts that point towards their organizing principles is one of the most powerful aspects of Bernstein's code theory.

3.1.4 Visible Pedagogies and Invisible Pedagogies

In applying classification and framing to the analysis of pedagogy, Bernstein (1977) introduced two illustrative and seemingly opposing modalities—visible pedagogies and invisible pedagogies—in a manner similar to how he conceptualized the two modalities of educational knowledge codes described above. Although a broader range of real-world expressions is possible, what he described as visible pedagogies are typically cast in educational research as conservative, “teacher-centered” modalities of instruction. Think, perhaps, of the Economics teacher in *Ferris Bueller's day off* (Hughes, 1986). In one scene, the teacher (expertly played by a monotonous Ben Stein) presents students with a lengthy series of fill-in-the-blank statements such as: “In 1930, the Republican-controlled House of Representatives, in an attempt to alleviate the effects of ... Anyone? Anyone?” While the scene, where Ferris sleeps at his desk until he is awoken by the screech of chalk against the board, is intended to be comedic, it also serves as a sketch of what might be considered a form of visible pedagogy. The teacher—a “sage on the stage” as opposed to a “guide on the side”—is strongly bounded from a group of students arranged individually in rows of desks and didactically teaches a clearly-demarcated single subject by presenting them with questions that require a solitary, pre-determined answer.

The pedagogic code underlying this modality of instruction would consist of strong classification (+C) between curriculum content and between classroom agents (e.g. teachers and students, students and their peers) and strong framing (+F) in the form of explicit teacher control over matters such as classroom discipline and the selection, organization, pacing, and assessment of curriculum knowledge. A classroom characterized by this combination of curricular (collection) and pedagogic (visible) modalities might, for example, resemble those typically described as “traditional.”

Invisible pedagogies, on the other hand, have historically been perceived by educational researchers as progressive. They are frequently associated with what are ostensibly more “child-centered” forms of instruction across an interdisciplinary range of school subjects that can be taught in varying combinations. Hollywood can again provide a guiding example here. Take, for instance, the engaging, dialogic, developmental, and student-centered approach of Erin Gruwell, the teacher in *Freedom writers* (LaGravenese, 2007). Following a “tipping point” (Kelly & Caughlan, 2011), she abandons a traditional grammar lesson to shift to an interdisciplinary discussion of the Holocaust that is driven by students’ interests and closely connected to their experiences. Soon, students are out of their seats and moving about the classroom for a “line game” based around youth culture and their own encounters with violence and the legal system.

The pedagogic code underlying this type of practice would consist of weaker classification (–C) between curriculum content and between classroom agents, and weaker framing (–F) as students are granted increased control over matters such as classroom discipline and the selection, organization, pacing, and assessment of their understanding of curriculum knowledge. A classroom characterized by such a combination of curricular (integrated) and pedagogic (invisible) modalities might, for example, resemble those typically described as “constructivist.” The key point about Bernstein’s approach here is that, taken together, the educational knowledge codes and pedagogic codes represented through classification and framing serve to identify the principles underlying a range of different surface manifestations of curriculum and pedagogy.³

³ Later in his career, Bernstein developed a distinction between “competence” and “performance” models of pedagogy and introduced a broader typology of pedagogic modes (competence models included “liberal/progressive,” “populist,” and “radical” modes; performance models included “singulars,” “regions,” and “generic” modes). Each mode could be distinguished according to its social organization, focus, and knowledge base and each was seen by Bernstein to project a different pedagogic identity. The primacy of regulative discourse over instructional discourse is again important here. For more on these models, modes, and identities, see Bernstein (2000, especially Chaps. 3 and 4). Illustrative applications of the concepts include Beck and Young (2005) and Hordern (2019).

3.2 Rethinking Curriculum and Pedagogy

A significant feature of Bernstein's characterizations of different modalities of curriculum and pedagogy, and of the principles that underpin them, is that they can support a critical reanalysis of some longstanding assumptions held widely across the sociology of education. Research drawing on classification and framing has concluded that some practices based on these assumptions may, in the long run, inhibit opportunities for students. This is especially true for those that do not arrive at school familiar with the elaborated coding orientation institutionalized as curriculum, pedagogy, and evaluation. Bernstein stressed, for example, that invisible pedagogies can serve to obscure the fact that teachers almost always retain considerable control over the classroom, particularly through the process of assessment. While teacher control over practices such as evaluation or the rules of the classroom might be less visible when invisible pedagogies are adopted, they continue to exist implicitly. However, not all students are equally likely to recognize the implicit rules and expectations of invisible pedagogies for what they are.⁴ Students who do not recognize what their schools and teachers are asking of them are more likely than others to run afoul of their schools' and teachers' rules and expectations. In Bernstein's terms: "An invisible pedagogy ... is likely to create a pedagogic code intrinsically more difficult, at least initially, for disadvantaged social groups (from the perspective of formal education) to read and control" (1990, p. 79). Proponents of invisible pedagogies sometimes overlook this potentially counterproductive feature of the teaching they promote.

Meanwhile, although visible pedagogic modalities are typically assumed to work against the interests of students from marginalized groups, Bernstein suggested that this need not necessarily be the case. He emphasized that "a visible pedagogy is not intrinsically a relay for the reproduction of differential school achievement among children from different social classes" and believed it "certainly possible to create a visible pedagogy which would weaken the relation between social class and educational achievement" (1990, p. 79). Bernstein was less specific about what it might take to achieve this but, among others things, he suggested providing high-quality preschool and open communication between the school and the homes and communities of its students. Importantly, the concepts of classification and framing allow researchers to explore these conditions further by hypothesizing and testing classroom interventions that have the potential to work towards reducing inequality and recognizing those that, even counterintuitively (as in the case of invisible pedagogy), might not.

⁴ According to Bernstein, an important feature of the concepts of classification and framing was that they "enabled the integration of the apparently disparate parts of the thesis, the sociolinguistic family-centred and the transmission-centred study of the school" (2000, p. 100). As a result, it became possible to conceptualize the pedagogic codes of families from different backgrounds in terms of classification and framing, to relate these to the pedagogic codes of the school (also conceptualized in terms of classification and framing), and to "examine the implications for the children's experience of school" (2000, p. 101).

3.2.1 Codes, Consciousness, and Identity

The usefulness of the concepts outlined above is not limited to analyses of education. It would be mistaken, for instance, to equate classification only with curriculum or framing only with pedagogy. They are, more broadly, *sociological* concepts meant to capture the organizing principles behind different ways of seeing and acting within the world. For example, Bernstein (tongue firmly planted in cheek) used the concepts of classification and framing to analyze toilets. He asked readers to “[i]magine four lavatories.” One is “stark, bare, pristine,” with a block of soap placed neatly in an indentation on the sink, a towel on a ring, and so on. A second contains some books on a shelf, “relaxing the rigour of the first.” A third includes pictures and other knickknacks and, in the fourth, “the rigour is *totally relaxed*” (1977, p. 153, emphasis in original), with a broken toilet paper roll and readings and mementos scattered about. The move from the first to the fourth lavatory marks a weakening of classification as the boundary between the bathroom and the rest of the house becomes progressively less defined.

Framing can be added to the analysis if, moving from stronger to weaker, a lock is included on the door of the first but the door to the fourth is left open to invite conversations between its occupant and others in the house. One of these bathrooms might resemble one within which you would feel quite relaxed. Imagining yourself in another might make you much less comfortable! Bernstein’s concepts of classification and framing help to reveal that the weakening of boundaries and control does not necessarily amount to a weakening of authority. For example, someone who jams the door of the fourth bathroom shut and refuses to engage in conversation with others in the house would still be subject to an implicit set of rules, the violation of which might lead to censure or ostracizing. Rather than eliminating power and control, a weakening of classification and framing instead changes the *form* taken by power and control.

Bernstein’s example is meant to indicate that different codes express different modalities of power and control, and these different modalities have different effects. In shifting his focus from sociolinguistics, Bernstein recognized educational knowledge as “a major regulator of the structure of experience” (1977, p. 85). He asked: “How are forms of experience, identity, and relation evoked, maintained and changed by the formal transmission of educational knowledge and sensitivities?” (1977, p. 85). In working to answer these questions, Bernstein developed classification and framing to theorize the principles—the codes—underlying the different forms taken by curriculum, pedagogy, and evaluation. He argued that they are social creations; there is nothing intrinsic to the nature of academic subjects, for example, that determines the degree of their boundedness from one another in a curriculum. There are countless ways to structure the curriculum, countless ways to structure pedagogy, and countless ways to structure evaluation. However, each will have different effects on identity and consciousness.

According to Bernstein, for example, “[w]here knowledge is regulated by collection codes, social order arises out of the hierarchical nature of the authority relationships, out of the systematic ordering of the differentiated knowledge in time and space, out of an explicit, usually predictable examining procedure” (1977, p. 106). As a result, a collection code is likely to produce a “clear-cut and bounded” educational identity based on one’s academic subject (1977, p. 95): it “makes of educational knowledge something not ordinary or mundane, but something esoteric, which gives a special significance to those who possess it” (1977, p. 99).

In contrast, as they lessen the distinctiveness of educational knowledge, integrated codes leave one’s educational identity less certain than collection codes do. According to Bernstein, moving towards an integrated code involves a change in what counts as knowledge in the classroom, in what counts as a valid way for teachers to teach that knowledge, and in what counts as a successful demonstration by students of having learned it. Further, it necessitates “a change in the organizational context” (1977, p. 104) that might involve, among other things, a change in social relationships such that more cooperation is required between teachers or that more of students’ everyday knowledge is allowed into the classroom and brought into a relationship with educational knowledge. At its least organized—without a linking idea (such as “Citizenship” or “Work”), a clear outline and organization of the subject knowledge relating to that idea, and a plan for what to assess and how to assess it—“integration may produce a culture in which neither staff nor pupils have a sense of time, place or purpose” (1977, p. 107).⁵

As the twenty-first century approached, Bernstein detailed a general shift towards integrated codes in schools. He added that, for reasons introduced above, shifting from one code to another was likely to prove problematic for both teachers and students. Even when underpinned by precise theoretical modeling, however, such claims call for substantiation. Recognizing this, Bernstein emphasized that “*the specific application of the concepts requires at every point empirical evidence*” (1977, p. 112, emphasis in original).

3.3 Theory and Research

Nearly as common as the falsehood of proclaiming Bernstein a deficit theorist (Chap. 2) is the misperception that his theorizing is somehow too abstract to be applied to empirical research. Contrary to this portrayal, Bernstein explained that: “Conceptual elegance is attractive, but only when it has the living quality which comes from empirical exploration” (1977, p. 4). The characterization of Bernstein as being overly theoretical has likely developed at least partially because he wrote in a highly economical style. As Karl Maton has noted, it is sometimes “as if substantive objects of study have been reduced for a long time on a low heat, leaving a condensed

⁵ See, for example, McPhail (2020) and Rata (2021) for more contemporary demonstrations of this phenomenon.

theoretical description, a kind of conceptual stock cube to which readers must add their own examples” (2014, pp. 148–149).

While it is true that, outside of volume 2 of *Class, codes and control*, Bernstein’s books included fairly limited reporting of research findings, his theory has been subject to extensive empirical application by others. This began with his colleagues in the Sociological Research Unit at the University of London in the 1960s (Bernstein, 1973), carried on with the work of research students there (e.g. Cox Donoso, 1984; Diaz, 1983; Holland, 1981; Jenkins, 1989), and has extended through to the work presented at the eight International Basil Bernstein symposia held between 2000 and 2014 (e.g. Morais et al., 2001; Muller et al., 2004; Moore et al., 2006; Iverson et al., 2010; Singh et al., 2010; Vitale & Exley 2015), and beyond. It continues today. The tremendous capacity of his concepts to be put to use in empirical research has too often gone unrecognized. In Moore’s summation, the argument that Bernstein’s theory lacks empirical support “is complete nonsense; it is difficult to think of another social theorist whose work has been put to the test as much as Bernstein’s!” (2013, p. 121).

In moving on to challenge misperceptions about the applicability of Bernstein’s theorizing to empirical research, it is important to note that, in shifting his focus towards educational knowledge, Bernstein introduced many more concepts than can be covered here.⁶ Further, some of the concepts outlined in this chapter have been explored more widely in empirical research than others. This is because Bernstein’s concepts have different forms and functions. Some, like instructional discourse and regulative discourse, are clarifying ideas, internal to the theory, which are somewhat removed from and less capable of being enacted on data. Others, like classification and framing, are more capable of driving research because of their ability to target organizing principles and account for change.

Classification and framing are examples of what Bernstein referred to as an “internal language of description” (2000, p. 132): “a theoretically grounded, conceptual language” (Moore, 2004, p. 135) for modeling, in a non-tautological manner, the principles underlying varying forms of social and educational practice. According to Moore: “What theory does *in the first instance* is to generate from within its *internal* language of description a range of *possible* ‘somethings’ ... any of which may or may not be realized in actuality in the world in a particular time and place” (2013, p. 127, emphasis in original). When these varying forms of practice are experienced in a given instance, they can then be described through the development of what Bernstein termed an “external language of description” (2000, p. 132) to capture real world manifestations of the phenomenon under investigation. The concepts generated by an internal language of description can be translated into more concrete descriptions of empirical data. For example, internal language such as “+C” can be translated into an empirical description of a curriculum where individual subjects are strongly insulated from one another. Likewise, “-F” can be used to capture theoretically the

⁶ For more on these concepts, readers should begin with the various papers collected in Bernstein (1977).

logic underpinning a pedagogy that, realized empirically, appears to grant students control over matters such as classroom discipline and the pacing of the curriculum.

It must be stressed again that both the educational knowledge codes (collection and integrated) and the pedagogic codes underlying the modalities (visible and invisible) discussed in this chapter are aimed at capturing organizing principles. We do not “see” codes on the empirical surface; rather, we see the *effects* of codes on the organization of the curriculum and on pedagogic practice. The power of Bernstein’s theory is perhaps nowhere more evident than here as it becomes possible both to conceptualize a vast range of curricular and pedagogic modalities—including those that have not yet been experienced empirically—as characterized by varying degrees of classification and framing. Further, the ways in which the concepts appear or behave when actualized can lead to their ongoing revision. Bernstein’s internal and external languages of description combine to allow for translation between theory and data, the lack of which is often bemoaned across the sociology of education more broadly. The relations between Bernstein’s internal (concepts) and external (data) languages of description have thus proven highly capable of generating empirical research.

3.4 Studies

While it is widely applicable and has been referenced extensively in fields ranging from sociocultural psychology to sports studies, Bernstein’s theory can ultimately be seen to begin and end in educational practice. The problems of social and educational inequality are perennial and his project stands as a major resource for addressing them. It is a resource that has been drawn upon by Bernsteinian researchers across the world who have applied his concepts in their efforts to better understand and ultimately interrupt the school’s role in reproducing inequality.

The ESSA (Sociological Studies of the Classroom) project at the University of Lisbon represents one of the longest running efforts to advance Bernstein’s sociology of education.⁷ For decades, researchers there have aimed “to find pedagogic practices which, without lowering the level of conceptual demand, can contribute to the improvement of students’ school achievement, namely, the achievement of disadvantaged social groups” (Morais & Miranda, 1996, p. 601). Led by Ana Morais, they have drawn on Bernstein’s concepts of classification and framing to “*design pedagogic practices on a rational basis and evaluate their outcomes*” (Bernstein, 2000, p. 101, emphasis in original) and to structure pedagogical interventions in an effort to “weaken the relation between social class and educational achievement” (Bernstein, 1990, p. 79).

⁷ A collection of the group’s presentations, research materials, and more (including fascinating video of Bernstein’s virtual presentation to the First International Basil Bernstein Symposium) can be accessed here: http://essa.ie.ulisboa.pt/index_eng.htm.

Their research is premised on the contention that children’s academic and social success in school are dependent upon access to what Bernstein (2000) came to conceptualize as recognition and realization rules. Whereas classification and framing help to capture how codes serve as “pedagogic relays” (2000, p, 89) for educational knowledge in schools, recognition and realization rules address if and how it is learned. Essentially, it is argued that students must be able to understand the rules of the pedagogic process and then perform in a way that demonstrates that they understand the knowledge taught through it. Students’ familiarity with the recognition and realization rules necessary for educational success is subject to social regulation. This raises the question of what forms of classroom pedagogy can help make these rules more accessible to everyone. Animated by this problem, Morais and colleagues have drawn on classification and framing to analyze how differential access to these rules can be regulated by differently classified and framed classroom practices. This involves a combination of strong and weak classification and framing that Morais (2002) has termed a “mixed pedagogic practice.”

Morais and colleagues have found that strong framing proves most useful when applied to assessment. Teachers’ clear explanation of the criteria against which students’ work will be judged helps students to recognize what is expected of them and to achieve it in the work they produce. However, other, more weakly classified and framed dimensions of pedagogy can support students’ access to the recognition and realization rules necessary for school success. For example, Morais and Neves have found that students’ academic engagement and motivation are typically higher when “open” relationships with their teachers and classmates allow for “reasons for contents, competences, and procedures [to be] explained and discussed” (2001, p. 214), often in a context of weakly classified classroom space where students are able to work in collaboration with one another. Further, while the selection and sequencing of curriculum content should be left to the teacher as specialist (strong framing), weaker framing over the pacing of lessons has been found to support students in learning that content (Morais & Neves, 2001).

In work that has resulted in comparable findings across different national contexts (e.g. Barrett, 2017; Grignon, 2011; Hoadley & Ensor, 2009; Hoadley & Muller, 2010; Hoadley, 2006, 2018;⁸ Power et al., 2020; Walford, 1986),⁹ Morais and colleagues have suggested that pedagogic practices can be changed in ways that promote more equitable educational opportunities and outcomes for students. Drawing upon Bernstein’s concepts of classification and framing, they have translated the structures of codes into precise practices within the micro-dynamics of classroom teaching to

⁸ See, especially, Chap. 11 of this important book-length study, which draws extensively on classification and framing.

⁹ Though it explicitly addresses Bernstein only in endnotes, references, and a postscript, Wayne Hugo’s (2014) *Cracking the code to educational analysis* is also profoundly influenced by Bernstein’s theorizing, especially the concepts of classification and framing. In key respects, it is a working example of Bernstein’s impulse towards pragmatically mobilizing a range of theoretical resources to engage with complex educational problems. The book is accompanied by videos highlighting key concepts and practical examples, which can be accessed at https://www.youtube.com/playlist?list=PL5ESit0xzN_wjXsUVNrCeQyQuotchfMpK.

make visible how different students recognize, or fail to recognize, different aspects of different codes in different ways. On this basis they have developed mixed pedagogical responses that can ultimately support students' educational success. Classification and framing have been employed to present a range of pedagogical options that extend far beyond the "teacher-centered"/"student-centered" binary that has long characterized critical discourse on education. Further, these pedagogies have the potential to be tailored to meet the needs of particular students and groups (Donnelly, 2018) and therefore promote the possibility of outcomes other than the reproduction of inequality through schooling so frequently identified in the sociology of education.

3.5 Conclusion

In developing classification and framing and distinguishing between different educational knowledge codes and different pedagogic codes, Bernstein was exploring the nature of the elaborated codes he had posited earlier as underlying the orientations to meaning and communication valued by education (Chap. 2). As he summarized:

In short, the principle of classification regulates *what* discourse is to be transmitted and its relation to other discourses in a given set (e.g. a curriculum). The principle of framing regulates *how* the discourse is to be transmitted and acquired in the pedagogic context. Pedagogic codes can now be written as:

$$\frac{E}{\pm C^{ie} / \pm F^{ie}}$$

where *E* refers to the orientation of the discourse (elaborated): _____ refers to the embedding of this orientation in classification and framing values. This variation in the strength of classification and framing values generates different modalities of pedagogic practice. (2000, pp. 99–100, emphasis in original)

Though somewhat forbidding in its abstract formulation and use of an equation, Bernstein was simply identifying that there are different forms taken by educational practices and revealing the organizing principles of those forms. The key point is that this formulation allows Bernstein's theory to reach from the macro level of social structure and class relations to the meso level of the classroom and through to the micro level of consciousness and identity. Such a connection between an unequal social structure at a macro level outside schools and unequal interactions at the micro level inside of them represents a crucial development in Bernstein's sociology of education. It serves to highlight the importance he placed on capturing not only the extent to which social inequalities with roots outside the education system are reproduced within it but also of theorizing *how*—through curriculum, pedagogy, and assessment, for example—schooling can both contribute to and resist this process.

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Chapter 4

Constructing Pedagogic Discourse: The Pedagogic Device



[B]etween power and knowledge, and knowledge and forms of consciousness, is always the pedagogic device. (Bernstein, 1990, p. 181)¹

Basil Bernstein's code theory developed through the introduction of key concepts including restricted and elaborated codes (Chap. 2) as well as classification and framing, which can be used to analyze the principles underpinning various modalities of curriculum, pedagogy, and evaluation (Chap. 3). But how are codes created? How is it that some modalities come to be valued in education while others are not? What are the consequences of the unequal distribution of the codes rewarded in schools for students from different backgrounds? These questions have to do with relationships between power, knowledge, identity, and consciousness. Bernstein recognized that answering them required something beyond the understanding about the different modalities of communication, curriculum, instruction, and assessment through which educational knowledge is conveyed that he had established through the first three volumes of *Class, codes and control*. It also required a fuller account of how the message systems of education have been put together or, in his terms, of the "general principles underlying the transformation of knowledge into pedagogic communication" (2000, p. 25): the structuring of pedagogic discourse. In an effort towards developing this fuller understanding, Bernstein conceptualized the pedagogic device.

The pedagogic device is an essential but complex component of Bernstein's theorizing. It addresses how knowledge is transformed for educational practices including curriculum-making, teaching, and learning. As signaled in the epigraph that began this chapter, the analysis afforded by the pedagogic device spans from macro relations between education and society, through to the meso level of policy and reform, all the way to teaching and learning at the micro level of the classroom. It helps to account for how social structure influences, is reflected in, and can be changed by educational practices. In working to identify the principles underlying the production and

¹ *Class, codes and control: Vol. 4. The structuring of pedagogic discourse*, Basil Bernstein. Copyright © Basil Bernstein 1990. Reproduced with permission of Taylor & Francis Group through PLSclear.

distribution of knowledge and its consequences for learners' identities and academic outcomes, Bernstein once again expanded the scope and explanatory potential of the sociology of education.

4.1 Filling in the Picture

In volume 4 of *Class, codes and control*, Bernstein (1990) referenced two influential texts—*Education, economy and society* (Halsey et al., 1961) and *Power and ideology in education* (Karabel & Halsey, 1977)—as signposts to denote a significant shift in focus that was taking place across the sociology of education in the latter half of the twentieth century. At the time of the publication of *Education, economy and society* (Halsey et al., 1961), the field was rooted in the political arithmetic tradition of quantitative studies of mobility and social stratification. By the time that *Power and ideology in education* (Karabel & Halsey, 1977) arrived, it had turned its attention towards questions about knowledge and its relations to power and identity. In particular, sociologists of education were growing increasingly concerned with what they perceived to be the inequitable effects of a socially constructed school curriculum on students from different backgrounds (Young, 2008).

Bernstein cited the emergence of the new sociology of education (NSOE), commonly associated with the release of Michael Young's *Knowledge and control* (1971) and its largely enthusiastic reception across the field, as a particular turning point. The NSOE assigned itself the “central task of ... relating the principles of selection and organisation that underly curricula to their institutional and interactional setting in schools and classrooms and to the wider social structure” (Young, 1971, p. 24). Those working in this tradition believed that doing so would allow them to reveal biases in the curriculum that could then be “‘constructed’ ... out of existence” (Young, 2017, p. xiii). The NSOE contended that school curricula perpetuated social and educational inequality by representing and valorizing the backgrounds, interests, and experiences of dominant groups in society while ignoring others. To remedy this, the NSOE advocated for the critical analysis and democratization of the curriculum, particularly through efforts to include the backgrounds, interests, and experiences of marginalized groups within it. In positioning the curriculum primarily as “a voice through which others speak (class, gender, religion, race, region)” (Bernstein, 1990, p. 166), the NSOE assumed that wholesale changes in the “voice” of the curriculum would lead to wholesale changes in educational opportunities and life outcomes for different groups of students. In Bernstein's summation, however, “this programme, whatever else it produced, did not produce what it called for” (1990, p. 166) as relative levels of social inequality remained stable across the decades that followed.

Bernstein felt that the NSOE and various forms of critical theorizing that emerged in its wake erred in conceiving of education as a “relay for power relations external to itself—a relay whose form has no consequences for what is relayed” (1990, p. 166)—but overlooking the internal structuring of curriculum knowledge and the ways that

it is taught and assessed as key mechanisms through which social inequalities are reproduced. He declared that:

It is a matter of some interest that the sociology of education has rarely turned its attention to the analysis of the intrinsic features constituting and distinguishing the specialized form of communication realized by the pedagogic discourse of education. Many of the analyses of the sociology of education, especially those carried out by the diverse group of theories of reproduction, assume, take for granted, the very discourse which is subject to their analysis. These theories, in particular, see pedagogic discourse as a medium for other voices: class, gender, and race. The discourses of education are analysed for their power to reproduce dominant/dominated relations external to the discourse but which penetrate the social relations, media of transmission, and evaluation of pedagogic discourse ... but ... what is absent from pedagogic discourse is its own voice. (1990, p. 165)²

As a result, critical theories in the sociology of education were able to understand “what is reproduced in, and by, education” but not “the medium of reproduction” (1990, p 166).

Perhaps unsurprisingly, given the criticism he leveled towards Bernstein’s sociolinguistic work, Pierre Bourdieu became the subject of some of Bernstein’s most incisive and extensive critique.³ The social reproduction theory associated with Bourdieu and colleagues (e.g. Bourdieu & Passeron, 1977; Bourdieu, 1984) in France stressed that the knowledge included and rewarded in the school curriculum reflects power relations and advantages students from dominant social groups. According to Bernstein, however, “Bourdieu and Passeron are more concerned with the *relation* to pedagogic communication, that is, with differences between acquirers with respect to how they have been positioned in their relations to legitimate pedagogic communication, than with the analysis of the relations *within* pedagogic communication” (1990, p. 167, emphasis in original).⁴ The distinction between “relations to” and “relations within” that Bernstein introduces here is crucial. It supported his efforts at conceptualizing the “intrinsic grammar” (1990, p. 180) of pedagogic discourse and served to demarcate his theorizing from that of most others in the sociology of education.

² Years later, Bernstein continued to press for “an understanding of the *intrinsic* stratification features of modern educational systems and of the social groups upon whom these stratification features are likely to be inscribed” (2000, p. xxv, emphasis in original).

³ Bernstein seemed particularly put off by the following commentary:

To reproduce in scholarly discourse the fetishizing of the legitimate language which actually takes place in society one has only to follow the example of Basil Bernstein, who describes the properties of the elaborated code without relating this social product to the social conditions of its production and reproduction or even as one might expect from the sociology of education to its own academic condition. (Bourdieu 1991, p. 53)

Bourdieu rather seriously misrepresents Bernstein’s project in this passage. Bernstein (2000) dedicated a considerable portion of chapter 10 of *Pedagogy, symbolic control and identity* towards a response to both the quote above as well as to those—particularly Harker and May (1993)—who subsequently repeated it.

⁴ For more on distinctions between the theorizing of Bernstein and Bourdieu see, for example, Power (2010) and Donnelly (2018).

4.1.1 “Relations to” and “Relations Within”

Analyses of “relations to” education account for how students are positioned in terms of their “social class, gender, racial attributes, or any other discriminating attribute” with respect to the “privileging text” (Bernstein, 1990, p. 172) represented most directly by the curricula, instructional practices, and systems of assessment adopted in schools. These have the potential to be classist, racist, sexist, and so on as they are often selected by those in power in an effort to maintain their positions. Bernstein pointed towards Michael Apple’s (1982) *Cultural and economic reproduction in education* as a powerful example of “an analysis of what is reproduced in, and by, education” (Bernstein, 1990, p. 166) and analyses of “relations to” have continued to constitute a significant focus for the sociology of education since then. Bernstein saw this work as being “of major relevance” and insisted that his critique of studies primarily concerned with “relations to” education “should not be considered as part of a methodology of disposal” (1990, p. 168) but rather as an indication of what they leave to be addressed in analyses of educational inequality.

With the notion of “relations to,” Bernstein shared with other critical theories the premise that education can serve as “a relay for patterns of dominance external to itself” (1990, p. 169). Indeed, the work of Michel Foucault—ascendant in the field at this time—was a particularly significant influence on Bernstein’s thinking about relations between knowledge, power, and identity (Bernstein, 1990; Diaz, 1984).⁵ This influence is evident, for example, in the terminology that Bernstein had begun to adopt around “devices” and “discourse” alongside the work on codes that he had developed to that point (Iverson, 2020). A focus on “relations to” education is essential given inequalities in educational opportunities and outcomes such as those that exist along the lines of social class, race, and gender. Education clearly appears to serve as a relay for unequal power relations outside of it. However, Bernstein felt that focusing on “relations to” education captured only part of the picture. The work of filling in the rest demanded a more robust consideration of “the medium which makes the relaying possible” (1990, p. 169)—“relations within”—as well.

“Relations within” have to do with “the rules whereby the ‘privileging text’ has been internally constructed” (Bernstein, 1990, p. 176) and can include the constitutive elements of the three “message systems” (Bernstein, 1977, p. 85) of curriculum, pedagogy, and evaluation. Therefore, “relations within” encompass processes including those that determine: the forms that knowledge takes (e.g. academic or everyday, context-independent or context-dependent), which knowledge is selected and formatted for inclusion in the curriculum, how that knowledge is taught, how students’ understanding of it is assessed, and how students are differentially positioned for success on these assessments.

Bernstein compared “relations within” to a carrier wave. What it carries depends upon properties of the wave that are invisible to the naked eye. In the absence of an

⁵ Despite shared interests here, Bernstein focused more extensively than Foucault on the social relationships (especially those between different fractions of the middle class) behind the production and distribution of pedagogic discourse (Singh 2015a).

analysis of “relations within” education, the means for describing the principles underpinning the educational practices carried by this wave remain unavailable. Developing a framework capable of doing so is a complex endeavor that spans macro, meso, and micro levels of analysis. It necessarily involves a relationship between education and society more broadly that is characterized by struggles for power and efforts to control the processes through which knowledge is produced, selected, and formatted for inclusion in curricula, teaching, and learning.

4.2 The Pedagogic Device

Bernstein understood that the “pedagogization” of knowledge—its transformation into curriculum and the practices of teaching and learning—does not simply take shape within the imagined vacuum of the classroom. To analyze the general principles underlying this process, he conceptualized the pedagogic device. The pedagogic device encompasses three fields, each equipped with its own set of rules (see Fig. 4.1). As “intrinsic grammar” (Bernstein, 2000, p. 28), the device itself operates below the empirical surface, but its effects can be observed in different practices enacted in schools and elsewhere. The device works to regulate what knowledge comes to be valued, who gets access to that knowledge, and how that access is mediated through pedagogy. It comprises social relations of power and control that make the production, reproduction, and change of different modalities of educational practice—each underpinned by different codes characterized by differing strengths of classification and framing (Chap. 3)—possible.

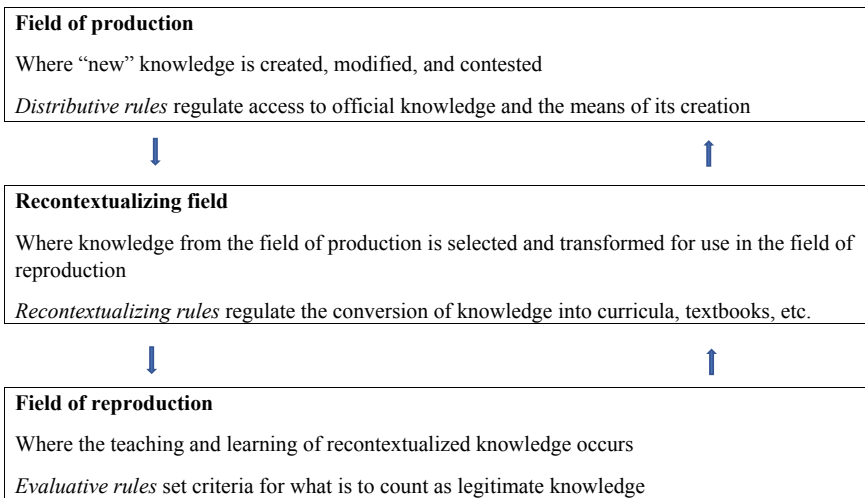


Fig. 4.1 The pedagogic device (adapted from Maton, 2014, p. 51)

4.2.1 *Fields*

The pedagogic device is comprised of three fields of practice: (a) the field of production, (b) the recontextualizing field, and (c) the field of reproduction. They cannot be transposed directly onto an empirical map of different levels of education systems but instead analytically distinguish processes and contexts that shape educational practice (Maton, 2014). The three fields are nonetheless related hierarchically: for knowledge to be recontextualized, it must first be produced; for knowledge to be reproduced, it must first be recontextualized for inclusion in curricula and instructional practices.

The field of production is where “new” knowledge is created, modified, and contested. This happens most typically, but not exclusively, in universities within and across academic disciplines. Here, the concern is not with the reproduction of knowledge in schools (that comes later), but with the construction of discourses—which Bernstein (1990, p. 181) referred to as the “unthinkable” given the limited access that non-specialists typically have to them—that are available to be “pedagogized” into what he termed the “thinkable” (1990, p. 181) for teaching and learning. The field of production encapsulates, for example, the space and activities of physicists. It is where physicists “do” physics, pushing the boundaries of the discipline with new theories and empirical discoveries. “Physics” here (the field of production) looks very different than the physics that is taught and learned in classrooms (the field of reproduction). Much of consequence happens in the recontextualizing field between these two sites.

The recontextualizing field is where knowledge from the field of production is selected, appropriated, and transformed (into curricula, textbooks, and so on) for use in schools through the process of recontextualization. Essentially, it is where specialist knowledge is made into something intended to be accessible to a non-specialist audience. Activity within the recontextualizing field follows a different logic than that which operates in the field of production. To return to the example of physics, Bernstein (2000) noted that those responsible for the development of physics curricula, textbooks, and so on are rarely physicists. That is, they do not work in the field of the production of physics but instead are charged with selecting aspects of the discourse of physics from the field of production, determining how best to relate school physics to other subjects, and then determining how it is to be sequenced and paced in the curriculum and for teaching and learning.

Bernstein conceptualized the recontextualizing field as a site of both conflict and compromise between social actors working in two subfields: the Official Recontextualizing Field (ORF) and the Pedagogic Recontextualizing Field (PRF). The ORF is comprised of “specialized departments and sub-agencies of the State and local educational authorities together with their research and system of inspectors” (1990, p. 192). The PRF includes representatives from university departments and colleges of education, schools, publishers, and the like.⁶ Those working within these fields struggle to determine how discourses from the field of knowledge production are

⁶ In the time since Bernstein’s death, the “educational market” has expanded considerably (Rossi & Kirk, 2020) and the PRF now includes increasing numbers of private providers like Khan Academy

appropriated and recontextualized for teaching and learning in the form of different modalities of curriculum, pedagogy, and evaluation.

The field of reproduction is where pedagogic practice occurs as teachers and students engage with the pedagogic texts (curriculum, instructional materials, professional development, and so on) constructed within the recontextualizing field. Essentially, the field of reproduction is where knowledge that has been recontextualized from academic disciplines to school subjects is taught and learned. Teaching and learning may, of course, involve further recontextualization of discourses from the recontextualizing field. The movement of discourses throughout each field is not a simple conveyer belt (Maton, 2014) and Bernstein stressed that varying degrees of autonomy between them create a “potential discursive gap” (2000, p. 30) with attendant opportunities for change. For example, schools and teachers charged with implementing a heavily scripted curriculum might still choose to incorporate aspects of discourse from students’ homes and communities in an effort to boost student engagement and retention. Teachers’ own ideologies can also shape the extent to which they adopt or modify even the most prescribed educational practices (Timberlake et al., 2017).

4.2.2 Rules

Bernstein’s distinction between the three fields of the pedagogic device highlights key issues neglected by sociological accounts of education that conflate the practices of knowledge production, curriculum construction, and teaching. He emphasized that each field of the pedagogic device has its own structure and logic that should not be reduced to those of other fields. Bernstein (1990) described the logic regulating each field in terms of three sets of rules for constructing pedagogic discourse. Distributive rules operate in the field of production, recontextualizing rules in the recontextualizing field, and evaluative rules in the field of reproduction. As with their home fields, the rules are related hierarchically: recontextualizing rules are both dependent upon the presence of distributive rules and create the conditions under which evaluative rules can operate. Combined, these rules serve as resources for the modalities of educational knowledge codes and pedagogic codes that can be theorized in terms of classification and framing (Chap. 3) and that come to be legitimized and expressed in educational practice.

The struggles over the pedagogic device described by Bernstein are necessarily bound up with relations of power and control; they include conflict over who gets what and how they get it through the implementation of particular models of curriculum, pedagogy, and assessment within the education system. They are struggles to “metaphorically ‘set’ the device” (Maton & Muller, 2009, p. 20) such that

and Teachers Pay Teachers. I am grateful to Parlo Singh for raising this point. Importantly, Bernstein’s theorization of the pedagogic device allows for developments in the pedagogization of knowledge such as this to be incorporated within it.

the code modalities assigned higher status in a field correspond with those of the dominant groups doing the “setting,” while those socialized into different coding orientations may experience difficulty in recognizing and enacting practices deemed legitimate within the field.

The code modalities that come to be legitimated are both privileged in the sense of having priority in a field and privileging by conferring status and positive outcomes upon those most comfortable and adept at engaging with them. To return to an example from Chap. 2, Bernstein determined that the performance of his working-class students suffered on tests of verbal proficiency as a result of a mismatch between the (elaborated) coding orientation implicitly expected and rewarded by the tests and the (restricted) coding orientation that these students tended to move most naturally towards.⁷ Students’ educational opportunities and outcomes are thereby shaped by relations between their coding orientations and those that are valued in schools. Accordingly, Bernstein felt that analyses of the relationship between education and society should include the identification of who controls the pedagogic device and the code modalities they attempt to impose as legitimate.

Distributive rules regulate access to the field of production of knowledge and thus access to both official knowledge (the “thinkable”) and to the means of the construction of new knowledge (the “unthinkable”). In doing so, they also serve to regulate the distribution of different forms of identity and consciousness to different groups of students. Because the ability to engage with the “unthinkable” opens with it the possibility of constructing new meanings, of conceiving alternative possibilities and power relations, those in power commonly seek to control access to it. They attempt to protect their own interests by ensuring that the knowledge to which others have access has been made “safe” and will not disturb the status quo. Importantly, however, their success at doing this is never fully ensured as whatever discourse is made available to students “carries the potential of its own disturbance” (Bernstein, 2000, p. 185). While education can and does tend towards the reproduction of inequality, for Bernstein the possibility for transformation and change is always present within it.

In the recontextualizing field, recontextualizing rules regulate the conversion of knowledge—its de-location from the field of production for relocation in the field of reproduction—into pedagogic discourse. In simpler terms, recontextualizing rules determine how knowledge generated by researchers and innovators is transformed into the curriculum and teaching of subjects at school. According to Bernstein, recontextualizing rules seek to “set the outer limits of discourse” by governing “who may transmit what to whom and under what conditions” (2000, p. 31): the “what” and the “how” of pedagogic discourse. In doing so, recontextualizing rules help to fulfil the pedagogic device’s core function of translating relations of power into educational practice.

⁷ Note that while Bernstein’s initial analyses were to do with social class, his concepts can be applied to the analysis of continuity and change in educational inequality along the lines of race, sex, and anywhere else that it might exist.

Finally, evaluative rules pertain to teaching and learning in the field of reproduction. Through the operation of different modalities of educational knowledge codes and pedagogic codes, they regulate the standards that students are expected to reach and set the criteria for determining whether or not they have reached them. As the source of criteria for what is to count as legitimate knowledge, evaluative rules can be seen as condensing the meaning of the entire pedagogic device (Kwok, 2021; Robertson, 2007).

Taken together, the rules of the pedagogic device are not, as intrinsic grammar, available empirically but rather are known through their realizations as educational practices. This reflects Bernstein's main endeavor in introducing the pedagogic device: the identification of "any general principles underlying the transformation of knowledge into pedagogic communication" (2000, p. 25). This sort of thinking very much aligns with the elements of code theory—the logic underpinning outward expressions of curriculum, pedagogy, and evaluation—thus far detailed in this book. As intimated above, a key reason why Bernstein was particularly interested in this process is because of the significant role that pedagogic communication, as a means of symbolic control, can be expected to play in shaping learners' identities and consciousness.

4.2.3 *Identities*

Bernstein conceived of pedagogic discourse as a key means of symbolic control in modern societies. In his later work (e.g. Bernstein, 2000; see, especially, Chaps. 3 and 4), he began to sketch out various pedagogic identities that different code modalities constructed by the pedagogic device might, as a "symbolic ruler of consciousness" (1990, p. 180), be expected to engender among teachers and learners. This is an exercise that once again highlights the generative capacity of Bernstein's work in imagining scenarios for possible futures and considering the role of education in their development (Muller, 2004; Singh, 2015a). What Bernstein termed "retrospective identities," for example, center on the (national, religious, cultural, and so on) grand narratives of the past and typically draw on resources managed by the state. "De-centered identities" are oriented towards the present and are developed through the affordance of differentiated opportunities and more individualized relevance for a diversifying economy and society. "Prospective identities" are "re-centered" around social categories such as gender or race and are oriented towards the future. They are constructed to deal with anticipated changes to the economy, technology, culture, and so on. Some pedagogic identities are premised on "introjection" and an inward focus on knowledge "for knowledge's sake." Others promote "projection" and are focused on external contingencies and the meeting of more practical social and economic demands.

Bernstein believed that any effort at educational reform was informed by ideological positioning and geared towards the development of specific pedagogic identities among teachers and learners. The official pedagogic discourse produced through the

operation of the pedagogic device is “expected to construct in teachers and students a particular moral disposition, motivation and aspiration, embedded in particular performances and practices” (Bernstein, 2000, p. 65).⁸ While space precludes a cataloging of each of the pedagogic identities postulated by Bernstein here, the key point is that his theorization of the pedagogic device serves to relate identity and the shaping of consciousness with macro issues of social structure, the meso level of policy, and the micro level of the classroom. Efforts to shape identity and consciousness play out in an “arena of struggle” (Bernstein, 1990, p. 206) created by the pedagogic device under the guise of various reform efforts targeting curriculum, pedagogy, and evaluation typically designed according to the interests and biases of those promoting them.⁹ As such, Bernstein viewed the stakes attached to the struggle over control of the pedagogic device as being very high and labeled his efforts to “describe the device which constructs, regulates, and distributes official elaborated codes and their modalities” as “probably the fundamental concern of the whole research endeavor” (1990, p. 2).

4.3 Studies

The concept of the pedagogic device has been developed and refined through the same interaction between theory and research responsible for the advancement of Bernstein’s other most significant ideas. Some initial efforts to engage empirically with the concept include the doctoral work of Cox Donoso (1984), Diaz (1984), and Moore (1984). Each examined in different ways and locations (Cox Donoso in Peru, Diaz in Colombia, and Moore in England) the relations between education (located in a field of symbolic control concerned with the legitimation of knowledge and beliefs) and the field of economic production.¹⁰ Meanwhile, Holland (1985) and Jenkins (1989) both drew on the pedagogic device to examine the educational practices of distinct fractions of the middle class in England. Reflecting the analysis

⁸ In one of his final publications, Bernstein (2001) theorized shifts towards a “Totally Pedagogised Society,” where the influence of the state is promoted by pedagogic means requiring “trainability”—the ability to continuously adjust to “the new requirements of ‘work’ and ‘life’” (Bernstein, 2000, p. 59)—among learners and workers. Though it is not addressed extensively here, illustrative applications of the concept can be found in a number of publications that include, among others, Bonal and Rambla (2003), Ball (2009), and Singh (2015b).

⁹ Regardless of the code modalities it constructs, Bernstein contended that the pedagogic device generally serves to “maintain and reproduce a power-knowledge-consciousness distribution” (1990, p. 203). Accordingly, he posited that, because of the stability of the internal grammar of the pedagogic device (and symptomatic of generally strong classification between education and the economy—the source of education’s relative autonomy across societies), this distribution will tend to remain similar across different (capitalist, socialist, democratic, autocratic, and other) settings.

¹⁰ According to Bernstein, the education system is always characterized by a degree of relative autonomy from the field of economic production. The extent of this autonomy varies with time and context, and it serves to shape the modalities of curriculum and pedagogy implemented across schools. For more on the notion of relative autonomy, see Apple (2002) and Moore (2013).

of “relations to” and “relations within” made possible by Bernstein’s theorizing, a number of studies have likewise drawn on the pedagogic device to examine relationships between education and attributes such as gender (Singh, 1993) and indigeneity (Rose, 1999).

The pedagogic device has also been employed in investigations of education reform across various contexts. Fitz et al. (2006) have examined changes in British education policy (covering moves towards comprehensivization, competition, and choice) over the course of the second half of the twentieth century. The policy shifts are considered as struggles for control of the pedagogic device that makes possible different forms of pedagogic discourse (e.g. performance and competence models and their modalities) and thus has different effects on students’ educational opportunities and identities. Loughland and Sriprakash have detailed similar shifts in Australia, where “economic rationalism has not only become ubiquitous in ... education policy, but has come to recontextualise—or reshape—discourses of social and educational equity through new norms of competition, standardisation and commensurability” (2016, p. 232). Au (2008) has drawn upon the pedagogic device in an analysis of high-stakes testing and social reproduction in the USA while McCloat and Caraher (2020) have worked to integrate Bernstein’s conceptualization of the pedagogic device with Stephen Ball’s concepts of “policy enactment” and “policy actor” in a study of how policy reforms at the macro level translate to the micro level of classroom practice in Irish secondary schools. Focusing on education reform in Singapore, Lim (2017) has explored the pedagogic device as a regulator of critical thinking with consequences for student identity while Tan (2010) has drawn on the pedagogic device in her analysis of government efforts to regulate curriculum in madrasah education.

The pedagogic device has been utilized further in research on the development and teaching of a variety of school subjects and intended learning outcomes across a range of settings. For example, Wright and Froehlich (2012) have applied the pedagogic device in a study of school music instruction; Christie (1999) to the teaching of English; Ashwin et al. (2012) to undergraduate instruction in sociology; Bertram (2009) to the teaching and learning of history; Thomas and Davies (2006) to nurse education; and Backman (2011) to physical education. In employing the pedagogic device in studies of higher education, An Le and Hockey (2022) have explored the promotion of critical thinking in Vietnam while Donnelly (2018) has investigated university-led outreach work in the UK. Finally, Swope (1992) has taken the concept of the pedagogic device outside of schools and applied it to the study of informal pedagogic practices carried out in adult church group meetings in Chile.

Additionally, a number of studies have focused on specific elements of the pedagogic device. Hughson and Wood (2022) have explored the pedagogic device’s distributive rules and their influence in setting the “outer limits of legitimate discourse” (Bernstein, 2000, p. 31) in a critique of the instrumentalist conceptualization of disciplinary knowledge in the Organisation for Economic Co-operation and Development’s “Learning Compass 2030” document. Singh et al. (2013) have analyzed recontextualization across the Official and Pedagogic Recontextualizing Fields in a study on the work of mid-level policy actors in interpreting policy texts

for incorporation in practice by teachers in Australia. Engaging Foucauldian theorizations of knowledge and power and also with the critical policy work of Stephen Ball and colleagues, the study highlighted how moving discourse from one field to another across the pedagogic device creates space—a “discursive gap” (Bernstein, 2000, p. 30)—for challenge and change as policy discourses are recontextualized and transformed into practice. Lastly, Kwok (2021) examined tensions between the pedagogic device’s distributive rules and evaluative rules in a study of the politics of curriculum reform in postcolonial Hong Kong. In exploring the relations between knowledge and power, the study applied post-structural insights from both Michel Foucault and Jacques Derrida in attempting to enrich Bernstein’s conceptualization of the pedagogic device. It demonstrated how evaluative rules (in the form of high-stakes testing) can work to constrain access to potentially subversive or transformative knowledge ostensibly made available through the operation of distributive rules.

This is not an exhaustive list of research using the pedagogic device, yet it underscores again the considerable scope—in terms of both method and subject matter—with which the concept has been and continues to be applied. Further, a number of the studies mentioned above highlight the utility of Bernstein’s theoretical framework for supporting analyses across a range of political economic and geographical contexts including the postcolonial and the Global South. Many of these studies also reveal how a diversity of perspectives, including post-structuralism and critical policy analysis, can be employed in ways that are complementary with Bernstein’s theorizing.

4.4 Conclusion

Bernstein concluded that the pedagogic device should serve as the “fundamental theoretical object” (1990, p. 190) of the sociology of education. The pedagogic device encompasses macro, meso, and micro levels of analysis to account for the creation, curricular organization, and teaching and learning of knowledge that combine to make education a distinctive field. In seeking capture both “relations to” and “relations within” education, as well as the interplay between them, Bernstein’s theorization not only allows for a deeper understanding of how inequality is reproduced within the education system, it also makes it possible to consider how these processes might be interrupted. Against the determinism often associated with the critical approaches outlined at the beginning of this chapter, Bernstein ultimately recognized that modalities of curriculum and instruction constructed by the pedagogic device could promote “enhancement” by providing students with “the means of critical understanding and to new possibilities” (2000, p. xx). Chapter 5 focuses on Bernstein’s developing theorization of the forms of knowledge that can help to generate these new understandings.

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Chapter 5

Recovering Knowledge: Discourses and Knowledge Structures



Each paper from the earliest is really part of a future series, which at the time of writing was unknown. ... From this point of view, for me, the aim of a paper is productive imperfection. That is, it generates a conceptual tension which provides the potential for development. (Bernstein, 2000, p. 211)¹

This book has traced the trajectory of Basil Bernstein's expansive sociology of education from a focus on language and communication codes (Chap. 2) to an exploration of the educational knowledge codes and pedagogic codes that shape educational practice (Chap. 3) through to the theorization of the pedagogic device responsible for the structuring of pedagogic discourse (Chap. 4). Even still, he identified that there was work yet to be done. The elaborated codes that are differentially valued in schools, the social contexts that generate them, and different modalities of curriculum, pedagogy, and evaluation that carry them had been analyzed, but the "discourses subject to pedagogic transformation" (Bernstein, 2000, p. 155) had not. In particular, Bernstein acknowledged late in his career that his theorization of the pedagogic device had left "the *forms* of the discourses, that is the internal principles of their construction and their social base ... taken for granted and not analysed" (2000, p. 155, emphasis in original).

Some of Bernstein's final analyses centered accordingly on modeling the intellectual fields and practices from which educational knowledge comes and on the discourses and knowledge structures that they produce. The issue of knowledge has long been positioned in what Moore and Maton (2001) have termed a "blind spot" for the sociology of education as a result of the field's tendency to reduce knowledge to power relations rather than to conceptualize it as an object with properties and emergent effects of its own. Against these tendencies, the forms taken by knowledge that can be selected, rearranged, and "pedagogized" for teaching and learning in schools became a significant focus for Bernstein towards the end of his career.

¹ *Pedagogy, symbolic control and identity: Theory, research, critique*, Basil Bernstein. Copyright © Basil Bernstein 1996, 2000. Reproduced with permission of Rowman and Littlefield Publishing Group Inc through PLSclear.

Certain aspects of his thinking here can be traced back to ideas that originated across previous decades while others were more embryonic. As such, Bernstein's late career work opened numerous possibilities for the continued development of his theorizing that is suggested in the epigraph above.

5.1 Looking Back and Moving Forward

It is important to begin by recognizing the considerable momentum that had gathered behind the ideas introduced in this chapter. Their genesis lies at the very outset of Bernstein's project and their continued development in his final publications represents but another step on a journey that had commenced long before. Tracing their evolution in a linear manner proves difficult because Bernstein often reworked, renamed, and even replaced key ideas in addressing a problem that remained constant throughout his work: that of unequal access to educational knowledge and the more equitable opportunities for social inclusion and participation that he always believed it could support (Moore, 2013).

In a preview of ideas about forms of knowledge that he would return to much later, Bernstein argued early in his career that schooling was "necessarily concerned with the transmission and development of universalistic orders of meaning" (1971, p. 196). He later went as far as to state that: "The introduction of the child to the universalistic meanings of public forms of thought ... *is education*" (1990, p. 200, emphasis in original). This sort of knowledge (representative of the Durkheimian "sacred") is not generally available to students through incidental or observational learning resulting from everyday experience (representative of the Durkheimian "profane").² It is specialized, principled, "uncommonsense" (Bernstein, 1977, p. 99) knowledge typically accessed through schooling, which becomes progressively more complex and abstract throughout learners' educational trajectories. Mastery of this type of knowledge most often requires pedagogic action extended over time.

Bernstein (1971) had established that students' successful appropriation of educational knowledge is premised on their having developed an orientation towards the more generalizing and context-independent meanings carried by elaborated codes.

² For both Durkheim and Bernstein, the sacred has its roots in religious cosmologies as a source of meaning-making and symbolic control (see Chap. 1). Both also saw a continuity between religious and educational systems in that the role of the latter in modern societies can in important respects be seen as an equivalent of the former in pre-modern times (Moore, 2013). While the existence of a boundary between the sacred and profane is universal, the specific content of each is socially and historically contingent (Nylund & Rosvall, 2016). Bernstein's interest here was in "exploring the social organisation of knowledge in a particular set of historical circumstances" (Moss, 2001, p. 159). Some of his later work highlighted changes in the relationships between educational institutions (and those engaged within them), policymakers, and private actors in the market that are ongoing today. A brief but fascinatingly incisive example of how Bernstein related changing social practices to changes in the organization of knowledge can be found in "Thoughts on the Trivium and Quadrivium: The Divorce of Knowledge from the Knower," Chap. 5 in *Pedagogy, symbolic control and identity* (Bernstein, 2000).

This is not something that all students are equally likely to bring to school with them, nor is it something that most are formally taught to adopt once there. Students who neither possess nor quickly develop such an orientation to meaning upon entry to school are left increasingly disadvantaged throughout their educational careers. Research drawing on Bernstein's thinking here (e.g. Bautier, 2011; Bernstein, 1973; Painter, 1999; Rose, 1999; Williams, 1999) has demonstrated that, as a result of their primary socialization experiences in the family and, more broadly, the family's position in the division of labor, some students are more likely than others to develop an orientation to the elaborated codes upon which educational success largely depends (Chap. 2).

Bernstein believed that what we know influences who we are and our conceptions of what we can become. He thus contended that the unequal distribution of the elaborated codes upon which school success is based contributed to an unequal distribution of social power resulting from students' differential access to "the principles of intellectual change" (1971, p. 175) and the development of a conscious and "reflexive relationship to ... the grounds of [their] socialization" (1971, p. 176). The issue of ensuring that all students are supported in engaging with knowledge that can support their understanding of—and their capacity to imagine and develop alternatives to—the conditions in which they live represented for Bernstein a fundamental principle of social justice (Moore, 2013).

5.2 Discourses and Knowledge Structures

In training his focus towards knowledge, Bernstein understood that he was entering contested territory. The subject was one that had risen to prominence with the advent of the new sociology of education (NSOE) in the 1970s (Chap. 4). The NSOE equated knowledge with relations of social power and set out to reform a curriculum that it saw as valorizing ostensibly biased forms of academic knowledge and neglecting the everyday knowledge, interests, and experiences of students from marginalized groups. However, Bernstein (1977) suggested that such a conceptualization of knowledge had more to do with ideological positioning than with recognizing and accounting for substantive differences that existed between different forms of knowledge. It presented academic knowledge as "the means whereby a dominant group is said to impose itself upon a dominated group and functions to silence and exclude the voice of this group" while the "excluded voice" of local or everyday knowledge is "transformed into a latent pedagogic voice of unrecognized potential" (2000, p. 156).

Bernstein was wary of the tendency for both academic and everyday knowledge to be "romanticized as a medium celebrating what the other form has lost" (2000, p. 156). He was thus very conscious to avoid this impulse in attempting to theorize the organizing principles of different forms of knowledge, to identify the substantive differences within and between them, and to locate the social basis of these differences (Muller, 2022). In other words, he did not view everyday knowledge as a deficit

version of academic knowledge nor did he consider academic knowledge as the functional equivalent of everyday knowledge. In refraining from assigning an ideological charge to his conceptualization of knowledge and recognizing instead that different forms of knowledge are produced under different social conditions, offer learners different affordances, and are unequally distributed to those from differing social backgrounds, Bernstein's contribution to the sociology of education and knowledge here has been characterized as truly radical (Moore & Muller, 2002). Principal among the ideas Bernstein introduced in beginning to flesh out his thinking about these matters were the concepts of discourses and knowledge structures.

5.2.1 Horizontal Discourse and Vertical Discourse

In developing the notion that the academic knowledge conveyed through schooling is of a different form and character than that typically accessed through everyday experience, Bernstein distinguished between horizontal and vertical discourse. Horizontal discourse involves “‘common sense’ knowledge” that, among other things, “is likely to be oral, local, context dependent and specific” (2000, p. 157). It is often communicated through face-to-face interactions, which can involve more tacit forms of modeling or more direct forms of demonstration and explanation. A key feature of horizontal discourse is that it is organized segmentally: knowledge, competencies, or strategies that can be usefully applied in one context do not necessarily retain their meaning, relevance, or applicability in another. Horizontal discourse is oriented towards the present and most commonly develops to serve a pragmatic purpose in a particular, everyday context but it is not generally transferable to others. Bernstein notes, for example, that “[l]earning how to tie up one's shoes bears no relation to how to use the lavatory correctly” (2000, p. 159). They are two different realizations of horizontal discourse that are learned segmentally and that are to be applied in their own discrete contexts. According to Bernstein, knowledge, competencies, or strategies organized in this manner do not advance cumulatively through the “integration of their meanings by some coordinating principle” (2000, p. 158). Rather, the process of learning them is “exhausted in the context of enactment” (2000, p. 159). Once it is learned, it is learned, and the knowledge or competence gained is unlikely to serve as a building block for a more complex understanding or competency.

Vertical discourse, on the other hand, “takes the form of a coherent, explicit, and systematically principled structure” (Bernstein, 2000, p. 157). It is typically academic or disciplinary knowledge. Rather than relating directly to its context as is the case with horizontal discourse, vertical discourse is characterized by “an indirect relation to a specific material base” (Bernstein, 2000, p. 30). This is important because it entails the opening of what Bernstein (2000, p. 30) termed a “discursive gap” that can support alternative ways of thinking (the previously “unthinkable”) and the potential for change. Vertical discourse is less context-dependent than horizontal discourse and relates hierarchically to other meanings instead. Rather than being exhausted after a single event or limited series of instances (one usually needs to be taught

to dial a phone only once, for example), the teaching and learning of knowledge realized through vertical discourse tends to be a formal, ongoing process oriented towards the future and the sequential development of additional knowledge and competencies (one needs to learn to count before learning to add or subtract, for example). Moore (2013) references following the stages of a mathematical proof to understand a theorem as an illustration of a realization of vertical discourse. As it requires more sustained and principled forms of teaching and learning, access to the knowledge realized through vertical discourse is subject to more extensive forms of regulation such as through the administration of assessments at school (Moss, 2000). While Bernstein was wary of ideologically charging his conceptualization of different forms of knowledge as described above, he was nonetheless concerned that their unequal social distribution might present some learners with an educational experience that denies them access to the affordances of vertical discourse.

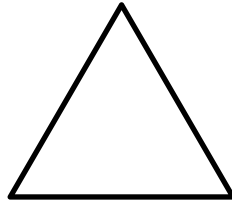
5.2.2 *Hierarchical Knowledge Structures and Horizontal Knowledge Structures*

In extending his conceptualization of vertical discourse (he did not make similar distinctions within horizontal discourse), Bernstein distinguished further between two different knowledge structures. He suggested that vertical discourse can be “hierarchically organised as in the sciences, or it takes the form of a series of specialised languages with specialised modes of interrogation and specialised criteria for the production and circulation of texts as in the social sciences and humanities” (2000, p. 157). He termed the former form of organization a “hierarchical knowledge structure” and the latter a “horizontal knowledge structure.”³ The key distinction has to do with how knowledge advances within each structure. Hierarchical knowledge structures are coherent and systematically principled organizations that develop as new knowledge integrates or extends previous knowledge. Within hierarchical knowledge structures, the integration of knowledge at lower levels allows for the creation of more general and abstract propositions and theories capable of explaining an expanding range of empirical phenomena. Horizontal knowledge structures, on the other hand, comprise a series of more strongly bounded approaches that are organized and develop through the accumulation of additional segmental explanations.

As they “appear by their users to be motivated towards greater and greater integrating propositions, operating at more and more abstract levels,” Bernstein used a triangle to represent hierarchical knowledge structures (2000, p. 161). The tip at the top of the triangle represents the more abstract and general proposition(s) or theory

³ The two forms of knowledge structures are different from the two forms of discourse introduced by Bernstein. Because there are “horizontal” forms of both, it is not uncommon for those drawing on Bernstein’s concepts to mistakenly reference “vertical knowledge structures” or “hierarchical discourse.” In Bernstein’s model, however, there is no such thing as a vertical knowledge structure or hierarchical discourse. This is another instance (see also the discussion of restricted and elaborated codes in Chap. 2) where he might have been more deliberate in naming his concepts.

that can effectively explain the broader range of empirical phenomena represented by its base. As Moore has noted with reference to Bernstein's concepts of classification and framing, for example: "A set of ethnographic studies of progressive primary schools [comprising a lower section closer to the base of the triangle] could be brought together in the expression –C–F [closer to the top of the triangle]" (2013, p. 150). Hierarchical knowledge structures advance (and debates within them have the potential to be adjudicated) through the "development of theory which is more general, more integrating, than previous theory" (Bernstein, 2000, p. 162).



In contrast, Bernstein visually portrayed the "series of specialised languages with specialised modes of interrogation and criteria for the construction and circulation of texts" (2000, p. 161) characteristic of horizontal knowledge structures as follows:

$$L^1 L^2 L^3 L^4 L^5 L^6 L^7 \dots L^n$$

According to Bernstein, for example: "[I]n the case of English Literature, the languages would be the specialised languages of criticism ... and in Sociology ... the languages refer ... to functionalism, post-structuralism, post-modernism, Marxism, etc." (2000, pp. 161–162). Horizontal knowledge structures typically develop through the accumulation rather than the integration of approaches and explanations because, in making "different and often opposing assumptions" and sometimes even having different criteria for "what counts as evidence and what counts as legitimate questions" (2000, p. 162), these approaches may not be translatable. Each "new language" developed within a horizontal knowledge structure offers it "the possibility of a fresh perspective, a new set of questions, a new set of connections, and an apparently new problematic, and most importantly a new set of speakers" (2000, p. 162). This offers the possibility of greater inclusivity and new insights to the field. However, the new language may also be incommensurable with those that have come before. Rather than seeing this incommensurability as a problem, the new language's "speakers" sometimes proclaim it to be a counter-hegemonic virtue as the new language ostensibly replaces the dominant approaches and explanations (and, frequently by association, the speakers) of the past.

5.2.3 Grammar

Bernstein added that horizontal knowledge structures can be differentiated further in terms of the strength of their “grammar.” He suggested that horizontal knowledge structures with strong grammars include disciplines such as mathematics, linguistics, and economics “whose languages have an explicit conceptual syntax capable of *relatively* precise empirical descriptions and/or of generating formal modelling of empirical relations” (2000, p. 163, emphasis in original). For example, the concept of scarcity in economics can be used to unambiguously describe a predicted price hike for food related to a grain shortage. Horizontal knowledge structures with weaker grammars are less able to clearly articulate the objects, concepts, and methods of study that define the field. Bernstein (2000) included anthropology, cultural studies, and sociology among them. Whereas hierarchical knowledge structures and horizontal knowledge structures with stronger grammars tend to have relatively definitive problem fields and are generally clearly demarcated from other disciplines, in the case of a horizontal knowledge structure with weak grammar such as sociology, one “may well be anxious whether he/she is really speaking or writing Sociology” (2000, p. 164). The field, its concepts, and methods are wide-ranging; its problematic is less defined and may overlap considerably with other disciplines. Here, “what counts in the end is the specialised language, its position, its perspective, the acquirer’s ‘gaze,’ rather than any one exemplary theory” (2000, p. 165).

Although the terminology of discourses and knowledge structures developed around the turn of the twenty-first century, Bernstein’s identification of the difficulties faced by the sociology of education as a result of what he came to describe as its horizontal knowledge structure and relatively weak grammar dates at least as far back as the 1970s. In “The Sociology of Education: A Brief Account,” he argued that:

In a subject where theories and methods are weak, intellectual shifts are likely to arise out of conflicts between *approaches* rather than conflicts between explanations, for, by definition, most explanations will be weak and often non-comparable, because they are approach-specific. The weakness of the explanation is likely to be attributed to the approach, which is analysed in terms of its ideological stance. Once the ideological stance is exposed, then all the work can be written off. Every new approach becomes a social movement or sect which immediately defines the nature of the subject by re-defining what is to be admitted, and what is beyond the pale, so that with every new approach the subject starts almost from scratch. Old bibliographies are scrapped, the new references become more and more contemporary, new legitimations are “socially constructed” and courses take on a different focus. (1977, pp. 167–168, emphasis in original)

What Bernstein suggested here is that, from the 1970s, the sociology of education came to be defined by a series of approaches that sought to distinguish themselves by revealing the interests that they perceived as underpinning other approaches, by reducing these interests into the central characteristic of these other approaches, and then by seeking to start afresh by replacing these other approaches rather than working to refine and build upon concepts and methods that might be more useful

for addressing problems in the field (Moore & Muller, 1999). Identifying a resultant tendency towards “witch-hunting and heresy-spotting” as “dangers of approach paradigms” (1977, p. 158) that characterized it, Bernstein called for “a widening of the focus of the sociology of education, less an allegiance to an approach and more a dedication to a problem” (1977, p. 171). Wary of these dangers, Bernstein was deliberate in attempting to make explicit the criteria he applied in generating his own theory.⁴ This is an issue he returned to in some of his final publications through his conceptualization of discourses and knowledge structures.

5.3 Studies

Bernstein was hopeful that his introduction of the ideas outlined in this chapter might lead to “a more general perspective” and “new research possibilities and interpretations” (2000, p. 156). They have indeed fueled a number of empirical studies on forms of knowledge, the social conditions of their production, and their implications for teaching, learning, and equity. For example, while the aim of incorporating everyday knowledge into classrooms often includes the democratization of access to academic knowledge, a number of studies drawing on Bernstein’s theorizing have suggested that this is not always an end result. Bautier (2011) has documented how an increasing emphasis on the incorporation of horizontal discourse into French classrooms and curricula can result in the potential for diminished access to vertical discourse for some students, especially in schools serving large numbers of those from historically marginalized backgrounds. Wheelahan (2007, 2010) has reached similar conclusions in a very different context: vocational education and training (VET) in Australia. In particular, she has demonstrated how competency-based training provides working-class and other students that are typically overenrolled in these programs with “access to the procedural knowledge of horizontal discourse” but “denies [them] access to the structuring principles of disciplinary knowledge” (2007, p. 637). These results have been echoed in Nylund and Rosvall’s (2016) study of reforms to VET in Sweden, which underscored the consequences of limited access to vertical discourse for students’ identities as workers and citizens. Studies such as these support Bernstein’s own prediction about the potentially contradictory results of incorporating horizontal discourse as a form of “pedagogic populism in the name of empowering or unsilencing voices to combat the élitism and alleged authoritarianism” (2000, p. 170) represented by vertical discourse.

This is not to say that Bernsteinian researchers have denied outright the value and applicability of everyday knowledge for schooling and beyond. For example, in the context of sex education, Ivins has discussed the potential of encouraging “two-way traffic” (2007, p. 202) between horizontal and vertical discourse so that

⁴ See, for example, “Codes and Research,” Chap. 6 in *Pedagogy, symbolic control and identity* (Bernstein, 2000), as well as the illuminating interview with Dr. Joseph Solomon (perhaps especially pp. 211–212) that closes the volume.

the incorporation of the former can support students' access to the latter but also so that academic knowledge can be brought to bear in informing students' everyday decision-making and practices. Likewise, Doherty (2015) has drawn on two ethnographic case studies of prevocational curricula offered as non-academic pathways to explore relevance as a curriculum principle in Australia. She demonstrated how, though it might align with student demands and desires for "relevance-for-now," a curriculum overly centered on horizontal discourse can constrain opportunities for them to imagine alternate futures. However, she detailed a second program that articulated aspects of horizontal and vertical discourse in appearing to more effectively link the notion of relevance with deeper curriculum understanding and broadened horizons for students. As have others drawing on Bernstein's theorizing here (e.g. Dempster, 2020; Tsatsaroni et al., 2003), these studies point towards how knowledgeable and skilled teachers must be in order to do so. However, the development of the knowledge and skills that underpin the most effective teaching may be limited by recent shifts towards classroom- and experience-based models of teacher education in England and elsewhere (Hordern, 2015). These have the potential to diminish teachers' autonomy and access to vertical discourse with potentially limiting consequences for teachers' capacity and "sense of the subversive potential of disciplinary knowledge" (Ivinson, 2007, p. 214).

A number of other studies have focused more specifically on the horizontal and hierarchical knowledge structures within vertical discourse. These have often concentrated on labeling and "mapping" the knowledge structures of academic disciplines and school subjects. Wignell (2007), for example, has examined the social sciences as an intellectual field with a knowledge structure that appears more difficult to classify than others such as the physical sciences (hierarchical knowledge structure) or the humanities (horizontal knowledge structure). Ekberg (2021) has made similar efforts with regard to physical education, another school subject with a knowledge structure that is difficult to discern and that likely comprises different knowledge structures across different learning areas and knowledge domains.

Meanwhile, Christie and Macken-Horarick (2007) have suggested that English, as a school subject, can be characterized as a horizontal knowledge structure with weak grammar where students' success is premised on the adoption and implementation of a particular "gaze" (Bernstein, 2000) that teachers have most often communicated implicitly rather than explicitly modeling and explaining for them. In a similar vein, Morais and Neves (2016) have investigated the teaching of school subject science. A problem they identify is that, while a subject such as biology may be characterized by a hierarchical knowledge structure, the discourse on science education (that is, on *teaching* science) typically includes various parallel and largely incommensurable languages—horizontal knowledge structures—with which science educators selectively align themselves. Among many educators, lowering what Morais and Neves describe as "conceptual demand" is adopted as a seemingly logical, but ultimately unsuccessful and inequitable, method of fostering access to hierarchical knowledge structures for some students.

5.4 Conclusion

It is very important not to read moral or value judgements into Bernstein's conceptualizations of discourses and knowledge structures. His appropriation and frequent utilization of Durkheim's (1977) terminology of the "sacred" and "profane" in developing these ideas has likely muddied waters and contributed, for example, to deficit readings of horizontal discourse and horizontal knowledge structures by others. Bernstein's intention was neither to denigrate horizontal discourse and horizontal knowledge structures nor to define vertical discourse and hierarchical knowledge structures as somehow superior. The affordances of each should be recognized, theorized, and taken seriously by researchers and teachers looking to most equitably support students' learning. As was the case with concepts such as restricted and elaborated codes, visible and invisible pedagogies, and others developed earlier in his career, Bernstein's primary concerns in offering these additional concepts were with the social relations behind their production and distribution, with the practices that they underpin, and with the implications that these might have for education and for social reproduction and change more broadly.

Indeed, a number of the studies engaging with these concepts have pointed towards the utility of classroom practices that draw upon and interweave different forms of knowledge in supporting academic success and inclusion for all students. Bernstein himself made a tantalizing suggestion here in raising the possibility of a "radical visible pedagogy" (1990, p. 72), one of many of his ideas that is ripe for further development. Recognizing that Bernstein's concern "was not [with] the inevitable regulation of children's social formation through education as their induction into social order, but [with] the unequal distribution of rights of participation in the construction of that order; rights of seeing oneself as valued within that order; and rights of personal enhancement" (Bourne, 2003, p. 499), radical visible pedagogy has been conceptualized as a means of supporting students' critical understanding of, and ultimately their ability to change, their place in society (Barrett & McPhail, 2023).

As a result of the developing nature of Bernstein's theorization of concepts such as discourses and knowledge structures at the time of his death, Muller has noted that it "merely starts the ball rolling" (2006, p. 141). The ideas have proven fruitful in providing the potential for future development, particularly with a view towards promoting the educational equity that drove Bernstein's thinking from the very beginning. The manner in which they have inspired social realism as one form of scholarship that has sought to continue advancing Bernstein's sociology of education is discussed next.

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Chapter 6

Continuing Bernstein: Social Realist Sociology of Education



Bernstein ... was a realist, but without a theory of realism. (Moore, 2013a, p. 190)¹

Basil Bernstein's theory was deeply rooted in a Durkheimian conceptualization of pedagogy. He claimed that Durkheim offered "magnificent insight" (1971, p. 171) into its relationships with symbolic control, cultural reproduction, and change. For Durkheim, pedagogy had much to do with access; but access to what? Perhaps the most immediate answer here is knowledge (Barrett & Moore, 2015). Some of Bernstein's final work began to sharpen the conceptualization of knowledge within the sociology of education by attempting to theorize what has (and has not) been selected, rearranged, and "pedagogized" to become the knowledge that is taught and learned in schools. While the genesis of this effort stretches back to earlier phases of his project (e.g. 1971, 1977), it garnered its most direct attention in works such as "Vertical and Horizontal Discourse: An Essay" (1999) and *Pedagogy, symbolic control and identity* (2000).

In developing the notion that the academic knowledge conveyed through schooling is of a different form and character than knowledge typically gained through everyday experience, Bernstein came to distinguish between vertical and horizontal discourse (Chap. 5). The former tends towards context-independence and relates hierarchically to other meanings, while the latter is more strongly related to context and does not develop cumulatively. He drew a further distinction between hierarchical and horizontal knowledge structures within vertical discourse. Hierarchical knowledge structures develop when the integration of knowledge at lower levels allows for the creation of more general and abstract propositions and theories aimed at explaining an expanding range of empirical phenomena. Horizontal knowledge structures, on the other hand, typically develop through the accumulation rather than the integration of different approaches and explanations. Depending on the strength of a discipline's "grammar"—essentially, the relationship between its ideas or concepts and their referents—those characterized by horizontal knowledge structures are more (stronger

¹ *Basil Bernstein: The thinker and the field*, Rob Moore. Copyright © Rob Moore 2013. Reproduced with permission of Taylor & Francis Group through PLSclear.

grammar) or less (weaker grammar) able to clearly articulate the objects and methods of study that define them.

Bernstein's conceptualizations of discourses and knowledge structures helped to make knowledge more visible as an object of study and provided the sociology of education with the basis for a language with which to investigate it (Maton & Moore, 2010a). His introduction of these concepts also contributed to a diagnosis for at least one cause of the difficulties faced by the sociology of education in promoting cumulative knowledge about its core problems: its horizontal knowledge structure and relatively weak grammar. Bernstein consistently worked to counter this problem through the development of an "internal language of description" (2000), a coherent conceptual language capable of being translated into concrete and precise descriptions of empirical data (Chap. 3).

Nevertheless, Bernstein's work in conceptualizing knowledge and knowledge-producing fields was left unfinished at the time of his death. Concepts such as discourses and knowledge structures afford significant insight but themselves require deeper theorization. Otherwise, for example, the pedagogical value in drawing on students' everyday knowledge (horizontal discourse) in helping them access the academic knowledge (vertical discourse) upon which school success is premised might be ignored, or horizontal knowledge structures might come to be seen as deficit versions of hierarchical knowledge structures. Rather than serving as his project's final word, the concepts represent instead an example of how this aspect of Bernstein's project "starts the ball rolling" (Muller, 2006, p. 14) for further development.

Fortunately, and somewhat unusually among contemporary high theorists in the social sciences, Bernstein endeavored throughout his career to be clear about how others could put his ideas to work, revising and even replacing his concepts where necessary to generate what he called "news" of their own (Moore, 2013a). In addition to efforts to advance Bernstein's theory "from within," such as contributions to the biennial International Basil Bernstein Symposium that ran from 2000 to 2014, scholars have connected Bernstein's thinking to other fields, such as systemic functional linguistics (e.g. Hasan, 2009; Christie & Martin, 2007; Christie & Maton, 2011) and to other theories and thinkers, such as activity theory and Vygotsky (e.g. Daniels & Tse, 2020; Daniels, 2004). This chapter will detail in particular how social realism, a perspective in the sociology of knowledge and education (as opposed to in the field of aesthetics, where the term has been used for some time and in a different manner), has drawn upon Bernstein's thinking about knowledge and connected it with meta-theoretical influences such as critical realism in an effort to develop a realist sociology of education.

6.1 Towards a Realist Sociology of Education

Due in part to differences between his methods of analyzing educational inequality and those more generally endorsed throughout a field he came to characterize as a horizontal knowledge structure with weak grammar—one focused on approaches

over explanations and struggling to clearly articulate the objects and methods of study that define it—Bernstein did not locate himself *within* the sociology of education. His project developed in part as a critique of the relativizing consequences of critical approaches in the field that he saw as tending towards a reduction of knowledge to power and epistemology to standpoint (Moore, 2013a). While he certainly acknowledged significant and unequal relationships between knowledge and power, Bernstein resisted the impulse to collapse one into the other.

Additionally, in a field he saw as becoming consumed by position-taking, Bernstein was wary of “epistemological botany” (2000, p. 94): the effort to label and, frequently, dismiss different theoretical approaches, cutting them off from productive “conversation” with others. He considered this a limiting distraction from the real work of creating news through researching and ultimately working to address social and educational inequality. For Bernstein, “theories of different kinds, the ‘isms,’ Marxism, Functionalism, Symbolic Interactionism, Post-structuralism, etc., are *resources* to be mobilised and configured around a problem—and it is the *problem* that counts *not* the approach” (Moore, 2013a, p. 90, emphasis in original). As such, Bernstein argued for “a widening of the focus of the sociology of education, less an allegiance to an approach, and more a dedication to a problem” (1977, p. 171).

Although Bernstein was deliberate in offering methodological principles that can themselves be said to act like an “ism,” and perhaps due to a desire to avoid the traps of “botanizing,” he remained rather silent on matters of ontology and epistemology. It can be argued, however, that Bernstein enacted a tacit realism. Rob Moore, one of the founders of the social realist perspective detailed in this chapter, has argued that Bernstein’s theory developed explicitly through the creation of an internally coherent conceptual language and the consistent provision of models to support empirical research. The findings generated by this research can then “speak back” to the theory to facilitate conceptual refinement and increased explanatory power. Such a theory presupposes a realist ontology in that it “addresses (‘engages with’), rather than merely discursively *constructs*, an object which *announces* itself from *outside* the theory” (Moore, 2013a, p. 125, emphasis in original). The ability of the real to “announce itself” to the theory means that the theory is always open to further development. Therefore, in the absence of an explicitly articulated ontology or epistemology—and despite his apparent disinterest in suggestions by others that his theory might reflect a critical realist interpretation of these matters—Bernstein has been described as a “realist, but without a theory of realism” (Moore, 2013a, p. 190).

In building on this notion, a growing number of scholars have contributed to the development of social realism. In doing so, they have worked to connect Bernstein to philosophies that, along with critical realism (Moore, 2013b; Wheelahan, 2010), include critical rationalism (Maton, 2014) and Cassirer’s philosophy of symbolic forms (Young & Muller, 2010a) among others. In addition to the principal inspiration it has received from Bernstein, social realism has also engaged with the foundational work of theorists including Durkheim, Popper, and Vygotsky, to name but a few. This engagement is in keeping with Bernstein’s own practice of mobilizing theories as resources around a problem. Still, social realism draws most extensively upon

Bernstein's ideas about the structuring of knowledge and knowledge-producing fields as well as their implications for educational practices such as curriculum-making, pedagogy, and assessment. It works to make explicit a realism that Bernstein assumes and implies but did not systematically address (Moore, 2013a).

6.1.1 “Coalition of Minds”

The development of social realism as a school of thought involved what, to capture the different points of focus across a group of sociologists with a shared interest in taking knowledge seriously as an object of study, has been termed a “coalition of minds” (Maton & Moore, 2010b). Its origins can be traced to Cambridge, England, around the turn of the twenty-first century. At that time, conversations between John Beck, Rob Moore, Karl Maton, and Johan Muller (Beck was then Principal Lecturer and Moore Senior Lecturer at Homerton College, Cambridge; Maton was completing a doctoral thesis at Cambridge; and Muller was on sabbatical in Cambridge) led to a series of publications on the structuring of knowledge. Their focus is reflected in titles such as “For Knowledge” (Moore, 2000), *Reclaiming knowledge* (Muller, 2000), and “Founding the Sociology of Knowledge” (Moore & Maton, 2001).

Another of these seminal publications, Moore and Muller's “The Discourse of ‘Voice’ and the Problem of Knowledge and Identity in the Sociology of Education” (1999) drew upon Bernstein's concern about the side-lining of knowledge in the field to argue that various forms of voice discourse, as influential approaches at that time, too often reduced knowledge to power. Doing so, they suggested, limited the ability of sociologists of education to make strong knowledge claims in support of the social and educational justice they avowedly set out to promote. The article prompted a response from Michael Young (2000) that endorsed Moore and Muller's criticisms of voice discourses but argued that they required a stronger theory of knowledge from which to develop alternatives to the approaches they critiqued.² Young soon worked with Moore (Moore & Young, 2001), drawing on scholarship by contemporary thinkers including J. C. Alexander (1995) and Randall Collins (2000) as well as the foundational inspiration of Durkheim, to contend that knowledge can be stratified according to epistemological principles in ways compatible with efforts to *reduce* social stratification. The evolution of Young's thinking about knowledge is captured further in his book *Bringing knowledge back in: From social constructivism to social realism in the sociology of education* (2008).

In 2008, the First International Social Realism Symposium was held at Homerton College, Cambridge. It brought social realism's founding contributors together with others, including a number of critical realist philosophers, engaging with similar ideas. Principal among these new contributors was Leesa Wheelahan, who at that

² Young's (1971) own edited collection *Knowledge and control* served in key ways to usher in the new sociology of education and its focus on linking knowledge to social location and on breaking boundaries between everyday and academic knowledge in the curriculum (Chap. 4).

time was a visiting scholar in Cambridge's Faculty of Education as she completed her work on *Why knowledge matters in curriculum: A social realist argument* (2010). Reflecting an increasing engagement with social realism both across disciplines and outside of England, the Disciplinarity, Knowledge and Language Symposium held at the University of Sydney in 2008 brought social realists together with systemic functional linguists. Second (2013) and Third (2015) International Social Realism Symposia were held at Cambridge; they have continued on as the Cambridge Symposium on Knowledge in Education (the fourth was held in 2017, the fifth in 2019, and the sixth in 2022), with the revised title intended to reflect an inclusive and broadening focus on matters of curriculum, pedagogy, and equity by researchers and practicing teachers from across a variety of backgrounds. Following on from Bernstein's efforts to theorize knowledge and knowledge-producing fields, social realism has endeavored to bring these matters to the front and center of the sociology of education. It does not claim that knowledge is the *only* object worthy of study across the field but rather issues the reminder that the teaching and learning of knowledge remains at the heart of the process of education and should not be neglected by educational researchers.

In seeking to move beyond entrenched positions around knowledge within the sociology of education, social realists set out early on to grapple with the "epistemological dilemma" (Alexander, 1995) that they felt had come to stymie the field. The epistemological dilemma arises when the completely valid assertion that all knowledge is socially produced within particular historical and political contexts is followed by the corollary that knowledge, to be knowledge, must remain entirely independent of these things (Moore, 2009). Confronted with a perceived choice between absolutism and relativism, the sociology of education has at times elected for the latter as a result of the self-imposed "all-or-nothing" (Niiniluoto, 2002) standard it has set for knowledge. This is the idea that, if a knowledge claim cannot be proven infallible, then it is to be reduced to the perspective of those making the claim and discounted as neither more nor less illuminating than any other. According to this criterion, once the ideological stance of a knowledge claim is exposed through critical work in the sociology of education as that of a particular—often dominant—social group, it is treated as if it can, in Bernstein's words, simply be "written off" (1977, p. 168).

While recognizing that all knowledge is shaped by the context of its production, social realists have argued that the sociology of education's concern with how students are positioned to engage with curriculum knowledge according to their social background ("relations to;" Chap. 4) too often eclipses a focus on the organizing principles and emergent properties of the knowledge itself ("relations within;" Chap. 4). Following Bernstein (1990), social realists have focused on combating the sociological reductionism characteristic of some studies of "relations to" education. They have attempted to overcome the epistemological dilemma by bringing together analyses of both "relations to" and "relations within" education in their sociological investigations of educational inequality.

In seeking to develop an epistemologically strong, non-arbitrary theory of knowledge, its different structures and affordances, social realism has drawn on three key principles of critical realist philosophy (Wheelahan, 2007). The first of these,

ontological realism, affirms the existence of a reality that is independent from the discursive creations of human minds. If this is so, then knowledge can be understood as an attempt to comprehend and develop in response to this reality: it can be more than simply the outcome of power relations. The second, *epistemological relativism*, involves the recognition that, because it is a social creation, knowledge is shaped by the cultural and historical contexts of its production. Rather than being ahistorical, fixed, and universal, knowledge can change across time and location. However, the third tenet of *judgmental rationality* upholds the possibility of evaluating the strength and credibility of competing knowledge claims. There exist critical and rational means for judging between them.

6.2 Key Tenets of Social Realism

Social realism has attempted a pragmatic application of some of critical realism's core philosophical principles to the sociology of education's more substantive concerns with the production, transformation, teaching, and learning of knowledge encapsulated by Bernstein's theorization of the pedagogic device (Chap. 4). In so doing, social realism affirms that knowledge is real and needs to be treated as such in educational research. Following on, some social realists have proceeded to develop a second claim: that, as it is possible to differentiate between forms of knowledge and the merits of knowledge claims, the knowledge that most reliably develops students' understanding of and ability to act upon the world should be prioritized in the curriculum. In combination, the social realist claims that knowledge is real and that some knowledge is more powerful than other knowledge in supporting students' rights to participation, inclusion, and enhancement (Bernstein, 2000) suggest that it should be possible to structure educational practices in a manner that accounts for the organizing principles of the knowledge that is taught and learned in schools. Doing so can be expected to support teachers and students in teaching and learning it.

6.2.1 *Knowledge is Real*

Like much critical scholarship in the sociology of education, social realism affirms that all knowledge is socially produced. However, in the sociology of education, the recognition that knowledge is socially constructed is often recast as the claim that it is "a fabrication, and therefore an artifact, a fiction" (Bourdieu, 2004, p. 26), undermining its status as knowledge. The core concern of a social realist conceptualization of knowledge is with what the social construction of knowledge actually entails (Moore, 2013b). Social realism refrains from simply reducing knowledge to power relations and the vested interests of whichever social group has been most responsible for constructing it. It affirms instead that knowledge is objectively real;

it has discernable effects in and on the world. While it is certainly not (in an absolutist and positivistic manner) independent of social context, knowledge possesses emergent properties that can allow it to transcend the context of its production and to provide explanations that are applicable across other contexts as well. Social realism explores the social and historical contexts of knowledge production, the forms knowledge takes, and the effects knowledge has in the real world. According to Maton, it views knowledge practices “as *both* emerging from *and* irreducible to the context of production—the forms taken by knowledge practice in turn shape those contexts” (2014, p. 11, emphasis in original).

Despite a reluctance to articulate an epistemology, Bernstein recognized that different forms of knowledge are unequally distributed, differentially structured, and differently capable of promoting students’ rights to social and intellectual “inclusion,” civic “participation,” and individual “enhancement” as a result of the new possibilities opened through the development of critical understandings (2000, p. xx). He stated that:

If we look at the knowledge the school transmits we shall find that it is based on a distributive principle such that different knowledges and their possibilities are differentially distributed to different social groups. ... This distribution of different knowledges and possibilities is not based on neutral differences of knowledge but on a distribution of knowledge which carries unequal value, power and potential. (2000, p. xxi)

Social realists have committed to researching the different affordances that different forms of knowledge make possible for those that engage with them as well as the means for making the most powerful knowledge more accessible to all students through policy, curriculum, and pedagogy.

6.2.2 *Powerful Knowledge*

In developing the idea that all students should be provided access to the knowledge that most effectively supports their democratic rights to inclusion, participation, and enhancement, some social realists (e.g. Wheelahan, 2007; Young, 2008) have drawn a distinction between the “knowledge of the powerful” and “powerful knowledge.” The former is knowledge legitimized by those who, on the basis of social position, define and regulate access to it. Powerful knowledge, meanwhile, consists of epistemically structured concepts that are interrelated and make the relationships between them explicit. It is knowledge that—largely as a result of the fact that it is specialized in its production and differentiated from common sense and everyday experience—enables students to develop a critical awareness of the forces structuring their own lives, to generalize, and to imagine alternatives.³

Social realists hold that the equitable provision of powerful knowledge can help to interrupt the reproduction of educational inequality. They recognize that such

³ For more on the distinction between the knowledge of the powerful and powerful knowledge, see Beck (2014).

a process would be aided considerably by broader political reform aimed at the distribution of more equitable access to educational, social, and economic resources. Nonetheless, given that the school's central responsibility involves the teaching and learning of knowledge, they do recognize knowledge as a critical resource in itself and center their work on "both the creation of epistemologically more powerful forms of knowledge and establishing the means to enable them to be accessible for everyone" (Maton & Moore, 2010a, p. 10).

Acknowledging that some knowledge claims may be more powerful than others has largely been considered as beyond the pale by sociologists of education. Given the dominant view of what the social construction of knowledge entails, this is understandable, for: "If the hierarchy of knowledge is always seen as a representation of social hierarchy, then to say that some knowledge is better than others is to say that some people are better than others—to elevate the perspectives and experiences of some groups over others" (Moore, 2009, p. 9).⁴ Yet social realists maintain that a strong, non-positivistic theory of knowledge is precisely what is required to provide the field with the critical force necessary for the advancement of its progressive concerns with equity and social justice.

6.3 Critiques of Social Realism

Despite its progressive aims, social realism has not been immune from critique. For example, the criticism leveled by social realists (e.g. Moore & Muller, 1999; Moore, 2009, 2013b) against the relativizing consequences they associate with standpoint and other critical theorizing has been described as a caricature that fails to acknowledge how some of these approaches manage to adopt a relativism of perspective without abandoning a commitment to at least partial objectivity (Zipin et al., 2015). Likewise, the objectivity of the disciplinary communities (often comprised of a disproportionate number of white, wealthy, male representatives from Anglophone or European nations) largely responsible for making decisions about the knowledge that is or is not to be included in academic publications and school curricula has been called into question (e.g. Rudolph et al., 2018; Zipin et al., 2015). Disciplinarity and academic production, by their very nature, entail decisions regarding inclusion and exclusion that can serve to minimize the perspectives and contributions of those from marginalized groups. Therefore, while social realists emphasize that grounds exist for rational deliberation over competing knowledge claims and that the knowledge produced in one context can be usefully applied elsewhere and by others, issues of fairness, equity, and representation cannot be taken for granted. It is crucial for social realists to continue developing a theorization that thoroughly accounts for how

⁴ For a different, primarily philosophical, critique of powerful knowledge, see White (2018, 2019). This work questions the extent to which different school subjects can be seen to meet the criteria that social realists have set out in defining "powerful knowledge" and suggests that the term itself carries a problematic ideological charge that can hinder impartial scholarship.

the positionality of knowers can shape their engagement with and appropriation of curriculum knowledge as well as their role in the production of that knowledge.

Others (e.g. Ivinson, 2020) have suggested that social realists seek to valorize academic knowledge at the expense of everyday knowledge and its potentially useful place in classrooms and curricula. In foregrounding epistemic gain and cognitive development as schooling's central aims, social realists (e.g. Young & Muller, 2010a; Young, 2008) have been critiqued for overlooking the ethical purposes that can also be served by education, perhaps especially through the increased recognition and representation of students' sociocultural knowledge and experiences (Zipin et al., 2015). Social realists (e.g. Barrett, 2017; Moore, 1984) have nevertheless encouraged teachers to start with what students know, to acknowledge and elaborate the cultural dimensions of their lives, and to recognize the cultural and social practices of marginalized groups within the formal world of school knowledge with the aim of supporting students' critical examination (and potential transformation) of issues such as classism, sexism, and racism. Further, the focus by a number of social realists (e.g. Barrett & McPhail, 2021; Pountney & McPhail, 2019; Rata et al., 2019) on the different affordances that different types of knowledge make available to those that engage with them is in keeping with Bernstein's emerging conceptualizations of discourses and knowledge structures, to which he did not attach moral or value judgements. Still, the existence of beliefs that social realists devalue everyday knowledge signals an opportunity to be more explicit about its potential contributions to teaching and learning.

Relatedly, social realists (e.g. Young & Muller, 2014) have been said to neglect the "shadow" of colonial racism while focusing on the "shine" of (ostensibly powerful) knowledge claims produced under the conditions of modernity (Rudolph et al., 2018). They have thus been called upon to address more fully the historical connections between the development of the disciplines and colonial modernity in order to interrogate racial violence while endeavoring to avoid its reproduction (Rudolph et al., 2018). Recent movements such as *Why is My Curriculum White?* and *Rhodes Must Fall* call for serious attention to the ways in which the knowledge, interests, and experiences of those from minoritized groups have historically been excluded from academic communities and curricula, and to the potential reworking of disciplinary canons.⁵ Indeed, it must be recognized that powerful knowledge and the knowledge of the powerful at times overlap in that the schools attended by students from dominant groups have historically been most likely to be grounded in powerful knowledge (Beck, 2014). As Beck has concluded, enabling all students "to make subjectively meaningful connections" (2014, p. 72) between the remote worlds of disciplinary knowledge and their own interests and experiences remains a perennial problem for education and educational research.

⁵ *Why is My Curriculum White?* (<https://www.youtube.com/watch?v=Dscx4h2l-Pk>) and *Rhodes Must Fall* (<https://www.lse.ac.uk/sociology/assets/documents/events/UCT-Rhodes-Must-Fall-Statement.pdf>) have emerged (the former at University College London, the latter at the University of Cape Town) over the last decade as student-led movements aimed at decolonizing the curriculum and educational spaces.

6.4 Studies

Many of the publications first associated with social realism and detailed earlier in this chapter served a polemical purpose in highlighting the general neglect of knowledge in the sociology of education and then attempting to develop an alternative based on a stronger theorization of knowledge and knowledge-producing fields. In moving on to make a more positive case *for* knowledge, Moore (2000) drew on the “naturalized” epistemology of philosophers of science such as Karl Popper as well as the critical realism of thinkers such as Margaret Archer and Roy Bhaskar. Moore began to sketch a realist counter to the traditional/progressive curriculum debate, which he presented as being polarizing and as offering inaccurate descriptions of the ways that schools actually work. It recognized that the intrinsically social character of knowledge does not negate its emergent potential for transcending the context of its production. Young (2008) subsequently emphasized a distinction between academic knowledge and that which is acquired, usually tacitly, in people’s everyday lives and experiences. The task for the sociology of education, he suggested, is to identify different ways that various forms of knowledge are both shaped by and can be independent of social interests such that the field can usefully inform educational policy and practice. This underscores the idea that there are structural differences between knowledge-producing fields and between the types of knowledge they produce. Young built on the idea of knowledge differentiation to argue that powerful knowledge—specialized, academic knowledge capable of taking people beyond their experiences—should be made available to all students, especially those who have historically been denied access to it.

As an example of the expanding scope (in terms of both geography and focus) of social realist scholarship, Wheelahan’s (2007, 2010) analyses of vocational education and training in Australia have argued that shifts towards competency-based training within vocational programs there (and elsewhere, such as England) can serve to deny their largely working-class students access to the powerful knowledge generated by academic disciplines. Wheelahan contended that students within these programs are often provided with procedural content that is wedded to context but they are denied resources for imagining alternatives—for thinking the “unthinkable” (Bernstein, 2000, p. 30)—made available through engagement with the connections, encompassed by disciplinary structures, between different concepts and between individual concepts and their empirical referents. While Bernstein highlighted the social reasons that make democratic access to academic knowledge an important issue, Wheelahan, in linking to critical realism, has drawn attention to the epistemological reasons for presenting as a matter of social justice the case for providing all students with access to academic knowledge.

Touching on similar concerns, Elizabeth Rata (2012) has addressed the politics behind a shift away from academic knowledge in a number of national systems of education. She has argued that, in spite of a commitment to the promotion of social justice, the sociology of education has contributed to the problem of educational inequality by promoting a relativization of knowledge that has served to deny many

students access to its most powerful forms. For Rata “the absence of a theory of knowledge that could have provided the argument for the centrality of concepts and content knowledge in the curriculum” within the sociology of education has led to “the creation of a vacuum to be filled by less progressive forces” (2012, p. 83).

Rata (2016) later introduced the notion of conceptual progression to build on her argument that, rather than serving as a means for the reproduction of social and educational inequality, the provision of access to academic knowledge can play an important role in interrupting this process. She has suggested that a central purpose of pedagogy is to mediate the relationship between the context-dependent everyday knowledge that students gain through experiences in their homes and communities and the more context-independent academic knowledge that can be accessed at school. Crucially, she has argued that students’ experiences are not to be disregarded, for they can play an important motivational role in supporting their engagement with academic knowledge (for more here, see Rata et al., 2019). Inspired by Winch’s (2013) notion of epistemic ascent, Rata has called for a pedagogy of conceptual progression where teachers relate what students already know to that which they do not. To support such a pedagogy, Rata and colleagues (e.g. McPhail, 2021; Rata & McPhail, 2020; Rata, 2019, 2021) have also worked to develop a Curriculum Design Coherence model to promote conceptual progression in the curriculum. The task of the model is to account for the epistemic structure of the knowledge being taught in order to systematically organize it such that students’ experiential and prior knowledge is brought into new relations of generality and inferential abstraction as they are introduced to new concepts.

Relatedly, Young and Muller (2010b) have distinguished between three curriculum models they term “Future 1,” “Future 2,” and “Future 3.” The first is a “traditional” model that treats knowledge and disciplinary boundaries as fixed, given, and asocial. Future 2 developed as an ostensibly progressive response to the conservatism of Future 1. It is an “over-socialized” curriculum model that focuses on students’ interests and experiences and views disciplinary boundaries as artificial and knowledge as socially constructed. As an alternative to both Future 1 and Future 2, Young and Muller’s Future 3 curriculum model recognizes the possibility of the objectivity (but certainly not the infallibility) of knowledge created and revised in specialist communities. It emphasizes the role to be played by school subjects in supporting students’ abilities to make sense of the world beyond their experiences. It is a curriculum based on instruction in epistemically structured concepts and their relationships with one another, examples of which have been described further in *Knowledge and the future school* (Young et al., 2014). Such a curriculum is presented as a socially just and truly progressive option in preparing students to think critically and creatively as well as for success in the knowledge economy.

Many social realists envision educators engaging with these models as intellectually engaged curriculum makers, not simply curriculum deliverers, well versed in both their academic subjects and in curriculum thinking more generally. They have more recently begun to engage with traditions including curriculum theory and *Didaktik* (e.g. Hordern et al., 2021a) to conceptualize how powerful knowledge might

be used to inform teacher practice as well as educational policy more broadly. Importantly, such engagement can serve to support “counterarguments to the empiricism, ‘what works’ initiatives and restricted notions of ‘homo economicus’ that inform much global educational reform” (Hordern et al., 2021b, p. 150). It carries on in the Bernsteinian tradition of not only critiquing inequitable social and educational arrangements but of proposing alternatives to them as well.

6.5 Conclusion

Social realism has developed in key respects as an effort to pick up on some of Bernstein’s late career thinking about knowledge. It has attempted to engage Bernstein with ontology and epistemology in making explicit a realism that was at least implicit throughout much of his work. Social realism offers an alternative to critical accounts within the sociology of education that, in Bernstein’s words, treat knowledge as “no more than a relay for power relations external to itself; a relay whose form has no consequences for what is relayed” (1990, p. 166). It seeks in part to identify certain forms of knowledge as worth making available to all students through education policy, curriculum, and classroom pedagogy. Perhaps most consequentially, social realism has established as matters of educational equity the need to see knowledge and to take it seriously as an object of study.

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Chapter 7

Building on Bernstein: Legitimation Code Theory



LCT is a collective work-in-progress in which we socially produce fallible but real knowledge. Building a realist sociology of education is a task to be continued ... (Maton, 2014a, p. 216)¹

The organizing principles of knowledge and its transformation for teaching and learning were issues that animated Basil Bernstein's thinking from the outset of his career (e.g. 1971, 1977) and were subject to a sharpening focus in his final publications (e.g. 1999, 2000). Emanating in part from an engagement with Bernstein's theorizing as well as an intellectual concern that it shares with social realism about the need to make knowledge more visible as an object of study (Chap. 6), Legitimation Code Theory (LCT) has developed into a robust conceptual toolkit for researching and further addressing these matters.

The scope of LCT is vast. It has been characterized as a "sociology of possibility" (Maton, 2014a, p. 3) for analyzing all manner of social phenomena. However, this chapter focuses most particularly on how LCT can be understood as working "*within* the problematic and approach of code theory to extend, systematize and integrate existing concepts, rather than claiming to subsume code theory in its entirety" (Maton, 2014a, p. 203, emphasis in original).² Just as Bernstein's conceptualization of codes aimed at revealing the principles underlying phenomena such as communication and orientation to meaning, as well as various modalities of curriculum and pedagogy, the legitimation codes conceptualized by LCT offer means for understanding the organizing principles of educational and other social practices valued and rewarded in different settings (Maton, 2020). Also like the codes conceptualized by Bernstein, concepts from LCT can be employed to identify features that are constitutive not only of practices that have been experienced but also those that could yet be.

¹ *Knowledge and knowers: Towards a realist sociology of education*, Karl Maton. Copyright © Karl Maton 2014. Reproduced with permission of Karl Maton.

² For a more comprehensive overview of LCT see, for example, Maton (2014a) as well as the introduction and wealth of resources available at <https://legitimationcodetheory.com>.

Karl Maton, the founder of LCT, first introduced the term “Legitimation Code Theory” (2009) to describe a framework that was coming to conceptualize both inner structures (codes; see the analogy to DNA developed in Chap. 2) as well as broader social struggles “on the outside” to establish particular code modalities and associated practices as dominant (legitimation) in different fields. According to Maton and colleagues:

Taken together, the term “legitimation codes” points to the need to study the organizing principles underlying practices and how they are involved in struggles and cooperation among actors for status and resources. It also points to ... the basis of achievement ... and legitimacy. (Maton et al., 2020, p. 39)

Identifying these organizing principles can help to reveal the conditions for success—the “rules of the game”—within different knowledge practices as well as the ways that these conditions can change over time and across contexts. With regard to educational practices such as teaching and learning, providing more equitable access to these rules can support the performance of both teachers and students. This presents important possibilities not only for advancing Bernstein’s project but also for social justice and the wider endeavor of educational research.

7.1 Building on Bernstein

Across the range of theoretical influences behind LCT (which include Karl Popper’s critical rationalism, Roy Bhaskar’s critical realism, and Pierre Bourdieu’s field theory, as well as insights from a diverse range of fields such as physics, cultural studies, and systemic functional linguistics), it is possible to conceive of Bernstein as the most significant (Grenfell et al., 2017). Bernstein was intellectually collaborative in addressing key sociological questions about the relationships that social structures and symbolic systems have with consciousness and identity. He drew regularly from Marxist, Weberian, symbolic interactionist, post-structural, and other sociological traditions as well as on work from anthropology, linguistics, and even psychology in developing his framework. Bernstein was wary of a tendency in the practice of research towards theoretical purism and what he termed “epistemological botany” (2000, p. 192): the classification of the perceived assumptions of a theory from within an assortment of approaches or paradigms and from which its acceptance or, more frequently, its rejection by the researcher can be expected to follow.³ He encouraged instead “less an allegiance to an approach, and more a dedication to a problem” (1977, p. 171). Bernstein saw the former as characterizing a sociology of education too often taken with the production of segmented and incommensurable paradigms that could

³ Bernstein (2000) recognized that epistemological botany had a more legitimate role in the fields of recontextualization (e.g. in the production of textbooks) and reproduction (e.g. teaching); it was in the field of knowledge production (e.g. research) where he perceived epistemological botany as playing a more problematic and intellectually stifling role.

inhibit progressive knowledge-building and the mobilization of a pragmatic range of theoretical resources around deep problems.

Bernstein's project continues to develop (Chap. 6). This follows from his claim that, "as I see it, the theory is really a part of a more general theory which is beyond me to produce" (2000, p. 211). As a result not only of their originality but also of their very nature—developed explicitly through the creation of an internally coherent conceptual language and the consistent provision of models to facilitate empirical research that can then "speak back" to the theory to allow for refinement and increased explanatory power—Bernstein's theoretical contributions have proven to be among the most fecund in the sociology of education. LCT represents one significant, sustained, and coherent effort to build upon them.⁴

Adhering to key guidelines for the conduct of rigorous theorizing and research set out by Bernstein's own methodology, LCT began in part by tending to some of his "unfinished business" (Moore, 2013, p. 144).⁵ Bernstein called on the sociology of education to account for *both* its longstanding concern with "relations to" knowledge (e.g. the manner in which students' social characteristics such as social class, race, or gender position them with respect to their experiences in education) *and* the "relations within" knowledge (e.g. the ways it is structured and struggled over) that he believed the field too often left unaddressed. However, Bernstein and others working with his ideas have at times appeared to lose sight of "relations to" education and knowledge while developing his novel analysis of "relations within" them (Maton et al., 2020). LCT can be seen to follow on by introducing legitimation codes as a means for overcoming "knowledge-blindness" in the sociology of education without succumbing to the "knower-blindness" to which an overemphasis on "relations within" can leave researchers susceptible (Maton, 2014a).

Further, while they represented important advances in the field's ability to consider knowledge as an object of study, a number of theorists (e.g. Muller, 2007; Wignell, 2007) were identifying limitations in the dichotomous types (e.g. vertical discourse/horizontal discourse, hierarchical knowledge structures/horizontal knowledge structures) introduced by Bernstein in theorizing knowledge and its production in intellectual fields. Indeed, Bernstein himself recognized these binaries as "limited" in their "generating power" (2000, p. 124). They did not point towards the principles that underlie and can support research into the real world phenomena they describe.

Conceptualizing the organizing principles of knowledge practices can thus be said to represent one key aim of the conceptual framework that has developed into LCT since the late 1990s. The ability to identify organizing principles is a characteristic

⁴ In the final volume of *Class, codes and control*, Bernstein references some of the early work that developed into LCT (e.g. Maton, 2000) and its analysis of "a discursive shift in legitimation from knowledge to knower" (Bernstein, 2000, p. 170) to shed light on the relations between vertical and horizontal discourses in education.

⁵ However, LCT should not be considered as an effort to simply tidy up after Bernstein. While some LCT concepts develop from Bernstein's thinking (for example, the dimension of Specialization in LCT has been inspired in important ways by Bernstein's concepts of classification and framing), many of its major developments have no precedent in Bernstein's work. More complete introductions can be found in Maton (2014a), Maton et al. (2016), and Maton (2024).

that concepts from LCT share with Bernstein's key concepts of classification and framing, for example, but which cannot be said to apply to all of his concepts. In reaching beyond, yet not abandoning dichotomous typologies, legitimation codes allow for a topological conceptualization that can help to account for difference and change (Maton, 2020) as the organizing principles of social practices can be captured on a plane with axes that signal along a potentially infinite continuum their relative strengths (see Figs. 7.1, 7.2, 7.4, and 7.5). This feature of the theory offers perhaps one of the most significant advances in relation to Bernstein's framework.

Like much of Bernstein's project, LCT supports a close, productive, and bilateral relationship between theory and data. LCT concepts frame empirical studies and empirical findings continue to shape LCT concepts. LCT creates "translation devices" (Maton, 2016a) to allow for theoretically informed descriptions of the different ways that the principles underpinning various social practices are actualized empirically. As such, LCT offers "a realist and relational mode that conceives phenomena as realizations of underlying organizing principles" (Maton, 2016b, p. 8).

With regard to education, LCT has been and continues to be used to support research across: a range of practices (e.g. curriculum, pedagogy, and evaluation), contexts (e.g. different forms of institution, levels of analysis, and national contexts), and disciplines (e.g. physics, engineering, music, and ballet). Research drawing on LCT has implemented a variety of methods (e.g. qualitative, quantitative, and mixed), alone and in combination with other approaches (e.g. critical realism and systemic functional linguistics) "to explore the bases of knowledge-building and achievement in education" (Maton, 2020, p. 60). In mapping possibilities for cumulative knowledge-building through a coherent and integrating framework, LCT can be said to offer an alternative to the "segmentalism" that Bernstein believed had come to characterize the sociology of education.

7.2 Dimensions of LCT

LCT can be divided into sets of related concepts or "dimensions." Though additional dimensions may emerge as the theory continues to develop, three are currently active: Specialization, Semantics, and Autonomy. Each is characterized by different legitimation codes and the organizing principles constitutive of each code can present as stronger or weaker along a continuum. Each dimension focuses not on different phenomena, but on the principles that underpin them. The same practice can thus be analyzed using concepts from any or even all of the dimensions in LCT. This is because different concepts analyze different aspects of the practice. Ultimately, the dimension that is drawn upon—alone or in combination with others—in empirical studies "depends on the problem-situation (specific questions concerning a particular object of study)" (Maton et al., 2020, p. 41) being analyzed. This aligns with Bernstein's (1977) call for a dedication to problems rather than an allegiance to approaches within the sociology of education.

Each dimension of LCT has been explored and informed by an extensive and growing body of research. Moreover, the research is having a considerable impact on educational practice. For example, LCT concepts have been widely implemented in teacher education programs across 24 universities in South Africa as part of the Teacher Choices in Action project (Rusznyak, 2022). Since 2020, tens of thousands of teacher candidates there have been introduced to concepts from LCT in an effort to support their understanding of how teachers in different subject areas work with knowledge and about why practices that are supportive of teaching and learning in some contexts might be less effective in others. Thus, the introduction of each dimension of LCT presented below is followed by descriptions of a small selection of studies drawing on them in order to point towards some of the kinds of research they can support.⁶

7.2.1 *Specialization*

Specialization begins from “the simple premise that practices are about or oriented towards something and by someone” (Maton, 2016b, p. 12). These aims or orientations help to define, for example, what “counts” as History and who “counts” as a historian. One way to understand Specialization is in relation to Bernstein’s idea of knowledge structures. Hierarchical knowledge structures work through the integration of knowledge at lower levels to create more general propositions and theories capable of explaining an expanding range of empirical phenomena in a coherent and systematically principled manner. Horizontal knowledge structures, meanwhile, are organized segmentally, developing through the serial accumulation of “specialised languages with specialised modes of interrogation and criteria for the creation and circulation of texts” (Bernstein, 2000, p. 161) that can complicate the synthesis of knowledge. Bernstein’s suggestive conceptualization here allows for these different types of knowledge structures to be identified in educational research but leaves their underlying principles under-theorized.

Concepts from Specialization can be used to identify some of these principles. Specialization makes an analytical distinction between epistemic relations and social relations. Epistemic relations have to do with the relations between knowledge practices and their points of focus (*what* they are oriented towards). Social relations are to do with relations between knowledge practices and their subjects or authors (*who* is, or who can be, engaged in them). Specialization codes are characterized by epistemic relations (ER) and social relations (SR) in varying combinations of independent and relative strengths (+/-). Specialization builds cumulatively on Bernstein’s framework by applying his concepts of classification and framing to both knowledge (epistemic

⁶ A comprehensive catalogue of studies using LCT can be accessed at <https://legitimationcodethory.com/publications/>.

relations) and knowers (social relations) and introducing the notion of knower structures alongside his knowledge structures to characterize intellectual fields within an integrating framework as knowledge-knower structures.

The concepts can be used to explore what knowledge and which knowers are deemed legitimate in a given social field and why. Specialization codes characterized by stronger epistemic relations and weaker social relations (ER+, SR-) are called “knowledge codes.” Here, what matters is what one knows, not who one is. “Knower codes” are underpinned by weaker epistemic relations and stronger social relations (ER-, SR+): what matters is not specialized knowledge but rather the kind of knower one is. “Élite codes” underpin situations where legitimation depends upon both having specialized knowledge and on being a certain kind of knower (ER+, SR+). Finally, “relativist codes” underpin situations where “anything goes” (Maton & Chen, 2020) as practices deemed legitimate require neither specialized knowledge nor particular knowers (ER-, SR-).

Specialization codes can be plotted on a specialization plane (Fig. 7.1) in a manner that accounts for change over time as epistemic relations and/or social relations strengthen and/or weaken. This enables dynamic analyses to capture, for example, “code shifts” (a change in the dominant code over time that can be represented by a movement *between* quadrants on the plane) and “code drifts” (movement *within* a quadrant on the plane). The values of different specialization codes are set by the

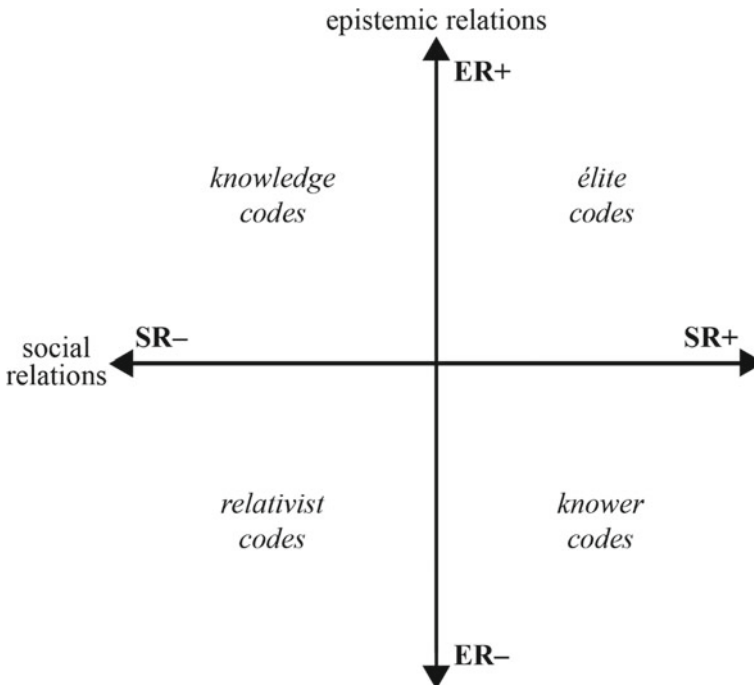


Fig. 7.1 Specialization plane (Maton, 2014a, p. 30), with permission from Karl Maton

“epistemic–pedagogic device” (Maton, 2014a). Analogous to Bernstein’s pedagogic device (Chap. 4), control over the epistemic–pedagogic device involves social struggles to establish the dominance of particular modalities of specialization codes. Not everyone is likely to recognize and respond accordingly to the dominant code—the “rules of the game”—underlying a given practice, especially as it can be subject to shifts over time and across subject areas and classrooms. One of the ways that specialization codes can be applied to the analysis of knowledge practices in educational settings is to help diagnose conditions such as those that arise due to differences between (“code clash”) or the articulation (“code match”) of students’ dispositions and teachers’ pedagogic practices (Maton, 2016b). Such analyses have the potential to inform pedagogic practice in ways that can support educational equity and increased success for a greater range of students by making the “rules of the game” more accessible for them (Maton & Chen, 2020).

7.2.2 *Studies in Specialization*

Concepts from Specialization can support analyses from macro (e.g. practices within an intellectual field) to micro (e.g. interactions within a classroom) levels as well as of a vast range of knowledge practices such as teaching, learning, and assessment (Martin et al., 2020). For example, Chen et al. (2011) have drawn on them in researching the struggles Chinese students at an Australian university were experiencing with particular modalities of pedagogy. They identified the students’ dispositions towards learning as being generated by a knowledge code that was premised on stronger epistemic relations (ER+) characterized by clear guidelines and expectations for success, and weaker social relations (SR–) that downplayed their individual attributes as learners. A code clash was revealed to result when the knowledge code possessed by the students was met with the knower code enacted by their instructors. The knower code focused on students’ backgrounds and experiences (stronger social relations, SR+) over specific and bounded content knowledge (weaker epistemic relations, ER–), which contrasted sharply with the students’ previous educational experiences. The instructors’ ostensibly learner-centered practice ultimately obscured the “rules of the game” from some students, leading to reduced performance and feelings of failure and educational alienation among them. Importantly, concepts from the dimension of Specialization allowed the study to avoid “knowledge-blindness” without losing sight of knowers’ dispositions.

Similarly, Lamont and Maton (2008, 2010) have drawn on concepts from Specialization in an effort to explain the comparatively low rates at which music is taken up as a school subject beyond compulsory levels in the UK. They explained how a shift students experience between a knower code emphasizing personal expression and musical creativity in primary school and a knowledge code emphasizing technical proficiency and theoretical knowledge in secondary school might contribute to the low rate of participation in music qualifications among students there. These shifting “rules of the game” can include a “doubly demanding” (Martin, 2016, p. 198) final

stage where students continuing to pursue music qualifications beyond age 16 experience an elite code where legitimation depends both on having specialized knowledge and on being a particular kind of knower. This can join with other factors such as the low market return on music qualifications to make success appear difficult to attain and to discourage students from pursuing them.

Following on, McPhail and McNeill (2019, 2021) have employed concepts from Specialization in considering the future of secondary school music education. As music education has been “called to account for over-emphasising elite codes” (McPhail & McNeill, 2019, p. 368), there have been contrasting efforts to shift towards knowledge codes (centered on specialist content knowledge) and knower codes (centered on learners’ identities and dispositions) in their place. McPhail and McNeill have argued that, although “‘one direction’ is unlikely to emerge for secondary school music education” (2021, p. 484), it is possible to theorize about scenarios that might be most desirable for supporting equity and widening participation. For example, as the boundaries between different forms of knowledge valued in music education weaken, teachers capable of recognizing the affordances of both epistemic and social relations can bring aspects of each into a dynamic and productive balance to engage students and support their learning (McPhail & McNeill, 2021).

Finally, in a context of higher education, Ellery (2019) has applied concepts from Specialization in an analysis of how assessment practices signal to learners what is required for success. The natural sciences are typically considered to be characterized by a knowledge code and a focus on academic knowledge. However, Ellery (2019) detailed how student success in the field is also premised on becoming and presenting as a certain kind of knower, the attributes of which are not always made explicit to students, whose educational performance can suffer as a result.

7.2.3 *Semantics*

The LCT dimension of Semantics developed to explore matters of context dependence and complexity of meaning as organizing principles of knowledge practices. One impactful way that concepts from this dimension can be applied is to analyses of conditions that foster either cumulative or segmented learning within educational fields. When employed in this manner, they can help to address the “segmentalism” that results “when knowledge or knowing is so strongly tied to its context that it is only meaningful in that context” (Maton, 2014a, p. 106). Segmentalism can inhibit cumulative progress in both research and learning. Maton contends that, in educational fields, “segmented learning can constrain students’ capacities to extend and integrate their past experiences and apply their understandings to new contexts, such as later studies, everyday lives or future work” (2014a, p. 106). This resembles Bernstein’s (1977) concern with the proliferation of incommensurable approaches that he saw as impeding advance in the sociology of education.

Concepts from Semantics can help to reveal conditions under which knowledge is (or is not) built in terms of the degree of context-dependence and complexity

of meaning within knowledge practices. Context-dependence is conceptualized as semantic gravity and complexity of meaning is conceptualized as semantic density. Analogous to other key concepts in LCT, semantic gravity (SG) and semantic density (SD) can present independently as stronger or weaker (+/-) anywhere along a continuum. The more that meaning depends on context, the stronger the semantic gravity; the less that meaning depends on context, the weaker the semantic gravity. Likewise, the more complex the meaning, the stronger the semantic density; the simpler the meaning, the weaker the semantic density (Maton, 2016b).

Semantic gravity and semantic density (which can be enacted either separately or together in research) provide the organizing principles for semantic codes. These include: “rhizomatic codes,” where success is bound up with knowledge practices involving relatively high degrees of context independence and complexity of meaning (SG-, SD+); “prosaic codes,” where legitimate knowledge practices are relatively context dependent and less complex (SG+, SD-); “rarefied codes,” where successful knowledge practices are relatively context independent and involve meanings that are simpler (SG-, SD-); and “worldly codes,” where knowledge practices that are relatively context dependent and involve meanings that are relatively complex (SG+, SD+) are deemed legitimate (Maton, 2016b, p. 16). The four codes can be mapped on a semantic plane (Fig. 7.2) which, analogous to others (e.g. Figs. 7.1 and 7.4) introduced in this chapter, enables analyses of topology as well as of change over time and across levels (e.g. macro, meso, micro) and practices (e.g. teaching, learning, and assessment).

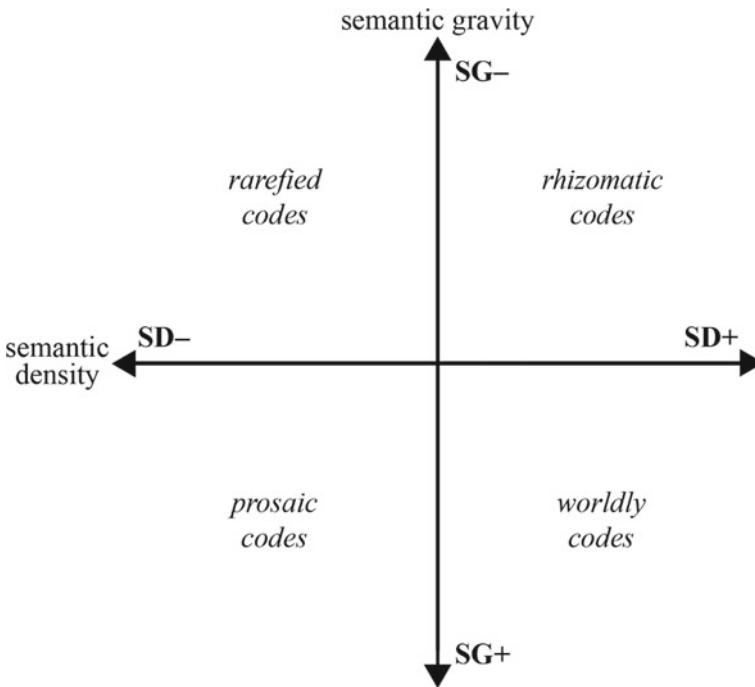


Fig. 7.2 Semantic plane (Maton, 2014a, p. 131), with permission from Karl Maton

Further, semantic codes can be “profiled” (Fig. 7.3) by tracing the relative strengths of semantic gravity and semantic density across time (e.g. a curriculum unit, a single lesson). This reveals the “semantic range” between the highest and lowest strengths of semantic gravity and semantic density. It can also highlight features of knowledge practices such as “high semantic flatlines” (A on Fig. 7.3), where teachers’ instruction consistently remains too abstract for students to visualize connections between the knowledge being taught and their everyday experiences, and “low semantic flatlines” (B on Fig. 7.3), where meanings consistently remain too concrete and tied to context for students to apply the knowledge beyond it.⁷

Importantly, the notion of “semantic waves” (C on Fig. 7.3) can be used to explain how teaching that traverses between stronger and weaker semantic gravity and semantic density can support educational equity by enabling teachers and students to visualize the changes in the context dependence and complexity of meaning that are rewarded across subject areas and levels of schooling (Maton, 2013, 2014a). In this respect, both teachers and students can be involved in evaluating their own work (Rata & Barrett, 2014). The approach can assist teachers in demonstrating to students how, through variously strengthening and weakening semantic gravity and semantic density in *both* “upshifts” *and* “downshifts” (as opposed to *either* “upshifts” *or* “downshifts”), they can successfully work to decontextualize, transfer, and recontextualize knowledge in new contexts and in a manner that is likely to be rewarded within schools.

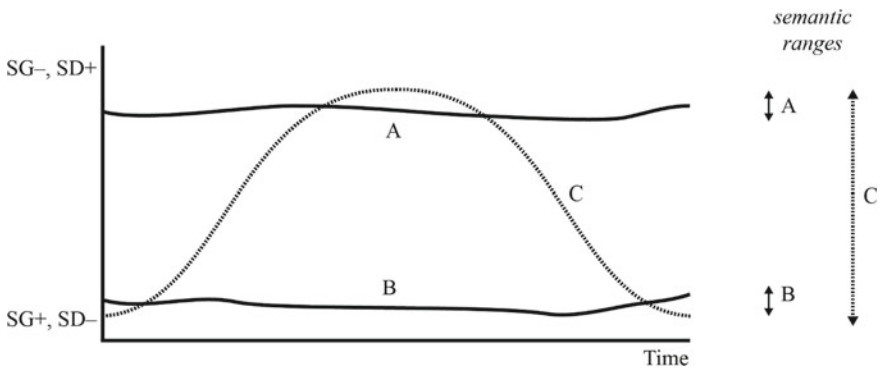


Fig. 7.3 Three semantic profiles (Maton, 2014b, p. 13), with permission from Karl Maton

⁷ Another common profile is the “down escalator.” This can be used to describe an intuitive tactic where (moving from point A to B in Fig. 7.3) teachers unpack abstract ideas, allowing students to relate them to their own experiences and more commonsense understandings, but fail to connect or “repack” the ideas back up to the epistemic structure of the academic discipline or school subject (in what would involve a move from point B to A in Fig. 7.3) in a manner that supports transferability across contexts and cumulative knowledge-building for students.

7.2.4 *Studies in Semantics*

An early example of the productive application of semantic gravity and semantic density in researching knowledge practices occurred as part of a project (the *Disciplinary, Knowledge and Schooling* project; Macnaught et al., 2013; Maton, 2013) aimed at providing professional development for Australian teachers in using the concepts as pedagogical tools for making the knowledge practices valued in schools more visible for both themselves and their students. In particular, the concepts provided the means for creating pedagogic interventions supportive of teachers' efforts to model semantic waves and the linguistic mechanisms for creating them with their students (Maton, 2013). This is an example of how concepts from LCT can help to demystify the rules behind educational success and to make them available to all students. Such analysis is especially powerful as a demonstration of how the "message" of knowledge can be made available to more students through the "voice" of pedagogy itself (Bernstein, 2000).

A growing body of work is pointing towards the practical significance of concepts from the Semantics dimension for supporting the professional development of teachers and cumulative learning among students. A number of other studies employing the concepts of semantic gravity and semantic density in analyses of teaching and learning suggest that semantic waves—"recurrent strengthening and weakening of context-dependence and complexity of meaning" (Maton, 2020, p. 68)—are rewarded in assessments across a variety of school subjects and levels of education. For example, Shalem and Slonimsky (2010) have drawn on the concepts of semantic gravity and semantic density to develop an example of how assessors might more clearly and explicitly signal to students the means of effectively ordering propositions and conceptual relations in their written work. Meanwhile, Brooke (2019) has demonstrated how semantic waves are rewarded in assessments of critical reflections written by nursing students in Singapore.

In an analysis of student learning in university physics, Georgiou et al. (2014) have drawn upon semantic gravity to demonstrate how, while repacking concrete understandings into the more abstract epistemic structure of the disciplines is a knowledge practice that is often rewarded in assessments of student responses, it is possible to reach "too high" beyond the range of context-dependence necessary for success. Importantly, their analysis revealed that a specific range of semantic gravity is required to successfully answer specific questions. Concepts from Semantics have also been applied in the context of teacher education (Hipkiss & Windsor, 2023; Jina Asvat, 2022), where teacher candidates have been instructed in how to enact semantic waves in their practice and on why this can be expected to support student learning, and in a higher education context where the concepts of semantic gravity and semantic density have been included in professional development sessions for instructors (Clarence, 2016).

Underscoring the idea introduced earlier that different aspects of the same practices can be analyzed using concepts from multiple dimensions of LCT, Christie (2016) has drawn on concepts from both Specialization and Semantics in an analysis

of the assessment of secondary school literary essays. She utilized specialization codes to explore for the literary “gaze” rewarded by assessors in a field of study characterized by a knower code that foregrounds learners’ attitudes and dispositions as the basis for achievement. She then employed the concepts of semantic gravity and semantic density to analyze how a successful demonstration of the knower code valued in the assessments can be supported by semantic shifts—profiled as semantic waves—between the provision of context-dependent details and the presentation of abstract understandings. One important point highlighted by studies such as those detailed here is that “what may be powerful is not one form of knowledge, such as ‘theoretical’ or ‘practical’ knowledge, but rather how different forms are related and changed” (Maton, 2020, p. 81) to create semantic waves that bring together and transform different types of knowledge. They also help to underscore that “academic discourse is not the only form of knowledge with power” and that “non-academic knowledge possesses its own forms of power, its own wellsprings of understanding and luminous insight” (Martin et al., 2020, p. 1). Both can be used to support teaching and learning. For example, students’ non-academic knowledge can be drawn upon as a point of access to academic knowledge while academic knowledge can be brought to bear in informing students’ everyday decision-making. This is a point that Bernsteinians and social realists (Chap. 6) have at times been said to overlook.

7.2.5 *Autonomy*

Finally, the LCT dimension of Autonomy begins from the “simple premise that any set of practices comprises constituents that are related together in particular ways” (Maton & Howard, 2021, p. 28). “Constituents” are conceived broadly and can include, for example, ideas and people. One way that concepts from Autonomy have been used in educational research is to focus on different knowledge practices—across different disciplines, classroom environments, and so on—and the ways in which they are or are not integrated and brought into relationships with one another. The concepts can serve as tools in exploring for conditions that promote the integration of knowledge practices in support of knowledge-building, shedding light on phenomena such as interdisciplinarity and avoiding the essentialism that too often comes to inhabit conceptualizations such as everyday and academic knowledge.

The organizing principles of autonomy codes are conceived as positional autonomy and relational autonomy. Positional autonomy refers to the degree of insulation between constituents in one context or category and those in others. Relational autonomy refers to the strength of the boundaries that demarcate the relations among constituents in one context or category from the relations among constituents in other contexts or categories. As with the principles underlying all other legitimation codes, both positional autonomy (PA) and relational autonomy (RA) can present independently as stronger or weaker (+/-) along a continuum. Where positional autonomy is stronger, the constituents of one context or category are relatively strongly bounded from those in others. In cases of weaker positional autonomy,

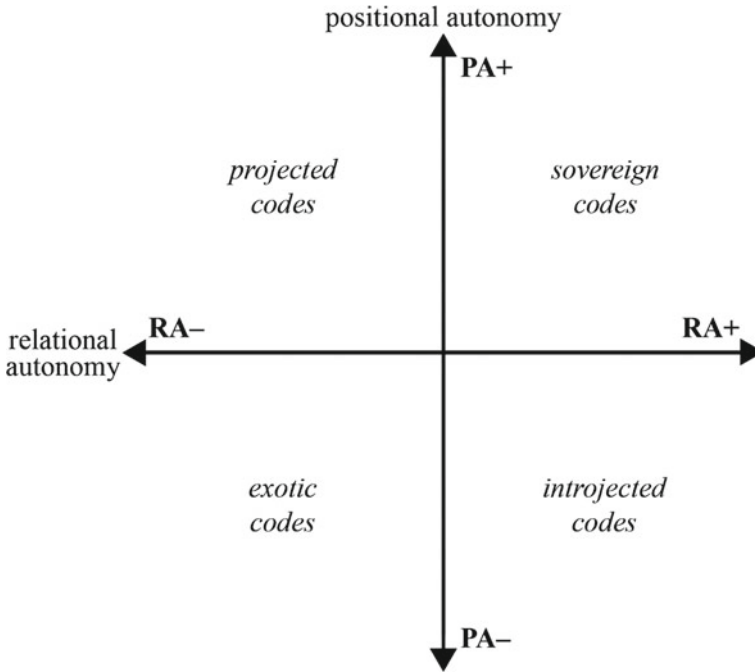


Fig. 7.4 Autonomy plane (Maton, 2018, p. 6), with permission from Karl Maton

boundaries between the constituents of one context or category and those in others are more porous. Stronger relational autonomy is characterized by cases “where the principles governing how constituents are related together are relatively specific to that set of practices, i.e. purposes, aims, ways of working, etc. are autonomous” (Maton, 2018, p. 6). Alternatively, instances “where the principles governing how constituents are related together may be drawn from or shared with other sets of practices, i.e. purposes, aims, ways of working, etc. are heteronomous” (Maton, 2018, p. 6) indicate weaker relational autonomy (Fig. 7.4).

Where “sovereign codes” are operating, the knowledge practices that are rewarded are strongly insulated from others and follow autonomous principles (PA+, RA+). “Exotic codes” assign legitimacy to knowledge practices that are weakly insulated from others and that are guided by principles driven by external constituents and purposes (PA-, RA-). “Introjected codes” award legitimacy to knowledge practices that are weakly insulated from others and follow autonomous principles (PA-, RA+): “What is valued are constituents associated with other contexts or categories but oriented towards ways of working emanating from within: external constituents turned to internal purposes” (Maton, 2018, p. 7). Lastly, “projected codes” legitimize practices that are strongly insulated from others but follow heteronomous principles (PA+, RA-); here, “What is valued are constituents from within that are oriented

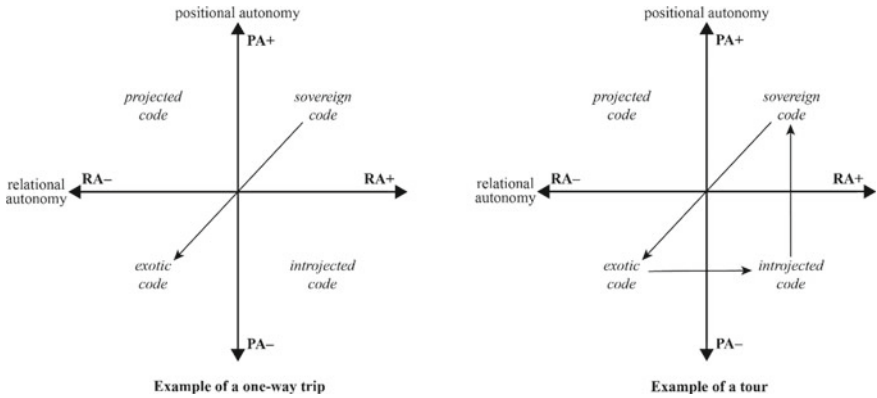


Fig. 7.5 Examples of two autonomy pathways (Maton & Howard, 2021, p. 30), with permission from Karl Maton

towards ways of working from elsewhere: internal constituents turned to external purposes” (Maton, 2018, p. 7).

The autonomy codes underpinning knowledge practices can change over time (e.g. a unit or a lesson in school) and across settings (e.g. different classrooms). These changes can be traced as “autonomy pathways” on an autonomy plane (Fig. 7.5). For example, “stays” identify cases where knowledge practices remain within a single code. “One-way trips” identify knowledge practices that begin in one code and end in another. Finally, “tours” begin in one code, move through one or more others, and end back in the code where they began.

7.2.6 Studies in Autonomy

Educational studies implementing autonomy codes and tracing autonomy pathways have begun to identify various ways that teachers’ understanding of them can support their practice. They offer insight into different ways to engage students with target knowledge, including pathways that cross disciplines and incorporate students’ interests and experiences. Early research using concepts from the Autonomy dimension has drawn on examples from secondary school history and science lessons in Australia to illustrate the impact that different autonomy pathways can have on integrative knowledge-building (Maton, 2018). Keys to success here include autonomy tours that began with the presentation of target knowledge, supported it by incorporating and repurposing knowledge from other content areas (including students’ everyday knowledge), and then integrated this knowledge with the target concepts. However, this is likely far from the only pathway capable of supporting student success and promoting the integration of knowledge (Maton, 2018).

Further research by Maton and Howard (2021) has demonstrated how the different autonomy pathways taken by teachers can either enable or constrain the integration of mathematics into science lessons. In analyzing the practice of two secondary school teachers teaching the same unit of a state curriculum in Australia, they detailed how the different autonomy pathways traversed in the science lessons under review differentially allowed for the successful integration of mathematics content. One teacher is described as having led students on a “one-way trip” away from science content while the second is described as completing a “tour” that integrated mathematical knowledge about how to create graphs into the target science content. Tracing the autonomy pathways that characterized each lesson, Maton and Howard (2021) concluded that autonomy tours may foster the integration of mathematics into science lessons more effectively than do one-way trips.

Finally, Jackson (2021) has employed concepts from Autonomy in an exploration of how secondary school students in the USA achieved success on English essays by integrating information from other contexts with material from the literary texts that served as the subject of their essays. Jackson’s analysis drew upon positional autonomy and relational autonomy in highlighting one particularly successful student’s ability to integrate knowledge from real-world and fictional contexts as a key to their achievement. Overall, essays that remained focused only on source texts were assessed less positively than those incorporating (through autonomy tours) real-world historical and cultural content that could be related to source texts. Jackson (2021) revealed further that the connections valued in these assessments were not explicitly called for in the essay prompts provided to students. Thus, making the pathways between target (fictional) and non-target (real-world) content that, in this instance, are valued in assessments of student writing more visible to teachers and students themselves can again be supportive of efforts towards more equitable educational practice.

7.3 Conclusion

Inspired by the new sociology of education’s message that the curriculum was socially constructed (and could therefore be deconstructed and reconstructed in schools and classrooms to support inclusion and achievement among students), many teachers came to conceive of themselves as agents of change. However, their optimism was eventually tempered in part because the new sociology of education did not provide them with sufficient conceptual or practice-based resources to deliver all that it promised. LCT works in part to develop aspects of Bernstein’s critiques (e.g. 1977, 1990) of the new sociology of education and other critical approaches into an alternative conceptual toolkit for analyzing educational practice in ways that can support the success of both teachers and their students. Most specifically, concepts from LCT can promote equity by helping to reveal the “rules of the game” requisite for participation and achievement across different knowledge practices. These rules are otherwise often left “unwritten and unspoken, they ‘go without saying’ in ways that,

when accessible only to actors from specific backgrounds, generate social inequality” (Maton, 2016b, p. 3).

This chapter has focused on the way that, rather than seeking the type of radical break often proclaimed but less often achieved in the social sciences, LCT can work to extend and integrate key elements of Bernstein’s code theory into a theory of legitimation codes. Further, in mapping possibilities for cumulative knowledge-building through an integrating and coherent framework, LCT offers the sociology of education an alternative to the (ultimately self-defeating) “segmentalism” that Bernstein identified in the 1970s as an allegiance to approaches rather than a dedication to problems. As Maton has emphasized, however, none of this is to say that “LCT is the only way code theory can be or has been developed—the framework is pregnant with possibilities;” it is simply to highlight that “LCT is intended to develop code theory in ways compatible with the principles Bernstein laid down” (2014a, p. 201). Chapter 8 attempts to identify some of the myriad other ways that the potential of Bernstein’s theorizing has been and continues to be explored. Further, it looks forward with the optimism conveyed by Bernstein in the epigraph that began this book towards possibilities that are yet to be discovered.

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Chapter 8

Bernstein and Code Theory: A Guide to Further Reading



The multidisciplinary body of work inspired by and developing from Basil Bernstein's theorizing is expansive. Perhaps more importantly, it continues to grow. This makes an exhaustive account of it difficult, if not impossible. However, this chapter seeks to offer a number of ways into reading and engaging further with Bernstein's sociology of education and the work of many scholars who have used and advanced his ideas.

8.1 Works by Basil Bernstein

Almost all of Bernstein's main papers are collected in four books (volumes 1, 3, 4 and 5), which represent four of the five volumes known as *Class, codes and control*. The other (volume 2) is a collection of empirical studies edited and introduced by Bernstein that elaborate upon and develop the sociology of language and concepts presented in volume 1. While comprising a relatively slim corpus in terms of page number, Bernstein's work is anything but slim intellectually. As Maton has described: "It is as if substantive objects of study have been reduced for a long time on a low heat, leaving a condensed theoretical description, a kind of conceptual stock cube to which readers must add their own examples" (2014, pp. 148–149). Readers' efforts here can be supported by the complex diagramming of concepts that Bernstein often included alongside his prose. Further, as Moore has noted: "It is not possible to produce a simple chronology of the evolution of [Bernstein's] ideas because, at later points, he returns to earlier ones and recovers a concept or issue and reworks and resets it (even renames it) within a new context" (2013, p. 1). Because they are more accessible, readers might wish to start with volume 3 (1977) and *Pedagogy, symbolic*

control and identity (2000),¹ before returning to tackle the more difficult volume 4 (1990) and the earlier work (1971, 1973).

Bernstein, B. (1971). *Class, codes and control: Vol. 1. Theoretical studies towards a sociology of language*. Routledge and Kegan Paul.

- Volume 1 of *Class, codes and control* presents Bernstein’s “sociolinguistic thesis,” which he later described as the “first stage in the development of a theory of pedagogic discourse and modalities of symbolic control” (2000, p. 89). The book comprises, in chronological order as “a continuous record of ideas” (Bernstein, 1971, p. 1), papers initially published between 1958 and 1971. Its middle chapters present the key concepts of restricted and elaborated codes in theorizing the principles underlying forms of expression presented earlier in the book as “public” and “formal” language. Later chapters explore more particularly the relationship between social class, family role systems (which Bernstein theorized as “positional” and “personal” forms of control), and codes. In Chap. 10, “A Critique of the Concept of Compensatory Education,” Bernstein responds directly to those labeling him a deficit theorist at that time. Finally, Chap. 11, which Bernstein acknowledges readers might find “out of place in a book concerned with language and socialization” (1971, p. 202) and which reappears to play a central role in volume 3 of *Class, codes and control*, introduces the concepts of classification and framing as they relate to collection and integrated forms of educational knowledge codes.

Bernstein, B. (1973). *Class, codes and control: Vol. 2. Applied studies towards a sociology of language*. Routledge and Kegan Paul.

- Volume 2 of *Class, codes and control* is a collection of papers written between 1966 and 1971 by Bernstein and others in the Sociological Research Unit (SRU) at the University of London’s Institute of Education. They serve to empirically test and continue developing the code theory that Bernstein had introduced up to that point. Part I of the book (which includes two chapters co-authored by Bernstein) consists of studies dealing primarily with class-based differences (with regard to context-dependence/independence, concreteness/abstractness, and so on) in mothers’ communication with their children. The book’s next sections are comprised of studies completed by different members of the SRU. They examine aspects of the speech (lexical cohesion, hesitation phenomena, and so on) of five- (Part II) and seven-year-olds (Part III) from different backgrounds. Part IV includes contributions from Ruqaiya Hasan (who draws important distinctions between code, register, and dialect) and Jenny Cook (who reviews a variety of perspectives on children’s socialization and language acquisition and argues for the ethnomethodological study of talk in everyday encounters). Finally, a paper by Michael Halliday introducing the systemic functional linguistic approach to

¹ Although *Pedagogy, symbolic control and identity* does not share the same title as the first four volumes, Bernstein refers to it as “volume 5” in the preface to its revised edition (2000).

language that has for decades continued to engage with Bernstein's ideas is included as an appendix.

Bernstein, B. (1975). *Class, codes and control: Vol. 3. Towards a theory of educational transmissions*. Routledge and Kegan Paul.

Bernstein, B. (1977). *Class, codes and control: Vol. 3. Towards a theory of educational transmissions* (Rev. ed.). Routledge and Kegan Paul.

- Volume 3 of *Class, codes and control* shifts attention from the social basis of communication in social class and the family (the focus of volume 1) to schools as sites where elaborated codes are institutionalized. In Bernstein's retrospective terms, it concentrated upon "understanding modalities of elaborated codes as pedagogic relays in schools" (2000, p. 89). Much of the book's introduction works again to counter the deficit label that had been widely applied to Bernstein over the years preceding its publication. Its early chapters focus on the relationships between students' educational identities and the modes of control that schools maintain over both formal learning (instrumental order) and the development of "character" (expressive order). Middle chapters introduce the book's central concepts of classification and framing and apply them to analyses of the curriculum (collection and integrated types) and pedagogy (visible and invisible forms). Chapter 7 draws explicit links between volumes 1 and 3 of *Class, codes and control* by demonstrating (1) how social class shapes communication and students' coding orientations within families and (2) how social class regulates the institutionalizing of elaborated codes in schools. All the while, the chapter demonstrates how such an account differs from those more typically endorsed within the sociology of education at the time.

The revised edition of volume 3 contains an additional chapter (Chap. 8: "Aspects of the Relations between Education and Production"). It emphasizes education's relative autonomy from the field of economic production while highlighting the significant influence that those working within the field of cultural production often maintain over the processes of schooling.

Bernstein, B. (1990). *Class, codes and control: Vol. 4. The structuring of pedagogic discourse*. Routledge.

- Readers are likely to find volume 4 of *Class, codes and control* the most difficult and abstract of the series, but engaging with it is worth the effort. Bernstein reflected that, in volume 4:

the theory of elaborated codes was transformed into a more general account of the social structuring of pedagogic discourse and the shaping of its various practices as relays of a society's distribution of power and principles of control. In this way the theory returned to its partly Durkheimian origins in the nature of symbolic control. (2000, p. 90)

Unlike volumes 1–3, the papers collected in volume 4 do not appear in the order in which they were originally published or presented. All, however, are directly connected to its first chapter, "Code Modalities and the Process of Cultural Reproduction: A Model." The chapter is ambitious in aiming to integrate and develop

Bernstein's previous efforts to formalize the concept of code, which is ultimately condensed into the following formula:

$$\frac{O}{\pm C^{ic} \pm F^{ic}}$$

where O refers to orientations to meanings, elaborated or restricted ... C refers to ... classification; F refers to ... framing; \pm refers to the values of C and F with respect to strength (strong/weak); i refers to the internal values of C and F within a communicative context ... e refers to the external values of C and F (1990, p. 43).

Chapter 1 also introduces Bernstein's notions of recognition rules and realization rules which, in short, capture the idea that, in order to succeed academically, students must be familiar and able to engage with the elaborated codes valued in educational settings. Chapter 2 is a revised and extended version of Chap. 6 from volume 3 and introduces the logic underpinning various modalities of visible pedagogy and of invisible pedagogy. Each is characterized by varying strengths of classification and framing in communicating the elaborated code of the school. Chapter 3 provides an overview of restricted and elaborated codes and again—twenty years on from Bernstein's efforts to do so in volume 1 and a decade and a half after he did the same in volume 3—aims to refute the deficit critiques leveled against him. The book's later chapters are concerned with analyzing the relationship between symbolic control and the social construction of various modalities of pedagogic discourse (each consisting of what Bernstein termed "instructional discourse" embedded in "regulative discourse") that distribute official elaborated codes in schools. Chapter 4 draws on Durkheim's analysis of the organization of knowledge across the Trivium and the Quadrivium in the medieval university to explore the marketization of the relationship between knowledge and knowers. Meanwhile, Chap. 5 introduces the central concept of the pedagogic device.

Bernstein, B. (1996). *Pedagogy, symbolic control and identity: Theory, research, critique*. Taylor and Francis.

Bernstein, B. (2000). *Pedagogy, symbolic control and identity: Theory, research, critique* (Rev. ed.). Rowman and Littlefield.

- *Pedagogy, symbolic control and identity*, which was identified as volume 5 of *Class, codes and control* with the publication of the revised edition of the book, again addresses many of the criticisms aimed at Bernstein's theory over the years. It represents, in particular, a sustained effort to present his framework in less abstract terms than had previous volumes (especially its immediate predecessor, volume 4) and to demonstrate the possibilities it opens for empirical research. The book's introduction includes an extensive discussion of the relationship between education and democracy, a relationship that served to underpin Bernstein's entire project. In it, he outlines the "pedagogic rights" of participation, inclusion, and enhancement. Chapter 1 applies the concepts of classification and framing to various ways of organizing knowledge and modalities of pedagogic

practice, discussing the extent to which these different arrangements are likely to provide learners with access to the recognition and realization rules required for academic success. Chapter 2 (“The Pedagogic Device”) also appears in large part as Chap. 5 in volume 4 but is included again here as it provides important grounding for Chap. 3, which serves as an empirical illustration of modalities of pedagogic discourse made possible by the pedagogic device. In Chap. 3, Bernstein first introduces two models of pedagogic discourse (competence and performance) and then outlines three competence modes (liberal/progressive, populist, and radical) and three performance modes (singular, region, and generic) that can take shape within education systems. Chapter 4 returns to Durkheim’s analysis of the organization of knowledge across the Trivium and Quadrivium in the medieval university to diagnose what Bernstein describes as a divorce of knowledge from knowers linked in significant part to market-oriented education reforms of the time. Part II of the book describes empirical research by Bernstein and others (with special reference to Ruqaiya Hasan’s incorporation of the sociolinguistic thesis into a theory of semantic variation) that has both been informed by and served to inform the development of his theory. In discussing the relationship between theory and research, Bernstein here distinguishes between what he terms “internal” and “external” languages of description. Part III responds to various criticisms of the theory. Perhaps most importantly, one of these responses (Chap. 9: “Discourses, Knowledge Structures and Fields”) introduces the concepts of horizontal discourse, vertical discourse, horizontal knowledge structures, and hierarchical knowledge structures.

The revised edition of *Pedagogy, symbolic control and identity* replaces the original version of Chap. 9 with “Vertical and Horizontal Discourse” which, in line with the intent of the volume overall, provides a less dense and more focused and accessible discussion of the concepts of horizontal discourse, vertical discourse, horizontal knowledge structures, and hierarchical knowledge structures. Chapters 4 (“Official Knowledge and Pedagogic Identities”) and 11 (“Bernstein Interviewed”) are also new. Chapter 4 links different educational reforms to a range of pedagogic identities (retrospective, prospective, instrumental, and therapeutic) that can be expected to result from them. Chapter 11 contains a wide-ranging and often illuminating interview with Joseph Solomon that engages with issues including mass media as pedagogic discourse and the metaphor of “boundary” as a driver of Bernstein’s thinking.

8.2 Introductions to Basil Bernstein and Code Theory

Bernstein inspired intense relations with his doctoral students and strong, occasionally contrasting, feelings among many others who have taken up his ideas. Still, in comparison with other major sociological thinkers, there are relatively few book-length introductions to his framework. Those attempting them have at times been

sharply criticized by other scholars for failing to fully capture “their” Bernstein. Nonetheless, a selection of books offer invaluable starting points.

Atkinson, P. (1985). *Language, structure and reproduction: An introduction to the sociology of Basil Bernstein*. University Paperbacks.

- This is a slim, accessible, and prescient exposition of the main elements of Bernstein’s work up to volume 4 of *Class, codes and control*. The book places particular emphasis on Bernstein’s work beyond the sociolinguistic thesis. Throughout it, Atkinson draws links between Bernstein and the tradition of European structuralism.

Sadovnik, A. R. (Ed.). (1995). *Knowledge and pedagogy: The sociology of Basil Bernstein*. Ablex.

- Published four years after Bernstein’s retirement as the Karl Mannheim Chair in Sociology of Education at the University of London’s Institute of Education, this major and wide-ranging edited collection takes stock of more than three decades of his work. It includes contributions from a number of scholars—including Michael Apple, Margaret Archer, Madeleine Arnot, Michael Halliday, and Ruqaiya Hasan—who were both influenced by and served to influence Bernstein. The book concludes with a response and closing commentary from Bernstein himself. It is organized thematically and includes an overview of Bernstein’s project (Alan Sadovnik’s introductory chapter serves as a concise and valuable guide to Bernstein’s theory up to that point) as it relates, for example, to Durkheim, structuralism, and Marxism. Other sections explore more specifically how code theory relates to issues including language, curriculum, pedagogy, and feminism.

Moore, R. (2013). *Basil Bernstein: The thinker and the field*. Routledge.

- This book attempts an accessible and comprehensive “big picture” account of Bernstein’s project. It situates Bernstein within the Durkheimian sociological tradition (though it is stressed that Bernstein’s understanding of Durkheim was very different from those of others, such as the structural functionalist version of Durkheim as read by Talcott Parsons and his critics). Importantly, it also positions Bernstein as a sociologist not only of the social reproduction of inequality but also of possibilities for its interruption. Moore describes the book as an “exegesis” rather than an introduction. It is thus perhaps best read after reading Atkinson (1985) and/or Sadovnik (1995), or even Moore’s own *Education and Society* (2004, especially Chap. 5), as it sometimes assumes prior knowledge of Bernstein’s concepts and the history of the sociology of education.

8.3 Collections from the International Basil Bernstein Symposium

An International Basil Bernstein Symposium ran biennially from 2000 to 2014. Most produced edited collections of papers with a variety of foci that included the use and development of Bernstein’s concepts and project.

Morais, A., Neves, I., Davies, B., & Daniels, H. (Eds.). (2001). *Towards a sociology of pedagogy: The contribution of Basil Bernstein to research*. Peter Lang.

- The bulk of this collection consists of papers presented at the University of Lisbon for the first of what became a biennial International Basil Bernstein Symposium. Of the books published after each symposium, this is the only that includes contributions (an epilogue that contains a short chapter and a transcript from Bernstein’s appearance, via video link, at the conference) from Bernstein himself. Its chapters are wide-ranging. Some represent empirical applications of Bernstein’s concepts (chapters by Singh and by Morais and Neves, for example, draw on ideas such as classification, framing, instructional discourse, and regulative discourse). Others offer conceptual development (e.g. Moore and Maton on the epistemic device and Bernstein on the Totally Pedagogised Society). Additionally, some train their focus in new directions (such as Tyler on hypertext and Daniels on activity theory). Nonetheless, almost all are connected in some way to Bernstein’s expansive theory of pedagogy, which encompasses relations in the home, school, and beyond.

Muller, J., Davies, B., & Morais, A. (Eds.). (2004). *Reading Bernstein, researching Bernstein*. RoutledgeFalmer.

- All but one of the papers collected in this volume were presented at the Second International Basil Bernstein Symposium held at the University of Cape Town in 2002. They draw on, develop, and empirically test Bernstein’s theory of educational possibilities and, in many cases, the alternatives to the social reproduction of inequality it entails. More “optimistic” accounts of these possibilities are offered, for example, in the chapters by Bourne on radical visible pedagogy, by Lubinsky on invisible pedagogy and its alternatives, and by Morais, Neves, and Pires on mixed pedagogy. Several contributions draw links to Vygotsky and all are connected in one way or another to pedagogic discourse, with many extending beyond the classroom studies mentioned above to engage with teacher education (Ensor), higher education (Maton), and craft pedagogy (Gamble), to name but a few.

Moore, R., Arnot, M., Beck, J., & Daniels, H. (Eds.). (2006). *Knowledge, power and educational reform: Applying the sociology of Basil Bernstein*. Routledge.

- This volume consists of papers presented at the Third International Basil Bernstein Symposium held at the University of Cambridge in 2004. They strive, both through conceptual refinement and development as well as through empirical testing, to address the “discursive gap” (Bernstein, 2000, p. 30) between concepts and data. The chapters engage with each of the terms in the book’s title. Chapters by Muller (on verticality, grammaticality, and languages of description), Maton (on legitimation codes, the epistemic device, and knower structures), and Hugo (on hierarchical knowledge structures), for example, all deal with the structuring and organization of *knowledge*. Chapters by Arnot and Reay (on pedagogic voice), Power (on retrospective and prospective identities), and Ivinson and Duveen (on performance and competence models of pedagogy), among others, focus on relations of *power* for which the pedagogic device serves as a relay. Finally, the

policy analysis and critique offered in chapters by Beck, by Sadovnik, and by Hasan engage in various ways with *educational reform*.

Singh, P., Sadovnik, A. R., & Semel, S. F. (Eds.). (2010). *Toolkits, translation devices and conceptual accounts: Essays on Basil Bernstein's sociology of knowledge*. Peter Lang.

- The papers collected in this volume were presented at the Fourth International Basil Bernstein Symposium held at Rutgers University-Newark in 2006. They have, for the most part, to do with: who gains access to the educational knowledge made available in school systems, how they do so (in terms of curriculum, pedagogy, and so on), and the consequences of these first two issues for matters of equity and social justice. Some chapters, such as those by Morais and Neves (detailing their use of the concepts of classification and framing in researching pedagogy) and by Davies, Evans, and Fitz (who invoke the concepts of pedagogic discourse and the pedagogic device in their studies of education policy), draw directly from Bernstein's conceptual "toolkit" to support their analyses. Others, such as those by Daniels on professional identity and by Gamble on the moral order of pedagogy in apprenticeships for craft work, use Bernstein's ideas as a "translation device" in engaging more broadly with work from fields such as social psychology. Finally, a number of contributions draw on Bernstein's late thinking about horizontal and vertical discourse to offer "conceptual accounts" of the pedagogic identities promoted through international testing regimes (Tyler), different fields of knowledge production (Maton), and teacher education and professional development (Singh and Harris).

Ivinson, G., Davies, B., & Fitz, J. (Eds.). (2011). *Knowledge and identity: Concepts and applications in Bernstein's sociology*. Routledge.

- This volume consists of papers presented in 2008 at the Fifth International Basil Bernstein Symposium at Cardiff University. The collection aims broadly to address contemporary issues in education reform (with particular reference to its impact on higher education) and the relationship between knowledge, identity, and consciousness. Chapters by Maton, by Muller, and by Frandji and Vitale lay the theoretical groundwork for the collection in engaging with Bernstein and the sociology of knowledge. A general and significant shift towards trainability and genericism is captured in analyses of higher education in Greece (Sarakinioti, Tsatsaroni, and Stamelos), Iceland (Geirsdottir), South Africa (Vorster), and Australia (Wheelahan). Finally, a number of contributions apply Bernstein's concepts in ways that both continue a developing tradition of classroom research (Gamble and Hoadley) and chart new territory, such as Lapping on "psychic defenses" and the unconscious, and Evans, Davies, and Rich on the "corporeal device."

Vitale, P., & Exley, B. (Eds.). (2015). *Pedagogic rights and democratic education: Bernsteinian explorations of curriculum, pedagogy and assessment*. Routledge.

- The papers collected in this volume were presented in 2012 at the Seventh International Basil Bernstein Symposium at Aix-Marseille University. As suggested by

the book's title, its chapters combine to focus on democratic education (a concept that has always proven more of an ideal than a reality and that is increasingly threatened by neoliberalism as Michael Apple, the author of the book's afterword, has addressed throughout so much of his work) and the possibilities that still remain for students to experience Bernstein's pedagogic rights of participation, inclusion, and enhancement. A number of chapters engage with the notion of pedagogic rights and the ways that Bernstein's concepts can be put to use in research aimed at better understanding and even encouraging more equitable educational practices. Other chapters detail some of these practices as efforts to democratize pedagogy. Finally, various chapters address the structuring of knowledge and an array of outcomes that different ways of organizing it for curriculum and pedagogy can be expected to produce.

8.4 Other Collections

The International Basil Bernstein Symposium is of course not the only source of edited collections and special issues on Bernstein's work and efforts to develop it. Those referenced below cover a considerable range of points of focus. Additionally, a Learning and Doing Bernstein research group focused on Bernstein's concepts of pedagogic codes and pedagogic rights is active at www.facebook.com/PCPRgroup/.

Space precludes a comprehensive listing of the multitude of articles and doctoral dissertations that have drawn on Bernstein's theorizing. Chapters 2–5 of this book each include a selection of brief but illustrative examples of different ways that researchers have employed the key concepts detailed within them. These include: restricted codes and elaborated codes (Chap. 2), classification and framing (Chap. 3), the pedagogic device (Chap. 4), and horizontal discourse, vertical discourse, horizontal knowledge structures, and hierarchical knowledge structures (Chap. 5).

Atkinson, P., Davies, B., & Delamont, S. (Eds.). (1995). *Discourse and reproduction: Essays in honor of Basil Bernstein*. Hampton Press.

- This Festschrift contains a multidisciplinary compilation of essays dealing with issues including language, pedagogy, curriculum, and policy as they relate to features such as gender (though in her extended review of the book, Olive Banks (1995) argues that many of its contributors overlook the subject, which has been addressed more extensively in some of the more recent collections described in this chapter), class, and place.² Combined, the chapters in this volume highlight the vast extent of Bernstein's influence. Some reflect explicitly on this influence. Others discuss Bernstein in relation to other theorists. Finally, a selection of chapters employ his ideas as a conceptual framework for empirical studies.

² Another Festschrift (Power et al., 2001), one that is perhaps more moving and personal but less conceptually-focused, was published by the University of London's Institute of Education shortly after Bernstein's death.

Christie, F. (Ed.). (1999). *Pedagogy and the shaping of consciousness*. Cassell.

- This collection represents a reinvigoration of the dialogue between Bernsteinian sociology of education and systemic functional linguistics (SFL) that began as conversations between Bernstein, Michael Halliday, and Ruqaiya Hasan in the 1960s. It includes contributions from both Hasan (on possibilities for meta-dialogue between linguistics and sociology) and Bernstein (on pedagogic identities, an idea with which a subsequent chapter by Tyler engages from a postmodern perspective). Some chapters are rooted most deeply in SFL. Those drawing more directly on Bernstein engage most extensively with his work on the pedagogic device and its role in the construction of pedagogic discourse. Lastly, a number of studies adopt an applied perspective focusing on the influence of the theories on teaching and learning in classrooms.

Moss, G., & Erben, M. (Eds.). (2001). Knowledge, identity, and pedagogy: Themes from the work of Basil Bernstein [Special issue]. *Linguistics and Education*, 11(1), 1–98.

- The articles assembled for this special issue are drawn from papers presented at the “Knowledge, Identity, and Pedagogy” conference held at the University of Southampton in 1998. Many focus on Bernstein’s work on communication codes, but in the context of *Pedagogy, symbolic control and identity* (Bernstein, 1996), which endeavored to signal the ongoing links between the sociolinguistic thesis and the rest of his project. Several serve as empirical tests of key aspects of Bernstein’s theory. Articles by Kress, Jewitt, and Tsatsarelis, and by Moss focus on relationships between texts (multimodal and media), education, and identity. Articles by Collins and by Maton draw on Bernstein’s theorizing in different ways to reconsider theories of social and cultural reproduction. Finally, Bourne explores state-sponsored shifts between invisible and visible pedagogies in the UK, paying particular attention to the possibilities these present for both marginalization as well as inclusion within schools.

Arnot, M., Apple, M. Beck, J., Davies, B., Edwards, T., Moore, R., Morais, A., Muller, J., Power, S., & Whitty, G. (Eds.). (2002). Basil Bernstein’s theory of social class, educational codes and social control [Special issue]. *British Journal of Sociology of Education*, 23(4), 525–637.

- This special issue was published two years after Bernstein’s death and each contribution was selected intentionally to provide accessible accounts of his work that could be used for teaching in undergraduate and postgraduate courses. They engage with his earliest concerns with the relationship between families, language, and schooling through to late developments in his theorizing on discourses and knowledge structures as well as his consistent efforts to address matters such as curriculum, pedagogy, policy, and educational inequalities. Following Edwards’ rough chronology of Bernstein’s ideas and their applications, each article focuses directly on key concepts or areas of Bernstein’s research. These include communication codes (Hasan), classification and framing (Morais), the pedagogic device

(Singh), languages of description (Moss), and discourses and knowledge structures (Moore and Muller). More broadly, Power and Whitty explore Bernstein's insights into the relation between education and social class (with a particular focus on the middle class), while Arnot does the same with regard to gender (with a particular focus on invisible pedagogies). Apple engages with Bernstein's analysis of education's relative autonomy from the field of economic production and Beck explores whether this autonomy is under threat from the marketization of education and its attendant effects on teachers' pedagogic identities.

Frاندji, D., & Vitale, P. (Eds.). (2011). *Knowledge, pedagogy and society: International perspectives on Basil Bernstein's sociology of education*. Routledge.

- Originally published in French, this is an edited collection of papers delivered at the 2007 “Social Issues, Knowledge, Language and Pedagogy: The Current Relevance and Usefulness of Basil Bernstein's Sociological Work” conference in Lyon. In addition to contributions from Bernsteinian scholars well-known in Anglophone countries, it includes chapters from a significant contingent of French scholars (such as Roger Establet, Jean-Yves Rochex, Élisabeth Bautier, and Claude Grignon). Perhaps most importantly, the French contributors bring a much different understanding of Durkheim—Bernstein's principal inspiration—than that to which most researchers trained in Anglophone countries have typically been exposed. Further, as Moore stresses in the book's foreword, the papers combine to emphasize the “open-endedness” of Bernstein's project, which sheds light not only on the processes driving the social reproduction of inequality but also on the possibilities that exist for change.

Ivinson, G., & Singh, P. (Eds.). (2018). International policies—Local affects: Regenerating the sociology of Basil Bernstein [Special issue]. *European Educational Research Journal*, 17(4), 461–604.

- Engaging with a diverse range of other sources, the papers in this special issue offer a diffractive reading (Barad, 2007) aimed at generating new concepts and challenging what their authors consider to be an over-emphasis on epistemology and hierarchical theory-building among some efforts to develop Bernstein's framework. Singh, for example, reads Bernsteinian concepts such as the Official Recontextualizing Field and the Pedagogic Recontextualizing Field with and through the work of Bruno Latour to elaborate upon Bernstein's notion of the Totally Pedagogised Society and the influence of global agents, corporations, and digitized technologies on teachers' work. Meanwhile, Tsatsaroni and Sarakinoti read Bernstein alongside Foucault in studying the experiences of non-traditional students returning to education in a context of mass-unemployment in Greece. Articles by Robertson and Sorenson and by Moss explore the ways that policy at different levels impacts teachers' practice. Lastly, Ivinson highlights the value of new material feminist approaches and onto-epistemologies for deepening understandings of Bernstein's conceptualization of codes.

Singh, P. (Ed.). (2020). *Basil Bernstein, code theory, and education: Women's contributions*. Routledge.

- This multidisciplinary compilation focuses specifically on women’s generative engagements with Bernsteinian theorizing. Hasan explores the different ways that children develop orientations to communication codes through both informal pedagogies (in the home and community) and formal pedagogies (in school), while Neves and Morais investigate the relationship between socialization in the home and the orientations to meaning that students develop in science classrooms. Chapters by Moss and by Singh, Pini, and Glasswell consider relations between theory and data in different ways. Inghilleri draws on Bernstein’s notion of recontextualization to demonstrate how concepts such as Vygotsky’s zone of proximal development can be politically neutralized to support narrow conceptions of teaching and learning, while Ivinson examines how teachers can recontextualize different forms of discourse and knowledge structures to develop relevant and engaging curricula for students. Finally, Lapping also engages with discourses and knowledge structures to suggest significant yet unacknowledged ways that Bernstein (as well as other sociologists of education, including Pierre Bourdieu) can be said to have appropriated and recontextualized the psychoanalytic theories of Melanie Klein.

8.5 Social Realism

One way that the trajectory of the social realist project can be traced is through a review of the edited collections and special issues that have followed each Cambridge Symposium on Knowledge in Education.³ Other book-length studies adopting social realist perspectives are outlined in Chap. 6. Updates regarding the Cambridge Symposium on Knowledge in Education and the publications associated with it can be found at <https://cske17.wordpress.com/>.

Maton, K., & Moore, R. (Eds.). (2010). *Social realism, knowledge and the sociology of education: Coalitions of the mind*. Continuum.

- This volume serves a largely polemical function in emphasizing the need to consider knowledge as an object of study. It includes contributions from many of the figures central to the development of social realism as a perspective in the sociology of education such as John Beck, Karl Maton, Rob Moore, Johan Muller, Leesa Wheelahan, and Michael Young. They offer in different ways a social realist case for knowledge as an alternative to the relativism promoted by some influential theorizing in the field.

Barrett, B., & Rata, E. (Eds.). (2014). *Knowledge and the future of the curriculum: International studies in social realism*. Palgrave Macmillan.

- This volume endeavored to build on the case put forth in the first collection by offering alternatives to other current and ostensibly future-oriented arguments

³ The first three iterations of the symposium were titled the International Social Realism Symposium. A collection to follow the sixth symposium is in production.

regarding knowledge and the curriculum, such as those invoking “twenty-first century skills.” Many of the book’s chapters (e.g. those by Moore, by Beck, and by Young and Muller) work to develop and refine “powerful knowledge” as a sociological concept and curriculum principle. Other chapters (e.g. those by McPhail and by Morgan) seek to construct alternatives to future-oriented forms of curriculum based upon conceptualizations of powerful knowledge that might more effectively begin to address educational inequality. Further chapters (e.g. those by Rata, by Barrett, by Corbel, and by Ormond) detail a reduction in access to powerful knowledge as a result of recent policy moves across a range of national contexts. Lastly, a number of chapters (e.g. those by Maton, by Gamble, and by Shalem and Slonimsky) engage with implications powerful knowledge has for pedagogy.

Barrett, B., Hoadley, U., & Morgan, J. (Eds.). (2017). *Knowledge, curriculum and equity: Social realist perspectives*. Routledge.

- This collection adopts a more empirical focus in continuing to address the relationship between knowledge and curriculum, policy, and pedagogy. A number of chapters combine to critically examine the rationale behind various modalities of curriculum design across a range of international contexts, providing insight into their real (as opposed to simply intended) effects on teaching and learning. Others address the impact of policy on teachers’ pedagogic practice as it relates to promoting students’ access to knowledge. All the while, the work underscores the progressive nature of a social realist understanding of knowledge in supporting the underlying principles of democracy.

Hoadley, U. Sehgal Cuthbert, A., Barrett, B., & Morgan, J. (Eds.). (2019). After the knowledge turn? Politics and pedagogy [Special issue]. *The Curriculum Journal*, 30(2), 99–215.

- The diverse contributions to this special issue address in different ways what might be said to represent a social realist curriculum ideal in the form of Young and Muller’s (2010) Future 3. This is a curriculum, based in epistemologically structured powerful knowledge, that is capable of adapting with changes in society and academic disciplines. More problematically, it is also a conceptualization that neo-conservatives and those working in the name of rigid standards and accountability have at times attempted to co-opt. In light of such a challenge, Morgan, Hordern, and Hoadley consider the political orientations driving various curriculum positions and attempt to tease out what is distinctive about Future 3 models. Shalem and Allais explore the ways that knowledge is produced and curricula are developed across three social sciences before highlighting history’s crucial recognition of the inescapable role of standpoint and social context in these processes, a point that Bertram engages with as well. Rata, McPhail, and Barrett begin to theorize a pedagogical model aimed at more equitably supporting students’ access to powerful curriculum knowledge, while Sehgal Cuthbert considers the contributions of aesthetics to understandings of powerful knowledge. Muller and Young close the collection by revisiting this central concept in a manner that aims to take

fuller account of socio-political influences on curriculum-making and educational policy.

Hordern, J., Muller, J., & Deng, Z. (Eds.). (2021). Towards powerful educational knowledge: Perspectives from educational foundations, curriculum theory and *Didaktik* [Special issue]. *Journal of Curriculum Studies*, 53(2), 143–253.

- Inspired by papers delivered at the Fifth Cambridge Symposium on Knowledge in Education, this special issue is intended to promote dialogue between the fields of educational foundations and curriculum theory, most prominent in Anglo-phone nations, and *Didaktik* and other hermeneutically-inclined traditions more prominent in continental Europe and beyond. Each of these traditions has been challenged by both internal fragmentation and a global neoliberal educational agenda based around standards and accountability, but each is also positioned by the contributors to this issue as having something to offer to a more cohesive base of powerful educational knowledge capable of informing improved educational practice and increasingly equitable educational reform.

8.6 Legitimation Code Theory

The most complete and up-to-date collection of the rapidly growing body of studies enacting LCT can be found at <https://legitimationcodetheory.com/publications/>. A book series dedicated to LCT currently includes the following titles.

Maton, K. (2014). *Knowledge and knowers: Towards a realist sociology of education*. Routledge.

- This is a charter text on LCT that argues for knowledge to have a central place in educational research and offers a theoretical framework for analyzing it across a diverse range of social practices. The book deals most extensively with concepts from the Specialization and Semantics dimensions of LCT.

Maton, K., Hood, S., & Shay, S. (Eds.). (2016). *Knowledge-building: Educational studies in Legitimation Code Theory*. Routledge.

- Another foundational text in LCT, this collection serves as an accessible primer on how to use LCT in research. Chapters included in the book's first part illustrate how LCT can be used in qualitative (Maton and Chen), mixed-methods (Maton and Howard), and interdisciplinary (Maton, Carvalho, and Dong; Maton, Martin, and Matruglio) research. Chapters in the second part give illustrative, but not exhaustive, examples of how concepts from the Specialization and Semantics dimensions of LCT have been used in studies of the humanities (Hood), vocational education (Shay and Steyn), English literary studies (Christie), physics (Georgiou), jazz studies (Martin), and the tacit pedagogic context of freemasonry in France (Poulet).

Martin, J. R., Maton, K., & Doran, Y. J. (Eds.). (2020). *Accessing academic discourse: Systemic functional linguistics and Legitimation Code Theory*. Routledge.

- The material collected in this volume focuses most specifically on work in SFL that has been informed by its ongoing dialogue with LCT. It introduces the concepts of specialization codes and semantic waves, presents studies in SFL that have been supported by LCT concepts, and reviews understandings of classroom practice that have emerged through work drawing complementarily on SFL and LCT.

Winberg, C., McKenna, S., & Wilmot, K. (Eds.). (2020). *Building knowledge in higher education: Enhancing teaching and learning with Legitimation Code Theory*. Routledge.

- This collection endeavors to address challenges to higher education such as neoliberal reforms and the need to support students with an expanding range of abilities and experiences by drawing on LCT to produce research that is theoretically-informed, multidisciplinary, and capable of promoting change. A number of chapters draw on concepts from the Semantics dimension of LCT in a variety of analyses of student work and performance on assessment tasks. Others utilize the concept of constellations in their analyses of teachers' practices. Additional chapters draw on concepts from the Specialization, Semantics, and Autonomy dimensions of LCT to explore and potentially support professional development and reflective practice among academic staff.

Clarence, S. (2021). *Turning access into success: Improving university education with Legitimation Code Theory*. Routledge.

- This book introduces LCT as a conceptual toolkit for supporting teachers' thinking and practices, particularly in the interests of social justice and students' equitable access to the knowledge necessary for their success in higher education. LCT concepts are applied to analyses of concrete examples of teaching practices that, among others, include curriculum design, assessment, inclusivity, and critical reflection.

Maton, K., Martin, J. R., & Doran, Y. J. (Eds.). (2021). *Teaching science: Knowledge, language, pedagogy*. Routledge.

- This is another collection that brings SFL and LCT together in presenting a series of studies that can support the teaching and learning of science. Maton and Howard employ concepts from the Autonomy dimension of LCT to explore how both mathematics and multimedia can be integrated into science teaching. Meanwhile, Maton and Doran utilize constellation analysis to reveal how ideas are connected to create explanations in science education. Other chapters in the book (e.g. those by Doran, by Doran and Martin, and by Hao) use SFL to complement these LCT analyses. Later chapters draw on LCT (e.g. those by Ellery and by Wolmarans) and SFL (e.g. those by Hao and by Rose) in exploring for different ways that students can be supported in accessing scientific knowledge.

Blackie, M., Adendorff, H., & Mouton, M. (Eds.). (2022). *Enhancing science education: Exploring knowledge practices with Legitimation Code Theory*. Routledge.

- Also focused on science education, across a range of discrete subjects and particularly at the tertiary level, this collection is intended to provide accessible but theoretically-informed supports for teachers’ practice. The book is organized by discipline, with chapters on the physical sciences, the biological sciences, and the mathematical sciences. The book also includes a chapter on academic support in science more generally and a chapter that introduces critical realism to situate LCT as a realist sociological theory capable of underpinning impactful research on teaching and learning.

Hlatshwayo, M. N., Adendorff, H., Blackie, M. A. L., Fataar, A., & Maluleka, P. (Eds.). (2022). *Decolonising knowledge and knowers: Struggles for university transformation in South Africa*. Routledge.

- This timely volume engages with efforts to decolonize the curriculum, offering South African higher education as a case study. The chapters collected within it illustrate in various ways how concepts from LCT can support both teaching and research towards decolonization. In addition to chapters that address the decolonization of South African higher education more generally, a number of chapters in the book focus on particular subject areas including the humanities, history, and science education.

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